Traffic and Transport Assessment

for **Proposed Affordable Housing Development at Pairc na hAbhainn, Athenry, Co Galway**

on behalf of **Galway County Council**

Prepared by:

CST Group
Chartered Consulting Engineers
1, O'Connell Street, Sligo, F91 W7YV
(071) 919 4500 | info@cstgroup.ie | www cstgroup.ie

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Civil
Structural
Traffic

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Donal Fidgeon
Traffic Modeller

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Francis Fidgeon
Chartered Engineer

1 NON-TECHNICAL SUMMARY

Planning permission is being sought for a Proposed Affordable Housing Development at Pairc na hAbhainn, Athenry, Co Galway.

A manual classified traffic count was carried out on the following junction:

- Junction 1: R348/ R347/ Baunmore Staggered Crossroads

Capacity analysis was carried out on the following junction:

- Junction 1: R348/ R347/ Baunmore Staggered Crossroads

Predicted development traffic was added to the existing flows at the junctions as well as traffic growth figures up to a design year of 2043.

Traffic generation has been included on the road network assuming full occupation of the proposed development. The junction analysed is predicted to operate well-below the recommended capacity (85%) for priority-controlled junctions with all development in place.

2 INTRODUCTION

2.1 Background

CST Group Chartered Consulting Engineers were commissioned by Galway County Council to carry out a Traffic and Transport Assessment (TTA) for Proposed Affordable Housing Development at Pairc na hAbhainn, Athenry, Co Galway. The assessment has been carried out in accordance with TII's Traffic and Transport Assessment Guidelines PE-PDV-02045 (May 2014) and refers to the Design Manual for Urban Roads & Streets (DMURS), Smarter Travel – A Sustainable Transport Future (2009-2020). Sections from the Galway County Development Plan 2022-2028 have been used to help describe the development location and its local context.

The purpose of the TTA report is to assess the potential impact of the proposed development on the existing local transport network and to ensure that the proposed site access and the existing junctions which fall within the scope of the study will have adequate capacity to carry the development traffic and the future growth in existing road traffic to the design year and beyond. An assessment of the accessibility of the site for cyclists, pedestrians and public transport users has also been made.

It is estimated that construction will be completed and the overall development ready for occupation in 2028.

2.2 Scoping

The client is Galway County Council. Analysis has been carried out at the following junction:

- Junction 1: R348/ R347/ Baunmore Staggered Crossroads

3 EXISTING CONDITIONS

3.1 Site Location

The development site is located at Pairc na hAbhainn, Athenry, Co Galway. The site is located to the southwest of Athenry. Athenry falls within the boundary of the Galway County Development Plan 2022-2028.

The site location in relation to the wider road network is detailed in **Figure 3.1**.

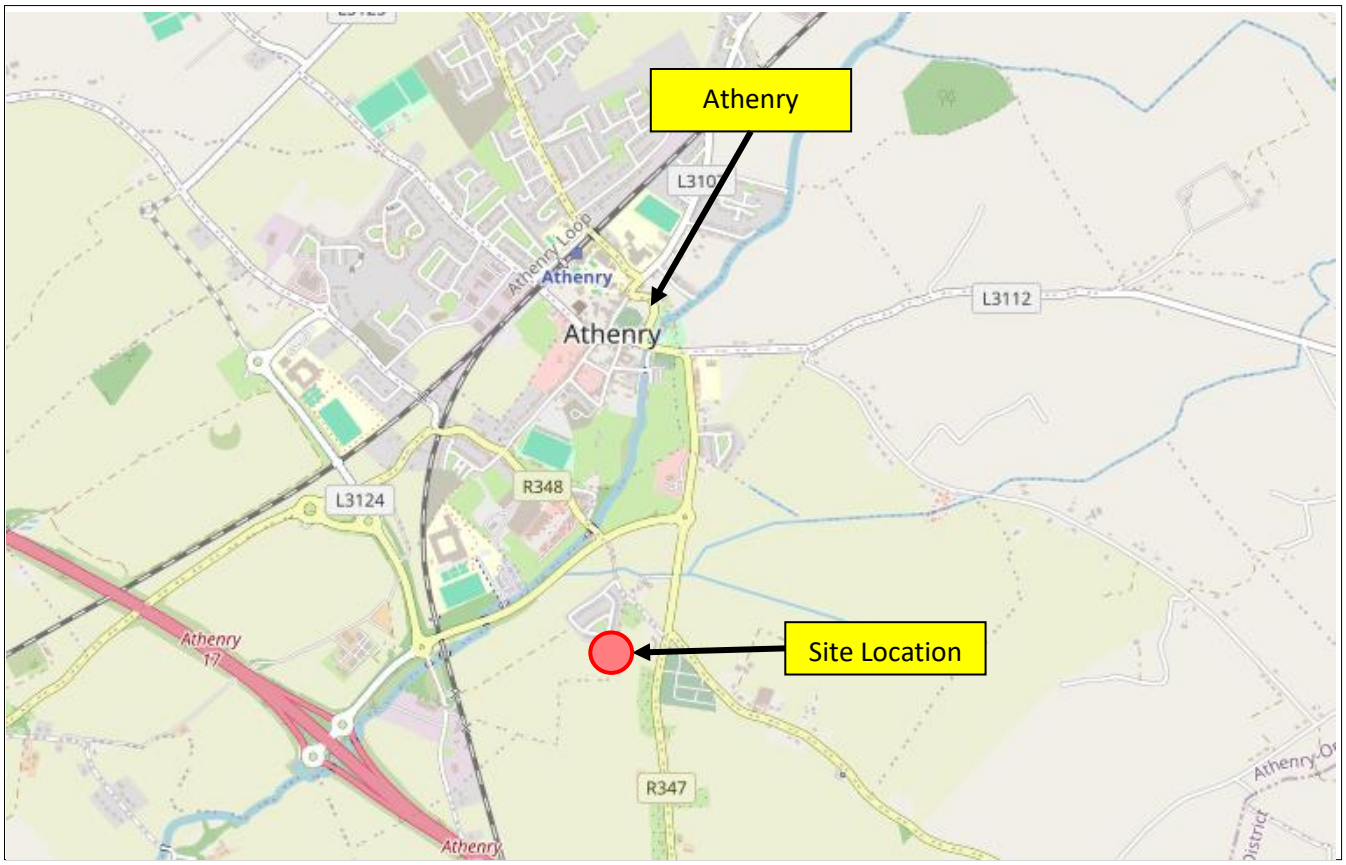

Figure 3.1: Location Map of Athenry and surrounding road network ©OpenStreetMap contributors

3.2 Existing Road Network

The layout of the local road network is presented in **Figures 3.1** and **3.2**. The main route in the vicinity of the site is the R347 to the east. There are a number of minor roads in the surrounding areas which carry low levels of traffic. A brief description of the local road network is provided below:

3.2.1 R347

The R347 is a single carriageway road with one lane in each direction and is to the east of the development site. There is a footpath on the western side of this road but no cycle facilities in the vicinity of the site.

The layout of the local road network is presented in the **Figure 3.2**.

Figure 3.2: Site Location and surrounding road network ©OpenStreetMap contributors

3.3 Existing Traffic Flows

As mentioned in Section 2.2, the junction to be analysed are:

- Junction 1: R348/ R347/ Baunmore Staggered Crossroads

To determine the existing traffic volumes on the road network in the vicinity of the proposed development a manual classified traffic turning count survey was carried out at the following junction:

- Junction 1: R348/ R347/ Baunmore Staggered Crossroads

These counts were undertaken by Traffic Track Surveys on Wednesday 10th September 2025 for a 12-hour period from 7.00AM to 7.00PM. The surveys found that the mean morning peak hour traffic flow occurred between 08:15am and 09:15am and the evening peak hour occurred between 5:15pm and 6:15pm.

The results of the surveys have been reproduced in full as **Appendix A** to this report. The calculated morning and evening peak hour turning count flows at the development are detailed in the traffic flow diagrams presented in **Appendix C**.

3.4 Transport Schemes

3.4.1 Athenry Northern Ring Road

A northern Ring Road of Athenry is currently under construction. The west end section near the Raheen Woods should be completed by March 2026. The east end of the Ring Road from the Tuam Road to Monivea Road, is dependent on the Western Rail Corridor.

3.4.2 Athenry LAP 2024-2030 – Walking & Cycling Measures

Figure 3.3 below shows the proposed walking and cycling infrastructure to be upgraded within Athenry Town and surrounding areas. WC06 services the estate with a cycleway and a walkway as well as WC22 on the R347 to the east of the development which will include cycle track and footpath upgrades.

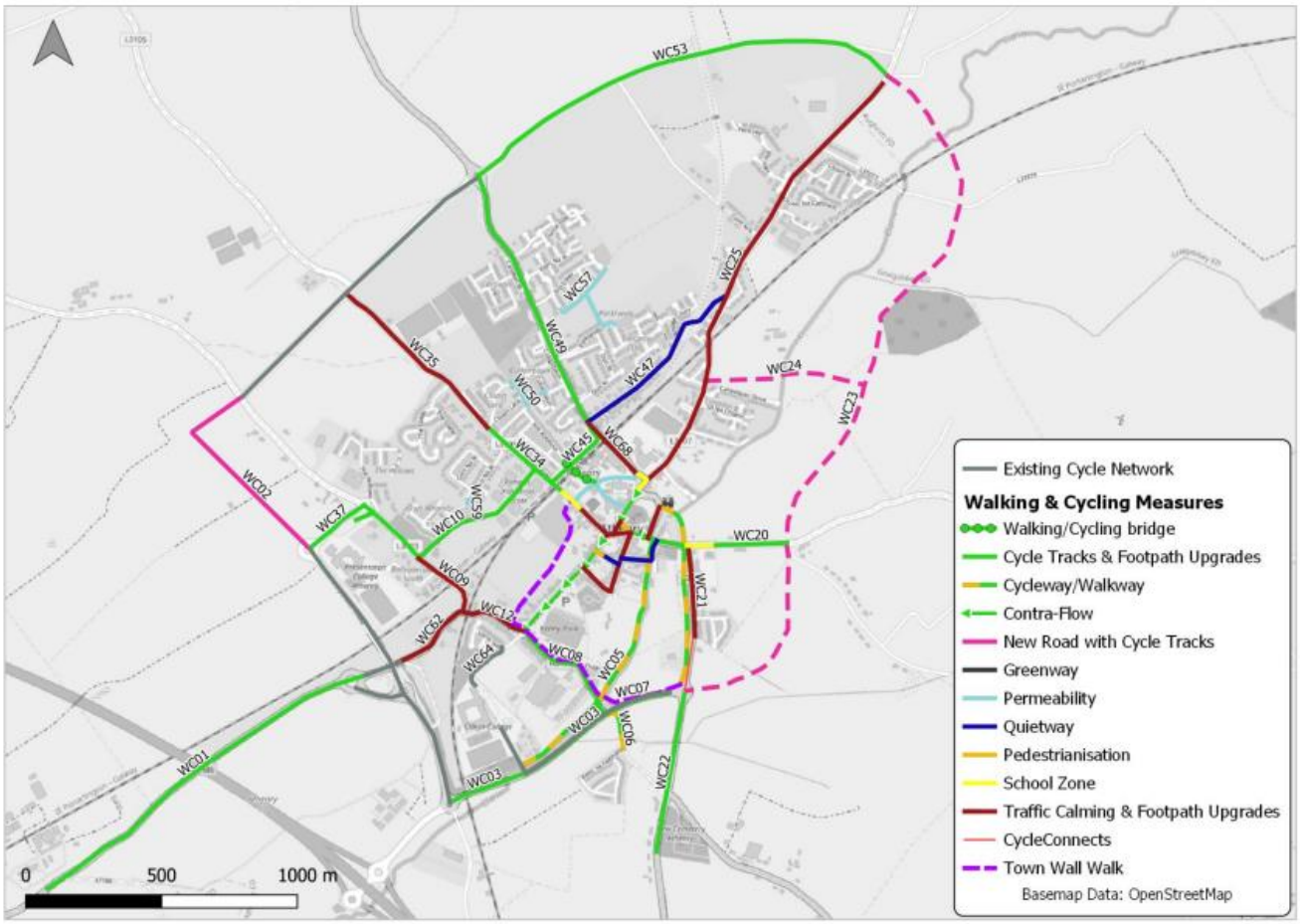

Figure 3.3: Emerging Preferred Strategy Walking & Cycling Measures (Athenry LAP 2024-2030)

4 PROPOSED DEVELOPMENT

4.1 Description

The proposed development will consist of 16no. units comprising of:

- Unit Type A - 8no. 3-Bed (5 Persons)
- Unit Type B - 8no. 2-Bed (4 Persons)

The land surrounding the immediate site is mixed containing residential, a nursing home and agricultural lands.

The proposed layout for the development has been reproduced in sketch format in **Figure 4.1** and is detailed in the series of drawings as submitted with this application.

Figure 4.1: Proposed Site Layout

4.2 Service and Delivery Trips

Service and delivery trips to and from the development will generally be via the existing Pairc na hAbhainn Estate which is accessed off the R347. It is envisaged that the majority of delivery and service trips will occur during off-peak times.

An AutoTrack swept path analysis for the largest vehicle type (refuse/ fire tender) accessing the development from the entrance junction should be carried out.

5 TRIP GENERATION

5.1 General

The purpose of this section is to determine the overall number of trips that will be generated by the proposed development. Following the quantification of the trip generation, these trips will be distributed onto the adjoining roads in order to provide the necessary traffic flows to allow an assessment of the traffic impact by the proposed development to be undertaken.

In order to estimate the likely volumes of traffic that will be generated by the proposed development, trip rates recommended by TRICS (Trip Rate Computer Information System) were extracted from the database and applied pro-rata to the relevant number of dwellings within the development. The estimated total peak hour number of vehicular trips generated by the proposed development is shown in **Table 5.1.** Full details of the TRICS analysis are reproduced in **Appendix B.**

Landuse	Number of Trips			
	AM Arrivals	AM Departures	PM Arrivals	PM Departures
Houses	3	5	5	3
TOTAL	3	5	5	3

Table 5.1: Predicted Traffic Generated by Proposed Development using TRICS

Due to the location of the proposed development, it is expected that a number of trips will be by public transport, bicycle and on foot. Therefore, the development's location should encourage non-vehicular trips to/from the development and alleviate the use of motorised vehicular trips to/from the development.

6 TRAFFIC FORECASTING

6.1 Future Baseline Traffic Growth

In the absence of any specific local traffic growth information, it was assumed that baseline traffic will continue to grow at the levels recommended by TII in the Project Appraisal Guidelines (PAG) – Unit 5.3 'Travel Demand Projections' publication (PE-PAG-02017). The Project Appraisal Guidelines describe three levels of transport model functionality. The simple model, which reflects traffic volumes on the basis of link flows, is best suited to the proposed development. Such models do not attempt any route assignment and hence are applicable for networks where no change in traffic flows will result from a proposed scheme. Growth rates recommended in PAG – Unit 5.3 have been used to determine future traffic flows on the road network within the vicinity of the development. We have used figures from it for the Galway County area which includes Athenry.

The year of opening of the scheme was assumed to be 2028. The central growth factors from the Project Appraisal Guidelines – Unit 5.3 publication were used and are detailed below: -

- TII Link Based Growth Rates: Annual Growth Factor for 2016-2030 = 1.0259 (LVs) and 1.0446 (HVs);
- TII Link Based Growth Rates: Annual Growth Factor for 2030-2040 = 1.0109 (LVs) and 1.0198 (HVs);
- TII Link Based Growth Rates: Annual Growth Factor for 2040-2050 = 1.0105 (LVs) and 1.0236 (HVs).

The annual growth factors for Light Vehicles (LVs) and Heavy Vehicles (HV) were applied to surveyed values of vehicles counted.

With regards to the volume of traffic using the road, the passenger car is adopted as the standard unit and other vehicles are assessed in terms of PCU's. Cars and Light Goods Vehicles are grouped together as Light Vehicles (LV). All other Goods Vehicles, Buses and Coaches are defined as Heavy Vehicles (HV).

The classification of vehicles in PCU's is shown below:

Vehicle	PCU
Car	1
Light Goods Vehicle	1
Other Goods Vehicle (2 – 3 axle)	1.5
Other Goods Vehicle (4 – 5 axle)	2.3
Bus	2
Cycle	0.4

Table 6.1: Classification of Passenger Car Units

Estimated future baseline traffic flows on the road network in the vicinity of the proposed development were calculated by applying these factors to the 2025 surveyed flows. The resulting projected flows are detailed in the traffic flow diagrams in **Appendix C**.

7 CONSTRUCTION STAGE TRAFFIC

7.1 Introduction

As with any construction project, the contractor will be obliged to prepare a comprehensive traffic management plan for the construction phase. The purpose of such a plan is to outline the measures to manage the expected construction traffic activity during the construction period. In the interim, however, this section will provide an overview of the likely volume and routing of construction vehicles, based on a most likely scenario of construction.

7.2 Likely Construction Programme

The site as proposed would be expected to require approximately 12-18 months to complete from occupation of the site. Activities would include:

- Site Clearance;
- Excavation and Spoil Removal;
- Construction of Substructure;
- Construction of Superstructure; and
- Fitting and finishing.

The site will exhibit distinct characteristics during each stage of the construction programme, with varying demands for site deliveries, spoil removal, and car parking by site operatives.

7.3 Parking and Construction Staff

Parking for site operatives will be a requirement throughout the contract. It would be expected that a site of this size would generate a requirement for in the region of 30 site operatives during the peak period of construction, and which would lead to a parking requirement for about 20 vehicles.

It is anticipated that due to the large area of the site the parking demand will be accommodated within the site.

A Traffic Management Plan for the construction stage would include parking arrangements and be agreed with Galway County Council prior to commencement of the works on site.

7.4 Deliveries to Site

Material deliveries comprise largely of steel and concrete for the substructure, and concrete/precast concrete units/steel, timber and glazing for the superstructure. It is estimated that a maximum of 4 HGV loads per hour would be required during the busiest times.

Construction traffic approaching the site will travel via R347. Again, the Traffic Management Plan for the construction stage would identify haulage routes and restrictions as appropriate in discussion with the Local Authority.

7.5 Spoil Removal

The removal of spoil from the site will occur during the early stages of the construction. Spoil removal would be undertaken by rigid HGV's, similar in size to the concrete delivery vehicles. It is expected that most spoil removal activity will have taken place before larger concrete pours commence, and hence there should be limited overlap of the two activities.

7.6 Mitigation Measures

Construction debris (particularly site clearance, spoil removal and dirty water runoff such as dewatering or 'wash' from concreting activities) can have a significant impact on footpaths and roads adjoining a construction site, if not adequately dealt with. There will, therefore, be a requirement for comprehensive measures as part of the construction management, such as:

- Banksmen controlling access and egress from the site;
- All marshalling areas and site offices will be contained within the site boundary and will therefore have little impact on external roads;
- Wheel washers/judder bars to clean off vehicles exiting the site during spoil removal;
- All loads to be properly stowed and secured with a tarpaulin, where appropriate;
- Routine sweeping/cleaning of the road and footpaths in front of the site; and
- No uncontrolled runoff to the public road from dewatering/pumping carried out during construction activity.
- Hoarding will be provided along the site frontage to protect pedestrians using the footpaths.

The mitigation measures will therefore ensure that the presence of construction traffic will not lead to any significant environmental degradation or safety concerns in the vicinity of the proposed works. Furthermore, it is in the interests of the construction programme that deliveries, particularly concrete deliveries, are not unduly hampered by traffic congestion, and as a result continuous review of haulage routes, delivery timings and access arrangements will be undertaken as construction progresses to ensure smooth operation.

8 MODAL SPLIT

The first goal for the site is to achieve a mode split of 45% trips by car drivers (maximum) and 55% trips by walking, cycling and public transport and other sustainable modes (minimum targets) as per Government policy stated in the document published by the Department of Transport entitled, *'Smarter Travel, A Sustainable Transport Future 2009-2020*'.

The Central Statistics Office (CSO) has previously established (in 2022 census) a modal split for people traveling to work, school or college in the locality as shown in **Table 8.1** and **Figure 8.2**. We have obtained data from the Athenry Electoral Division as shown in **Figure 8.1**.

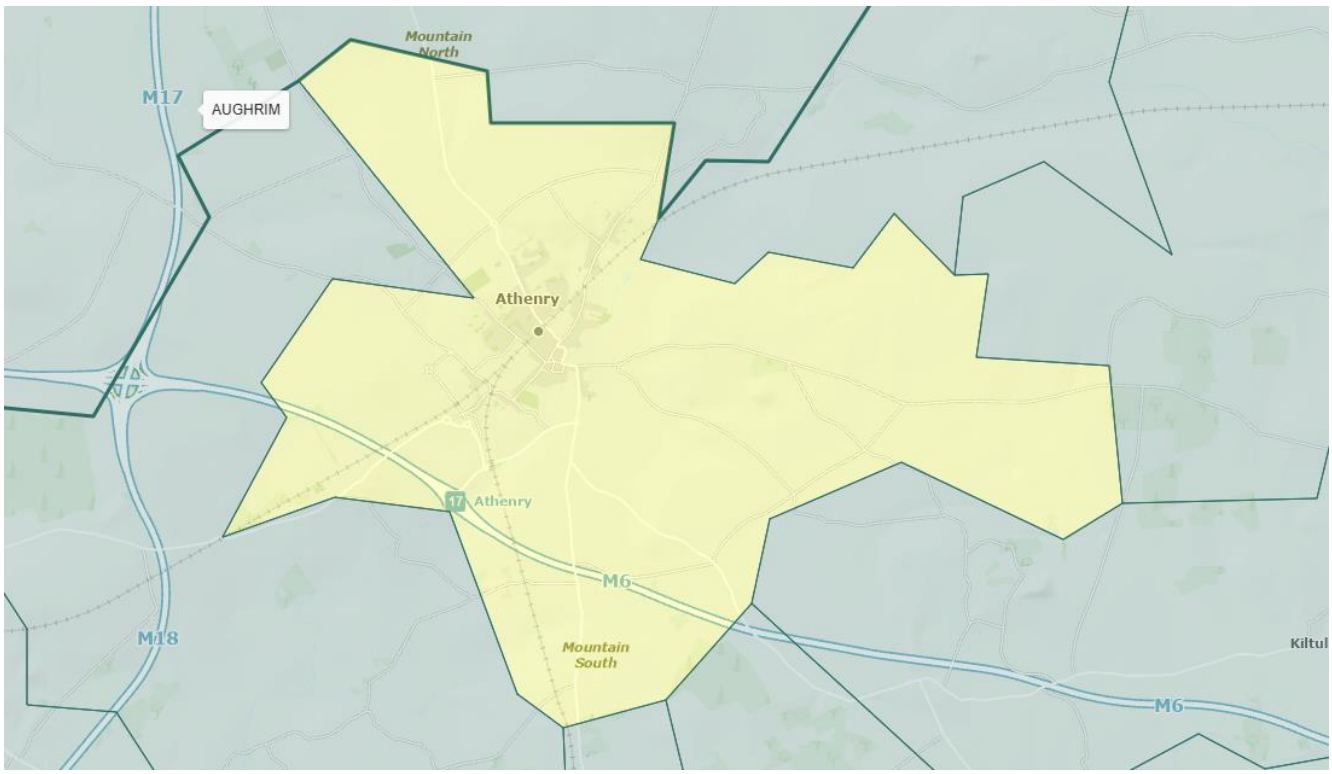

Figure 8.1 – Athenry Electoral Division

As can be seen in the chart at **Figure 8.2** overleaf, the existing CSO modal split achieves the government policy as outlined in the smarter travel document, namely a maximum of 45% of trips by motorcars. 44% of the mode split pertain to car/ van drivers. Walking provides for 13% overall mode share with Bus accounting for 2%.

