Traffic and Transport Assessment

for a **Proposed Housing Development, Portumna, County Galway**

on behalf of **Galway County Council**

Prepared by:

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Civil
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1 NON-TECHNICAL SUMMARY

Planning permission is being sought for a Proposed Housing Development, Portumna, County Galway.

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

- Junction 1: R352/ N65 T-Junction

Capacity analysis was carried out on the following junctions:

- Junction 1: R352/ N65 T-Junction
- Junction 2: Proposed Development Access T-Junction onto R352

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. Both junctions that were analysed are predicted to operate 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 a Proposed Housing Development, Portumna, County 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

Analysis at the following junctions be carried out:

- Junction 1: R352/ N65 T-Junction
- Junction 2: Proposed Development Access T-Junction onto R352

3 EXISTING CONDITIONS

3.1 Site Location

The development site is located in Portumna, County Galway. The site is located just to the west of the village. Portumna 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**.

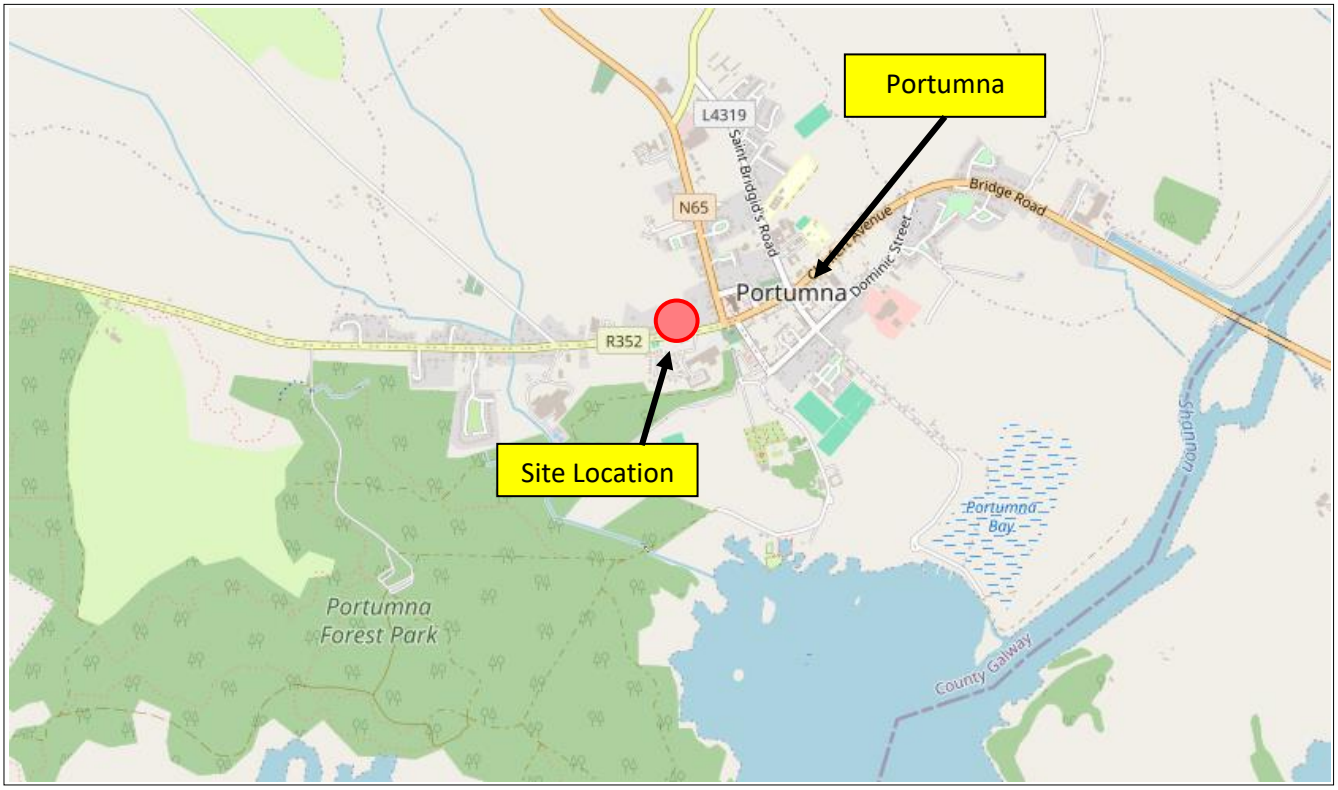


Figure 3.1: Location Map of Portumna and surrounding road network **©OpenStreetMap contributors**

3.2 Existing Road Network

The layout of the local road network is presented in **Figures 3.1** and **3.2**. The main routes in the vicinity of the site are the R352 and the N65 to the south and east respectively. 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 R352

The R352 is a single carriageway road with one lane in each direction and forms the southern boundary of the development site. The R352 stretches from Ennis to Portumna. There is a footpath on both sides of this road but no cycle facilities in the vicinity of the site.

3.2.2 N65

The N65 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 both sides 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**.

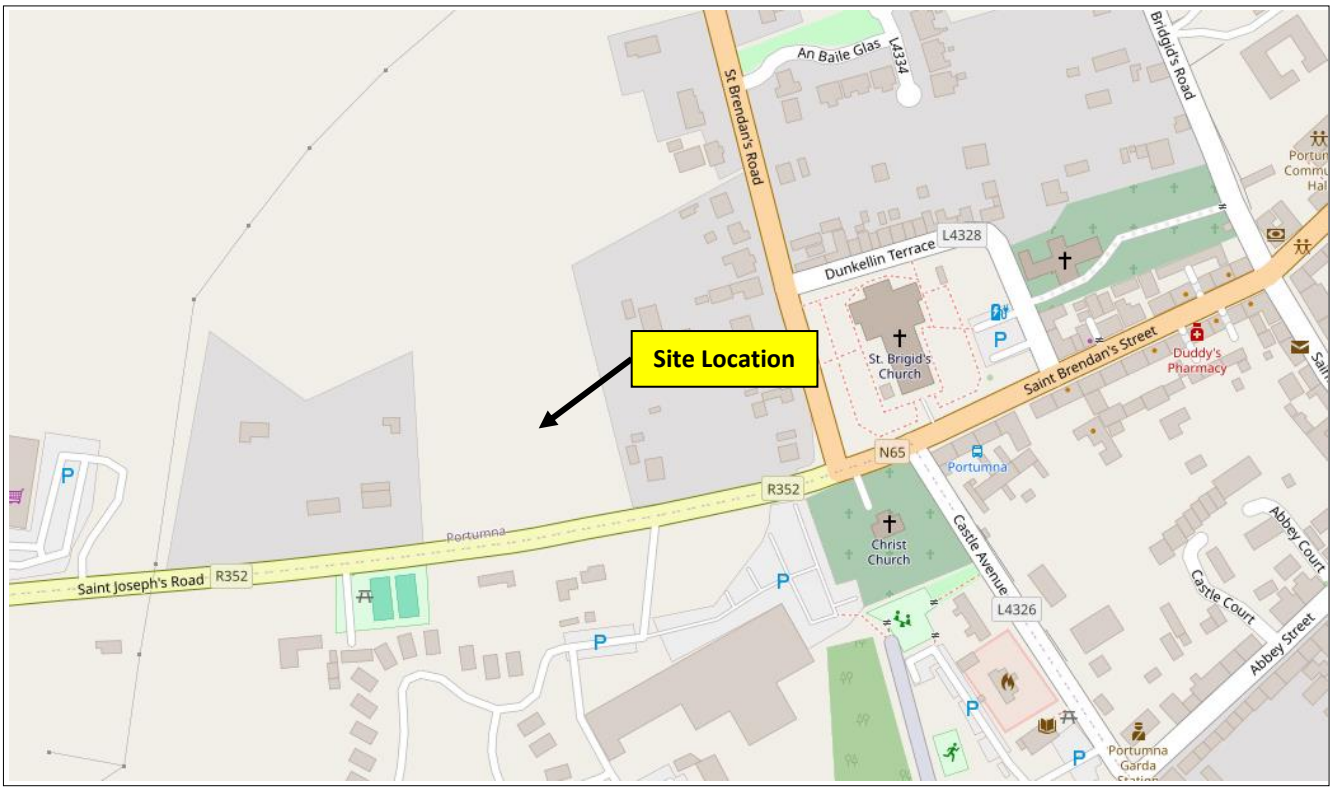


Figure 3.2: Site Location and surrounding road network ©OpenStreetMap contributors

3.3 Existing Traffic Flows

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

- Junction 1: R352/ N65 T-Junction
- Junction 2: Proposed Development Access T-Junction onto R352

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: R352/ N65 T-Junction

These counts were undertaken by Traffinomics on Wednesday 19th March for a 12-hour period from 7.00AM to 7.00PM. The surveys found that the mean morning peak hour traffic flow occurred between 08:30am and 09:30am and the evening peak hour occurred between 15:45pm and 16:45pm.

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

We are not aware of any major transport schemes in the area of the proposed site.

A proposed Active Travel Scheme includes for a puffin crossing on the R352 adjacent the site.

4 PROPOSED DEVELOPMENT

4.1 Description

The proposed development is a housing development at St. Joseph's Road, Portumna, County Galway. The development consists of 38 new dwellings consisting of:

- 10 No. 2-bed Houses
- 26 No. 3-bed Houses
- 2 No. 4-bed Houses

The land surrounding the immediate site is mixed containing residential and agricultural.

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.