Mode	Work	School, College or Childcare	Total
On foot	155	411	566
Bicycle	23	21	44
Bus, minibus or coach	26	81	107
Train, DART or LUAS	102	53	155
Motorcycle or scooter	7	2	9
Car driver	1674	60	1734
Car passenger	115	965	1080
Van	149	10	159
Other (incl. lorry)	5	0	5
Work mainly at or from home	254	13	267
Not stated	138	118	256
Total	**2648**	**1734**	**4382**

Table 8.1: Mode Share by Trip Purpose (Source: SAPMAP CSO.ie]

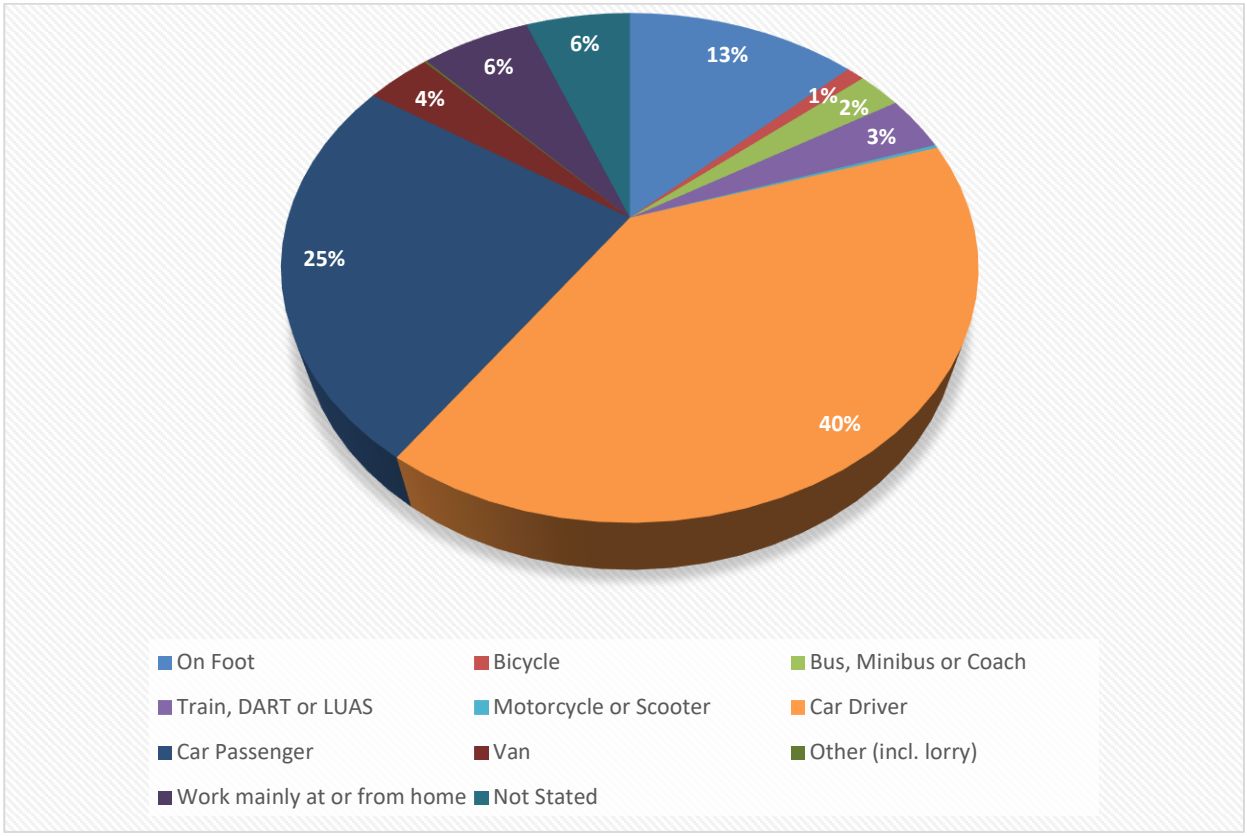

Figure 8.2: Mode Share for all Trip Purposes (Source: SAPMAP CSO.ie]

9 CUMULATIVE IMPACTS

We are aware that Athenry Camogie Club are intending to apply for permission on agricultural lands to the west of the site which will be accessed from the R348. We were not informed of any other potential committed large developments within the vicinity of the proposed development which should be included in our analysis.

10 TRIP ASSIGNMENT AND DISTRIBUTION

The trips generated by the proposed development were distributed on the study area road network using existing turning proportions observed from the traffic survey at the existing junction.

The assumed percentage distributions at the existing junction in the vicinity of the development site and the resulting AM and PM peak hour traffic turning flows generated by the proposed development are detailed in the diagrams presented in **Appendix C.**

11 ASSESSMENT AND ROAD IMPACT

11.1 Description

The impact on the local road network has been assessed by examining the projected traffic flows on the local road network both 'with' and 'without' the proposed development in place. The morning peak period and the evening peak period have been examined in order to assess the busiest case in terms of local traffic on the road network and traffic generated by the proposed development.

11.2 Junction Analysis

As the traffic generation is less than 10% of the R347/R348 roundabout no analysis is required at this junction.

Capacity analysis was carried out using the TRL software package PICADY for the R348/ R347/ Baunmore Staggered Crossroads.

The junction is shown in **Figure 11.1** and was analysed for the following traffic flow scenarios:

- 2028 Opening Year AM and PM peak hour flows without proposed development in place;
- 2028 Opening Year AM and PM peak hour flows with proposed development in place;
- 2033 Opening Year + 5 Years AM and PM peak hour flows without proposed development in place;
- 2033 Opening Year + 5 Years AM and PM peak hour flows with proposed development in place.
- 2043 Opening Year + 15 Years AM and PM peak hour flows without proposed development in place;
- 2043 Opening Year + 15 Years AM and PM peak hour flows with proposed development in place.

The existing junction was also analysed in the current year, 2025, without the development in place.

Estimated turning movements for each of the above scenarios were calculated by summing the predicted generated flows and the expanded baseflows. Total traffic turning flow diagrams for each analysis scenario have been reproduced in the traffic flow diagrams in **Appendix C**. The following sections summarise the findings of the junction capacity modelling for each of the junctions within the study area.

PICADY Analysis Note:
The ratio of flow to capacity (RFC) is an indicator of the likely performance of a junction under design year loading. Due to site-to-site variation, there may be a standard error of prediction of the entry capacity by the formulae of + or - 15% for any site. Thus, queuing should not occur in the various turning movements in the chosen design year peak hour in 5 out of 6 peak hour periods or sites if a maximum RFC of about 85% is used.

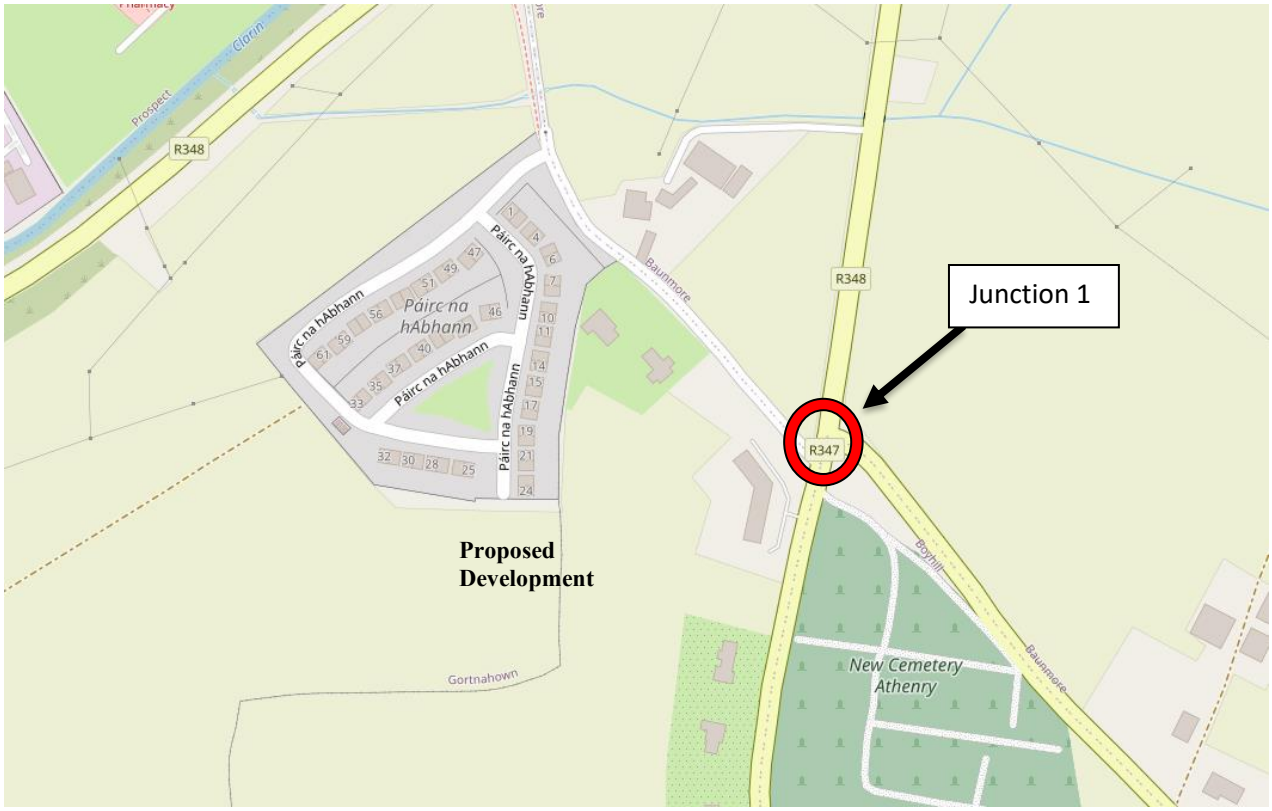

Figure 11.1: Identified Junction for Analysis (© OpenStreetMap contributor)

11.2.1 R348/ R347/ Baunmore Staggered Crossroads (Junction 1)

The results of the PICADY analysis for the junction have been summarised in the tables overleaf and are reproduced in full in **Appendix D**.

Approach Arm / Turning Movement	RFC (%)	Delay (s)	Max. Queue (PCU)
	Without Dev.	Without Dev.	Without Dev.
R348 East Left Straight	1	7.24	0.0
R348 East Right	24	10.00	0.3
R348 North	3	5.20	0.0
Baunmore	3	6.60	0.0
R347 South	0	4.58	0.0

Table 11.1: 2025 AM Peak Period – R348/ R347/ Baunmore Staggered Crossroads

Approach Arm / Turning Movement	RFC (%)	Delay (s)	Max. Queue (PCU)
	Without Dev.	Without Dev.	Without Dev.
R348 East Left Straight	2	7.53	0.0
R348 East Right	21	9.86	0.3
R348 North	5	4.92	0.1
Baunmore	2	6.22	0.0
R347 South	0	5.09	0.0

Table 11.2: 2025 PM Peak Period – R348/ R347/ Baunmore Staggered Crossroads

Approach Arm / Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
R348 East Left Straight	1	1	7.35	7.36	0.0	0.0
R348 East Right	26	26	10.48	10.54	0.3	0.4
R348 North	3	3	5.20	5.22	0.0	0.0
Baunmore	3	4	6.68	6.74	0.0	0.0
R347 South	0	0	4.54	4.53	0.0	0.0

Table 11.3: 2028 AM Peak Period – R348/ R347/ Baunmore Staggered Crossroads

Approach Arm / Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
R348 East Left Straight	2	2	7.67	7.70	0.0	0.0
R348 East Right	23	23	10.33	10.39	0.3	0.3
R348 North	6	7	4.90	4.94	0.1	0.1
Baunmore	2	3	6.26	6.30	0.0	0.0
R347 South	0	0	5.09	5.08	0.0	0.0

Table 11.4: 2028 PM Peak Period – R348/ R347/ Baunmore Staggered Crossroads

Approach Arm / Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
R348 East Left Straight	1	1	7.50	7.51	0.0	0.0
R348 East Right	29	29	11.13	11.20	0.4	0.4
R348 North	3	4	5.19	5.21	0.0	0.0
Baunmore	3	4	6.76	6.84	0.0	0.0
R347 South	0	0	4.50	4.49	0.0	0.0

Table 11.5: 2033 AM Peak Period – R348/ R347/ Baunmore Staggered Crossroads

Approach Arm / Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
R348 East Left Straight	2	2	7.86	7.88	0.0	0.0
R348 East Right	26	26	10.93	10.99	0.3	0.3
R348 North	7	7	4.88	4.90	0.1	0.1
Baunmore	2	3	6.31	6.35	0.0	0.0
R347 South	0	0	5.09	5.08	0.0	0.0

Table 11.6: 2033 PM Peak Period – R348/ R347/ Baunmore Staggered Crossroads

Approach Arm / Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
R348 East Left Straight	1	1	7.73	7.75	0.0	0.0
R348 East Right	33	34	12.22	12.30	0.5	0.5
R348 North	3	4	5.18	5.21	0.0	0.1
Baunmore	4	5	6.91	6.98	0.0	0.0
R347 South	1	1	4.46	4.45	0.0	0.0

Table 11.7: 2043 AM Peak Period – R348/ R347/ Baunmore Staggered Crossroads

Approach Arm / Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
R348 East Left Straight	2	2	8.15	8.18	0.0	0.0
R348 East Right	30	30	11.96	12.04	0.4	0.4
R348 North	7	8	4.85	4.88	0.1	0.1
Baunmore	2	3	6.38	6.41	0.0	0.0
R347 South	1	1	5.09	5.09	0.0	0.0

Table 11.8: 2043 PM Peak Period – R348/ R347/ Baunmore Staggered Crossroads

This analysis demonstrates that the existing priority-controlled junction in its current format is predicted to operate well-below recommended capacity with proposed development in place up to 2043. This analysis predicts that by 2043 with development in place the junction could be operating at 34% capacity in the AM peak hour and 30% capacity during the PM peak hour.

The pelican crossing at this junction would be used infrequently and has not been included in the modelling. It may mean that the capacity's above would be slightly higher during its usage.

12 ROAD SAFETY

No change to the public road network is proposed.

The design team will ensure adequate sightlines are achieved and pedestrian and vulnerable users are adequately catered for.

A Road Safety Audit was carried out by CST Group as part of this planning application. Recommendations made as part of this Road Safety Audit have been included within the design submitted with this application.

13 INTERNAL LAYOUT

The development will be accessed through the existing Pairc na hAbhainn Estate which is accessed off the R347 Road via a crossroads junction and thus is a cul-de-sac development. There is a turning head provided to the south of the development.

There is footpath provision throughout the development. Traffic calming ramps are proposed in several separate locations as well as stop lines at internal T-junctions within the site.

Car parking is provided to the front of the houses and includes 2 accessible spaces. 8no. visitor bicycle spaces are provided also.

There is a public open space provided in the centre of the site.

14 PARKING

14.1 Car Parking

The Galway County Development Plan 2022-2028 outlines that the car parking provision in Athenry, in which the site is located. As such it sets out the following maximum Car Parking Standards:

Type of Development	Car Parking Standard	No. of Res. Units within Dev.	Max Parking Permitted	Provision
Dwellings/ Apartments (1-3 Bedrooms)	1.5 spaces per dwelling	16 Units	24	32
TOTAL			**24**	**32**

Table 14.1: Galway County Development Plan 2022-2028 Car Parking Standards for Residential Development

The parking proposal for the proposed development is more than the requirements of the Galway County Development Plan 2022-2028. The parking for the semi-detached is on-curtilage and 2 spaces per house are provided here. The parking for Unit Type B is off-curtilage, and 16 spaces are provided for these 8 units. However, 2 of these spaces are for wheelchair accessible use in accordance with the Galway County Development Plan 2022-2028 and subtracting these means 14 standard spaces for these 8 units.

14.2 Bicycle Parking

The Galway County Development Plan 2022-2028 sets out the following Cycle Parking Standards for Athenry:

Type of Development	Bicycle Parking Standard	No. of Bed Spaces/ Res. Units within Dev.	Parking Standard	Provision
Residential	1 space per bed space	40 Bed Spaces	40	-
Residential Visitor	1 visitor bike space per 2 Units	16 Units	8	8
TOTAL			**48**	**8**

Table 14.2: Galway County Development Plan 2022-2028 Bicycle Parking Standards for Residential Development

Galway County Development Plan 2022-2028 requires that 48 spaces be provided for cyclists as shown in **Table 14.2** above. It is proposed that 8 spaces shall be provided for visitors. These are provided using Sheffield racks. All houses have rear/ front garden areas for bicycle storage if necessary. Cycle parking facilities are illustrated on the architect's site plans, submitted with this application.

15 PUBLIC TRANSPORT

To ensure future transport sustainability and to endeavour to make new developments as accessible as possible to travel by other modes of transport other than private car, an assessment has been made of the proposed and existing public transport facilities in the vicinity of the site.

15.1 Public Transport

Public transport is available in the area of the development, as described below.

15.1.1 Train Services

Athenry Train Station is accessible, approx. 2km from the site, making it 7-minutes by bike, a 26 -minute walk and is accessible by public transport and non-car-based transport. Irish Rail connects Athenry to the rest of the country and is a reliable and efficient service running throughout Ireland.

15.1.2 Taxi Services

There are taxi facilities that service Athenry collecting and depositing passengers. This will facilitate taxi use by providing a safe and convenient means of accessing this form of transport. The objective is to encourage lift sharing in taxis to help reduce the demand on parking and congestion at peak times.

16 PEDESTRIANS/ CYCLISTS

16.1 Pedestrians

As the potential for pedestrian trips to and from the development is moderate, it is important that the development is properly integrated into the existing footpath network. There is a footpath on the western side of the R347. In addition to this, as mentioned above there are proposed future plans to improve footpaths in the Athenry Local Area Plan 2024-2030. There is also an existing Pelican crossing on the R347 at the R348/ R347/ Baunmore Staggered Crossroads junction.

The development is approx. 2km (26-minute) walk from Athenry Town.

In addition to direct pedestrian routes from the development to/from surrounding areas, the pedestrian network also provides routes to/from surrounding public transport network, including Athenry Train Station.

16.2 Cycling

Cycling is to be encouraged as part of the development. There are currently no cycle lanes and designated routes for the use of cyclists in the vicinity of the site. However, as mentioned above there are proposed future plans to improve cycle networks in the Athenry Local Area Plan 2024-2030.

The proposed development will provide 8 visitor bike spaces.

17 ACCESS FOR PEOPLE WITH DISABILITIES

Parking facilities for disabled users are provided within the development and in line with the Galway County Development Plan 2022-2028. Disabled friendly accesses to the proposed development are designed to the Technical Guidance Document M of the Building Regulations.

18 MITIGATION

No mitigation required.

19 SUMMARY AND CONCLUSION

- Planning permission is being sought for a Proposed Affordable Housing Development at Pairc na hAbhainn, Athenry, Co Galway.
- A manual classified traffic count was carried out on the following junction:
  - Junction 1: R348/ R347/ Baunmore Staggered Crossroads
- The surveys found that the mean morning peak hour traffic flow occurred between 08:15am and 09:15am and the evening peak hour occurred between 5:15pm and 6:15pm.
- In order to estimate the likely volumes of traffic that will be generated by the proposed development, trip rates recommended by TRICS (Trip Rate Computer Information System) were extracted from the database and applied pro-rata to the relevant number of dwellings within the development.
- Capacity analysis was carried out on the following junction:
  - Junction 1: R348/ R347/ Baunmore Staggered Crossroads
- Predicted development traffic was added to the existing flows at the junctions as well as traffic growth figures up to a design year of 2043.
- This analysis demonstrates that the junction analysed is predicted to operate well-below recommended capacity (85%) with proposed development up to 2043. The analysis predicts that by 2043 with development in place the junction could be operating at 34% capacity in the AM peak hour and at 30% during the PM peak hour.

APPENDIX A

TRAFFIC SURVEY RESULTS

Junction 1 Location and Turning Movements

Project Ref: 25251

Location: Athenry, Co. Galway

Date:10th September 2025

Day: Wednesday

TTS Traffic Track SURVEYS

Project Ref: 25251
Location: Athenry, Co. Galway
Date: 10th September 2025
Day: Wednesday

Site Ref: 1
Junction Name: R347 / R348 / Baunmore

TIME	A-B CAR	A-B LGV	A-B OGV1	A-B OGV2	A-B BUS	SUM	PCU	A-C CAR	A-C LGV	A-C OGV1	A-C OGV2	A-C BUS	SUM	PCU	A-D CAR	A-D LGV	A-D OGV1	A-D OGV2	A-D BUS	SUM	PCU
07:00	0	0	0	0	0	0	0	18	1	0	0	0	19	19	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	23	4	0	0	0	27	27	1	0	0	0	0	1	1
07:30	0	0	0	0	0	0	0	29	2	0	0	1	32	33	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	42	4	0	0	4	50	54	1	0	0	0	0	1	1
SUM	0	0	0	0	0	0	0	112	11	0	0	5	128	133	2	0	0	0	0	2	2
08:00	0	0	0	0	0	0	0	33	0	0	0	0	33	33	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	52	3	0	0	2	57	59	1	0	0	0	0	1	1
08:30	0	0	0	0	0	0	0	75	3	0	0	1	79	80	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	67	5	0	0	0	72	72	0	0	0	0	0	0	0
SUM	0	0	0	0	0	0	0	227	11	0	0	3	241	244	1	0	0	0	0	1	1
09:00	0	0	0	0	0	0	0	17	2	0	0	0	19	19	1	0	0	0	0	1	1
09:15	0	0	0	0	0	0	0	28	2	0	0	0	30	30	0	0	0	0	0	0	0
09:30	0	1	0	0	0	1	1	23	4	0	0	0	27	27	1	0	0	0	0	1	1
09:45	0	0	0	0	0	0	0	22	5	0	0	0	27	27	0	0	0	0	0	0	0
SUM	0	1	0	0	0	1	1	90	13	0	0	0	103	103	2	0	0	0	0	2	2
10:00	0	0	0	0	0	0	0	13	1	0	0	0	14	14	0	1	0	0	0	1	1
10:15	0	0	0	0	0	0	0	13	1	0	0	0	14	14	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	10	5	0	0	0	15	15	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	22	2	0	0	0	24	24	0	0	0	0	0	0	0
SUM	0	0	0	0	0	0	0	58	9	0	0	0	67	67	0	1	0	0	0	1	1
11:00	1	0	0	0	0	1	1	12	0	0	3	0	15	19	0	0	1	0	0	1	2
11:15	0	0	0	0	0	0	0	11	1	0	0	0	12	12	0	2	0	0	0	2	2
11:30	0	0	0	0	0	0	0	13	2	1	0	0	16	17	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	13	2	1	0	0	16	17	0	0	0	0	0	0	0
SUM	1	0	0	0	0	1	1	49	5	2	3	0	59	64	0	2	1	0	0	3	4
12:00	0	0	0	0	0	0	0	18	3	0	0	0	21	21	0	0	0	0	0	0	0
12:15	0	1	0	0	0	1	1	14	2	0	0	0	16	16	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	15	3	1	0	0	19	20	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	13	2	0	2	0	17	20	0	0	0	0	0	0	0
SUM	0	1	0	0	0	1	1	60	10	1	2	0	73	76	0	0	0	0	0	0	0

TIME	B-A CAR	B-A LGV	B-A OGV1	B-A OGV2	B-A BUS	SUM	PCU	B-C CAR	B-C LGV	B-C OGV1	B-C OGV2	B-C BUS	SUM	PCU	B-D CAR	B-D LGV	B-D OGV1	B-D OGV2	B-D BUS	SUM	PCU
07:00	0	0	0	0	0	0	0	3	1	0	0	0	4	4	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0
SUM	0	0	0	0	0	0	0	12	1	0	0	0	13	13	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0	0	0	1	1
08:15	0	0	0	0	0	0	0	4	1	0	0	0	5	5	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	7	1	0	0	0	8	8	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0
SUM	0	0	0	0	0	0	0	13	2	0	0	0	15	15	1	0	0	0	0	1	1
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0	0	0	0	0	0	0
SUM	0	0	0	0	0	0	0	6	2	0	0	0	8	8	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0	0	0	1	1
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
10:45	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0
SUM	0	0	0	0	0	0	0	2	0	0	0	0	2	2	2	0	0	0	0	2	2
11:00	0	0	0	0	0	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUM	0	0	0	0	0	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0
SUM	0	0	0	0	0	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0

TIME	C-A CAR	C-A LGV	C-A OGV1	C-A OGV2	C-A BUS	SUM	PCU	C-B CAR	C-B LGV	C-B OGV1	C-B OGV2	C-B BUS	SUM	PCU	C-D CAR	C-D LGV	C-D OGV1	C-D OGV2	C-D BUS	SUM	PCU
07:00	6	2	0	0	0	8	8	0	1	0	0	0	1	1	4	0	1	0	0	5	6
07:15	10	1	0	0	0	11	11	2	0	0	0	0	2	2	4	1	0	0	0	5	5
07:30	8	5	0	0	0	13	13	2	0	0	0	0	2	2	6	1	1	0	1	9	11
07:45	13	4	2	0	0	19	20	0	0	0	0	0	0	0	12	0	2	0	0	14	15
H/TOT	37	12	2	0	0	51	52	4	1	0	0	0	5	5	26	2	4	0	1	33	36
08:00	12	3	1	0	1	17	19	2	1	0	0	0	3	3	8	1	0	1	0	10	11
08:15	12	3	0	0	1	16	17	1	0	0	0	0	1	1	9	2	0	0	0	11	11
08:30	28	0	0	1	2	31	34	1	0	0	0	0	1	1	13	3	1	0	0	17	18
08:45	35	3	0	0	1	39	40	7	0	0	0	0	7	7	24	5	0	0	0	29	29
H/TOT	87	9	1	1	5	103	110	11	1	0	0	0	12	12	54	11	1	0	0	67	69
09:00	30	1	0	0	0	31	31	4	0	0	0	0	4	4	17	1	1	0	0	19	20
09:15	16	1	0	0	1	18	19	2	0	0	0	0	2	2	14	1	0	0	0	15	15
09:30	16	4	0	0	0	20	20	0	0	0	0	0	0	0	7	1	0	0	1	9	10
09:45	4	1	0	0	0	5	5	2	0	0	0	0	2	2	13	0	0	0	0	13	13
H/TOT	66	7	0	0	1	74	75	8	0	0	0	0	8	8	51	3	1	0	1	56	58
10:00	15	1	0	0	0	16	16	3	0	0	0	0	3	3	8	2	2	0	0	12	13
10:15	15	1	2	0	0	18	19	0	0	0	0	0	0	0	8	6	1	0	0	15	16
10:30	19	0	0	0	0	19	19	1	0	0	0	0	1	1	13	1	2	1	0	17	19
10:45	12	2	0	0	0	14	14	4	0	0	0	0	4	4	17	3	2	0	0	22	23
H/TOT	61	4	2	0	0	67	68	8	0	0	0	0	8	8	46	12	7	1	0	66	71
11:00	17	1	0	0	0	18	18	0	0	0	0	0	0	0	14	4	0	0	0	18	18
11:15	14	1	2	0	0	17	18	1	0	0	0	0	1	1	22	4	2	0	0	28	29
11:30	15	3	1	0	0	19	20	2	0	0	0	0	2	2	11	3	1	0	0	15	16
11:45	15	0	0	0	0	15	15	1	0	0	0	0	1	1	9	2	1	0	0	12	13
H/TOT	61	5	3	0	0	69	71	4	0	0	0	0	4	4	56	13	4	0	0	73	75
12:00	18	1	0	1	0	20	21	2	0	0	0	0	2	2	12	2	1	0	0	15	16
12:15	15	1	1	0	0	17	18	2	0	1	0	0	3	4	20	0	1	0	0	21	22
12:30	21	1	1	0	0	23	24	4	1	0	0	0	5	5	35	3	3	0	0	41	43
12:45	19	0	0	0	0	19	19	0	0	0	0	0	0	0	23	2	0	0	0	25	25
H/TOT	73	3	2	1	0	79	81	8	1	1	0	0	10	11	90	7	5	0	0	102	105

TIME	D-A CAR	D-A LGV	D-A OGV1	D-A OGV2	D-A BUS	SUM	PCU	D-B CAR	D-B LGV	D-B OGV1	D-B OGV2	D-B BUS	SUM	PCU	D-C CAR	D-C LGV	D-C OGV1	D-C OGV2	D-C BUS	SUM	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	1	0	0	12	13
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	1	0	0	0	13	13
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
07:45	2	0	0	0	0	2	2	0	0	0	0	0	0	0	14	2	0	0	0	16	16
H/TOT	2	0	0	0	0	2	2	0	0	0	0	0	0	0	61	4	1	0	0	69	71
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	1	0	0	16	17
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	3	1	0	1	24	26
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	2	0	0	0	32	32
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	3	0	0	0	27	27
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88	8	2	0	1	99	101
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	2	0	0	0	17	17
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	3	2	0	0	21	22
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	4	0	0	0	27	27
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	2	0	0	0	18	18
H/TOT	3	0	1	0	0	4	5	0	0	0	0	0	0	0	70	11	2	0	0	83	84
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	1	1	0	0	11	12
10:15	2	1	0	0	0	3	3	0	0	0	0	0	0	0	9	1	0	0	0	10	10
10:30	2	0	0	0	0	2	2	0	0	0	0	0	0	0	21	1	1	0	0	23	24
10:45	0	0	0	0	0	0	0	1	0	0	0	0	1	1	14	1	0	1	0	16	17
H/TOT	4	1	0	0	0	5	5	1	0	0	0	0	1	1	53	4	2	1	0	60	62
11:00	1	0	0	0	0	1	1	1	0	0	0	0	1	1	12	2	2	0	0	16	17
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	2	1	1	0	13	15
11:30	1	0	0	0	0	1	1	0	0	0	0	0	0	0	12	2	1	0	0	15	16
11:45	0	2	0	0	0	2	2	0	0	0	0	0	0	0	15	2	3	0	0	20	22
H/TOT	1	4	0	0	0	5	5	1	0	0	0	0	1	1	48	8	7	1	0	64	69
12:00	2	0	0	0	0	2	2	0	0	0	0	0	0	0	14	3	1	0	0	18	19
12:15	0	1	0	0	0	1	1	0	0	0	0	0	0	0	9	1	1	0	0	11	12
12:30	3	0	0	0	0	3	3	0	0	0	0	0	0	0	8	5	0	0	0	13	13
12:45	1	0	0	0	0	1	1	0	0	0	0	0	0	0	10	0	0	0	0	10	10
H/TOT	6	1	0	0	0	7	7	0	0	0	0	0	0	0	41	9	2	0	0	52	53

Project Ref: 25251
Location: Athenry, Co. Galway
Date: 10th September 2025
Day: Wednesday

Site Ref: 1
Junction Name: R347 / R348 / Baunmore

TIME	A-B CAR	A-B LGV	A-B OGV1	A-B OGV2	A-B BUS	SUM	PCU	A-C CAR	A-C LGV	A-C OGV1	A-C OGV2	A-C BUS	SUM	PCU	A-D CAR	A-D LGV	A-D OGV1	A-D OGV2	A-D BUS	SUM	PCU
13:00	0	0	0	0	0	0	0	24	2	0	0	0	26	26	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	21	2	0	0	0	23	23	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	16	2	0	0	0	18	18	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	18	1	3	0	0	22	24	0	0	0	0	0	0	0
SUM	0	0	0	0	0	0	0	79	7	3	0	0	89	91	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	26	3	1	1	1	32	35	1	1	0	0	0	2	2
14:15	0	0	0	0	0	0	0	24	2	0	0	1	27	28	1	0	0	0	0	1	1
14:30	0	0	0	0	0	0	0	15	3	0	0	0	18	18	1	0	0	0	0	1	1
14:45	0	0	0	0	0	0	0	12	1	0	0	0	13	13	0	1	0	0	0	1	1
SUM	0	0	0	0	0	0	0	77	9	1	1	2	90	94	3	2	0	0	0	5	5
15:00	0	0	0	0	0	0	0	31	1	2	0	0	34	35	1	1	0	0	0	2	2
15:15	0	1	0	0	0	1	1	27	4	1	0	1	33	35	1	0	0	0	0	1	1
15:30	0	0	0	0	0	0	0	16	4	1	0	3	24	28	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	28	0	1	0	0	29	30	1	1	0	1	0	3	4
SUM	0	1	0	0	0	1	1	102	9	5	0	4	120	127	3	2	0	1	0	6	7
16:00	0	0	0	0	0	0	0	24	3	1	0	0	28	29	0	0	0	0	0	0	0
16:15	1	0	0	0	0	1	1	7	2	0	0	0	9	9	1	0	0	0	0	1	1
16:30	0	0	0	0	0	0	0	24	2	0	0	0	26	26	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	34	3	0	0	0	37	37	2	0	0	0	0	2	2
SUM	1	0	0	0	0	1	1	89	10	1	0	0	100	101	3	0	0	0	0	3	3
17:00	0	0	0	0	0	0	0	15	1	1	0	0	17	18	3	0	0	0	0	3	3
17:15	0	0	0	0	0	0	0	18	3	0	0	0	21	21	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	29	1	1	0	0	31	32	1	0	0	0	0	1	1
17:45	0	0	0	0	0	0	0	33	1	0	0	0	34	34	0	0	0	0	0	0	0
SUM	0	0	0	0	0	0	0	95	6	2	0	0	103	104	4	0	0	0	0	4	4
18:00	0	0	0	0	0	0	0	34	2	1	0	0	37	38	1	0	0	0	0	1	1
18:15	0	0	0	0	0	0	0	22	2	0	0	0	24	24	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	25	2	0	0	0	27	27	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	30	2	0	0	0	32	32	2	0	0	0	0	2	2
SUM	0	0	0	0	0	0	0	111	8	1	0	0	120	121	3	0	0	0	0	3	3
TOTAL	2	3	0	0	0	5	5	1149	108	16	6	14	1293	1323	21	7	1	1	0	30	32

TIME	B-A CAR	B-A LGV	B-A OGV1	B-A OGV2	B-A BUS	SUM	PCU	B-C CAR	B-C LGV	B-C OGV1	B-C OGV2	B-C BUS	SUM	PCU	B-D CAR	B-D LGV	B-D OGV1	B-D OGV2	B-D BUS	SUM	PCU
13:00	0	1	0	0	1	1	1	2	0	0	0	0	2	2	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0
H/TOT	0	1	0	0	1	1	1	9	0	0	0	0	9	9	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	1	0	0	0	1	2	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	1	0	0	0	1	1
14:30	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0

APPENDIX B

TRICS ANALYSIS

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use: 03 - RESIDENTIAL

Category: B - AFFORDABLE/LOCAL AUTHORITY HOUSES

Total Vehicles

Selected regions and areas:

09	**NORTH**		
	FU	WESTMORLAND & FURNESS	1 day
13	**MUNSTER**		
	TI	TIPPERARY	2 days

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

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Primary Filtering Selection:

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

Parameter:	DWELLS
Actual Range:	0.58 to 2.4 (units:DWELLS)
Range Selected by User:	8 to 516 (units:DWELLS)
Parking Spaces Range:	11 - 220

Public Transport Provision:

Selection by:	All Surveys Included
Date Range:	01/01/16 to 05/09/23

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

Selected survey days:

Friday	2 days
Monday	1 days

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

Selected survey types:

Manual count	3
Direction ATC Count	0

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

Selected Locations:

Neighbourhood Centre (PPS6 Local Centre)	1 days
Suburban Area (PPS6 Out of Centre)	2 days

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

Selected Location Sub Categories:

Residential Zone	2 days
Village	1 days

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

Inclusion of Servicing Vehicle Counts:

Servicing vehicles Excluded	3 days

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Secondary Filtering Selection:

Use Class:

C3	3 surveys

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

859 - 6114

Population within 1 mile:

1,001 to 5,000	1 surveys
5,001 to 10,000	2 surveys

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

Population within 5 miles:

5,000 or Less	1 surveys
5,001 to 25,000	2 surveys

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

Car ownership within 5 miles:

0.6 to 1.0	1 surveys
1.1 to 1.5	2 surveys

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

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Petrol filling station:

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

No	3 surveys

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

PTAL Rating:

No PTAL Present	3 surveys

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

COVID-19 Restrictions:

No

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1	**FU-03-B-01**	**SEMI DETACHED & TERRACED**	**WESTMORLAND & FURNESS**

PENNINE WAY
ALSTON
Neighbourhood Centre (PPS6 Local Centre)
Village
Site area: 2.4 hect
Survey date: Friday 13/05/2022 Survey Type: Unknown

2	**TI-03-B-01**	**MIXED HOUSES**	**TIPPERARY**

LIMERICK ROAD
NENAGH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Site area: 2.09 hect
Survey date: Friday 27/05/2016 Survey Type: Unknown

3	**TI-03-B-02**	**BUNGALOWS**	**TIPPERARY**

STRADAVOHER
THURLES
Suburban Area (PPS6 Out of Centre)
Residential Zone
Site area: 0.58 hect
Survey date: Monday 20/11/2017 Survey Type: Unknown

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TRIP RATE for Land Use 03 - RESIDENTIAL/B - AFFORDABLE/LOCAL AUTHORITY HOUSES

Total Vehicles

Calculation factor: 1 DWELLS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. DWELLS	Arrivals	Departures	Totals
00:00-01:00					
01:00-02:00					
02:00-03:00					
03:00-04:00					
04:00-05:00					
05:00-06:00					
06:00-07:00					
07:00-08:00	**3**	**39**	**0.085**	**0.256**	**0.341**
08:00-09:00	**3**	**39**	**0.103**	**0.205**	**0.308**
09:00-10:00	**3**	**39**	**0.120**	**0.291**	**0.411**
10:00-11:00	**3**	**39**	**0.145**	**0.162**	**0.307**
11:00-12:00	**3**	**39**	**0.145**	**0.145**	**0.290**
12:00-13:00	**3**	**39**	**0.171**	**0.111**	**0.282**
13:00-14:00	**3**	**39**	**0.137**	**0.128**	**0.265**
14:00-15:00	**3**	**39**	**0.171**	**0.145**	**0.316**
15:00-16:00	**3**	**39**	**0.205**	**0.197**	**0.402**
16:00-17:00	**3**	**39**	**0.291**	**0.162**	**0.453**
17:00-18:00	**3**	**39**	**0.274**	**0.154**	**0.428**
18:00-19:00	**3**	**39**	**0.248**	**0.171**	**0.419**
19:00-20:00					
20:00-21:00					
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			**2.095**	**2.127**	**4.222**

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

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

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Parameter Summary:

Trip rate parameter range selected:	8 - 516 (units: DWELLS)
Survey date date range:	27/05/2016 - 13/05/2022
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

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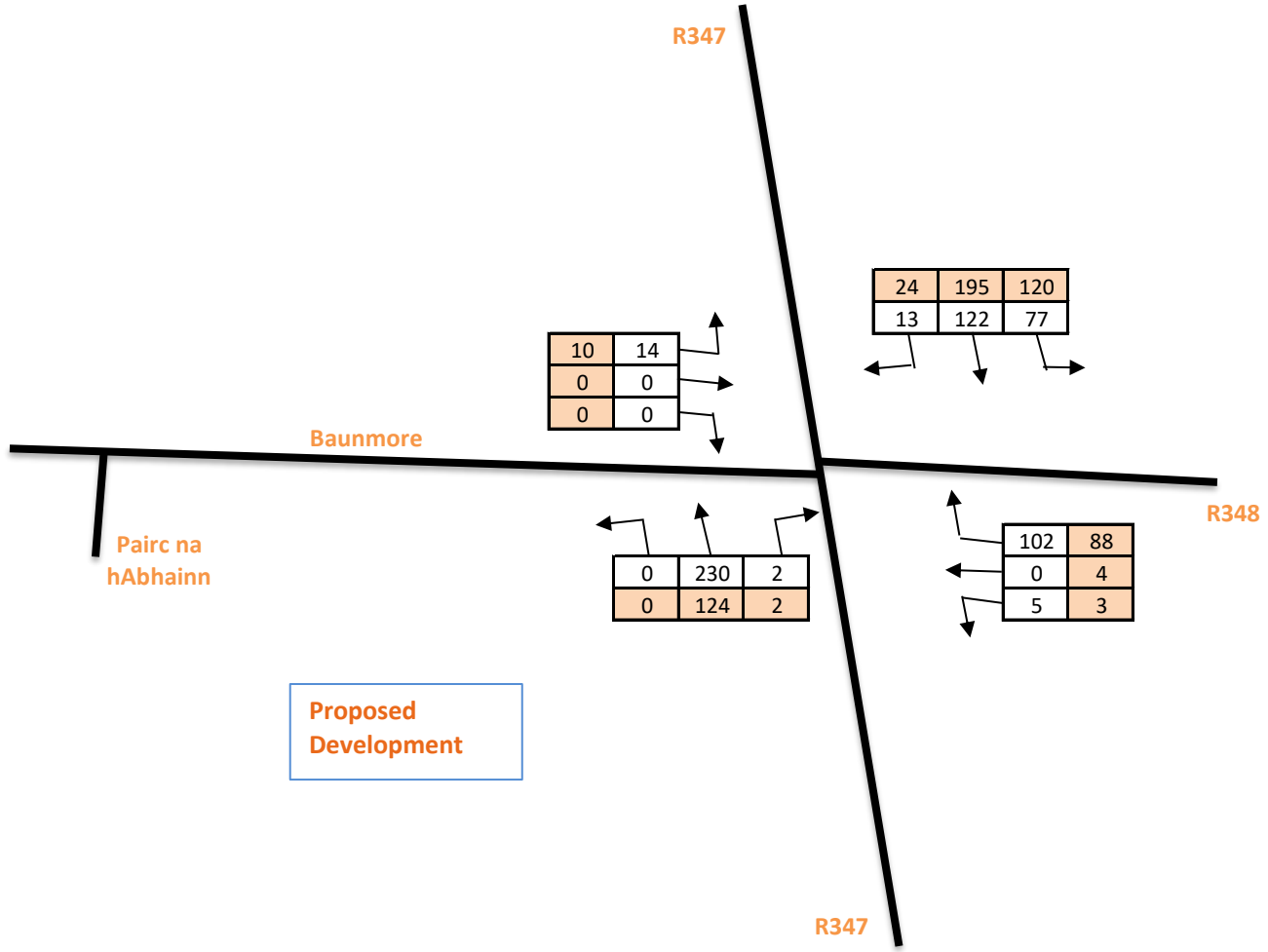
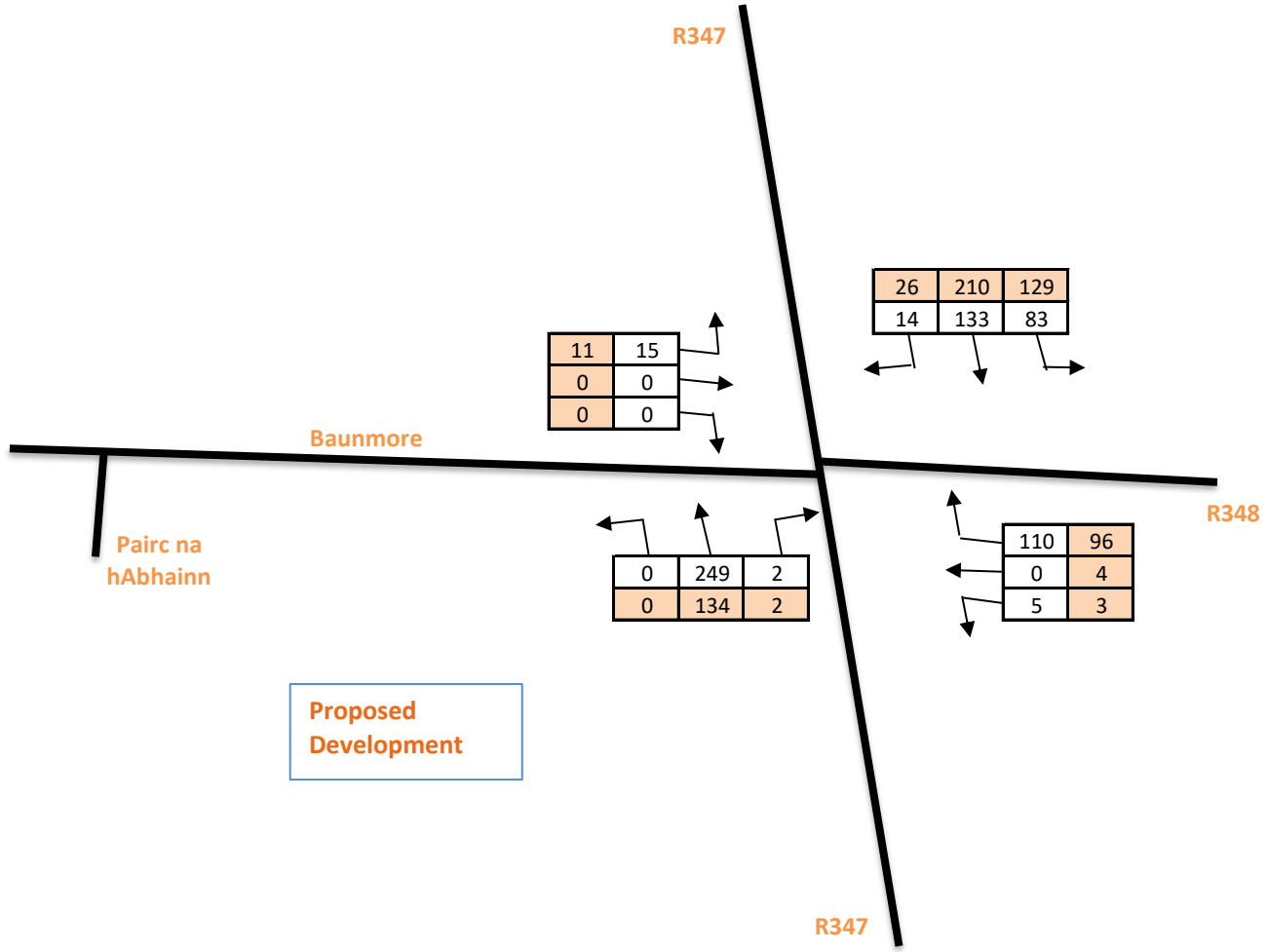
APPENDIX C