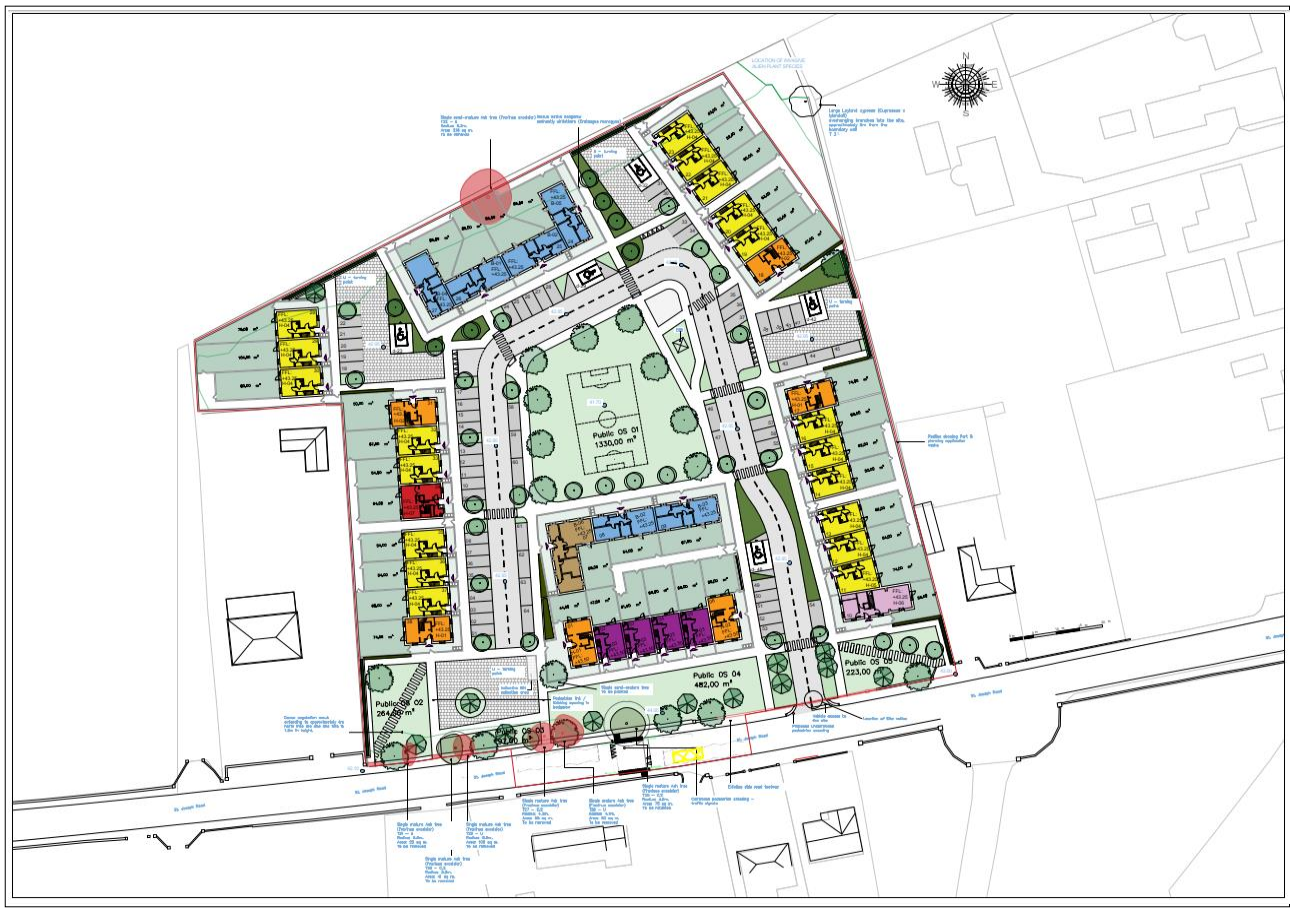


Figure 4.1: Proposed Site Layout

4.2 Service and Delivery Trips

Service and delivery trips to and from the development will be via the R352. It is envisaged that the majority of delivery and service trips will occur during off-peak times.

An AutoTrack swept path analysis for fire tender and refuse throughout the site has been 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 number of vehicular trips generated by the proposed developments 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	9	11	15	8
TOTAL	**9**	**11**	**15**	**8**

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 Portumna.

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 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 40 site operatives during the peak period of construction, and which would lead to a parking requirement for about 30 vehicles.

It is anticipated that 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 R352. 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 Portumna (Galway) Electoral Division as shown in **Figure 8.1**.

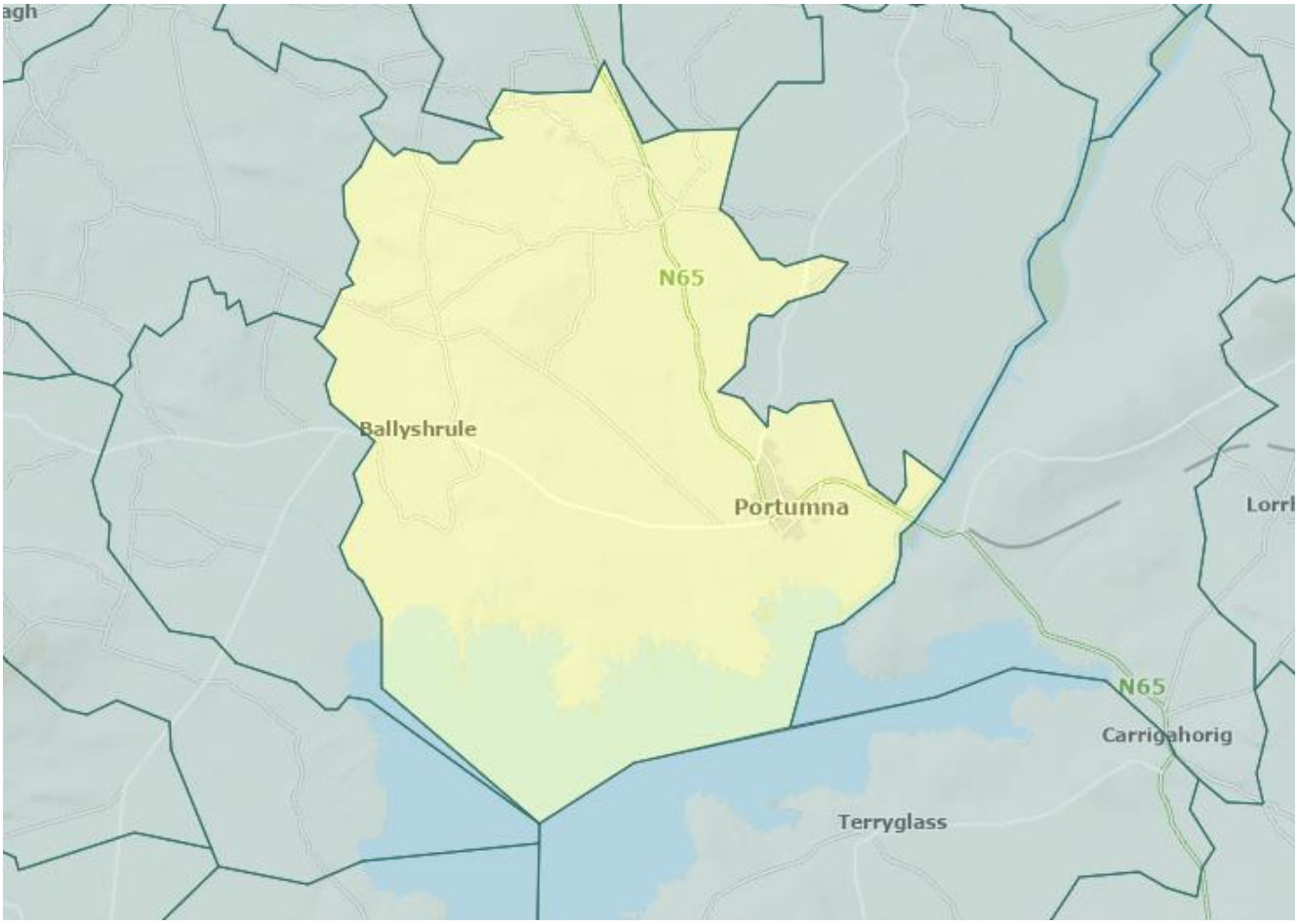


Figure 8.1 – Portumna (Galway) Electoral Division

Mode	Work	School or College	Total
On foot	78	157	235
Bicycle	14	13	27
Bus, minibus or coach	7	22	29
Train, DART or LUAS	3	3	6
Motorcycle or scooter	1	0	1
Car driver	583	28	611
Car passenger	32	353	385
Van	73	4	77
Other (incl. lorry)	6	0	6
Work mainly at or from home	103	3	106
Not stated	74	36	110
Total	**974**	**619**	**1593**

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

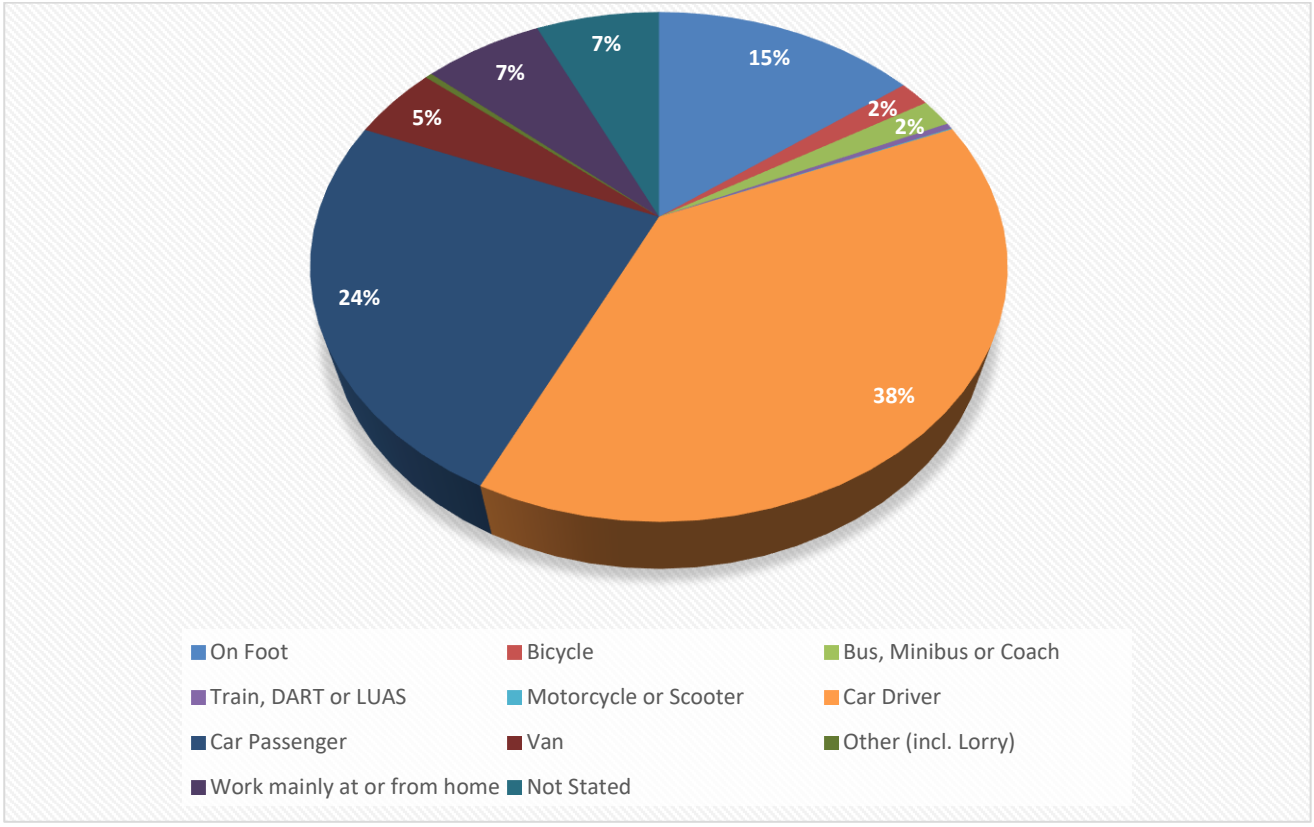


Figure 8.2: Mode Share for all Trip Purposes (Source: SAPMAP CSO.ie]

As can be seen in the chart at **Figure 8.2**, the existing CSO modal split achieves of the government policy as outlined in the smarter travel document, namely a maximum of 45% of trips by motorcars. 43% of the mode split pertain to car/ van drivers. Walking provides for 15% overall mode share with Bus accounting for 2%.

9 CUMULATIVE IMPACTS

We were not informed of any 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. For the Proposed Development Access T-Junction we have directed 100% of generated traffic to go through the existing junction (the R352/ N65 T-Junction) for analysis purposes.

The assumed percentage distributions at the existing junction and proposed 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

Capacity analysis was carried out using the TRL software package PICADY for both junctions, the R352/ N65 T-Junction (Junction 1) and the Proposed Development Access T-Junction onto R352 (Junction 2).

These 2 junctions are shown in **Figure 11.1**.

The R352/ N65 T-Junction 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 Proposed Development Access T-Junction onto R352 was analysed for the following traffic flow scenarios:

- 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 with 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.

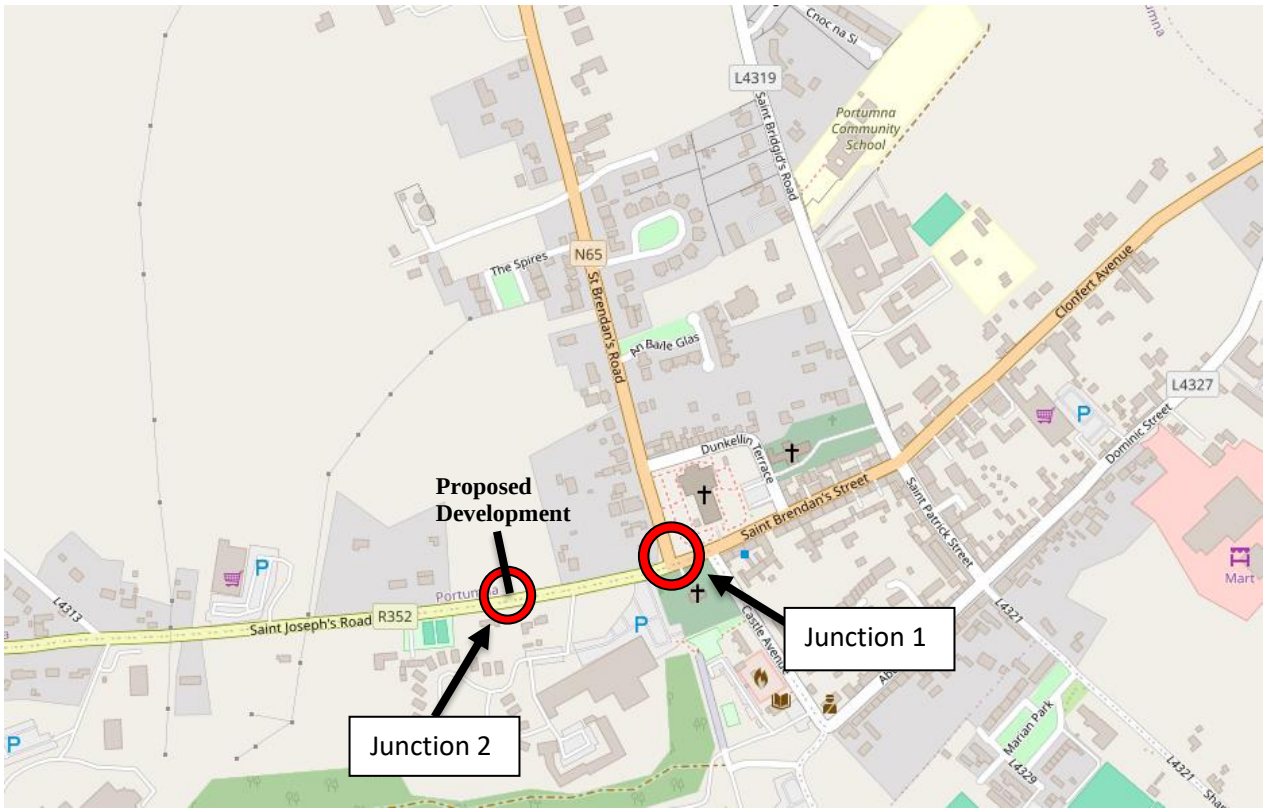


Figure 11.1: Identified Junctions for Analysis (© OpenStreetMap contributor)

11.2.1 R352/ N65 T-Junction (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 D1**.

Approach Arm/Turning Movement	RFC (%)	Delay (s)	Max. Queue (PCU)
	Without Dev.	Without Dev.	Without Dev.
N65 North Left	36	9.55	0.6
N65 North Right	20	13.23	0.2
N65 East	43	9.42	0.9

Table 11.1: 2025 AM Peak Period – R352/ N65 T-Junction

Approach Arm/Turning Movement	RFC (%)	Delay (s)	Max. Queue (PCU)
	Without Dev.	Without Dev.	Without Dev.
N65 North Left	34	9.15	0.5
N65 North Right	22	13.66	0.3
N65 East	46	8.85	1.1

Table 11.2: 2025 PM Peak Period – R352/ N65 T-Junction

Approach Arm/Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
N65 North Left	40	41	10.37	10.51	0.7	0.7
N65 North Right	22	23	14.38	14.70	0.3	0.3
N65 East	48	49	10.26	10.32	1.1	1.2

Table 11.3: 2028 AM Peak Period – R352/ N65 T-Junction

Approach Arm/Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
N65 North Left	38	38	9.87	10.00	0.6	0.6
N65 North Right	25	27	14.94	15.38	0.3	0.4
N65 East	51	52	9.66	9.71	1.4	1.4

Table 11.4: 2028 PM Peak Period – R352/ N65 T-Junction

Approach Arm/Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
N65 North Left	45	46	11.61	11.80	0.8	0.8
N65 North Right	26	27	16.18	16.61	0.3	0.4
N65 East	55	55	11.67	11.79	1.5	1.5

Table 11.5: 2033 AM Peak Period – R352/ N65 T-Junction

Approach Arm/Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
N65 North Left	42	43	10.93	11.14	0.7	0.7
N65 North Right	30	31	16.95	17.61	0.4	0.5
N65 East	58	59	11.12	11.23	1.8	1.9

Table 11.6: 2033 PM Peak Period – R352/ N65 T-Junction

Approach Arm/Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
N65 North Left	54	54	14.30	14.68	1.1	1.2
N65 North Right	33	35	20.13	20.96	0.5	0.5
N65 East	65	66	14.93	15.18	2.3	2.4

Table 11.7: 2043 AM Peak Period – R352/ N65 T-Junction

Approach Arm/Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
N65 North Left	50	51	13.19	13.49	1.0	1.0
N65 North Right	38	39	21.41	22.32	0.6	0.6
N65 East	69	70	14.79	15.12	3.0	3.1

Table 11.8: 2043 PM Peak Period – R352/ N65 T-Junction

This analysis demonstrates that the existing priority-controlled junction in its current format is predicted to operate below recommended capacity (85%) both with and without proposed development up to 2043. The analysis predicts that by 2043 with development in place the junction could be operating at 66% capacity in the AM peak hour and at 70% during the PM peak hour.

11.2.2 Proposed Development Access T-Junction onto R352 (Junction 2)

The results of the PICADY analysis for the junction have been summarised in the tables overleaf and are reproduced in full in **Appendix D2**.