TRAFFIC FLOW CALCULATIONS



Job No: 125313
Job Title: TTA for Proposed Affordable Housing Development at Pairc na hAbhainn, Athenry, Co Galway

2025 SURVEYED PEAK HOUR TRAFFIC FLOWS



TII Link Based Growth Rates: Annual Growth Factors (2025 - 2028) LV: 1.08
TII Link Based Growth Rates: Annual Growth Factors (2025 - 2028) HV: 1.14

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Chartered Consulting Engineers

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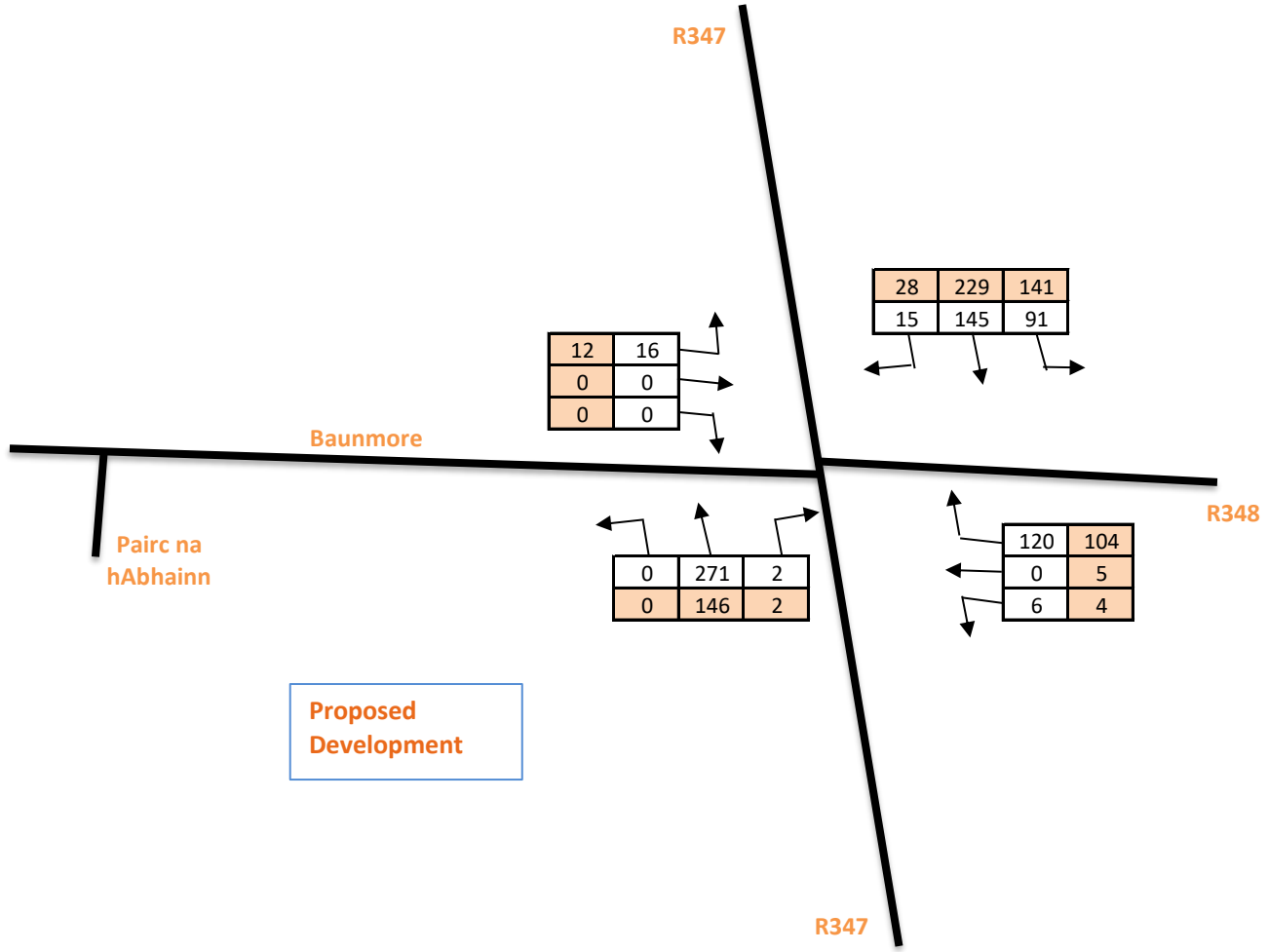
Job Title: TTA for Proposed Affordable Housing Development at Pairc na hAbhainn, Athenry, Co Galway

2028 OPENING YEAR PEAK HOUR TRAFFIC FLOWS WITHOUT DEVELOPMENT



TII Link Based Growth Rates: Annual Growth Factors (2025 - 2033) LV: 1.17
TII Link Based Growth Rates: Annual Growth Factors (2025 - 2033) HV: 1.32

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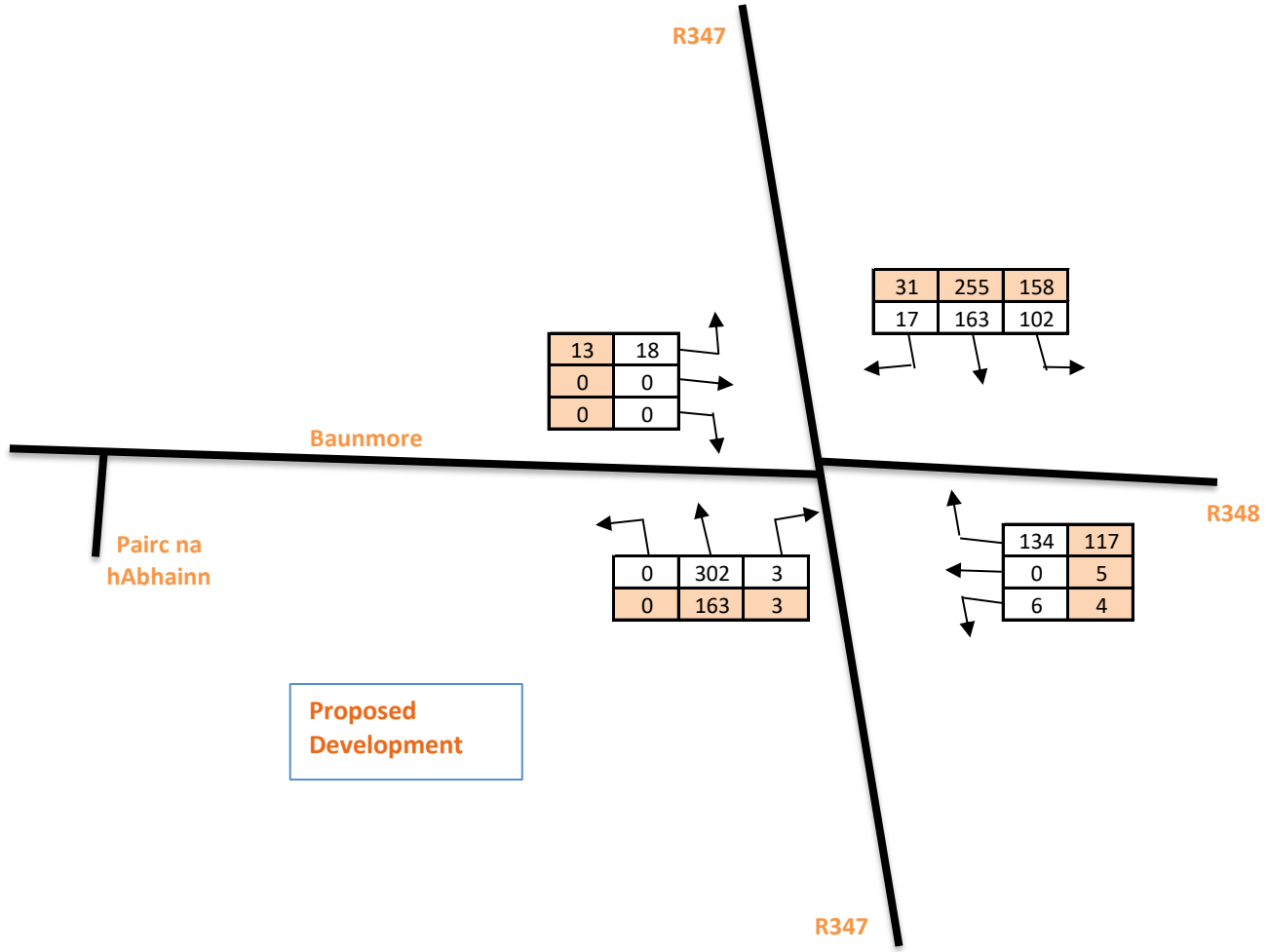
Chartered Consulting Engineers

Job No: 125313
Job Title: TTA for Proposed Affordable Housing Development at Pairc na hAbhainn, Athenry, Co Galway

2033 OPENING YEAR +5 YEARS PEAK HOUR TRAFFIC FLOWS WITHOUT DEVELOPMENT



TII Link Based Growth Rates: Annual Growth Factors (2025 - 2043) LV: 1.31
TII Link Based Growth Rates: Annual Growth Factors (2025 - 2043) HV: 1.62

CST Group
Chartered Consulting Engineers

Job No: 125313
Job Title: TTA for Proposed Affordable Housing Development at Pairc na hAbhainn, Athenry, Co Galway

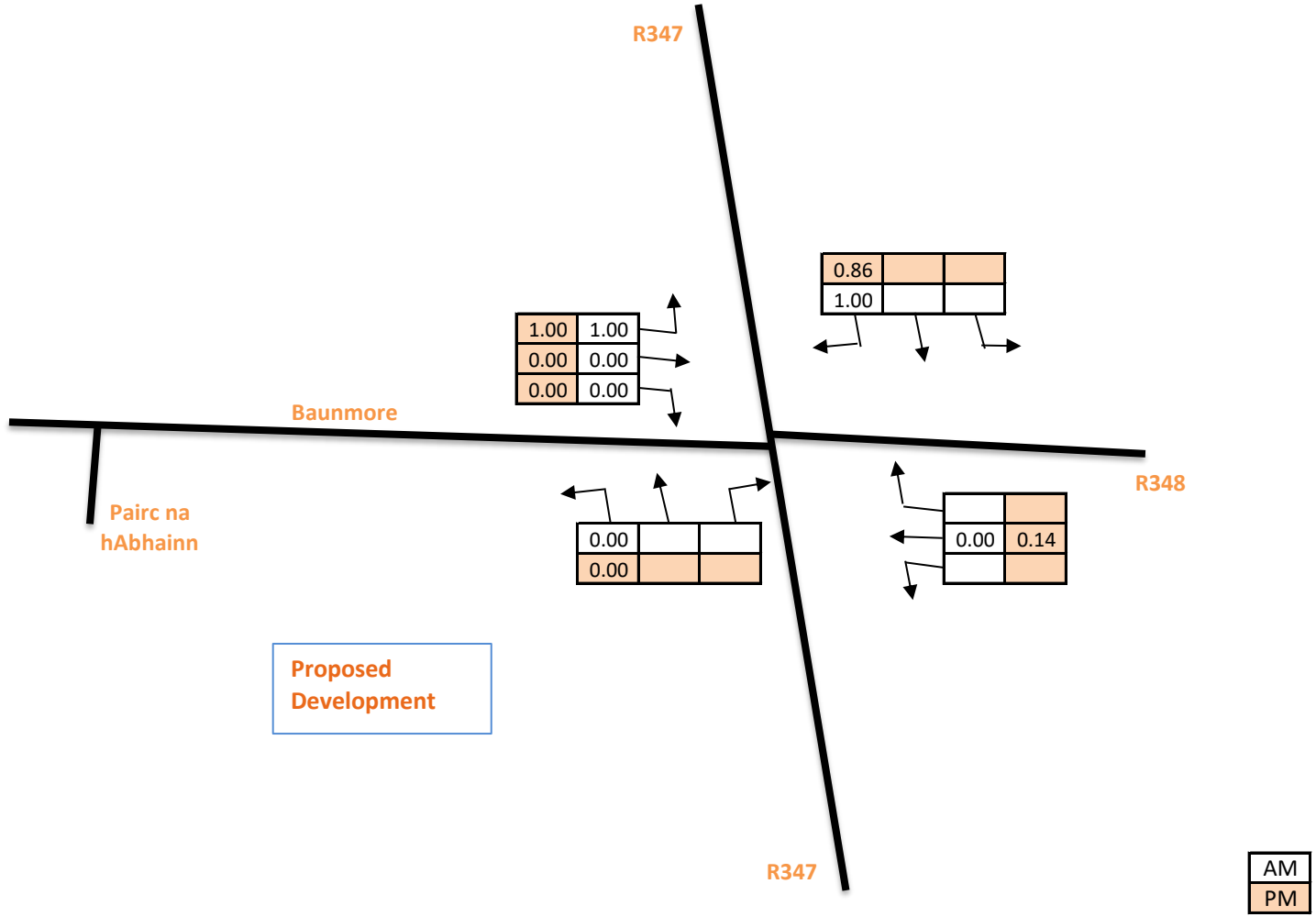
2043 OPENING YEAR +15 YEARS PEAK HOUR TRAFFIC FLOWS WITHOUT DEVELOPMENT

	Calculation Factor	Trip Rate per 100sqm.				Number of Trips			
Landuse	No. of Dwellings	AM Arrivals	AM Departures	PM Arrivals	PM Departures	AM Arrivals	AM Departures	PM Arrivals	PM Departures
Houses	16	0.171	0.291	0.291	0.197	3	5	5	3
Total						**3**	**5**	**5**	**3**

Job No: 125313

Job Title: TTA for Proposed Affordable Housing Development at Pairc na hAbhainn, Athenry, Co Galway

PROPOSED DEVELOPMENT TRAFFIC GENERATION



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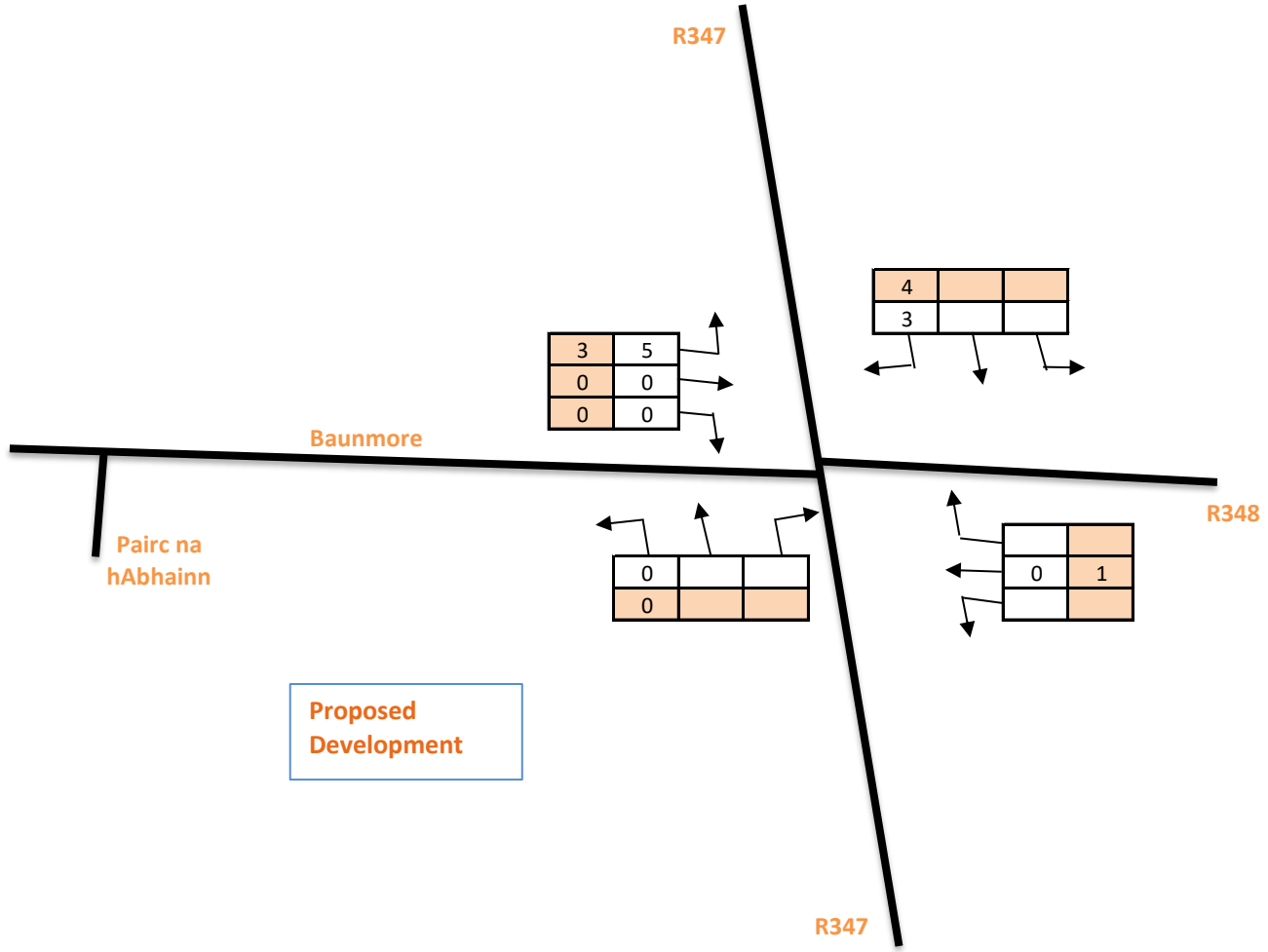
Job No: 125313
Job Title: TTA for Proposed Affordable Housing Development at Pairc na hAbhainn, Athenry, Co Galway

PROPOSED DEVELOPMENT GENERATED TRAFFIC DISTRIBUTION



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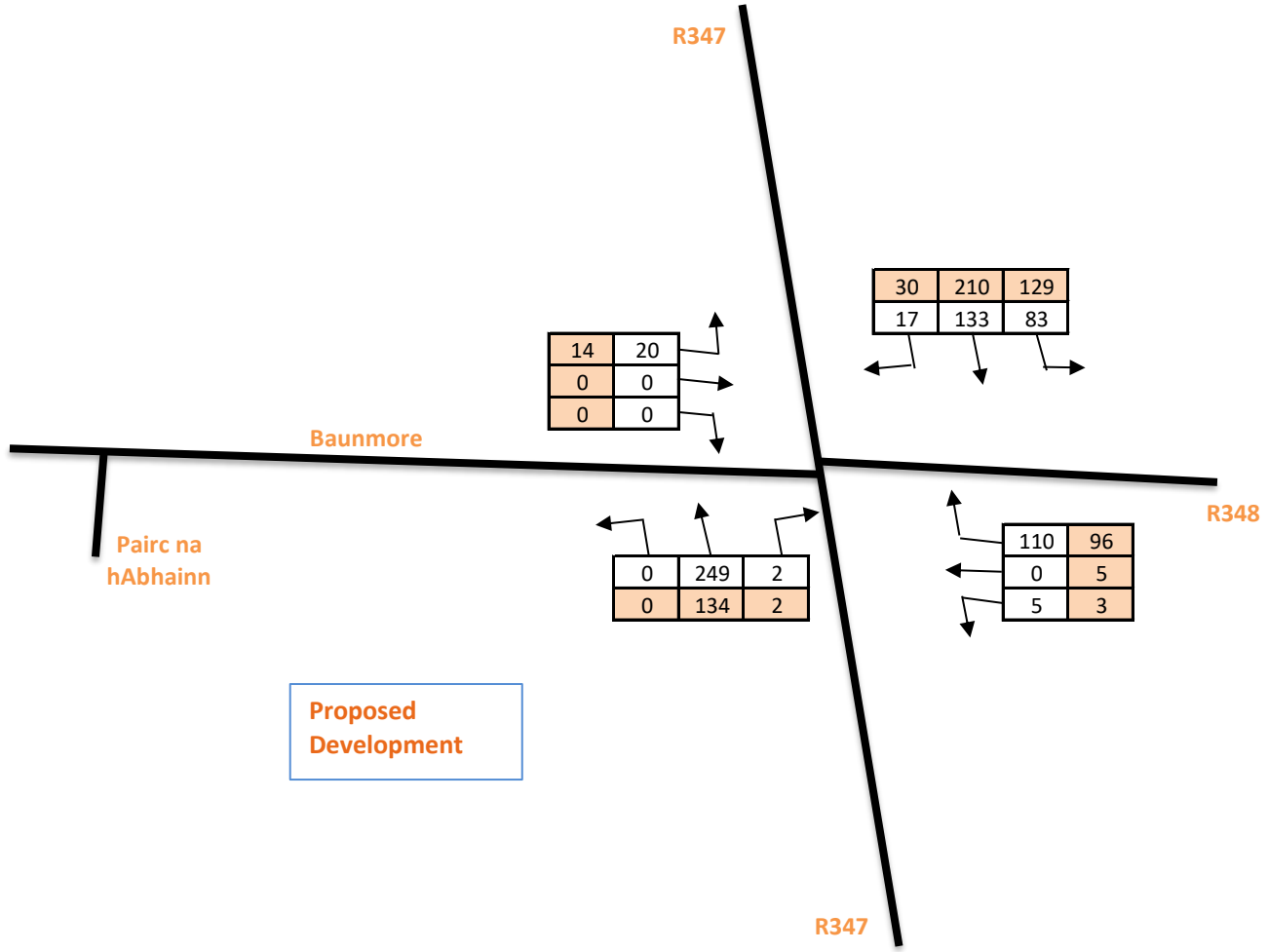
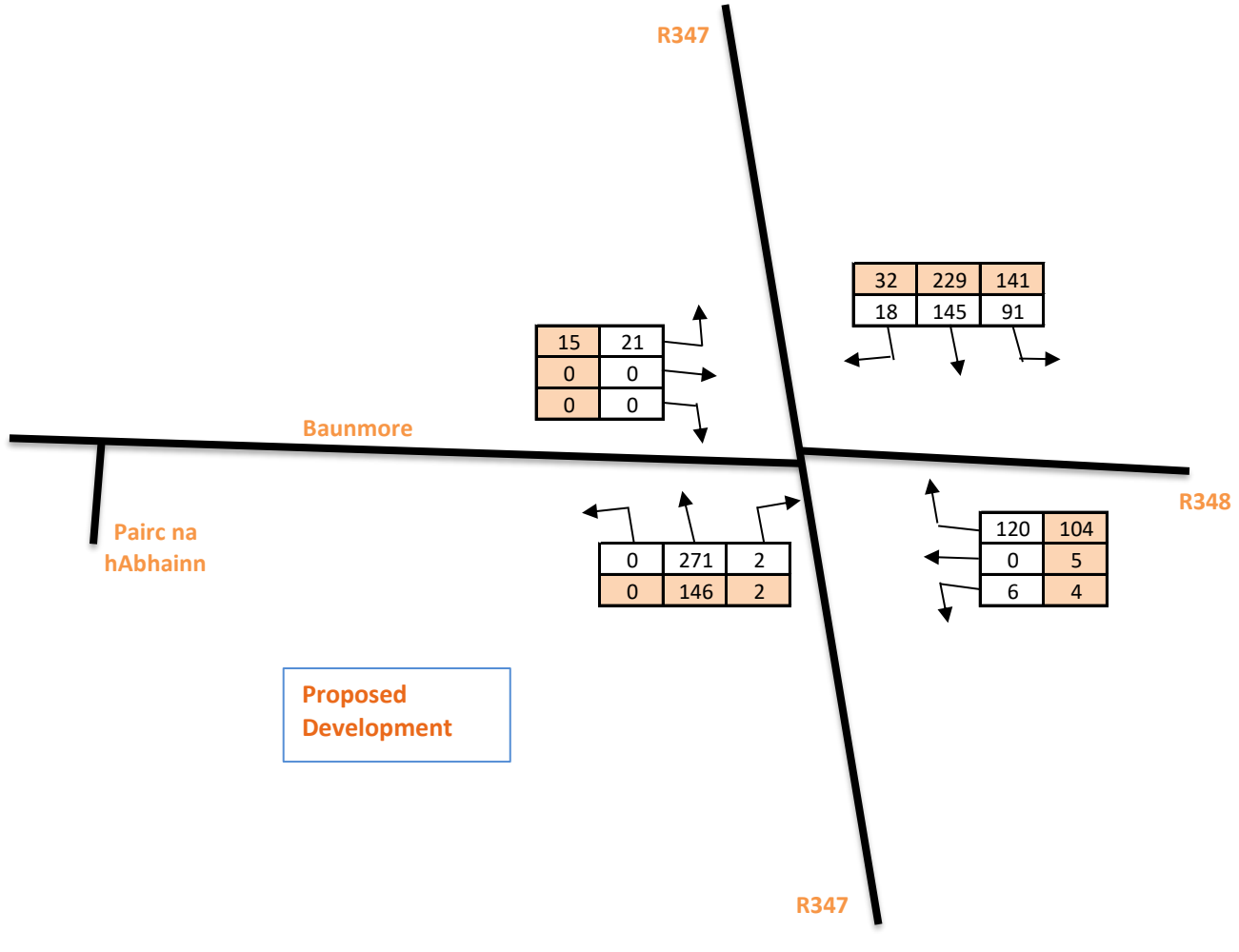
Job No: 125313
Job Title: TTA for Proposed Affordable Housing Development at Pairc na hAbhainn, Athenry, Co Galway