Approach Arm/Turning Movement	RFC (%)	Delay (s)	Max. Queue (PCU)
	With Dev.	With Dev.	With Dev.
Development Access	2	7.50	0.0
R352 East	2	5.22	0.0

Table 11.9: 2028 AM Peak Period – Proposed Development Access T-Junction onto R352

Approach Arm/Turning Movement	RFC (%)	Delay (s)	Max. Queue (PCU)
	With Dev.	With Dev.	With Dev.
Development Access	2	7.23	0.0
R352 East	4	4.85	0.1

Table 11.20: 2028 PM Peak Period – Proposed Development Access T-Junction onto R352

Approach Arm/Turning Movement	RFC (%)	Delay (s)	Max. Queue (PCU)
	With Dev.	With Dev.	With Dev.
Development Access	3	7.63	0.0
R352 East	2	5.17	0.0

Table 11.11: 2033 AM Peak Period – Proposed Development Access T-Junction onto R352

Approach Arm/Turning Movement	RFC (%)	Delay (s)	Max. Queue (PCU)
	With Dev.	With Dev.	With Dev.
Development Access	2	7.33	0.0
R352 East	4	4.78	0.1

Table 11.32: 2033 PM Peak Period – Proposed Development Access T-Junction onto R352

Approach Arm/Turning Movement	RFC (%)	Delay (s)	Max. Queue (PCU)
	With Dev.	With Dev.	With Dev.
Development Access	3	7.82	0.0
R352 East	2	5.11	0.0

Table 11.13: 2043 AM Peak Period – Proposed Development Access T-Junction onto R352

Approach Arm/Turning Movement	RFC (%)	Delay (s)	Max. Queue (PCU)
	With Dev.	With Dev.	With Dev.
Development Access	2	7.48	0.0
R352 East	4	4.68	0.1

Table 11.44: 2043 PM Peak Period – Proposed Development Access T-Junction onto R352

This analysis demonstrates that the proposed priority-controlled junction is predicted to operate well-below recommended capacity (85%) both with and without proposed development up to 2043. The analysis predicts that by 2043 with development in place the junction could be operating at 3% capacity in the AM peak hour and at 4% during the PM peak hour.

12 ROAD SAFETY

The only change to the road network proposed is a new priority-controlled T-Junction onto the R352.

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 off the R352 in the form of a priority-controlled T-Junction. This is a cul-de-sac development. Several U-turning points are located throughout the site at the ends of all internal cul-de-sacs.

There are footpaths provided throughout the development along with footpath linkage to the existing footpath on the R352. There are also several zebra crossings dispersed throughout the site to provide safe pedestrian crossing.

There are 64 car parking spaces provided within the development with 5 of these being accessible spaces.

There is a large green open space to the centre of the development with further open green spaces located to the south of the site.

14 PARKING

14.1 Car Parking

The Galway County Development Plan 2022-2028 outlines that the car parking provision in Portumna, 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	36 Units	54	64
Dwellings/ Apartments (4+ Bedrooms)	2 spaces per unit	2 Units	4	
TOTAL			**58**	**64**

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

The parking proposal for the development is slightly above the standard of the Galway County Development Plan 2022-2028. It is noted that 5 of these spaces will be allocated for wheelchair accessible use in accordance with the Galway County Development Plan 2022-2028.

14.2 Bicycle Parking

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

Type of Development	Bicycle Parking Standard	No. of Bed Spaces/ Res. Units within Dev.	Parking Standard
Residential	1 space per bed space	106 Bed Spaces	106
Residential-Visitor	1 space per 2 units	38 Units	19
TOTAL			**125**

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

Galway County Development Plan 2022-2028 requires that 125 spaces be provided for cyclists as shown in **Table 14.2** above. There is rear access to all the houses within the development as well as private areas to the front for bicycle storage/ parking.

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, an assessment has been made of the proposed and existing public transport facilities.

15.1 Public Transport

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

15.1.1 Bus Services

The bus stop on the N65, located to the east of the proposed development, is serviced by Bus Route 547 (Portumna to Ballinsloe).

Other bus routes (by private operators) may be available at other stops in the vicinity of the site.

15.1.2 Taxi Services

There are taxi services that facilitate Portumna 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 low to moderate, it is important that the development is properly integrated into the existing footpath network. There are footpaths on both sides of the R352 and the N65 in the vicinity of the site.

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 the nearby bus stop on N65.

16.2 Cycling

Cycling is to be encouraged as part of the development. There are currently no cycle lanes or designated routes for the use of cyclists in the vicinity of the site.

There is rear access to all the houses within the development as well as private areas to the front for bicycle storage/ parking.

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 Housing Development, Portumna, County Galway.
- A manual classified traffic count was carried out on the following junction:
    - Junction 1: R352/ N65 T-Junction
- The surveys found that the mean morning peak hour traffic flow occurred between 08:30am and 09:30am and the evening peak hour occurred between 15:45pm and 16:45pm.
- 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 junctions:
    - Junction 1: R352/ N65 T-Junction
    - Junction 2: Proposed Development Access T-Junction onto R352
- 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 existing and proposed priority-controlled junctions are predicted to operate below recommended capacity (85%) for uncontrolled junctions with all development in place for all future years. The analysis predicts that by 2043 with development in place the R352/ N65 T-Junction could be operating at 66% capacity in the AM peak hour and at 70% during the PM peak hour.

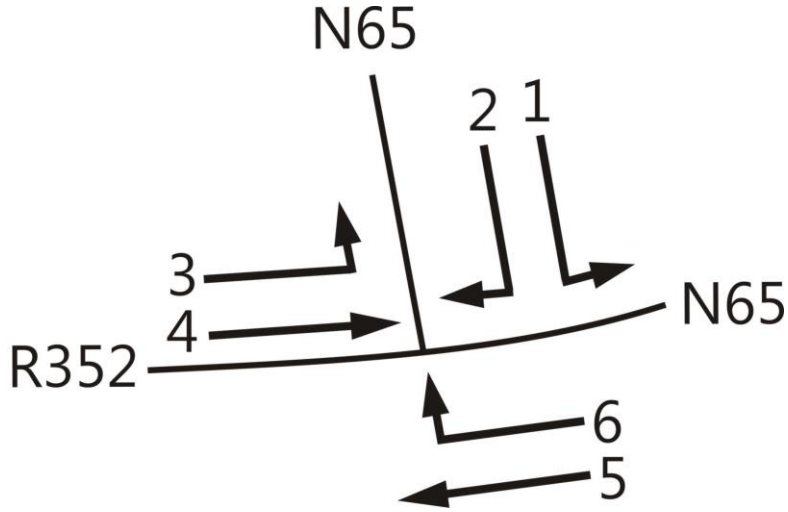
  The analysis predicts that by 2043 with development in place the Proposed Development Access T-Junction onto R352 could be operating at 3% capacity in the AM peak hour and at 4% during the PM peak hour.

APPENDIX A

TRAFFIC SURVEY RESULTS

Site Location

Movement Numbers



Job number: TRA/25/041	Job Date: 19th March 2025	Drawing No: TRA/25/041-01	traffinomics.ie
Client: CST Group	Job Day: Wednesday	Author: JW	

TRAFFINOMICS LIMITED

PORTUMNA TRAFFIC COUNT **MARCH 2025**

MANUAL CLASSIFIED JUNCTION TURNING COUNT **TRA/25/041**

SITE: 01 DATE: 19th March 2025

LOCATION: N65/R352 St. Joseph's Road DAY: Wednesday

	MOVEMENT 1							MOVEMENT 2							MOVEMENT 3						
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**BUS**	**TOT**	**PCU**	**CAR**	**LGV**	**OGV1**	**OGV2**	**BUS**	**TOT**	**PCU**	**CAR**	**LGV**	**OGV1**	**OGV2**	**BUS**	**TOT**	**PCU**
07:00	11	2	0	3	0	16	20	3	1	0	0	0	4	4	10	3	0	0	0	13	13
07:15	9	14	4	4	0	31	38	4	1	0	0	1	6	7	10	3	0	0	0	13	13
07:30	9	7	0	0	0	16	16	4	2	0	0	2	8	10	3	1	0	0	0	4	4
07:45	19	8	1	1	0	29	31	7	3	0	0	0	10	10	7	4	0	0	1	12	13
H/TOT	48	31	5	8	0	92	105	18	7	0	0	3	28	31	30	11	0	0	1	42	43
08:00	26	10	0	1	1	38	40	8	2	0	0	0	10	10	11	5	0	0	0	16	16
08:15	18	5	3	1	0	27	30	6	0	0	0	0	6	6	10	3	1	0	1	15	17
08:30	25	6	2	5	0	38	46	8	2	0	0	1	11	12	23	6	1	0	2	32	35
08:45	40	4	3	1	1	49	53	15	2	1	0	0	18	19	24	3	0	0	0	27	27
H/TOT	109	25	8	8	2	152	168	37	6	1	0	1	45	47	68	17	2	0	3	90	94
09:00	32	11	3	0	0	46	48	15	4	1	0	0	20	21	22	1	0	0	0	23	23
09:15	34	9	1	1	1	46	49	4	1	1	0	1	7	9	9	4	0	0	0	13	13
09:30	33	7	2	0	0	42	43	3	0	0	0	0	3	3	13	3	1	0	0	17	18
09:45	31	4	0	0	1	36	37	5	2	0	0	0	7	7	10	2	0	1	0	13	14
H/TOT	130	31	6	1	2	170	176	27	7	2	0	1	37	39	54	10	1	1	0	66	68
10:00	34	13	2	1	2	52	56	4	1	0	1	1	7	9	6	3	0	0	0	9	9
10:15	31	6	2	3	2	44	51	5	1	0	0	0	6	6	9	1	0	0	0	10	10
10:30	29	9	1	2	0	41	44	9	6	1	0	0	16	17	10	4	0	1	0	15	16
10:45	38	8	1	3	0	50	54	3	0	0	0	0	3	3	9	0	0	0	0	9	9
H/TOT	132	36	6	9	4	187	206	21	8	1	1	1	32	35	34	8	0	1	0	43	44
11:00	34	11	2	0	1	48	50	8	3	1	0	0	12	13	6	2	0	0	0	8	8
11:15	27	14	1	2	1	45	49	10	2	0	0	0	12	12	12	2	0	0	0	14	14
11:30	41	12	1	1	1	56	59	11	1	0	1	0	13	14	10	6	2	0	0	18	19
11:45	31	7	4	0	0	42	44	5	3	1	0	0	9	10	10	6	1	0	0	17	18
H/TOT	133	44	8	3	3	191	202	34	9	2	1	0	46	48	38	16	3	0	0	57	59
12:00	42	11	1	3	0	57	61	12	3	0	0	0	15	15	10	0	1	0	0	11	12
12:15	23	9	4	0	0	36	38	14	0	0	0	0	14	14	13	3	1	0	0	17	18
12:30	27	5	2	1	0	35	37	9	1	0	0	0	10	10	12	2	1	0	0	15	16
12:45	17	6	1	0	1	25	27	3	3	0	0	0	6	6	6	2	0	0	0	8	8
H/TOT	109	31	8	4	1	153	163	38	7	0	0	0	45	45	41	7	3	0	0	51	53

TRAFFINOMICS LIMITED

PORTUMNA TRAFFIC COUNT **MARCH 2025**

MANUAL CLASSIFIED JUNCTION TURNING COUNT **TRA/25/041**

SITE: 01 DATE: 19th March 2025

LOCATION: N65/R352 St. Joseph's Road DAY: Wednesday

	MOVEMENT 1							MOVEMENT 2							MOVEMENT 3						
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**BUS**	**TOT**	**PCU**	**CAR**	**LGV**	**OGV1**	**OGV2**	**BUS**	**TOT**	**PCU**	**CAR**	**LGV**	**OGV1**	**OGV2**	**BUS**	**TOT**	**PCU**
13:00	23	8	1	2	0	34	37	16	4	0	0	0	20	20	12	1	0	0	0	13	13
13:15	29	5	0	3	0	37	41	9	1	0	0	0	10	10	17	3	1	0	0	21	22
13:30	31	3	1	1	0	36	38	10	1	1	0	0	12	13	10	1	0	0	0	11	11
13:45	21	6	1	1	0	29	31	12	3	0	1	0	16	17	11	3	0	0	0	14	14
H/TOT	104	22	3	7	0	136	147	47	9	1	1	0	58	60	50	8	1	0	0	59	60
14:00	37	10	0	2	0	49	52	9	5	0	0	0	14	14	9	5	1	0	0	15	16
14:15	35	8	1	1	0	45	47	8	6	0	0	0	14	14	14	1	0	0	0	15	15
14:30	21	9	0	1	0	31	32	18	3	0	1	0	22	23	13	6	1	0	0	20	21
14:45	39	8	1	0	2	50	53	14	3	0	0	0	17	17	12	1	0	1	0	14	15
H/TOT	132	35	2	4	2	175	183	49	17	0	1	0	67	68	48	13	2	1	0	64	66
15:00	27	9	3	1	0	40	43	7	3	0	0	0	10	10	14	0	0	1	1	16	18
15:15	21	12	2	2	0	37	41	5	0	2	0	0	7	8	11	4	0	0	0	15	15
15:30	23	4	3	1	1	32	36	8	0	0	0	0	8	8	13	2	1	0	0	16	17
15:45	38	10	1	0	0	49	50	12	1	0	0	0	13	13	16	2	0	0	1	19	20
H/TOT	109	35	9	4	1	158	169	32	4	2	0	0	38	39	54	8	1	1	2	66	70
16:00	41	9	1	2	0	53	56	16	2	0	0	1	19	20	20	6	0	0	0	26	26
16:15	28	8	1	1	2	40	44	9	3	1	0	0	13	14	8	6	1	0	0	15	16
16:30	29	4	1	1	0	35	37	15	3	1	1	0	20	22	17	2	1	0	1	21	23
16:45	28	9	0	0	0	37	37	14	2	1	0	0	17	18	16	3	0	0	0	19	19
H/TOT	126	30	3	4	2	165	174	54	10	3	1	1	69	73	61	17	2	0	1	81	83
17:00	51	11	3	2	1	68	73	16	3	0	0	1	20	21	15	1	0	0	1	17	18
17:15	36	9	0	0	2	47	49	9	2	0	0	0	11	11	12	2	1	0	0	15	16
17:30	36	10	2	1	0	49	51	14	3	1	0	0	18	19	11	3	2	0	0	16	17
17:45	39	13	1	2	0	55	58	12	4	0	0	0	16	16	13	1	0	0	0	14	14
H/TOT	162	43	6	5	3	219	232	51	12	1	0	1	65	67	51	7	3	0	1	62	65
18:00	30	12	0	1	0	43	44	14	3	0	1	1	19	21	10	1	0	1	1	13	15
18:15	27	5	0	0	0	32	32	14	4	0	0	0	18	18	4	2	1	0	0	7	8
18:30	29	5	0	0	0	34	34	9	1	0	0	0	10	10	8	3	0	0	0	11	11
18:45	24	8	0	1	0	33	34	14	4	0	0	0	18	18	9	4	0	0	0	13	13
H/TOT	110	30	0	2	0	142	145	51	12	0	1	1	65	67	31	10	1	1	1	44	47
P/TOT	1404	393	64	59	20	1940	2069	459	108	13	6	9	595	618	560	132	19	5	9	725	750

TRAFFINOMICS LIMITED

PORTUMNA TRAFFIC COUNT **MARCH 2025**

MANUAL CLASSIFIED JUNCTION TURNING COUNT **TRA/25/041**

SITE: 01 DATE: 19th March 2025

LOCATION: N65/R352 St. Joseph's Road DAY: Wednesday

	MOVEMENT 4							MOVEMENT 5							MOVEMENT 6						
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**BUS**	**TOT**	**PCU**	**CAR**	**LGV**	**OGV1**	**OGV2**	**BUS**	**TOT**	**PCU**	**CAR**	**LGV**	**OGV1**	**OGV2**	**BUS**	**TOT**	**PCU**
07:00	8	0	0	0	0	8	8	3	1	1	0	0	5	6	11	8	0	0	2	21	23
07:15	11	3	0	0	1	15	16	4	3	0	3	0	10	14	11	8	2	2	0	23	27
07:30	15	2	0	0	1	18	19	5	2	0	2	2	11	16	19	11	0	1	2	33	36
07:45	20	7	1	1	1	30	33	14	1	1	0	0	16	17	19	6	1	1	0	27	29
H/TOT	54	12	1	1	3	71	76	26	7	2	5	2	42	52	60	33	3	4	4	104	115
08:00	26	2	0	0	0	28	28	11	3	0	1	1	16	18	16	7	0	1	0	24	25
08:15	20	4	0	0	0	24	24	11	2	1	0	2	16	19	23	9	3	2	1	38	43
08:30	37	3	0	1	1	42	44	17	1	0	0	0	18	18	30	7	1	1	5	44	51
08:45	59	5	0	0	0	64	64	37	4	0	0	0	41	41	43	8	0	1	1	53	55
H/TOT	142	14	0	1	1	158	160	76	10	1	1	3	91	96	112	31	4	5	7	159	175
09:00	43	6	1	0	0	50	51	53	5	1	0	0	59	60	48	4	1	1	1	55	58
09:15	53	11	1	2	1	68	72	28	8	2	1	1	40	43	17	4	3	1	2	27	32
09:30	30	6	2	0	0	38	39	25	8	0	1	1	35	37	27	3	1	1	2	34	38
09:45	28	4	0	0	0	32	32	20	9	0	0	0	29	29	24	8	2	2	0	36	40
H/TOT	154	27	4	2	1	188	194	126	30	3	2	2	163	169	116	19	7	5	5	152	167
10:00	38	2	1	0	0	41	42	23	2	0	0	0	25	25	35	14	2	1	1	53	56
10:15	29	3	1	1	0	34	36	25	7	1	0	1	34	36	25	13	0	1	0	39	40
10:30	29	3	0	0	0	32	32	26	8	0	0	0	34	34	19	2	1	0	1	23	25
10:45	37	5	1	0	0	43	44	24	4	2	2	0	32	36	29	7	5	2	0	43	48
H/TOT	133	13	3	1	0	150	153	98	21	3	2	1	125	130	108	36	8	4	2	158	169
11:00	25	4	0	0	0	29	29	29	8	0	1	0	38	39	27	2	0	1	1	31	33
11:15	38	5	1	2	0	46	49	23	4	1	0	0	28	29	22	7	1	0	0	30	31
11:30	28	8	0	0	0	36	36	45	5	0	0	0	50	50	32	7	1	1	0	41	43
11:45	30	9	0	0	0	39	39	32	6	1	2	0	41	44	40	9	2	1	0	52	54
H/TOT	121	26	1	2	0	150	153	129	23	2	3	0	157	162	121	25	4	3	1	154	161
12:00	42	10	1	1	0	54	56	26	4	1	0	0	31	32	30	6	2	0	0	38	39
12:15	36	3	4	2	0	45	50	30	3	0	0	2	35	37	38	6	1	3	1	49	54
12:30	23	9	0	0	0	32	32	44	4	0	0	0	48	48	39	9	3	2	0	53	57
12:45	21	2	1	0	0	24	25	41	9	1	1	0	52	54	36	7	2	0	1	46	48
H/TOT	122	24	6	3	0	155	162	141	20	2	1	2	166	170	143	28	8	5	2	186	199