DEVELOPMENT FLOWS



Job No: 125313
Job Title: TTA for Proposed Affordable Housing Development at Pairc na hAbhainn, Athenry, Co Galway

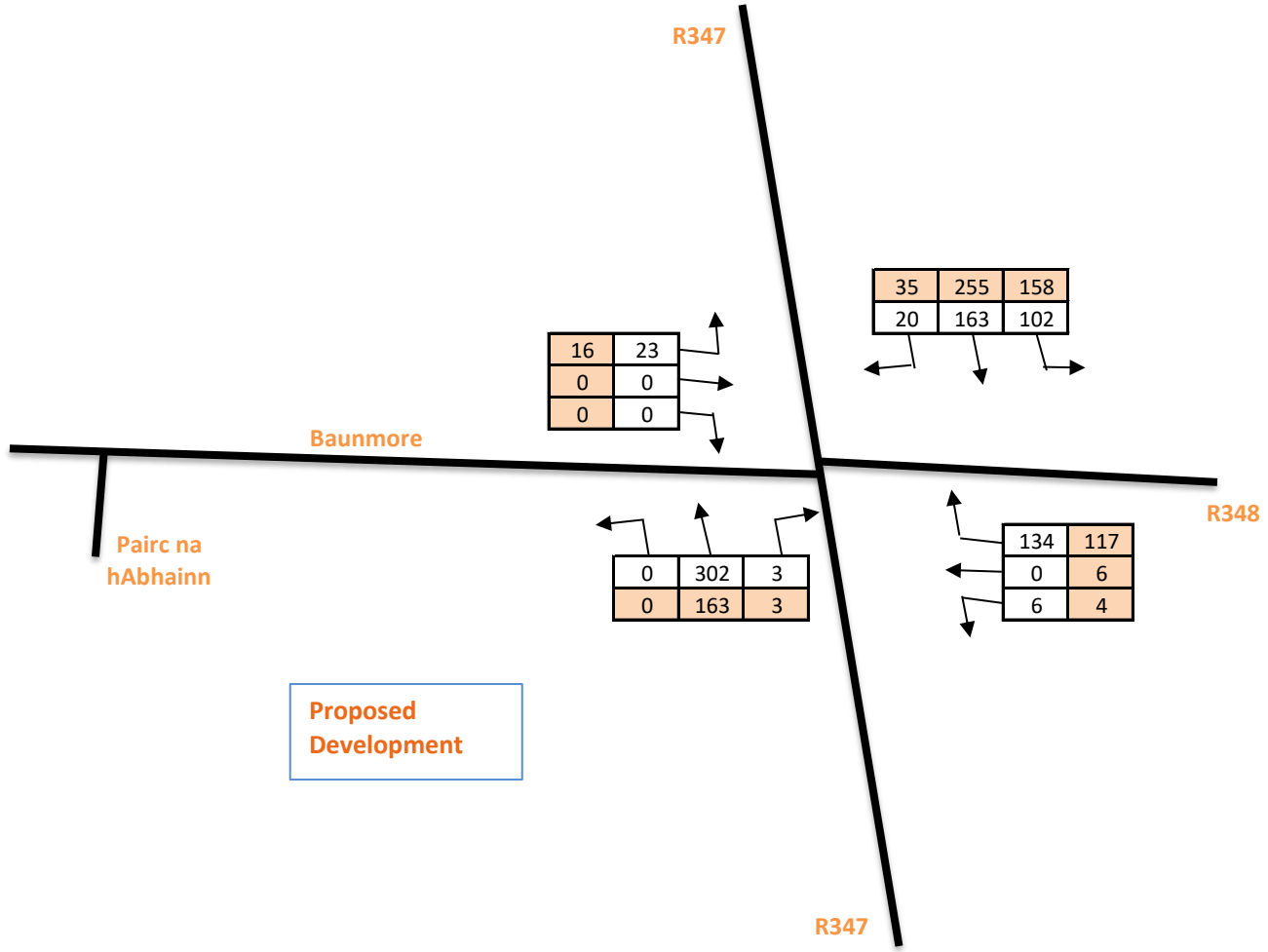
2028 OPENING YEAR PEAK HOUR TRAFFIC FLOWS WITH DEVELOPMENT



CST Group
Chartered Consulting Engineers

Job No: 125313
Job Title: TTA for Proposed Affordable Housing Development at Pairc na hAbhainn, Athenry, Co Galway

2033 OPENING YEAR +5 YEARS PEAK HOUR TRAFFIC FLOWS WITH DEVELOPMENT



Job No: 125313
Job Title: TTA for Proposed Affordable Housing Development at Pairc na hAbhainn, Athenry, Co Galway

2043 OPENING YEAR +15 YEARS PEAK HOUR TRAFFIC FLOWS WITH DEVELOPMENT

APPENDIX D: R348/ R347/ BAUNMORE STAGGERED CROSSROADS

EXISTING JUNCTION (PICADY OUTPUTS)

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.2.1013
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Filename: 125313 - R348-R347-Baunmore Staggered Crossroads Junction 2025 10 13.j9
Path: I:\CST\125\301-350\125313\calcs\PICADY
Report generation date: 23/10/2025 11:31:52

»2025 Survey Year, AM
»2025 Survey Year, PM
»2028 Without Dev, AM
»2028 Without Dev, PM
»2033 Without Dev, AM
»2033 Without Dev, PM
»2043 Without Dev, AM
»2043 Without Dev, PM
»2028 With Dev, AM
»2028 With Dev, PM
»2033 With Dev, AM
»2033 With Dev, PM
»2043 With Dev, AM
»2043 With Dev, PM

Summary of junction performance

	AM									PM								
	Set ID	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Set ID	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
2025 Survey Year																		
Stream B-CD	D1	0.0	0.5	7.24	0.01	A	1.31	A	126 % [Stream B-A]	D2	0.0	0.5	7.53	0.02	A	1.26	A	132 % [Stream B-A]
Stream B-A		0.3	1.4	10.00	0.24	A					0.3	1.3	9.86	0.21	A			
Stream AB-CD		0.0	~1	5.20	0.03	A					0.1	~1	4.92	0.05	A			
Stream D-ABC		0.0	0.5	6.60	0.03	A					0.0	0.5	6.22	0.02	A			
Stream CD-AB		0.0	~1	4.58	0.00	A					0.0	~1	5.09	0.00	A			
2028 Without Dev																		
Stream B-CD	D3	0.0	0.5	7.35	0.01	A	1.35	A	109 % [Stream B-A]	D4	0.0	0.5	7.67	0.02	A	1.32	A	114 % [Stream B-A]
Stream B-A		0.3	1.2	10.48	0.26	B					0.3	1.4	10.33	0.23	B			
Stream AB-CD		0.0	~1	5.20	0.03	A					0.1	~1	4.90	0.06	A			
Stream D-ABC		0.0	0.5	6.68	0.03	A					0.0	0.5	6.26	0.02	A			
Stream CD-AB		0.0	~1	4.54	0.00	A					0.0	~1	5.09	0.00	A			
2033 Without Dev																		
Stream B-CD	D5	0.0	0.5	7.50	0.01	A	1.43	A	92 % [Stream B-A]	D6	0.0	0.5	7.86	0.02	A	1.39	A	97 % [Stream B-A]
Stream B-A		0.4	1.7	11.13	0.29	B					0.3	1.1	10.93	0.26	B			
Stream AB-CD		0.0	~1	5.19	0.03	A					0.1	~1	4.88	0.07	A			
Stream D-ABC		0.0	0.5	6.76	0.03	A					0.0	0.5	6.31	0.02	A			
Stream CD-AB		0.0	~1	4.50	0.00	A					0.0	~1	5.09	0.00	A			
2043 Without Dev																		
Stream B-CD	D7	0.0	0.5	7.73	0.01	A	1.55	A	71 % [Stream B-A]	D8	0.0	0.5	8.15	0.02	A	1.49	A	76 % [Stream B-A]
Stream B-A		0.5	2.2	12.22	0.33	B					0.4	1.8	11.96	0.30	B			
Stream AB-CD		0.0	~1	5.18	0.03	A					0.1	~1	4.85	0.07	A			
Stream D-ABC		0.0	0.5	6.91	0.04	A					0.0	0.5	6.38	0.02	A			
Stream CD-AB		0.0	~1	4.46	0.01	A					0.0	~1	5.09	0.01	A			
2028 With Dev																		
Stream B-CD	D9	0.0	0.5	7.36	0.01	A	1.39	A	108 % [Stream B-A]	D10	0.0	0.5	7.70	0.02	A	1.36	A	113 % [Stream B-A]
Stream B-A		0.4	1.2	10.54	0.26	B					0.3	1.4	10.39	0.23	B			
Stream AB-CD		0.0	~1	5.22	0.03	A					0.1	~1	4.94	0.07	A			
Stream D-ABC		0.0	0.5	6.74	0.04	A					0.0	0.5	6.30	0.03	A			
Stream CD-AB		0.0	~1	4.53	0.00	A					0.0	~1	5.08	0.00	A			
2033 With Dev																		
Stream B-CD	D11	0.0	0.5	7.51	0.01	A	1.46	A	91 % [Stream B-A]	D12	0.0	0.5	7.88	0.02	A	1.42	A	96 % [Stream B-A]
Stream B-A		0.4	1.7	11.20	0.29	B					0.3	1.2	10.99	0.26	B			
Stream AB-CD		0.0	~1	5.21	0.04	A					0.1	~1	4.90	0.07	A			
Stream D-ABC		0.0	0.5	6.84	0.04	A					0.0	0.5	6.35	0.03	A			
Stream CD-AB		0.0	~1	4.49	0.00	A					0.0	~1	5.08	0.00	A			
2043 With Dev																		
Stream B-CD	D13	0.0	0.5	7.75	0.01	A	1.58	A	70 % [Stream B-A]	D14	0.0	0.5	8.18	0.02	A	1.53	A	75 % [Stream B-A]
Stream B-A		0.5	2.3	12.30	0.34	B					0.4	1.8	12.04	0.30	B			
Stream AB-CD		0.1	~1	5.21	0.04	A					0.1	~1	4.88	0.08	A			
Stream D-ABC		0.0	0.5	6.98	0.05	A					0.0	0.5	6.41	0.03	A			
Stream CD-AB		0.0	~1	4.45	0.01	A					0.0	~1	5.09	0.01	A			

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

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	13/10/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CSTGROUP\Donal
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	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025 Survey Year	AM	ONE HOUR	08:00	09:30	15	✓
D2	2025 Survey Year	PM	ONE HOUR	00:00	01:30	15	✓
D3	2028 Without Dev	AM	ONE HOUR	08:00	09:30	15	✓
D4	2028 Without Dev	PM	ONE HOUR	00:00	01:30	15	✓
D5	2033 Without Dev	AM	ONE HOUR	08:00	09:30	15	✓
D6	2033 Without Dev	PM	ONE HOUR	00:00	01:30	15	✓
D7	2043 Without Dev	AM	ONE HOUR	08:00	09:30	15	✓
D8	2043 Without Dev	PM	ONE HOUR	00:00	01:30	15	✓
D9	2028 With Dev	AM	ONE HOUR	08:00	09:30	15	✓
D10	2028 With Dev	PM	ONE HOUR	00:00	01:30	15	✓
D11	2033 With Dev	AM	ONE HOUR	08:00	09:30	15	✓
D12	2033 With Dev	PM	ONE HOUR	00:00	01:30	15	✓
D13	2043 With Dev	AM	ONE HOUR	08:00	09:30	15	✓
D14	2043 With Dev	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

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

2025 Survey Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm A - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way		1.31	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	126	Stream B-A

Arms

Arms

Arm	Name	Description	Arm type
A	R348 North		Major
B	R348 East		Minor
C	R347 South		Major
D	Baunmore		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	5.50			200.0	✓	0.00
C	5.50			250.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare		9.00	6.50	5.00	4.00	2.50	✓	2.00	20	40
D	One lane	3.00								10	0

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	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
AB-D	690	-	-	-	-	-	0.273	0.273	0.273	-	-
B-A	567	0.105	0.267	0.267	-	-	0.168	0.381	-	0.168	0.381
B-CD	578	0.091	0.229	0.229	-	-	-	-	-	-	-
CD-B	719	0.285	0.285	0.285	-	-	-	-	-	-	-
D-AB	624	-	-	-	-	-	0.247	0.247	0.098	-	-
D-C	481	-	0.142	0.323	0.142	0.323	0.226	0.226	0.090	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025 Survey Year	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	212	100.000
B		ONE HOUR	✓	107	100.000
C		ONE HOUR	✓	232	100.000
D		ONE HOUR	✓	14	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	77	122	13
	B	102	0	5	0
	C	230	2	0	0
	D	14	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	0.01	7.24	0.0	0.5	A	5	7
B-A	0.24	10.00	0.3	1.4	A	94	140
A-B						71	106
A-C						112	168
A-D						12	18
AB-CD	0.03	5.20	0.0	~1	A	14	22
AB-C						114	171
D-ABC	0.03	6.60	0.0	0.5	A	13	19
C-D						0	0
C-A						211	317
C-B						2	3
CD-AB	0.00	4.58	0.0	~1	A	3	4
CD-A						223	335

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	4	0.94	529	0.007	4	0.0	0.0	6.859	A
B-A	77	19	502	0.153	76	0.0	0.2	8.433	A
A-B	58	14			58				
A-C	92	23			92				
A-D	10	2			10				
AB-CD	11	3	704	0.016	11	0.0	0.0	5.199	A
AB-C	94	24			94				
D-ABC	11	3	581	0.018	10	0.0	0.0	6.312	A
C-D	0	0			0				
C-A	173	43			173				
C-B	2	0.38			2				
CD-AB	2	0.49	788	0.002	2	0.0	0.0	4.578	A
CD-A	183	46			183				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	4	1	518	0.009	4	0.0	0.0	7.009	A
B-A	92	23	490	0.187	91	0.2	0.2	9.035	A
A-B	69	17			69				
A-C	110	27			110				
A-D	12	3			12				
AB-CD	14	3	707	0.020	14	0.0	0.0	5.194	A
AB-C	112	28			112				
D-ABC	13	3	572	0.022	13	0.0	0.0	6.429	A
C-D	0	0			0				
C-A	207	52			207				
C-B	2	0.45			2				
CD-AB	2	0.62	803	0.003	2	0.0	0.0	4.497	A
CD-A	219	55			219				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	6	1	503	0.011	5	0.0	0.0	7.236	A
B-A	112	28	472	0.238	112	0.2	0.3	9.979	A
A-B	85	21			85				
A-C	134	34			134				
A-D	14	4			14				
AB-CD	18	4	712	0.025	18	0.0	0.0	5.187	A
AB-C	136	34			136				
D-ABC	15	4	561	0.027	15	0.0	0.0	6.599	A
C-D	0	0			0				
C-A	253	63			253				
C-B	2	0.55			2				
CD-AB	3	0.82	824	0.004	3	0.0	0.0	4.388	A
CD-A	268	67			268				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	6	1	503	0.011	6	0.0	0.0	7.238	A
B-A	112	28	472	0.238	112	0.3	0.3	9.997	A
A-B	85	21			85				
A-C	134	34			134				
A-D	14	4			14				
AB-CD	18	4	712	0.025	18	0.0	0.0	5.188	A
AB-C	136	34			136				
D-ABC	15	4	561	0.027	15	0.0	0.0	6.599	A
C-D	0	0			0				
C-A	253	63			253				
C-B	2	0.55			2				
CD-AB	3	0.82	824	0.004	3	0.0	0.0	4.389	A
CD-A	268	67			268				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	4	1	518	0.009	5	0.0	0.0	7.015	A
B-A	92	23	490	0.187	92	0.3	0.2	9.059	A
A-B	69	17			69				
A-C	110	27			110				
A-D	12	3			12				
AB-CD	14	3	707	0.020	14	0.0	0.0	5.195	A
AB-C	112	28			112				
D-ABC	13	3	572	0.022	13	0.0	0.0	6.432	A
C-D	0	0			0				
C-A	207	52			207				
C-B	2	0.45			2				
CD-AB	2	0.62	803	0.003	2	0.0	0.0	4.497	A
CD-A	219	55			219				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	4	0.94	528	0.007	4	0.0	0.0	6.862	A
B-A	77	19	502	0.153	77	0.2	0.2	8.468	A
A-B	58	14			58				
A-C	92	23			92				
A-D	10	2			10				
AB-CD	11	3	704	0.016	11	0.0	0.0	5.202	A
AB-C	94	24			94				
D-ABC	11	3	581	0.018	11	0.0	0.0	6.315	A
C-D	0	0			0				
C-A	173	43			173				
C-B	2	0.38			2				
CD-AB	2	0.49	788	0.002	2	0.0	0.0	4.579	A
CD-A	183	46			183				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.18	0.00	0.00	0.18	0.18			N/A	N/A
AB-CD	0.02	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.01	0.25	0.45	0.48			N/A	N/A
B-A	0.23	0.00	0.00	0.23	0.23			N/A	N/A
AB-CD	0.02	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.02	0.25	0.45	0.48			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.31	0.03	0.26	0.46	0.49			N/A	N/A
AB-CD	0.03	~1	~1	~1	~1			N/A	N/A
D-ABC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.31	0.03	0.31	1.10	1.42			N/A	N/A
AB-CD	0.03	~1	~1	~1	~1			N/A	N/A
D-ABC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

09:00 - 09:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.23	0.00	0.00	0.23	0.23			N/A	N/A
AB-CD	0.02	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

09:15 - 09:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.18	0.00	0.00	0.18	0.18			N/A	N/A
AB-CD	0.02	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

2025 Survey Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm A - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way		1.26	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	132	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2025 Survey Year	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	339	100.000
B		ONE HOUR	✓	95	100.000
C		ONE HOUR	✓	126	100.000
D		ONE HOUR	✓	10	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	120	195	24
	B	88	0	3	4
	C	124	2	0	0
	D	10	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	0.02	7.53	0.0	0.5	A	6	10
B-A	0.21	9.86	0.3	1.3	A	81	121
A-B						110	165
A-C						179	268
A-D						22	33
AB-CD	0.05	4.92	0.1	~1	A	34	51
AB-C						173	260
D-ABC	0.02	6.22	0.0	0.5	A	9	14
C-D						0	0
C-A						114	171
C-B						2	3
CD-AB	0.00	5.09	0.0	~1	A	2	3
CD-A						123	184