TRAFFINOMICS LIMITED

PORTUMNA TRAFFIC COUNT **MARCH 2025**

MANUAL CLASSIFIED JUNCTION TURNING COUNT **TRA/25/041**

SITE: 01 DATE: 19th March 2025

LOCATION: N65/R352 St. Joseph's Road DAY: Wednesday

	MOVEMENT 4							MOVEMENT 5							MOVEMENT 6						
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**BUS**	**TOT**	**PCU**	**CAR**	**LGV**	**OGV1**	**OGV2**	**BUS**	**TOT**	**PCU**	**CAR**	**LGV**	**OGV1**	**OGV2**	**BUS**	**TOT**	**PCU**
13:00	25	5	2	0	0	32	33	29	5	1	1	0	36	38	42	10	2	1	0	55	57
13:15	43	10	1	0	0	54	55	41	6	2	1	1	51	54	33	10	1	1	1	46	49
13:30	34	5	1	2	0	42	45	21	8	1	0	0	30	31	19	9	0	0	0	28	28
13:45	43	5	0	2	0	50	53	29	1	1	1	0	32	34	38	8	2	0	1	49	51
H/TOT	145	25	4	4	0	178	185	120	20	5	3	1	149	156	132	37	5	2	2	178	185
14:00	28	8	0	1	0	37	38	39	4	2	0	0	45	46	34	9	2	1	2	48	52
14:15	27	4	1	0	3	35	39	38	5	1	1	1	46	49	34	10	1	0	0	45	46
14:30	24	6	3	0	1	34	37	30	5	0	0	0	35	35	29	8	0	1	2	40	43
14:45	38	9	1	1	0	49	51	44	5	2	0	0	51	52	28	7	1	2	1	39	43
H/TOT	117	27	5	2	4	155	164	151	19	5	1	1	177	182	125	34	4	4	5	172	184
15:00	24	3	0	0	0	27	27	50	3	2	1	1	57	60	34	7	1	3	1	46	51
15:15	25	5	0	0	0	30	30	39	7	0	0	1	47	48	36	6	2	0	0	44	45
15:30	41	3	0	0	2	46	48	25	8	1	1	1	36	39	34	10	1	0	1	46	48
15:45	45	2	0	0	1	48	49	43	7	2	0	0	52	53	29	3	1	0	1	34	36
H/TOT	135	13	0	0	3	151	154	157	25	5	2	3	192	200	133	26	5	3	3	170	179
16:00	47	2	1	1	1	52	55	70	5	0	0	2	77	79	41	8	0	1	4	54	59
16:15	30	11	0	0	0	41	41	41	6	1	1	0	49	51	38	5	4	2	2	51	58
16:30	38	7	0	0	0	45	45	48	11	0	0	1	60	61	33	12	0	1	0	46	47
16:45	35	7	0	0	0	42	42	42	3	0	0	1	46	47	33	11	0	2	3	49	55
H/TOT	150	27	1	1	1	180	183	201	25	1	1	4	232	238	145	36	4	6	9	200	219
17:00	41	6	3	1	0	51	54	53	14	0	1	0	68	69	44	6	1	1	0	52	54
17:15	37	2	0	0	0	39	39	40	9	2	0	0	51	52	21	4	1	2	0	28	31
17:30	32	6	1	1	0	40	42	53	7	2	1	0	63	65	37	9	1	0	0	47	48
17:45	38	8	0	0	0	46	46	48	5	2	0	0	55	56	36	6	1	4	0	47	53
H/TOT	148	22	4	2	0	176	181	194	35	6	2	0	237	243	138	25	4	7	0	174	185
18:00	31	6	0	0	0	37	37	48	8	2	0	0	58	59	29	7	0	1	0	37	38
18:15	35	5	0	0	0	40	40	25	5	0	0	0	30	30	22	7	0	1	0	30	31
18:30	21	2	0	1	0	24	25	30	3	0	0	0	33	33	20	8	0	0	0	28	28
18:45	30	4	0	0	0	34	34	31	3	1	0	0	35	36	27	5	0	0	0	32	32
H/TOT	117	17	0	1	0	135	136	134	19	3	0	0	156	158	98	27	0	2	0	127	130
P/TOT	1538	247	29	20	13	1847	1901	1553	254	38	23	19	1887	1955	1431	357	56	50	40	1934	2067

APPENDIX B

TRICS ANALYSIS

Calculation Reference: AUDIT-363901-250407-0406

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : B - AFFORDABLE/LOCAL AUTHORITY HOUSES
TOTAL VEHICLES

Selected regions and areas:

13	MUNSTER		
	TI	TIPPERARY	2 days

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

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: No of Dwellings
Actual Range: 8 to 43 (units:)
Range Selected by User: 8 to 43 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/16 to 20/11/17

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

Selected survey days:

Monday	1 days
Friday	1 days

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

Selected survey types:

Manual count	2 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	2

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

Selected Location Sub Categories:

Residential Zone	2

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	X days - Selected
Servicing vehicles Excluded	2 days - Selected

Secondary Filtering selection:

Use Class:

C3	2 days

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:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

5,001 to 10,000	2 days

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

Population within 5 miles:

5,001 to 25,000	2 days

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

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	1 days

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

Travel Plan:

No	2 days

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

PTAL Rating:

No PTAL Present	2 days

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

LIST OF SITES relevant to selection parameters

1 TI-03-B-01 MIXED HOUSES TIPPERARY
LIMERICK ROAD
NENAGH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 43
Survey date: FRIDAY *27/05/16* *Survey Type: MANUAL*

2 TI-03-B-02 BUNGALOWS TIPPERARY
STRADAVOHER
THURLES

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 8
Survey date: MONDAY *20/11/17* *Survey Type: MANUAL*

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

TRIP RATE for Land Use 03 - RESIDENTIAL/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
TOTAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	26	0.059	2	26	0.235	2	26	0.294
08:00 - 09:00	2	26	0.137	2	26	0.294	2	26	0.431
09:00 - 10:00	2	26	0.098	2	26	0.275	2	26	0.373
10:00 - 11:00	2	26	0.235	2	26	0.196	2	26	0.431
11:00 - 12:00	2	26	0.235	2	26	0.196	2	26	0.431
12:00 - 13:00	2	26	0.196	2	26	0.118	2	26	0.314
13:00 - 14:00	2	26	0.118	2	26	0.196	2	26	0.314
14:00 - 15:00	2	26	0.157	2	26	0.176	2	26	0.333
15:00 - 16:00	2	26	0.235	2	26	0.216	2	26	0.451
16:00 - 17:00	2	26	0.333	2	26	0.157	2	26	0.490
17:00 - 18:00	2	26	0.392	2	26	0.176	2	26	0.568
18:00 - 19:00	2	26	0.216	2	26	0.157	2	26	0.373
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.411			2.392			4.803

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

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

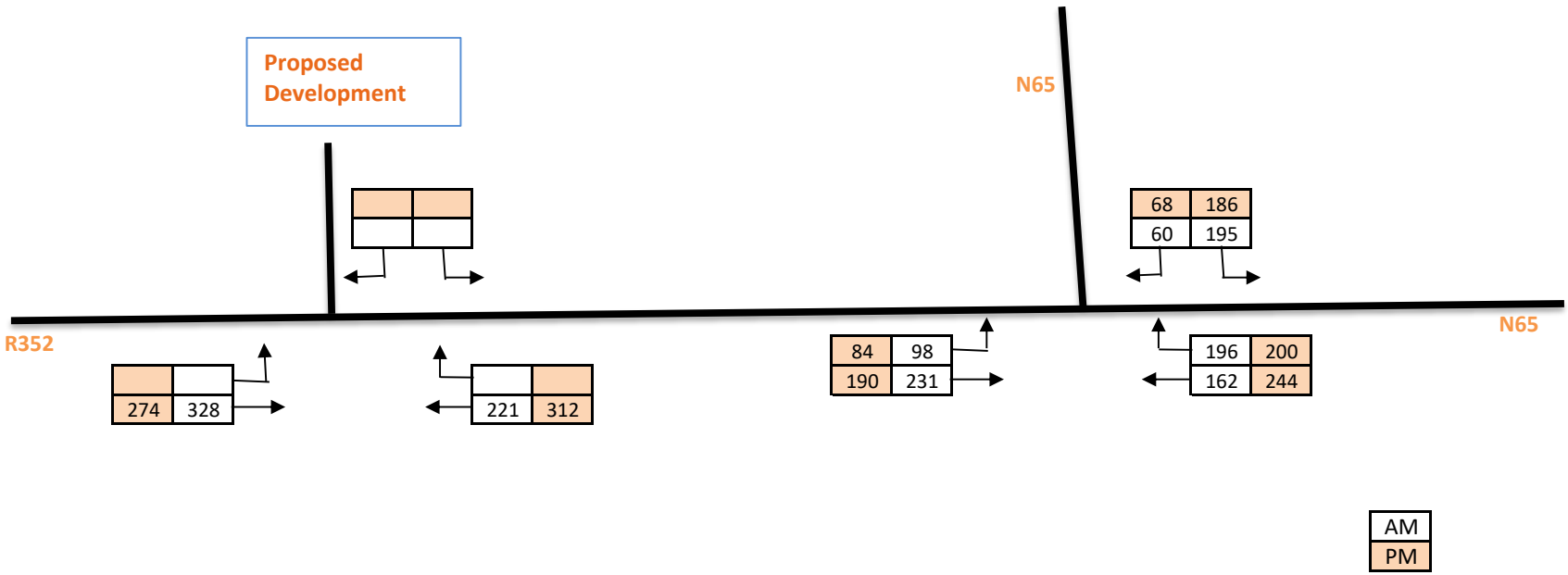
Parameter summary

Trip rate parameter range selected:	8 - 43 (units:)
Survey date date range:	01/01/16 - 20/11/17
Number of weekdays (Monday-Friday):	2
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.

APPENDIX C

TRAFFIC FLOW CALCULATIONS



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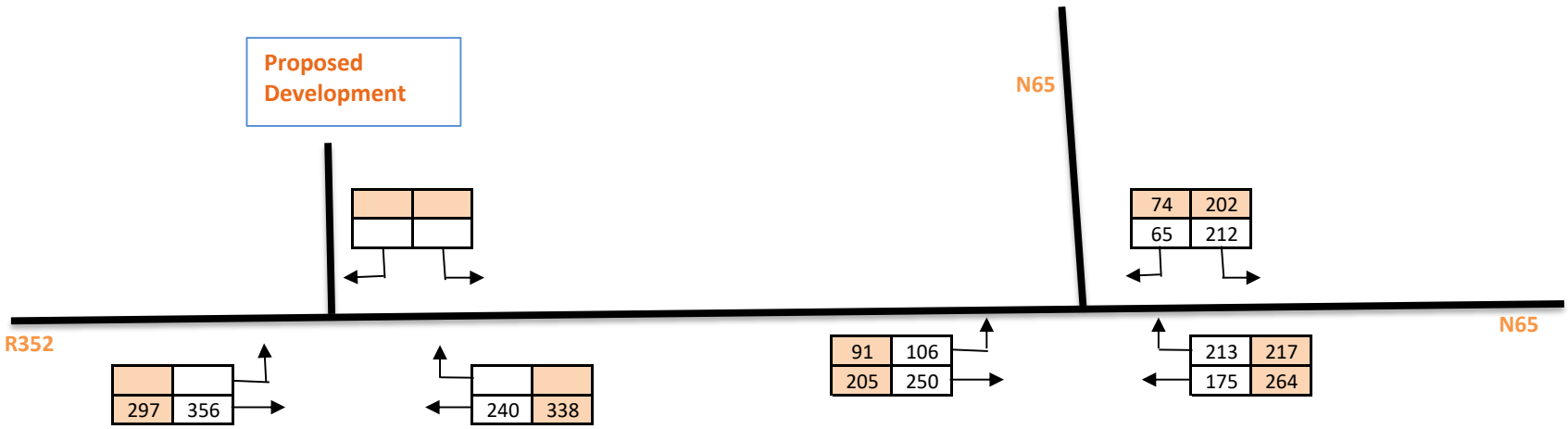
Chartered Consulting Engineers

Job No: 124422
Job Title: TTA for Proposed Housing Development, Portumna, County Galway

2025 SURVEYED PEAK HOUR TRAFFIC FLOWS

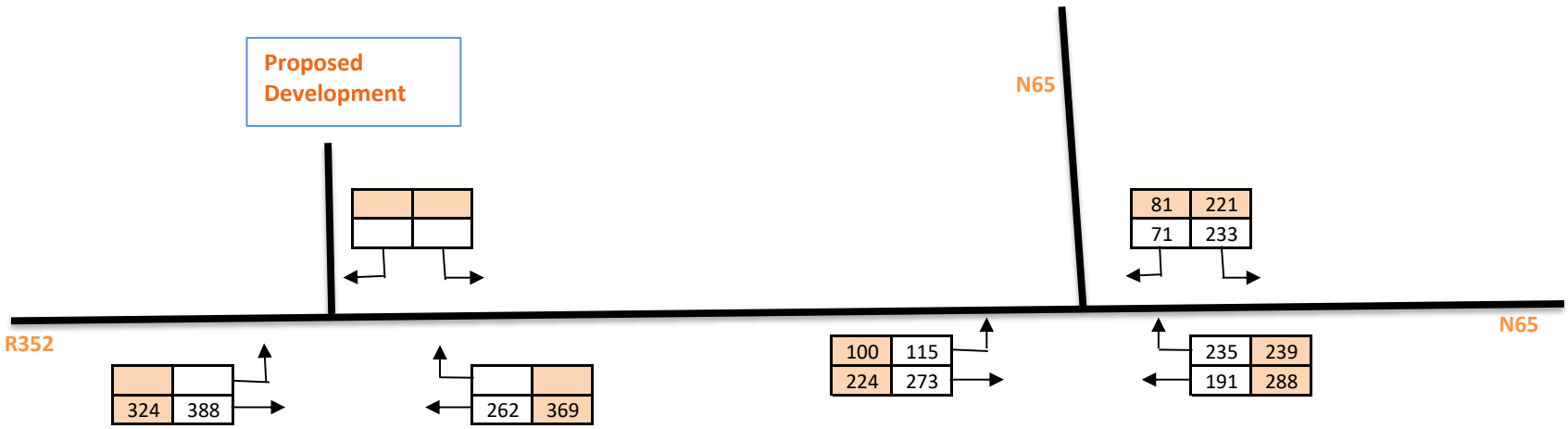


TII Link Based Growth Rates: Annual Growth Factors (2025 - 2028) LV: 1.08
TII Link Based Growth Rates: Annual Growth Factors (2025 - 2028) HV: 1.14

CST Group
Chartered Consulting Engineers

Job No: 124422
Job Title: TTA for Proposed Housing Development, Portumna, County Galway

2028 OPENING YEAR PEAK HOUR TRAFFIC FLOWS WITHOUT DEVELOPMENT

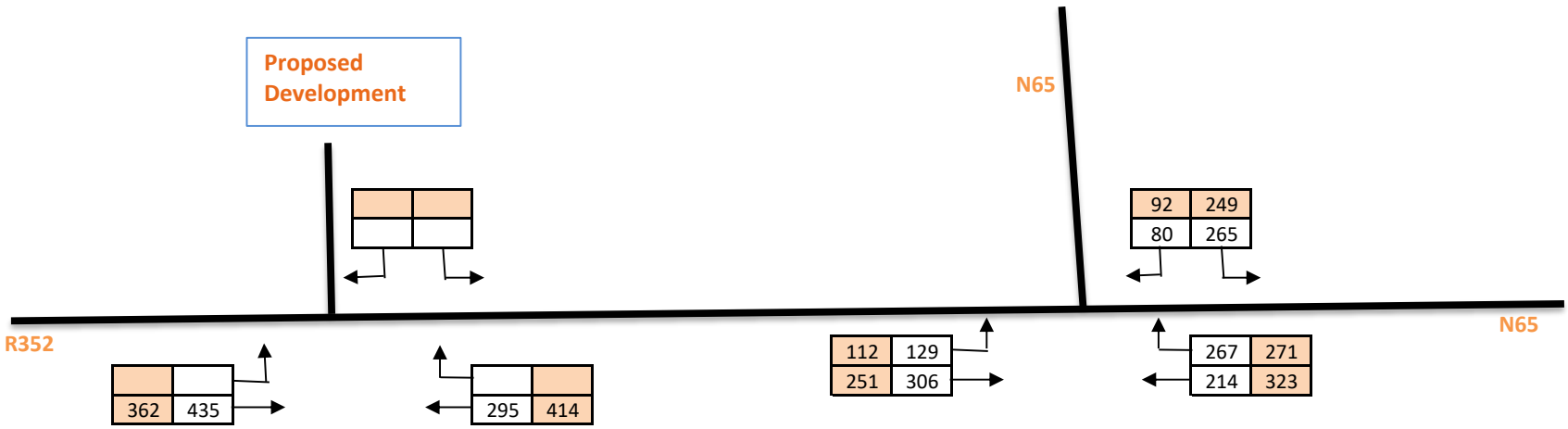


TII Link Based Growth Rates: Annual Growth Factors (2025 - 2033) LV: 1.17
TII Link Based Growth Rates: Annual Growth Factors (2025 - 2033) HV: 1.32

CST Group
Chartered Consulting Engineers

Job No: 124422
Job Title: TTA for Proposed Housing Development, Portumna, County 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: 124422
Job Title: TTA for Proposed Housing Development, Portumna, County Galway

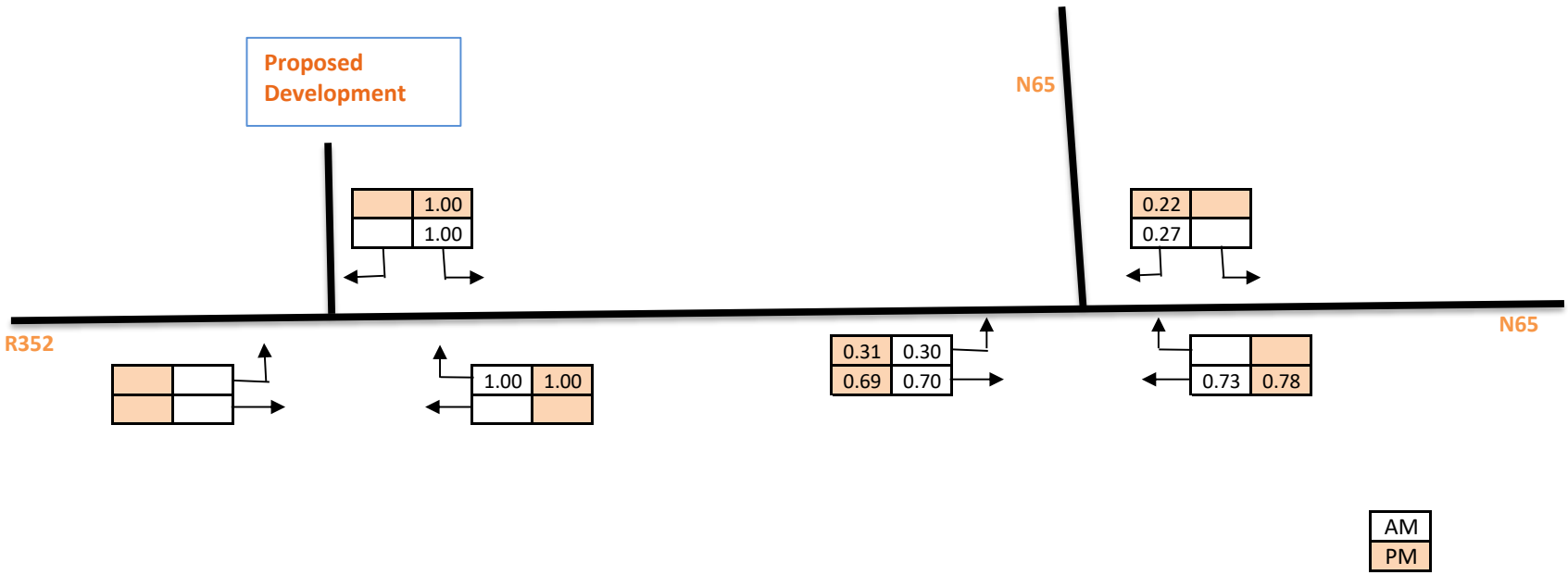
2043 OPENING YEAR +15 YEARS PEAK HOUR TRAFFIC FLOWS WITHOUT DEVELOPMENT

	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	38	0.235	0.294	0.392	0.216	9	11	15	8
Total						**9**	**11**	**15**	**8**