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	5	1	517	0.010	5	0.0	0.0	7.033	A
B-A	66	17	495	0.134	66	0.0	0.2	8.378	A
A-B	90	23			90				
A-C	147	37			147				
A-D	18	5			18				
AB-CD	26	7	758	0.035	26	0.0	0.0	4.919	A
AB-C	144	36			144				
D-ABC	8	2	601	0.013	7	0.0	0.0	6.070	A
C-D	0	0			0				
C-A	93	23			93				
C-B	2	0.38			2				
CD-AB	2	0.44	711	0.002	2	0.0	0.0	5.077	A
CD-A	101	25			101				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	6	2	504	0.012	6	0.0	0.0	7.232	A
B-A	79	20	481	0.164	79	0.2	0.2	8.951	A
A-B	108	27			108				
A-C	175	44			175				
A-D	22	5			22				
AB-CD	33	8	772	0.042	33	0.0	0.1	4.873	A
AB-C	170	43			170				
D-ABC	9	2	596	0.015	9	0.0	0.0	6.132	A
C-D	0	0			0				
C-A	111	28			111				
C-B	2	0.45			2				
CD-AB	2	0.54	710	0.003	2	0.0	0.0	5.084	A
CD-A	120	30			120				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	8	2	486	0.016	8	0.0	0.0	7.530	A
B-A	97	24	462	0.210	97	0.2	0.3	9.847	A
A-B	132	33			132				
A-C	215	54			215				
A-D	26	7			26				
AB-CD	43	11	791	0.054	43	0.1	0.1	4.810	A
AB-C	206	52			206				
D-ABC	11	3	590	0.019	11	0.0	0.0	6.220	A
C-D	0	0			0				
C-A	137	34			137				
C-B	2	0.55			2				
CD-AB	3	0.70	710	0.004	3	0.0	0.0	5.090	A
CD-A	147	37			147				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	8	2	486	0.016	8	0.0	0.0	7.531	A
B-A	97	24	462	0.210	97	0.3	0.3	9.861	A
A-B	132	33			132				
A-C	215	54			215				
A-D	26	7			26				
AB-CD	43	11	791	0.054	43	0.1	0.1	4.811	A
AB-C	206	52			206				
D-ABC	11	3	590	0.019	11	0.0	0.0	6.220	A
C-D	0	0			0				
C-A	137	34			137				
C-B	2	0.55			2				
CD-AB	3	0.70	710	0.004	3	0.0	0.0	5.092	A
CD-A	147	37			147				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	6	2	504	0.012	6	0.0	0.0	7.237	A
B-A	79	20	481	0.164	79	0.3	0.2	8.971	A
A-B	108	27			108				
A-C	175	44			175				
A-D	22	5			22				
AB-CD	33	8	772	0.042	33	0.1	0.1	4.875	A
AB-C	170	43			170				
D-ABC	9	2	596	0.015	9	0.0	0.0	6.132	A
C-D	0	0			0				
C-A	111	28			111				
C-B	2	0.45			2				
CD-AB	2	0.54	710	0.003	2	0.0	0.0	5.086	A
CD-A	120	30			120				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	5	1	517	0.010	5	0.0	0.0	7.037	A
B-A	66	17	495	0.134	66	0.2	0.2	8.408	A
A-B	90	23			90				
A-C	147	37			147				
A-D	18	5			18				
AB-CD	26	7	758	0.035	26	0.1	0.0	4.920	A
AB-C	144	36			144				
D-ABC	8	2	601	0.013	8	0.0	0.0	6.070	A
C-D	0	0			0				
C-A	93	23			93				
C-B	2	0.38			2				
CD-AB	2	0.44	711	0.002	2	0.0	0.0	5.076	A
CD-A	101	25			101				

Queue Variation Results for each time segment

00:00 - 00:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.15	0.00	0.00	0.15	0.15			N/A	N/A
AB-CD	0.05	~1	~1	~1	~1			N/A	N/A
D-ABC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

00:15 - 00:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.01	0.25	0.45	0.48			N/A	N/A
B-A	0.19	0.00	0.00	0.19	0.19			N/A	N/A
AB-CD	0.06	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.02	0.25	0.45	0.48			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

00:30 - 00:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
B-A	0.26	0.03	0.26	0.46	0.49			N/A	N/A
AB-CD	0.08	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

00:45 - 01:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
B-A	0.26	0.03	0.30	0.93	1.25			N/A	N/A
AB-CD	0.08	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

01:00 - 01:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.20	0.00	0.00	0.20	0.20			N/A	N/A
AB-CD	0.06	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

01:15 - 01:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.16	0.00	0.00	0.16	0.16			N/A	N/A
AB-CD	0.05	~1	~1	~1	~1			N/A	N/A
D-ABC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

2028 Without Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm A - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way		1.35	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	109	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2028 Without Dev	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	230	100.000
B		ONE HOUR	✓	115	100.000
C		ONE HOUR	✓	251	100.000
D		ONE HOUR	✓	15	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	83	133	14
	B	110	0	5	0
	C	249	2	0	0
	D	15	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	0.01	7.35	0.0	0.5	A	5	7
B-A	0.26	10.48	0.3	1.2	B	101	151
A-B						76	114
A-C						122	183
A-D						13	19
AB-CD	0.03	5.20	0.0	~1	A	16	24
AB-C						124	186
D-ABC	0.03	6.68	0.0	0.5	A	14	21
C-D						0	0
C-A						228	343
C-B						2	3
CD-AB	0.00	4.54	0.0	~1	A	3	4
CD-A						241	362

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	4	0.94	524	0.007	4	0.0	0.0	6.921	A
B-A	83	21	497	0.167	82	0.0	0.2	8.658	A
A-B	62	16			62				
A-C	100	25			100				
A-D	11	3			11				
AB-CD	12	3	705	0.018	12	0.0	0.0	5.195	A
AB-C	102	26			102				
D-ABC	11	3	577	0.020	11	0.0	0.0	6.360	A
C-D	0	0			0				
C-A	187	47			187				
C-B	2	0.38			2				
CD-AB	2	0.50	794	0.003	2	0.0	0.0	4.543	A
CD-A	198	50			198				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	4	1	512	0.009	4	0.0	0.0	7.089	A
B-A	99	25	483	0.205	99	0.2	0.3	9.350	A
A-B	75	19			75				
A-C	120	30			120				
A-D	13	3			13				
AB-CD	15	4	709	0.022	15	0.0	0.0	5.189	A
AB-C	121	30			121				
D-ABC	13	3	568	0.024	13	0.0	0.0	6.489	A
C-D	0	0			0				
C-A	224	56			224				
C-B	2	0.45			2				
CD-AB	3	0.64	810	0.003	3	0.0	0.0	4.456	A
CD-A	237	59			237				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	6	1	495	0.011	5	0.0	0.0	7.347	A
B-A	121	30	465	0.261	121	0.3	0.3	10.457	B
A-B	91	23			91				
A-C	146	37			146				
A-D	15	4			15				
AB-CD	20	5	714	0.027	20	0.0	0.0	5.180	A
AB-C	148	37			148				
D-ABC	17	4	556	0.030	16	0.0	0.0	6.676	A
C-D	0	0			0				
C-A	274	69			274				
C-B	2	0.55			2				
CD-AB	3	0.85	833	0.004	3	0.0	0.0	4.339	A
CD-A	289	72			289				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	6	1	495	0.011	6	0.0	0.0	7.349	A
B-A	121	30	465	0.261	121	0.3	0.3	10.479	B
A-B	91	23			91				
A-C	146	37			146				
A-D	15	4			15				
AB-CD	20	5	714	0.027	20	0.0	0.0	5.181	A
AB-C	148	37			148				
D-ABC	17	4	556	0.030	17	0.0	0.0	6.676	A
C-D	0	0			0				
C-A	274	69			274				
C-B	2	0.55			2				
CD-AB	3	0.85	833	0.004	3	0.0	0.0	4.339	A
CD-A	289	72			289				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	4	1	512	0.009	5	0.0	0.0	7.095	A
B-A	99	25	483	0.205	99	0.3	0.3	9.379	A
A-B	75	19			75				
A-C	120	30			120				
A-D	13	3			13				
AB-CD	15	4	709	0.022	15	0.0	0.0	5.189	A
AB-C	121	30			121				
D-ABC	13	3	568	0.024	14	0.0	0.0	6.492	A
C-D	0	0			0				
C-A	224	56			224				
C-B	2	0.45			2				
CD-AB	3	0.64	810	0.003	3	0.0	0.0	4.456	A
CD-A	237	59			237				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	4	0.94	524	0.007	4	0.0	0.0	6.925	A
B-A	83	21	497	0.167	83	0.3	0.2	8.701	A
A-B	62	16			62				
A-C	100	25			100				
A-D	11	3			11				
AB-CD	12	3	705	0.018	12	0.0	0.0	5.197	A
AB-C	102	26			102				
D-ABC	11	3	577	0.020	11	0.0	0.0	6.362	A
C-D	0	0			0				
C-A	187	47			187				
C-B	2	0.38			2				
CD-AB	2	0.50	794	0.003	2	0.0	0.0	4.543	A
CD-A	198	50			198				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.20	0.00	0.00	0.20	0.20			N/A	N/A
AB-CD	0.02	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.01	0.25	0.45	0.48			N/A	N/A
B-A	0.25	0.00	0.00	0.25	0.25			N/A	N/A
AB-CD	0.03	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.02	0.25	0.45	0.48			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.35	0.03	0.26	0.46	0.49			N/A	N/A
AB-CD	0.03	~1	~1	~1	~1			N/A	N/A
D-ABC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.35	0.03	0.31	1.20	1.21			N/A	N/A
AB-CD	0.04	~1	~1	~1	~1			N/A	N/A
D-ABC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

09:00 - 09:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.26	0.00	0.00	0.26	0.26			N/A	N/A
AB-CD	0.03	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

09:15 - 09:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.20	0.00	0.00	0.20	0.20			N/A	N/A
AB-CD	0.02	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

2028 Without Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm A - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way		1.32	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	114	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2028 Without Dev	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	365	100.000
B		ONE HOUR	✓	103	100.000
C		ONE HOUR	✓	136	100.000
D		ONE HOUR	✓	11	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	129	210	26
	B	96	0	3	4
	C	134	2	0	0
	D	11	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	0.02	7.67	0.0	0.5	A	6	10
B-A	0.23	10.33	0.3	1.4	B	88	132
A-B						118	178
A-C						193	289
A-D						24	36
AB-CD	0.06	4.90	0.1	~1	A	37	56
AB-C						186	279
D-ABC	0.02	6.26	0.0	0.5	A	10	15
C-D						0	0
C-A						123	184
C-B						2	3
CD-AB	0.00	5.09	0.0	~1	A	2	3
CD-A						133	199

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	5	1	511	0.010	5	0.0	0.0	7.115	A
B-A	72	18	489	0.148	72	0.0	0.2	8.601	A
A-B	97	24			97				
A-C	158	40			158				
A-D	20	5			20				
AB-CD	29	7	763	0.037	28	0.0	0.1	4.897	A
AB-C	154	39			154				
D-ABC	8	2	599	0.014	8	0.0	0.0	6.097	A
C-D	0	0			0				
C-A	101	25			101				
C-B	2	0.38			2				
CD-AB	2	0.44	711	0.003	2	0.0	0.0	5.076	A
CD-A	109	27			109				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	6	2	497	0.013	6	0.0	0.0	7.336	A
B-A	86	22	475	0.182	86	0.2	0.2	9.261	A
A-B	116	29			116				
A-C	189	47			189				
A-D	23	6			23				
AB-CD	36	9	778	0.046	36	0.1	0.1	4.851	A
AB-C	183	46			183				
D-ABC	10	2	594	0.017	10	0.0	0.0	6.165	A
C-D	0	0			0				
C-A	120	30			120				
C-B	2	0.45			2				
CD-AB	2	0.55	710	0.003	2	0.0	0.0	5.082	A
CD-A	130	32			130				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	8	2	477	0.016	8	0.0	0.0	7.672	A
B-A	106	26	454	0.233	105	0.2	0.3	10.313	B
A-B	142	36			142				
A-C	231	58			231				
A-D	29	7			29				
AB-CD	47	12	799	0.059	47	0.1	0.1	4.786	A
AB-C	221	55			221				
D-ABC	12	3	587	0.021	12	0.0	0.0	6.261	A
C-D	0	0			0				
C-A	148	37			148				
C-B	2	0.55			2				
CD-AB	3	0.71	710	0.004	3	0.0	0.0	5.087	A
CD-A	159	40			159				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	8	2	477	0.016	8	0.0	0.0	7.674	A
B-A	106	26	454	0.233	106	0.3	0.3	10.331	B
A-B	142	36			142				
A-C	231	58			231				
A-D	29	7			29				
AB-CD	47	12	799	0.059	47	0.1	0.1	4.789	A
AB-C	221	55			221				
D-ABC	12	3	587	0.021	12	0.0	0.0	6.261	A
C-D	0	0			0				
C-A	148	37			148				
C-B	2	0.55			2				
CD-AB	3	0.71	710	0.004	3	0.0	0.0	5.087	A
CD-A	159	40			159				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	6	2	497	0.013	6	0.0	0.0	7.339	A
B-A	86	22	475	0.182	87	0.3	0.2	9.284	A
A-B	116	29			116				
A-C	189	47			189				
A-D	23	6			23				
AB-CD	36	9	778	0.046	36	0.1	0.1	4.851	A
AB-C	183	46			183				
D-ABC	10	2	594	0.017	10	0.0	0.0	6.168	A
C-D	0	0			0				
C-A	120	30			120				
C-B	2	0.45			2				
CD-AB	2	0.55	710	0.003	2	0.0	0.0	5.084	A
CD-A	130	32			130				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	5	1	511	0.010	5	0.0	0.0	7.122	A
B-A	72	18	489	0.148	72	0.2	0.2	8.639	A
A-B	97	24			97				
A-C	158	40			158				
A-D	20	5			20				
AB-CD	29	7	763	0.038	29	0.1	0.1	4.901	A
AB-C	154	39			154				
D-ABC	8	2	599	0.014	8	0.0	0.0	6.099	A
C-D	0	0			0				
C-A	101	25			101				
C-B	2	0.38			2				
CD-AB	2	0.45	711	0.003	2	0.0	0.0	5.076	A
CD-A	109	27			109				

Queue Variation Results for each time segment

00:00 - 00:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.17	0.00	0.00	0.17	0.17			N/A	N/A
AB-CD	0.05	~1	~1	~1	~1			N/A	N/A
D-ABC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

00:15 - 00:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.01	0.25	0.45	0.48			N/A	N/A
B-A	0.22	0.00	0.00	0.22	0.22			N/A	N/A
AB-CD	0.07	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.02	0.25	0.45	0.48			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

00:30 - 00:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
B-A	0.30	0.03	0.26	0.46	0.49			N/A	N/A
AB-CD	0.09	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

00:45 - 01:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
B-A	0.30	0.03	0.31	1.07	1.39			N/A	N/A
AB-CD	0.09	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

01:00 - 01:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.22	0.00	0.00	0.22	0.22			N/A	N/A
AB-CD	0.07	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

01:15 - 01:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.18	0.00	0.00	0.18	0.18			N/A	N/A
AB-CD	0.05	~1	~1	~1	~1			N/A	N/A
D-ABC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

2033 Without Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm A - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way		1.43	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	92	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2033 Without Dev	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	251	100.000
B		ONE HOUR	✓	126	100.000
C		ONE HOUR	✓	273	100.000
D		ONE HOUR	✓	16	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	91	145	15
	B	120	0	6	0
	C	271	2	0	0
	D	16	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	0.01	7.50	0.0	0.5	A	6	8
B-A	0.29	11.13	0.4	1.7	B	110	165
A-B						84	125
A-C						133	200
A-D						14	21
AB-CD	0.03	5.19	0.0	~1	A	17	26
AB-C						135	203
D-ABC	0.03	6.76	0.0	0.5	A	15	22
C-D						0	0
C-A						249	373
C-B						2	3
CD-AB	0.00	4.50	0.0	~1	A	3	4
CD-A						262	394

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	5	1	519	0.009	4	0.0	0.0	6.996	A
B-A	90	23	491	0.184	89	0.0	0.2	8.953	A
A-B	69	17			69				
A-C	109	27			109				
A-D	11	3			11				
AB-CD	13	3	707	0.019	13	0.0	0.0	5.187	A
AB-C	111	28			111				
D-ABC	12	3	573	0.021	12	0.0	0.0	6.414	A
C-D	0	0			0				
C-A	204	51			204				
C-B	2	0.38			2				
CD-AB	2	0.52	801	0.003	2	0.0	0.0	4.504	A
CD-A	215	54			215				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	5	1	506	0.011	5	0.0	0.0	7.189	A
B-A	108	27	476	0.227	108	0.2	0.3	9.768	A
A-B	82	20			82				
A-C	130	33			130				
A-D	13	3			13				
AB-CD	17	4	712	0.023	17	0.0	0.0	5.180	A
AB-C	133	33			133				
D-ABC	14	4	563	0.026	14	0.0	0.0	6.557	A
C-D	0	0			0				
C-A	244	61			244				
C-B	2	0.45			2				
CD-AB	3	0.66	819	0.003	3	0.0	0.0	4.410	A
CD-A	257	64			257				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	7	2	487	0.014	7	0.0	0.0	7.494	A
B-A	132	33	455	0.290	132	0.3	0.4	11.103	B
A-B	100	25			100				
A-C	160	40			160				
A-D	17	4			17				
AB-CD	22	5	718	0.030	21	0.0	0.0	5.169	A
AB-C	161	40			161				
D-ABC	18	4	550	0.032	18	0.0	0.0	6.765	A
C-D	0	0			0				
C-A	298	75			298				
C-B	2	0.55			2				
CD-AB	4	0.88	844	0.004	4	0.0	0.0	4.284	A
CD-A	315	79			315				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	7	2	487	0.014	7	0.0	0.0	7.497	A
B-A	132	33	455	0.290	132	0.4	0.4	11.133	B
A-B	100	25			100				
A-C	160	40			160				
A-D	17	4			17				
AB-CD	22	5	718	0.030	22	0.0	0.0	5.171	A
AB-C	161	40			161				
D-ABC	18	4	550	0.032	18	0.0	0.0	6.765	A
C-D	0	0			0				
C-A	298	75			298				
C-B	2	0.55			2				
CD-AB	4	0.88	844	0.004	4	0.0	0.0	4.284	A
CD-A	315	79			315				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	5	1	506	0.011	5	0.0	0.0	7.193	A
B-A	108	27	476	0.227	108	0.4	0.3	9.807	A
A-B	82	20			82				
A-C	130	33			130				
A-D	13	3			13				
AB-CD	17	4	712	0.023	17	0.0	0.0	5.183	A
AB-C	133	33			133				
D-ABC	14	4	563	0.026	14	0.0	0.0	6.560	A
C-D	0	0			0				
C-A	244	61			244				
C-B	2	0.45			2				
CD-AB	3	0.66	819	0.003	3	0.0	0.0	4.410	A
CD-A	257	64			257				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	5	1	519	0.009	5	0.0	0.0	7.001	A
B-A	90	23	491	0.184	91	0.3	0.2	9.006	A
A-B	69	17			69				
A-C	109	27			109				
A-D	11	3			11				
AB-CD	13	3	707	0.019	13	0.0	0.0	5.190	A
AB-C	112	28			112				
D-ABC	12	3	573	0.021	12	0.0	0.0	6.415	A
C-D	0	0			0				
C-A	204	51			204				
C-B	2	0.38			2				
CD-AB	2	0.52	801	0.003	2	0.0	0.0	4.504	A
CD-A	216	54			216				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.22	0.00	0.00	0.22	0.22			N/A	N/A
AB-CD	0.02	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.01	0.25	0.45	0.48			N/A	N/A
B-A	0.29	0.00	0.00	0.29	0.29			N/A	N/A
AB-CD	0.03	~1	~1	~1	~1			N/A	N/A
D-ABC	0.03	0.03	0.25	0.45	0.48			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.40	0.03	0.26	0.46	0.49			N/A	N/A
AB-CD	0.04	~1	~1	~1	~1			N/A	N/A
D-ABC	0.03	0.03	0.25	0.45	0.48			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.41	0.03	0.31	1.29	1.68			N/A	N/A
AB-CD	0.04	~1	~1	~1	~1			N/A	N/A
D-ABC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

09:00 - 09:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.30	0.00	0.00	0.30	0.30			N/A	N/A
AB-CD	0.03	~1	~1	~1	~1			N/A	N/A
D-ABC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

09:15 - 09:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.23	0.00	0.00	0.23	0.23			N/A	N/A
AB-CD	0.02	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

2033 Without Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm A - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way		1.39	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	97	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2033 Without Dev	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	398	100.000
B		ONE HOUR	✓	113	100.000
C		ONE HOUR	✓	148	100.000
D		ONE HOUR	✓	12	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	141	229	28
	B	104	0	4	5
	C	146	2	0	0
	D	12	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	0.02	7.86	0.0	0.5	A	8	12
B-A	0.26	10.93	0.3	1.1	B	95	143
A-B						129	194
A-C						210	315
A-D						26	39
AB-CD	0.07	4.88	0.1	~1	A	42	63
AB-C						202	303
D-ABC	0.02	6.31	0.0	0.5	A	11	17
C-D						0	0
C-A						134	201
C-B						2	3
CD-AB	0.00	5.09	0.0	~1	A	2	3
CD-A						144	217

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	7	2	506	0.013	7	0.0	0.0	7.211	A
B-A	78	20	482	0.162	78	0.0	0.2	8.880	A
A-B	106	27			106				
A-C	172	43			172				
A-D	21	5			21				
AB-CD	32	8	771	0.042	32	0.0	0.1	4.873	A
AB-C	168	42			168				
D-ABC	9	2	596	0.015	9	0.0	0.0	6.128	A
C-D	0	0			0				
C-A	110	27			110				
C-B	2	0.38			2				
CD-AB	2	0.45	711	0.003	2	0.0	0.0	5.079	A
CD-A	119	30			119				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	8	2	490	0.017	8	0.0	0.0	7.465	A
B-A	93	23	466	0.201	93	0.2	0.2	9.651	A
A-B	127	32			127				
A-C	206	51			206				
A-D	25	6			25				
AB-CD	40	10	787	0.051	40	0.1	0.1	4.822	A
AB-C	199	50			199				
D-ABC	11	3	591	0.018	11	0.0	0.0	6.203	A
C-D	0	0			0				
C-A	131	33			131				
C-B	2	0.45			2				
CD-AB	2	0.56	710	0.003	2	0.0	0.0	5.084	A
CD-A	142	35			142				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	10	2	468	0.021	10	0.0	0.0	7.860	A
B-A	115	29	444	0.258	114	0.2	0.3	10.905	B
A-B	155	39			155				
A-C	252	63			252				
A-D	31	8			31				
AB-CD	53	13	810	0.066	53	0.1	0.1	4.759	A
AB-C	240	60			240				
D-ABC	13	3	584	0.023	13	0.0	0.0	6.309	A
C-D	0	0			0				
C-A	161	40			161				
C-B	2	0.55			2				
CD-AB	3	0.73	711	0.004	3	0.0	0.0	5.086	A
CD-A	173	43			173				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	10	2	468	0.021	10	0.0	0.0	7.862	A
B-A	115	29	444	0.258	114	0.3	0.3	10.934	B
A-B	155	39			155				
A-C	252	63			252				
A-D	31	8			31				
AB-CD	53	13	810	0.066	53	0.1	0.1	4.761	A
AB-C	240	60			240				
D-ABC	13	3	584	0.023	13	0.0	0.0	6.309	A
C-D	0	0			0				
C-A	161	40			161				
C-B	2	0.55			2				
CD-AB	3	0.73	711	0.004	3	0.0	0.0	5.086	A
CD-A	173	43			173				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	8	2	490	0.017	8	0.0	0.0	7.472	A
B-A	93	23	466	0.201	94	0.3	0.3	9.682	A
A-B	127	32			127				
A-C	206	51			206				
A-D	25	6			25				
AB-CD	41	10	787	0.052	41	0.1	0.1	4.825	A
AB-C	199	50			199				
D-ABC	11	3	591	0.018	11	0.0	0.0	6.205	A
C-D	0	0			0				
C-A	131	33			131				
C-B	2	0.45			2				
CD-AB	2	0.56	710	0.003	2	0.0	0.0	5.085	A
CD-A	142	35			142				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	7	2	506	0.013	7	0.0	0.0	7.219	A
B-A	78	20	482	0.162	79	0.3	0.2	8.924	A
A-B	106	27			106				
A-C	172	43			172				
A-D	21	5			21				
AB-CD	32	8	771	0.042	32	0.1	0.1	4.879	A
AB-C	168	42			168				
D-ABC	9	2	596	0.015	9	0.0	0.0	6.130	A
C-D	0	0			0				
C-A	110	27			110				
C-B	2	0.38			2				
CD-AB	2	0.45	711	0.003	2	0.0	0.0	5.078	A
CD-A	119	30			119				

Queue Variation Results for each time segment

00:00 - 00:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.19	0.00	0.00	0.19	0.19			N/A	N/A
AB-CD	0.06	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

00:15 - 00:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.02	0.02	0.25	0.45	0.48			N/A	N/A
B-A	0.25	0.00	0.00	0.25	0.25			N/A	N/A
AB-CD	0.08	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.02	0.25	0.45	0.48			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

00:30 - 00:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
B-A	0.34	0.03	0.26	0.46	0.49			N/A	N/A
AB-CD	0.11	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

00:45 - 01:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
B-A	0.35	0.03	0.31	1.15	1.15			N/A	N/A
AB-CD	0.11	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

01:00 - 01:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
B-A	0.25	0.00	0.00	0.25	0.25			N/A	N/A
AB-CD	0.08	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

01:15 - 01:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.20	0.00	0.00	0.20	0.20			N/A	N/A
AB-CD	0.06	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

2043 Without Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm A - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way		1.55	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	71	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2043 Without Dev	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	282	100.000
B		ONE HOUR	✓	140	100.000
C		ONE HOUR	✓	305	100.000
D		ONE HOUR	✓	18	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	102	163	17
	B	134	0	6	0
	C	302	3	0	0
	D	18	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	0.01	7.73	0.0	0.5	A	6	8
B-A	0.33	12.22	0.5	2.2	B	123	184
A-B						94	140
A-C						150	224
A-D						16	23
AB-CD	0.03	5.18	0.0	~1	A	20	30
AB-C						151	226
D-ABC	0.04	6.91	0.0	0.5	A	17	25
C-D						0	0
C-A						277	416
C-B						3	4
CD-AB	0.01	4.46	0.0	~1	A	4	6
CD-A						292	438

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	5	1	511	0.009	4	0.0	0.0	7.110	A
B-A	101	25	482	0.210	100	0.0	0.3	9.406	A
A-B	77	19			77				
A-C	123	31			123				
A-D	13	3			13				
AB-CD	16	4	710	0.022	15	0.0	0.0	5.184	A
AB-C	124	31			124				
D-ABC	14	3	567	0.024	13	0.0	0.0	6.501	A
C-D	0	0			0				
C-A	227	57			227				
C-B	2	0.56			2				
CD-AB	3	0.80	811	0.004	3	0.0	0.0	4.455	A
CD-A	240	60			240				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	5	1	496	0.011	5	0.0	0.0	7.343	A
B-A	120	30	465	0.259	120	0.3	0.3	10.430	B
A-B	92	23			92				
A-C	147	37			147				
A-D	15	4			15				
AB-CD	19	5	715	0.027	19	0.0	0.0	5.175	A
AB-C	148	37			148				
D-ABC	16	4	556	0.029	16	0.0	0.0	6.665	A
C-D	0	0			0				
C-A	271	68			271				
C-B	3	0.67			3				
CD-AB	4	1	831	0.005	4	0.0	0.0	4.353	A
CD-A	286	72			286				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	7	2	473	0.014	7	0.0	0.0	7.726	A
B-A	148	37	442	0.334	147	0.3	0.5	12.178	B
A-B	112	28			112				
A-C	179	45			179				
A-D	19	5			19				
AB-CD	25	6	722	0.035	25	0.0	0.0	5.163	A
AB-C	180	45			180				
D-ABC	20	5	541	0.037	20	0.0	0.0	6.906	A
C-D	0	0			0				
C-A	333	83			333				
C-B	3	0.83			3				
CD-AB	6	1	859	0.007	6	0.0	0.0	4.216	A
CD-A	350	87			350				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	7	2	472	0.014	7	0.0	0.0	7.731	A
B-A	148	37	442	0.334	148	0.5	0.5	12.224	B
A-B	112	28			112				
A-C	179	45			179				
A-D	19	5			19				
AB-CD	25	6	722	0.035	25	0.0	0.0	5.166	A
AB-C	180	45			180				
D-ABC	20	5	541	0.037	20	0.0	0.0	6.906	A
C-D	0	0			0				
C-A	333	83			333				
C-B	3	0.83			3				
CD-AB	6	1	859	0.007	6	0.0	0.0	4.218	A
CD-A	350	88			350				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	5	1	495	0.011	5	0.0	0.0	7.348	A
B-A	120	30	465	0.259	121	0.5	0.4	10.487	B
A-B	92	23			92				
A-C	147	37			147				
A-D	15	4			15				
AB-CD	19	5	715	0.027	19	0.0	0.0	5.176	A
AB-C	148	37			148				
D-ABC	16	4	556	0.029	16	0.0	0.0	6.668	A
C-D	0	0			0				
C-A	271	68			271				
C-B	3	0.67			3				
CD-AB	4	1	831	0.005	4	0.0	0.0	4.353	A
CD-A	286	72			286				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	5	1	510	0.009	5	0.0	0.0	7.119	A
B-A	101	25	482	0.210	101	0.4	0.3	9.474	A
A-B	77	19			77				
A-C	123	31			123				
A-D	13	3			13				
AB-CD	16	4	710	0.022	16	0.0	0.0	5.184	A
AB-C	124	31			124				
D-ABC	14	3	567	0.024	14	0.0	0.0	6.501	A
C-D	0	0			0				
C-A	227	57			227				
C-B	2	0.56			2				
CD-AB	3	0.80	811	0.004	3	0.0	0.0	4.455	A
CD-A	240	60			240				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.26	0.00	0.00	0.26	0.26			N/A	N/A
AB-CD	0.03	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.01	0.25	0.45	0.48			N/A	N/A
B-A	0.34	0.00	0.00	0.34	0.34			N/A	N/A
AB-CD	0.03	~1	~1	~1	~1			N/A	N/A
D-ABC	0.03	0.03	0.25	0.45	0.48			N/A	N/A
CD-AB	0.01	~1	~1	~1	~1			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.49	0.03	0.26	0.49	0.49			N/A	N/A
AB-CD	0.05	~1	~1	~1	~1			N/A	N/A
D-ABC	0.04	0.03	0.25	0.45	0.48			N/A	N/A
CD-AB	0.01	~1	~1	~1	~1			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.50	0.03	0.30	1.35	2.24			N/A	N/A
AB-CD	0.05	~1	~1	~1	~1			N/A	N/A
D-ABC	0.04	0.00	0.00	0.04	0.04			N/A	N/A
CD-AB	0.01	~1	~1	~1	~1			N/A	N/A

09:00 - 09:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.36	0.00	0.00	0.36	0.36			N/A	N/A
AB-CD	0.04	~1	~1	~1	~1			N/A	N/A
D-ABC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
CD-AB	0.01	~1	~1	~1	~1			N/A	N/A

09:15 - 09:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.27	0.00	0.00	0.27	0.27			N/A	N/A
AB-CD	0.03	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

2043 Without Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm A - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way		1.49	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	76	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2043 Without Dev	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	444	100.000
B		ONE HOUR	✓	126	100.000
C		ONE HOUR	✓	166	100.000
D		ONE HOUR	✓	13	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	158	255	31
	B	117	0	4	5
	C	163	3	0	0
	D	13	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	0.02	8.15	0.0	0.5	A	8	12
B-A	0.30	11.96	0.4	1.8	B	107	161
A-B						145	217
A-C						234	351
A-D						28	43
AB-CD	0.07	4.85	0.1	~1	A	48	71
AB-C						223	335
D-ABC	0.02	6.38	0.0	0.5	A	12	18
C-D						0	0
C-A						150	224
C-B						3	4
CD-AB	0.01	5.09	0.0	~1	A	4	5
CD-A						161	241

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	7	2	496	0.014	7	0.0	0.0	7.359	A
B-A	88	22	473	0.186	87	0.0	0.2	9.315	A
A-B	119	30			119				
A-C	192	48			192				
A-D	23	6			23				
AB-CD	36	9	780	0.046	36	0.0	0.1	4.839	A
AB-C	186	46			186				
D-ABC	10	2	593	0.017	10	0.0	0.0	6.171	A
C-D	0	0			0				
C-A	123	31			123				
C-B	2	0.56			2				
CD-AB	3	0.69	710	0.004	3	0.0	0.0	5.088	A
CD-A	132	33			132				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	8	2	478	0.017	8	0.0	0.0	7.660	A
B-A	105	26	455	0.231	105	0.2	0.3	10.281	B
A-B	142	36			142				
A-C	229	57			229				
A-D	28	7			28				
AB-CD	46	11	798	0.057	46	0.1	0.1	4.787	A
AB-C	219	55			219				
D-ABC	12	3	587	0.020	12	0.0	0.0	6.255	A
C-D	0	0			0				
C-A	147	37			147				
C-B	3	0.67			3				
CD-AB	3	0.87	710	0.005	3	0.0	0.0	5.093	A
CD-A	157	39			157				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	10	2	452	0.022	10	0.0	0.0	8.143	A
B-A	129	32	430	0.300	128	0.3	0.4	11.918	B
A-B	174	43			174				
A-C	281	70			281				
A-D	34	9			34				
AB-CD	61	15	824	0.074	61	0.1	0.1	4.718	A
AB-C	264	66			264				
D-ABC	14	4	579	0.025	14	0.0	0.0	6.376	A
C-D	0	0			0				
C-A	179	45			179				
C-B	3	0.83			3				
CD-AB	5	1	711	0.006	5	0.0	0.0	5.095	A
CD-A	193	48			193				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	10	2	452	0.022	10	0.0	0.0	8.147	A
B-A	129	32	430	0.300	129	0.4	0.4	11.956	B
A-B	174	43			174				
A-C	281	70			281				
A-D	34	9			34				
AB-CD	61	15	824	0.074	61	0.1	0.1	4.720	A
AB-C	264	66			264				
D-ABC	14	4	579	0.025	14	0.0	0.0	6.376	A
C-D	0	0			0				
C-A	179	45			179				
C-B	3	0.83			3				
CD-AB	5	1	711	0.006	5	0.0	0.0	5.095	A
CD-A	193	48			193				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	8	2	478	0.017	8	0.0	0.0	7.665	A
B-A	105	26	455	0.231	106	0.4	0.3	10.327	B
A-B	142	36			142				
A-C	229	57			229				
A-D	28	7			28				
AB-CD	46	11	798	0.057	46	0.1	0.1	4.790	A
AB-C	219	55			219				
D-ABC	12	3	587	0.020	12	0.0	0.0	6.256	A
C-D	0	0			0				
C-A	147	37			147				
C-B	3	0.67			3				
CD-AB	3	0.87	710	0.005	3	0.0	0.0	5.095	A
CD-A	157	39			157				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	7	2	495	0.014	7	0.0	0.0	7.368	A
B-A	88	22	473	0.186	88	0.3	0.2	9.371	A
A-B	119	30			119				
A-C	192	48			192				
A-D	23	6			23				
AB-CD	36	9	780	0.046	36	0.1	0.1	4.845	A
AB-C	186	46			186				
D-ABC	10	2	593	0.017	10	0.0	0.0	6.171	A
C-D	0	0			0				
C-A	123	31			123				
C-B	2	0.56			2				
CD-AB	3	0.70	710	0.004	3	0.0	0.0	5.090	A
CD-A	132	33			132				

Queue Variation Results for each time segment

00:00 - 00:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.23	0.00	0.00	0.23	0.23			N/A	N/A
AB-CD	0.07	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

00:15 - 00:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.02	0.02	0.25	0.45	0.48			N/A	N/A
B-A	0.30	0.00	0.00	0.30	0.30			N/A	N/A
AB-CD	0.09	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.02	0.25	0.45	0.48			N/A	N/A
CD-AB	0.01	~1	~1	~1	~1			N/A	N/A

00:30 - 00:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
B-A	0.42	0.03	0.26	0.46	0.49			N/A	N/A
AB-CD	0.13	~1	~1	~1	~1			N/A	N/A
D-ABC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
CD-AB	0.01	~1	~1	~1	~1			N/A	N/A

00:45 - 01:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
B-A	0.42	0.03	0.31	1.31	1.78			N/A	N/A
AB-CD	0.13	~1	~1	~1	~1			N/A	N/A
D-ABC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
CD-AB	0.01	~1	~1	~1	~1			N/A	N/A

01:00 - 01:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
B-A	0.31	0.00	0.00	0.31	0.31			N/A	N/A
AB-CD	0.09	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.01	~1	~1	~1	~1			N/A	N/A

01:15 - 01:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.23	0.00	0.00	0.23	0.23			N/A	N/A
AB-CD	0.07	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

2028 With Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm A - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way		1.39	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	108	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2028 With Dev	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	233	100.000
B		ONE HOUR	✓	115	100.000
C		ONE HOUR	✓	251	100.000
D		ONE HOUR	✓	20	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	83	133	17
	B	110	0	5	0
	C	249	2	0	0
	D	20	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	0.01	7.36	0.0	0.5	A	5	7
B-A	0.26	10.54	0.4	1.2	B	101	151
A-B						76	114
A-C						122	183
A-D						16	23
AB-CD	0.03	5.22	0.0	~1	A	19	29
AB-C						123	185
D-ABC	0.04	6.74	0.0	0.5	A	18	28
C-D						0	0
C-A						228	343
C-B						2	3
CD-AB	0.00	4.53	0.0	~1	A	3	4
CD-A						246	369

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	4	0.94	523	0.007	4	0.0	0.0	6.928	A
B-A	83	21	496	0.167	82	0.0	0.2	8.684	A
A-B	62	16			62				
A-C	100	25			100				
A-D	13	3			13				
AB-CD	15	4	705	0.021	15	0.0	0.0	5.215	A
AB-C	102	25			102				
D-ABC	15	4	577	0.026	15	0.0	0.0	6.402	A
C-D	0	0			0				
C-A	187	47			187				
C-B	2	0.38			2				
CD-AB	2	0.50	796	0.003	2	0.0	0.0	4.533	A
CD-A	202	50			202				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	4	1	512	0.009	4	0.0	0.0	7.098	A
B-A	99	25	482	0.205	99	0.2	0.3	9.386	A
A-B	75	19			75				
A-C	120	30			120				
A-D	15	4			15				
AB-CD	19	5	709	0.026	19	0.0	0.0	5.213	A
AB-C	121	30			121				
D-ABC	18	4	568	0.032	18	0.0	0.0	6.542	A
C-D	0	0			0				
C-A	224	56			224				
C-B	2	0.45			2				
CD-AB	3	0.64	812	0.003	3	0.0	0.0	4.444	A
CD-A	241	60			241				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	6	1	495	0.011	5	0.0	0.0	7.360	A
B-A	121	30	463	0.262	121	0.3	0.3	10.512	B
A-B	91	23			91				
A-C	146	37			146				
A-D	19	5			19				
AB-CD	24	6	714	0.033	24	0.0	0.0	5.212	A
AB-C	147	37			147				
D-ABC	22	6	556	0.040	22	0.0	0.0	6.745	A
C-D	0	0			0				
C-A	274	69			274				
C-B	2	0.55			2				
CD-AB	3	0.85	836	0.004	3	0.0	0.0	4.325	A
CD-A	295	74			295				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	6	1	494	0.011	6	0.0	0.0	7.362	A
B-A	121	30	463	0.262	121	0.3	0.4	10.535	B
A-B	91	23			91				
A-C	146	37			146				
A-D	19	5			19				
AB-CD	24	6	714	0.033	24	0.0	0.0	5.214	A
AB-C	147	37			147				
D-ABC	22	6	556	0.040	22	0.0	0.0	6.745	A
C-D	0	0			0				
C-A	274	69			274				
C-B	2	0.55			2				
CD-AB	3	0.85	836	0.004	3	0.0	0.0	4.325	A
CD-A	295	74			295				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	4	1	511	0.009	5	0.0	0.0	7.104	A
B-A	99	25	482	0.205	99	0.4	0.3	9.417	A
A-B	75	19			75				
A-C	120	30			120				
A-D	15	4			15				
AB-CD	19	5	709	0.026	19	0.0	0.0	5.216	A
AB-C	121	30			121				
D-ABC	18	4	568	0.032	18	0.0	0.0	6.545	A
C-D	0	0			0				
C-A	224	56			224				
C-B	2	0.45			2				
CD-AB	3	0.64	812	0.003	3	0.0	0.0	4.444	A
CD-A	241	60			241				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	4	0.94	523	0.007	4	0.0	0.0	6.935	A
B-A	83	21	496	0.167	83	0.3	0.2	8.729	A
A-B	62	16			62				
A-C	100	25			100				
A-D	13	3			13				
AB-CD	15	4	705	0.021	15	0.0	0.0	5.215	A
AB-C	102	25			102				
D-ABC	15	4	577	0.026	15	0.0	0.0	6.405	A
C-D	0	0			0				
C-A	187	47			187				
C-B	2	0.38			2				
CD-AB	2	0.51	796	0.003	2	0.0	0.0	4.533	A
CD-A	202	51			202				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.20	0.00	0.00	0.20	0.20			N/A	N/A
AB-CD	0.03	~1	~1	~1	~1			N/A	N/A
D-ABC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.01	0.25	0.45	0.48			N/A	N/A
B-A	0.25	0.00	0.00	0.25	0.25			N/A	N/A
AB-CD	0.03	~1	~1	~1	~1			N/A	N/A
D-ABC	0.03	0.03	0.25	0.45	0.48			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.35	0.03	0.26	0.46	0.49			N/A	N/A
AB-CD	0.04	~1	~1	~1	~1			N/A	N/A
D-ABC	0.04	0.03	0.25	0.46	0.48			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.35	0.03	0.31	1.20	1.23			N/A	N/A
AB-CD	0.04	~1	~1	~1	~1			N/A	N/A
D-ABC	0.04	0.00	0.00	0.04	0.04			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

09:00 - 09:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.26	0.00	0.00	0.26	0.26			N/A	N/A
AB-CD	0.03	~1	~1	~1	~1			N/A	N/A
D-ABC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

09:15 - 09:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.20	0.00	0.00	0.20	0.20			N/A	N/A
AB-CD	0.03	~1	~1	~1	~1			N/A	N/A
D-ABC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

2028 With Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm A - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way		1.36	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	113	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2028 With Dev	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	369	100.000
B		ONE HOUR	✓	104	100.000
C		ONE HOUR	✓	136	100.000
D		ONE HOUR	✓	14	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	129	210	30
	B	96	0	3	5
	C	134	2	0	0
	D	14	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	0.02	7.70	0.0	0.5	A	7	11
B-A	0.23	10.39	0.3	1.4	B	88	132
A-B						118	178
A-C						193	289
A-D						28	41
AB-CD	0.07	4.94	0.1	~1	A	43	65
AB-C						184	276
D-ABC	0.03	6.30	0.0	0.5	A	13	19
C-D						0	0
C-A						123	184
C-B						2	3
CD-AB	0.00	5.08	0.0	~1	A	2	3
CD-A						135	203

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	6	2	511	0.012	6	0.0	0.0	7.124	A
B-A	72	18	488	0.148	72	0.0	0.2	8.634	A
A-B	97	24			97				
A-C	158	40			158				
A-D	23	6			23				
AB-CD	33	8	763	0.044	33	0.0	0.1	4.929	A
AB-C	153	38			153				
D-ABC	11	3	599	0.018	10	0.0	0.0	6.120	A
C-D	0	0			0				
C-A	101	25			101				
C-B	2	0.38			2				
CD-AB	2	0.45	711	0.003	2	0.0	0.0	5.072	A
CD-A	111	28			111				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	7	2	497	0.014	7	0.0	0.0	7.350	A
B-A	86	22	473	0.183	86	0.2	0.2	9.304	A
A-B	116	29			116				
A-C	189	47			189				
A-D	27	7			27				
AB-CD	42	10	778	0.054	42	0.1	0.1	4.891	A
AB-C	181	45			181				
D-ABC	13	3	594	0.021	13	0.0	0.0	6.193	A
C-D	0	0			0				
C-A	120	30			120				
C-B	2	0.45			2				
CD-AB	2	0.55	711	0.003	2	0.0	0.0	5.076	A
CD-A	133	33			133				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	9	2	477	0.018	9	0.0	0.0	7.696	A
B-A	106	26	452	0.234	105	0.2	0.3	10.375	B
A-B	142	36			142				
A-C	231	58			231				
A-D	33	8			33				
AB-CD	55	14	799	0.068	55	0.1	0.1	4.838	A
AB-C	218	55			218				
D-ABC	15	4	587	0.026	15	0.0	0.0	6.298	A
C-D	0	0			0				
C-A	148	37			148				
C-B	2	0.55			2				
CD-AB	3	0.71	711	0.004	3	0.0	0.0	5.079	A
CD-A	162	41			162				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	9	2	476	0.018	9	0.0	0.0	7.698	A
B-A	106	26	452	0.234	106	0.3	0.3	10.393	B
A-B	142	36			142				
A-C	231	58			231				
A-D	33	8			33				
AB-CD	55	14	799	0.068	55	0.1	0.1	4.840	A
AB-C	218	55			218				
D-ABC	15	4	587	0.026	15	0.0	0.0	6.298	A
C-D	0	0			0				
C-A	148	37			148				
C-B	2	0.55			2				
CD-AB	3	0.72	711	0.004	3	0.0	0.0	5.081	A
CD-A	162	41			162				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	7	2	497	0.014	7	0.0	0.0	7.356	A
B-A	86	22	473	0.183	87	0.3	0.2	9.328	A
A-B	116	29			116				
A-C	189	47			189				
A-D	27	7			27				
AB-CD	42	10	778	0.054	42	0.1	0.1	4.893	A
AB-C	181	45			181				
D-ABC	13	3	594	0.021	13	0.0	0.0	6.194	A
C-D	0	0			0				
C-A	120	30			120				
C-B	2	0.45			2				
CD-AB	2	0.55	711	0.003	2	0.0	0.0	5.078	A
CD-A	133	33			133				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	6	2	511	0.012	6	0.0	0.0	7.128	A
B-A	72	18	488	0.148	72	0.2	0.2	8.671	A
A-B	97	24			97				
A-C	158	40			158				
A-D	23	6			23				
AB-CD	33	8	763	0.044	34	0.1	0.1	4.936	A
AB-C	153	38			153				
D-ABC	11	3	599	0.018	11	0.0	0.0	6.123	A
C-D	0	0			0				
C-A	101	25			101				
C-B	2	0.38			2				
CD-AB	2	0.45	712	0.003	2	0.0	0.0	5.071	A
CD-A	111	28			111				

Queue Variation Results for each time segment

00:00 - 00:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.17	0.00	0.00	0.17	0.17			N/A	N/A
AB-CD	0.06	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

00:15 - 00:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.01	0.25	0.45	0.48			N/A	N/A
B-A	0.22	0.00	0.00	0.22	0.22			N/A	N/A
AB-CD	0.08	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.02	0.25	0.45	0.48			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

00:30 - 00:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
B-A	0.30	0.03	0.26	0.46	0.49			N/A	N/A
AB-CD	0.11	~1	~1	~1	~1			N/A	N/A
D-ABC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

00:45 - 01:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
B-A	0.30	0.03	0.31	1.08	1.39			N/A	N/A
AB-CD	0.11	~1	~1	~1	~1			N/A	N/A
D-ABC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

01:00 - 01:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.23	0.00	0.00	0.23	0.23			N/A	N/A
AB-CD	0.08	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

01:15 - 01:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.18	0.00	0.00	0.18	0.18			N/A	N/A
AB-CD	0.06	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

2033 With Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm A - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way		1.46	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	91	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2033 With Dev	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	254	100.000
B		ONE HOUR	✓	126	100.000
C		ONE HOUR	✓	273	100.000
D		ONE HOUR	✓	21	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	91	145	18
	B	120	0	6	0
	C	271	2	0	0
	D	21	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	0.01	7.51	0.0	0.5	A	6	8
B-A	0.29	11.20	0.4	1.7	B	110	165
A-B						84	125
A-C						133	200
A-D						17	25
AB-CD	0.04	5.21	0.0	~1	A	21	31
AB-C						134	202
D-ABC	0.04	6.84	0.0	0.5	A	19	29
C-D						0	0
C-A						249	373
C-B						2	3
CD-AB	0.00	4.49	0.0	~1	A	3	4
CD-A						267	401

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	5	1	518	0.009	4	0.0	0.0	7.003	A
B-A	90	23	489	0.185	89	0.0	0.2	8.980	A
A-B	69	17			69				
A-C	109	27			109				
A-D	14	3			14				
AB-CD	16	4	707	0.023	16	0.0	0.0	5.208	A
AB-C	111	28			111				
D-ABC	16	4	573	0.028	16	0.0	0.0	6.455	A
C-D	0	0			0				
C-A	204	51			204				
C-B	2	0.38			2				
CD-AB	2	0.52	803	0.003	2	0.0	0.0	4.494	A
CD-A	219	55			219				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	5	1	505	0.011	5	0.0	0.0	7.199	A
B-A	108	27	474	0.227	108	0.2	0.3	9.807	A
A-B	82	20			82				
A-C	130	33			130				
A-D	16	4			16				
AB-CD	20	5	712	0.028	20	0.0	0.0	5.205	A
AB-C	132	33			132				
D-ABC	19	5	563	0.034	19	0.0	0.0	6.611	A
C-D	0	0			0				
C-A	244	61			244				
C-B	2	0.45			2				
CD-AB	3	0.66	821	0.003	3	0.0	0.0	4.399	A
CD-A	262	65			262				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	7	2	486	0.014	7	0.0	0.0	7.508	A
B-A	132	33	454	0.291	132	0.3	0.4	11.165	B
A-B	100	25			100				
A-C	160	40			160				
A-D	20	5			20				
AB-CD	26	6	718	0.036	26	0.0	0.0	5.201	A
AB-C	160	40			160				
D-ABC	23	6	550	0.042	23	0.0	0.0	6.835	A
C-D	0	0			0				
C-A	298	75			298				
C-B	2	0.55			2				
CD-AB	4	0.89	846	0.004	4	0.0	0.0	4.270	A
CD-A	320	80			320				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	7	2	486	0.014	7	0.0	0.0	7.511	A
B-A	132	33	454	0.291	132	0.4	0.4	11.196	B
A-B	100	25			100				
A-C	160	40			160				
A-D	20	5			20				
AB-CD	26	6	718	0.036	26	0.0	0.0	5.204	A
AB-C	160	40			160				
D-ABC	23	6	550	0.042	23	0.0	0.0	6.835	A
C-D	0	0			0				
C-A	298	75			298				
C-B	2	0.55			2				
CD-AB	4	0.89	847	0.004	4	0.0	0.0	4.270	A
CD-A	320	80			320				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	5	1	505	0.011	5	0.0	0.0	7.203	A
B-A	108	27	474	0.227	108	0.4	0.3	9.845	A
A-B	82	20			82				
A-C	130	33			130				
A-D	16	4			16				
AB-CD	20	5	712	0.028	20	0.0	0.0	5.208	A
AB-C	132	33			132				
D-ABC	19	5	563	0.034	19	0.0	0.0	6.614	A
C-D	0	0			0				
C-A	244	61			244				
C-B	2	0.45			2				
CD-AB	3	0.66	821	0.003	3	0.0	0.0	4.399	A
CD-A	262	65			262				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	5	1	518	0.009	5	0.0	0.0	7.011	A
B-A	90	23	489	0.185	91	0.3	0.2	9.034	A
A-B	69	17			69				
A-C	109	27			109				
A-D	14	3			14				
AB-CD	16	4	707	0.023	16	0.0	0.0	5.210	A
AB-C	111	28			111				
D-ABC	16	4	573	0.028	16	0.0	0.0	6.458	A
C-D	0	0			0				
C-A	204	51			204				
C-B	2	0.38			2				
CD-AB	2	0.52	803	0.003	2	0.0	0.0	4.494	A
CD-A	219	55			219				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.22	0.00	0.00	0.22	0.22			N/A	N/A
AB-CD	0.03	~1	~1	~1	~1			N/A	N/A
D-ABC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.01	0.25	0.45	0.48			N/A	N/A
B-A	0.29	0.00	0.00	0.29	0.29			N/A	N/A
AB-CD	0.04	~1	~1	~1	~1			N/A	N/A
D-ABC	0.03	0.03	0.25	0.45	0.48			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.40	0.03	0.26	0.46	0.49			N/A	N/A
AB-CD	0.05	~1	~1	~1	~1			N/A	N/A
D-ABC	0.04	0.03	0.25	0.46	0.48			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.41	0.03	0.31	1.29	1.69			N/A	N/A
AB-CD	0.05	~1	~1	~1	~1			N/A	N/A
D-ABC	0.04	0.00	0.00	0.04	0.04			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

09:00 - 09:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.30	0.00	0.00	0.30	0.30			N/A	N/A
AB-CD	0.04	~1	~1	~1	~1			N/A	N/A
D-ABC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

09:15 - 09:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.23	0.00	0.00	0.23	0.23			N/A	N/A
AB-CD	0.03	~1	~1	~1	~1			N/A	N/A
D-ABC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

2033 With Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm A - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way		1.42	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	96	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2033 With Dev	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	402	100.000
B		ONE HOUR	✓	113	100.000
C		ONE HOUR	✓	148	100.000
D		ONE HOUR	✓	15	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	141	229	32
	B	104	0	4	5
	C	146	2	0	0
	D	15	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	0.02	7.88	0.0	0.5	A	8	12
B-A	0.26	10.99	0.3	1.2	B	95	143
A-B						129	194
A-C						210	315
A-D						29	44
AB-CD	0.07	4.90	0.1	~1	A	47	71
AB-C						201	301
D-ABC	0.03	6.35	0.0	0.5	A	14	21
C-D						0	0
C-A						134	201
C-B						2	3
CD-AB	0.00	5.08	0.0	~1	A	2	4
CD-A						147	221

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	7	2	505	0.013	7	0.0	0.0	7.221	A
B-A	78	20	481	0.163	78	0.0	0.2	8.906	A
A-B	106	27			106				
A-C	172	43			172				
A-D	24	6			24				
AB-CD	36	9	771	0.047	36	0.0	0.1	4.899	A
AB-C	167	42			167				
D-ABC	11	3	596	0.019	11	0.0	0.0	6.151	A
C-D	0	0			0				
C-A	110	27			110				
C-B	2	0.38			2				
CD-AB	2	0.45	711	0.003	2	0.0	0.0	5.074	A
CD-A	121	30			121				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	8	2	489	0.017	8	0.0	0.0	7.479	A
B-A	93	23	465	0.201	93	0.2	0.2	9.688	A
A-B	127	32			127				
A-C	206	51			206				
A-D	29	7			29				
AB-CD	45	11	787	0.058	45	0.1	0.1	4.854	A
AB-C	197	49			197				
D-ABC	13	3	591	0.023	13	0.0	0.0	6.232	A
C-D	0	0			0				
C-A	131	33			131				
C-B	2	0.45			2				
CD-AB	2	0.56	711	0.003	2	0.0	0.0	5.078	A
CD-A	144	36			144				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	10	2	467	0.021	10	0.0	0.0	7.879	A
B-A	115	29	442	0.259	114	0.2	0.3	10.966	B
A-B	155	39			155				
A-C	252	63			252				
A-D	35	9			35				
AB-CD	60	15	810	0.074	60	0.1	0.1	4.798	A
AB-C	238	59			238				
D-ABC	17	4	584	0.028	16	0.0	0.0	6.346	A
C-D	0	0			0				
C-A	161	40			161				
C-B	2	0.55			2				
CD-AB	3	0.73	712	0.004	3	0.0	0.0	5.078	A
CD-A	177	44			177				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	10	2	467	0.021	10	0.0	0.0	7.881	A
B-A	115	29	442	0.259	114	0.3	0.3	10.992	B
A-B	155	39			155				
A-C	252	63			252				
A-D	35	9			35				
AB-CD	60	15	810	0.074	60	0.1	0.1	4.802	A
AB-C	238	59			238				
D-ABC	17	4	584	0.028	17	0.0	0.0	6.346	A
C-D	0	0			0				
C-A	161	40			161				
C-B	2	0.55			2				
CD-AB	3	0.73	712	0.004	3	0.0	0.0	5.080	A
CD-A	177	44			177				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	8	2	489	0.017	8	0.0	0.0	7.486	A
B-A	93	23	465	0.201	94	0.3	0.3	9.719	A
A-B	127	32			127				
A-C	206	51			206				
A-D	29	7			29				
AB-CD	45	11	787	0.058	46	0.1	0.1	4.859	A
AB-C	197	49			197				
D-ABC	13	3	591	0.023	14	0.0	0.0	6.235	A
C-D	0	0			0				
C-A	131	33			131				
C-B	2	0.45			2				
CD-AB	2	0.57	711	0.003	2	0.0	0.0	5.078	A
CD-A	144	36			144				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	7	2	505	0.013	7	0.0	0.0	7.229	A
B-A	78	20	481	0.163	79	0.3	0.2	8.950	A
A-B	106	27			106				
A-C	172	43			172				
A-D	24	6			24				
AB-CD	36	9	771	0.047	36	0.1	0.1	4.903	A
AB-C	167	42			167				
D-ABC	11	3	596	0.019	11	0.0	0.0	6.154	A
C-D	0	0			0				
C-A	110	27			110				
C-B	2	0.38			2				
CD-AB	2	0.45	711	0.003	2	0.0	0.0	5.076	A
CD-A	121	30			121				

Queue Variation Results for each time segment

00:00 - 00:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.19	0.00	0.00	0.19	0.19			N/A	N/A
AB-CD	0.07	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

00:15 - 00:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.02	0.02	0.25	0.45	0.48			N/A	N/A
B-A	0.25	0.00	0.00	0.25	0.25			N/A	N/A
AB-CD	0.09	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.02	0.25	0.45	0.48			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

00:30 - 00:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
B-A	0.34	0.03	0.26	0.46	0.49			N/A	N/A
AB-CD	0.12	~1	~1	~1	~1			N/A	N/A
D-ABC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

00:45 - 01:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
B-A	0.35	0.03	0.31	1.16	1.16			N/A	N/A
AB-CD	0.12	~1	~1	~1	~1			N/A	N/A
D-ABC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

01:00 - 01:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
B-A	0.26	0.00	0.00	0.26	0.26			N/A	N/A
AB-CD	0.09	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

01:15 - 01:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.20	0.00	0.00	0.20	0.20			N/A	N/A
AB-CD	0.07	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

2043 With Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm A - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way		1.58	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	70	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2043 With Dev	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	285	100.000
B		ONE HOUR	✓	140	100.000
C		ONE HOUR	✓	305	100.000
D		ONE HOUR	✓	23	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	102	163	20
	B	134	0	6	0
	C	302	3	0	0
	D	23	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	0.01	7.75	0.0	0.5	A	6	8
B-A	0.34	12.30	0.5	2.3	B	123	184
A-B						94	140
A-C						150	224
A-D						18	28
AB-CD	0.04	5.21	0.1	~1	A	24	35
AB-C						150	225
D-ABC	0.05	6.98	0.0	0.5	A	21	32
C-D						0	0
C-A						277	416
C-B						3	4
CD-AB	0.01	4.45	0.0	~1	A	4	7
CD-A						297	445

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	5	1	510	0.009	4	0.0	0.0	7.118	A
B-A	101	25	480	0.210	100	0.0	0.3	9.437	A
A-B	77	19			77				
A-C	123	31			123				
A-D	15	4			15				
AB-CD	18	5	710	0.026	18	0.0	0.0	5.204	A
AB-C	124	31			124				
D-ABC	17	4	567	0.031	17	0.0	0.0	6.543	A
C-D	0	0			0				
C-A	227	57			227				
C-B	2	0.56			2				
CD-AB	3	0.81	813	0.004	3	0.0	0.0	4.445	A
CD-A	244	61			244				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	5	1	495	0.011	5	0.0	0.0	7.353	A
B-A	120	30	463	0.260	120	0.3	0.3	10.475	B
A-B	92	23			92				
A-C	147	37			147				
A-D	18	4			18				
AB-CD	23	6	715	0.032	23	0.0	0.0	5.201	A
AB-C	147	37			147				
D-ABC	21	5	556	0.037	21	0.0	0.0	6.721	A
C-D	0	0			0				
C-A	271	68			271				
C-B	3	0.67			3				
CD-AB	4	1	833	0.005	4	0.0	0.0	4.342	A
CD-A	291	73			291				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	7	2	472	0.014	7	0.0	0.0	7.742	A
B-A	148	37	440	0.335	147	0.3	0.5	12.251	B
A-B	112	28			112				
A-C	179	45			179				
A-D	22	6			22				
AB-CD	30	7	722	0.041	30	0.0	0.1	5.197	A
AB-C	178	45			178				
D-ABC	25	6	541	0.047	25	0.0	0.0	6.980	A
C-D	0	0			0				
C-A	333	83			333				
C-B	3	0.83			3				
CD-AB	6	1	862	0.007	6	0.0	0.0	4.202	A
CD-A	355	89			355				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	7	2	471	0.014	7	0.0	0.0	7.747	A
B-A	148	37	440	0.335	148	0.5	0.5	12.299	B
A-B	112	28			112				
A-C	179	45			179				
A-D	22	6			22				
AB-CD	30	7	722	0.041	30	0.1	0.1	5.197	A
AB-C	178	45			178				
D-ABC	25	6	541	0.047	25	0.0	0.0	6.980	A
C-D	0	0			0				
C-A	333	83			333				
C-B	3	0.83			3				
CD-AB	6	1	862	0.007	6	0.0	0.0	4.202	A
CD-A	355	89			355				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	5	1	495	0.011	5	0.0	0.0	7.362	A
B-A	120	30	463	0.260	121	0.5	0.4	10.531	B
A-B	92	23			92				
A-C	147	37			147				
A-D	18	4			18				
AB-CD	23	6	715	0.032	23	0.1	0.0	5.204	A
AB-C	147	37			147				
D-ABC	21	5	556	0.037	21	0.0	0.0	6.722	A
C-D	0	0			0				
C-A	271	68			271				
C-B	3	0.67			3				
CD-AB	4	1	833	0.005	4	0.0	0.0	4.343	A
CD-A	291	73			291				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	5	1	510	0.009	5	0.0	0.0	7.125	A
B-A	101	25	480	0.210	101	0.4	0.3	9.507	A
A-B	77	19			77				
A-C	123	31			123				
A-D	15	4			15				
AB-CD	18	5	710	0.026	18	0.0	0.0	5.207	A
AB-C	124	31			124				
D-ABC	17	4	567	0.031	17	0.0	0.0	6.549	A
C-D	0	0			0				
C-A	227	57			227				
C-B	2	0.56			2				
CD-AB	3	0.81	813	0.004	3	0.0	0.0	4.447	A
CD-A	244	61			244				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.26	0.00	0.00	0.26	0.26			N/A	N/A
AB-CD	0.03	~1	~1	~1	~1			N/A	N/A
D-ABC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.01	0.25	0.45	0.48			N/A	N/A
B-A	0.35	0.00	0.00	0.35	0.35			N/A	N/A
AB-CD	0.04	~1	~1	~1	~1			N/A	N/A
D-ABC	0.04	0.03	0.25	0.45	0.48			N/A	N/A
CD-AB	0.01	~1	~1	~1	~1			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.49	0.03	0.26	0.49	0.49			N/A	N/A
AB-CD	0.06	~1	~1	~1	~1			N/A	N/A
D-ABC	0.05	0.03	0.26	0.46	0.49			N/A	N/A
CD-AB	0.01	~1	~1	~1	~1			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.50	0.03	0.30	1.35	2.26			N/A	N/A
AB-CD	0.06	~1	~1	~1	~1			N/A	N/A
D-ABC	0.05	0.00	0.00	0.05	0.05			N/A	N/A
CD-AB	0.01	~1	~1	~1	~1			N/A	N/A

09:00 - 09:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.36	0.00	0.00	0.36	0.36			N/A	N/A
AB-CD	0.04	~1	~1	~1	~1			N/A	N/A
D-ABC	0.04	0.00	0.00	0.04	0.04			N/A	N/A
CD-AB	0.01	~1	~1	~1	~1			N/A	N/A

09:15 - 09:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
B-A	0.27	0.00	0.00	0.27	0.27			N/A	N/A
AB-CD	0.03	~1	~1	~1	~1			N/A	N/A
D-ABC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

2043 With Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm A - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way		1.53	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	75	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2043 With Dev	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	448	100.000
B		ONE HOUR	✓	127	100.000
C		ONE HOUR	✓	166	100.000
D		ONE HOUR	✓	16	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	158	255	35
	B	117	0	4	6
	C	163	3	0	0
	D	16	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	0.02	8.18	0.0	0.5	A	9	14
B-A	0.30	12.04	0.4	1.8	B	107	161
A-B						145	217
A-C						234	351
A-D						32	48
AB-CD	0.08	4.88	0.1	~1	A	54	81
AB-C						221	332
D-ABC	0.03	6.41	0.0	0.5	A	15	22
C-D						0	0
C-A						150	224
C-B						3	4
CD-AB	0.01	5.09	0.0	~1	A	4	5
CD-A						163	245

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	8	2	496	0.015	7	0.0	0.0	7.371	A
B-A	88	22	471	0.187	87	0.0	0.2	9.351	A
A-B	119	30			119				
A-C	192	48			192				
A-D	26	7			26				
AB-CD	41	10	780	0.053	41	0.0	0.1	4.872	A
AB-C	185	46			185				
D-ABC	12	3	593	0.020	12	0.0	0.0	6.195	A
C-D	0	0			0				
C-A	123	31			123				
C-B	2	0.56			2				
CD-AB	3	0.70	711	0.004	3	0.0	0.0	5.083	A
CD-A	134	34			134				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	9	2	478	0.019	9	0.0	0.0	7.680	A
B-A	105	26	453	0.232	105	0.2	0.3	10.331	B
A-B	142	36			142				
A-C	229	57			229				
A-D	31	8			31				
AB-CD	52	13	798	0.065	52	0.1	0.1	4.826	A
AB-C	218	54			218				
D-ABC	14	4	587	0.025	14	0.0	0.0	6.285	A
C-D	0	0			0				
C-A	147	37			147				
C-B	3	0.67			3				
CD-AB	3	0.87	711	0.005	3	0.0	0.0	5.087	A
CD-A	160	40			160				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	11	3	451	0.024	11	0.0	0.0	8.173	A
B-A	129	32	428	0.301	128	0.3	0.4	11.998	B
A-B	174	43			174				
A-C	281	70			281				
A-D	39	10			39				
AB-CD	69	17	824	0.084	69	0.1	0.1	4.771	A
AB-C	261	65			261				
D-ABC	18	4	579	0.030	18	0.0	0.0	6.414	A
C-D	0	0			0				
C-A	179	45			179				
C-B	3	0.83			3				
CD-AB	5	1	712	0.006	5	0.0	0.0	5.087	A
CD-A	196	49			196				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	11	3	451	0.024	11	0.0	0.0	8.177	A
B-A	129	32	428	0.301	129	0.4	0.4	12.036	B
A-B	174	43			174				
A-C	281	70			281				
A-D	39	10			39				
AB-CD	69	17	824	0.084	69	0.1	0.1	4.773	A
AB-C	261	65			261				
D-ABC	18	4	579	0.030	18	0.0	0.0	6.414	A
C-D	0	0			0				
C-A	179	45			179				
C-B	3	0.83			3				
CD-AB	5	1	712	0.006	5	0.0	0.0	5.087	A
CD-A	196	49			196				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	9	2	477	0.019	9	0.0	0.0	7.685	A
B-A	105	26	453	0.232	106	0.4	0.3	10.378	B
A-B	142	36			142				
A-C	229	57			229				
A-D	31	8			31				
AB-CD	52	13	798	0.065	52	0.1	0.1	4.832	A
AB-C	218	54			218				
D-ABC	14	4	587	0.025	14	0.0	0.0	6.285	A
C-D	0	0			0				
C-A	147	37			147				
C-B	3	0.67			3				
CD-AB	3	0.87	711	0.005	3	0.0	0.0	5.089	A
CD-A	160	40			160				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	8	2	495	0.015	8	0.0	0.0	7.381	A
B-A	88	22	471	0.187	88	0.3	0.2	9.408	A
A-B	119	30			119				
A-C	192	48			192				
A-D	26	7			26				
AB-CD	41	10	780	0.053	41	0.1	0.1	4.877	A
AB-C	185	46			185				
D-ABC	12	3	593	0.020	12	0.0	0.0	6.198	A
C-D	0	0			0				
C-A	123	31			123				
C-B	2	0.56			2				
CD-AB	3	0.70	711	0.004	3	0.0	0.0	5.085	A
CD-A	134	34			134				

Queue Variation Results for each time segment

00:00 - 00:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
B-A	0.23	0.00	0.00	0.23	0.23			N/A	N/A
AB-CD	0.08	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A

00:15 - 00:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.02	0.02	0.25	0.45	0.48			N/A	N/A
B-A	0.30	0.00	0.00	0.30	0.30			N/A	N/A
AB-CD	0.11	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.02	0.25	0.45	0.48			N/A	N/A
CD-AB	0.01	~1	~1	~1	~1			N/A	N/A

00:30 - 00:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
B-A	0.42	0.03	0.26	0.46	0.49			N/A	N/A
AB-CD	0.15	~1	~1	~1	~1			N/A	N/A
D-ABC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
CD-AB	0.01	~1	~1	~1	~1			N/A	N/A

00:45 - 01:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
B-A	0.43	0.03	0.31	1.32	1.80			N/A	N/A
AB-CD	0.15	~1	~1	~1	~1			N/A	N/A
D-ABC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
CD-AB	0.01	~1	~1	~1	~1			N/A	N/A

01:00 - 01:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
B-A	0.31	0.00	0.00	0.31	0.31			N/A	N/A
AB-CD	0.11	~1	~1	~1	~1			N/A	N/A
D-ABC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
CD-AB	0.01	~1	~1	~1	~1			N/A	N/A

01:15 - 01:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-CD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
B-A	0.23	0.00	0.00	0.23	0.23			N/A	N/A
AB-CD	0.08	~1	~1	~1	~1			N/A	N/A
D-ABC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
CD-AB	0.00	~1	~1	~1	~1			N/A	N/A