Job No: 124422

Job Title: TTA for Proposed Housing Development, Portumna, County Galway

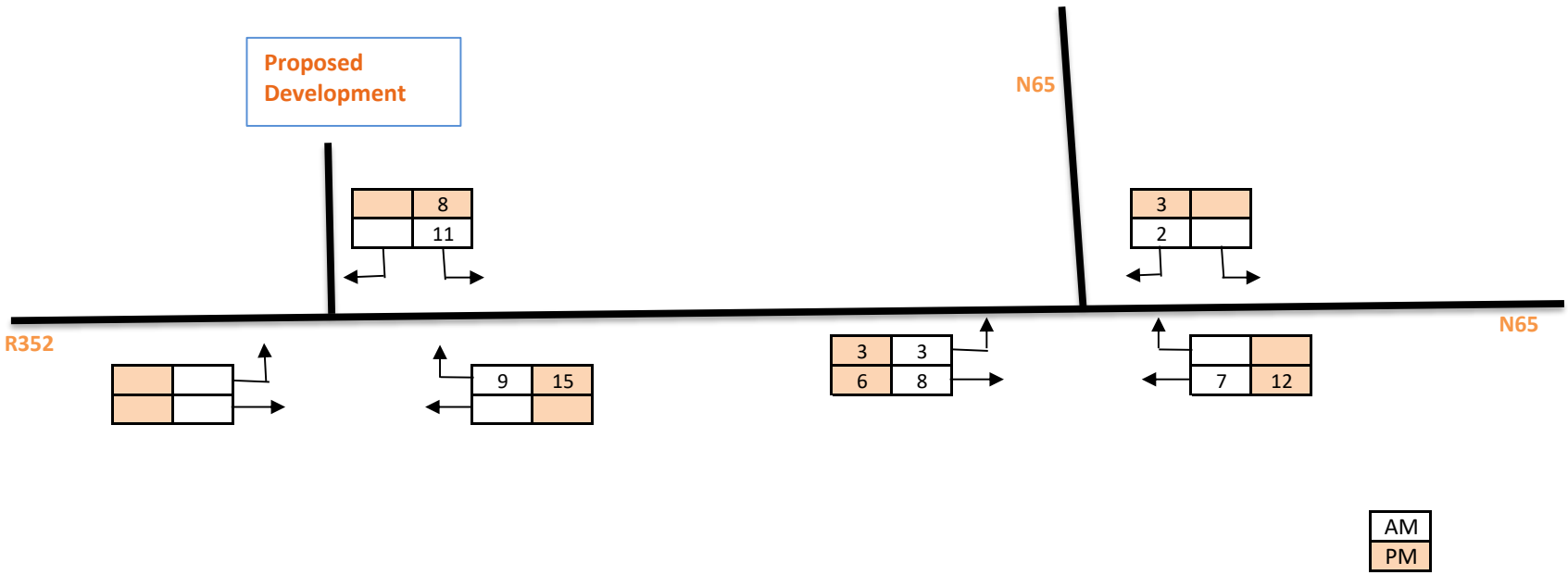
PROPOSED DEVELOPMENT TRAFFIC GENERATION



CST Group
Chartered Consulting Engineers

Job No: 124422
Job Title: TTA for Proposed Housing Development, Portumna, County Galway

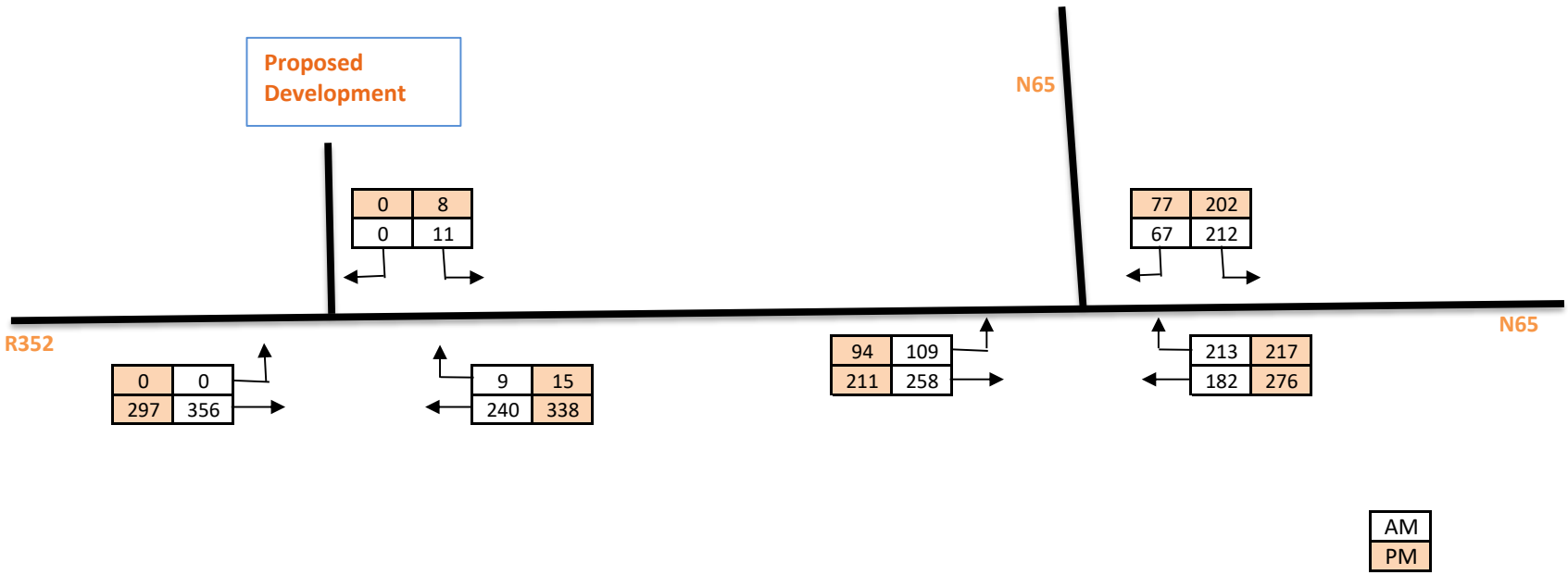
PROPOSED DEVELOPMENT GENERATED TRAFFIC DISTRIBUTION



CST Group
Chartered Consulting Engineers

Job No: 124422
Job Title: TTA for Proposed Housing Development, Portumna, County Galway

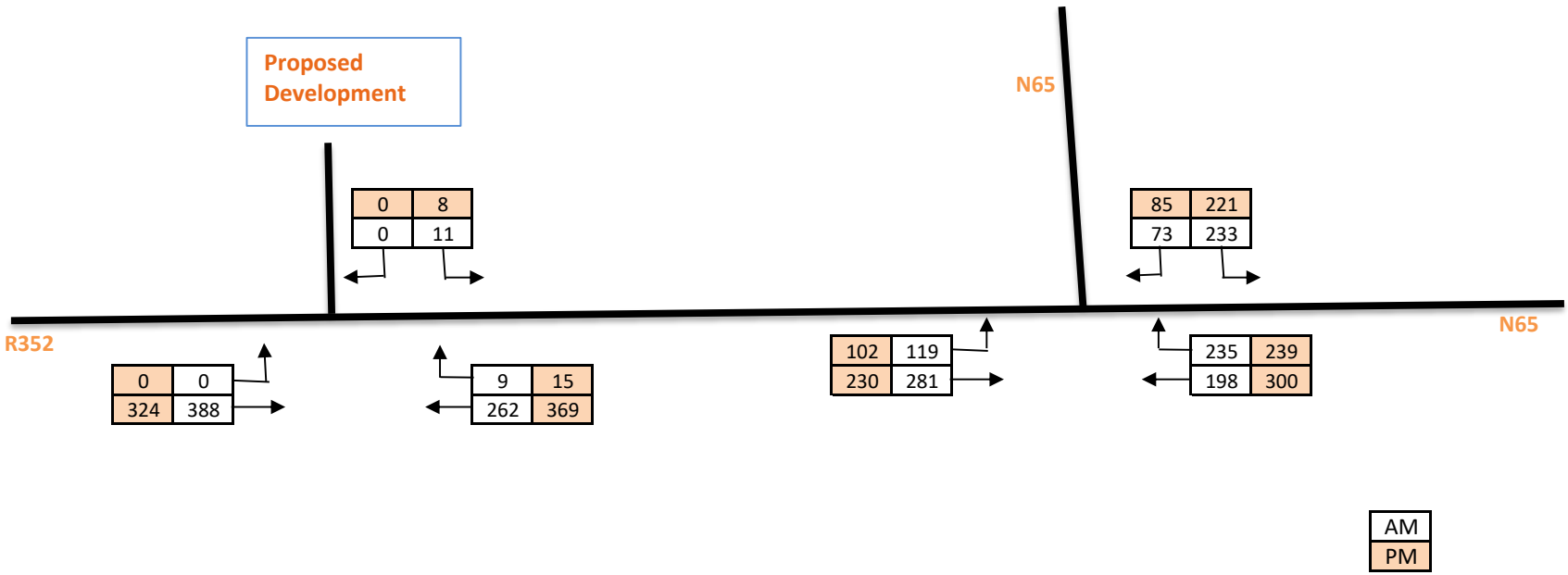
DEVELOPMENT FLOWS



CST Group
Chartered Consulting Engineers

Job No: 124422
Job Title: TTA for Proposed Housing Development, Portumna, County Galway

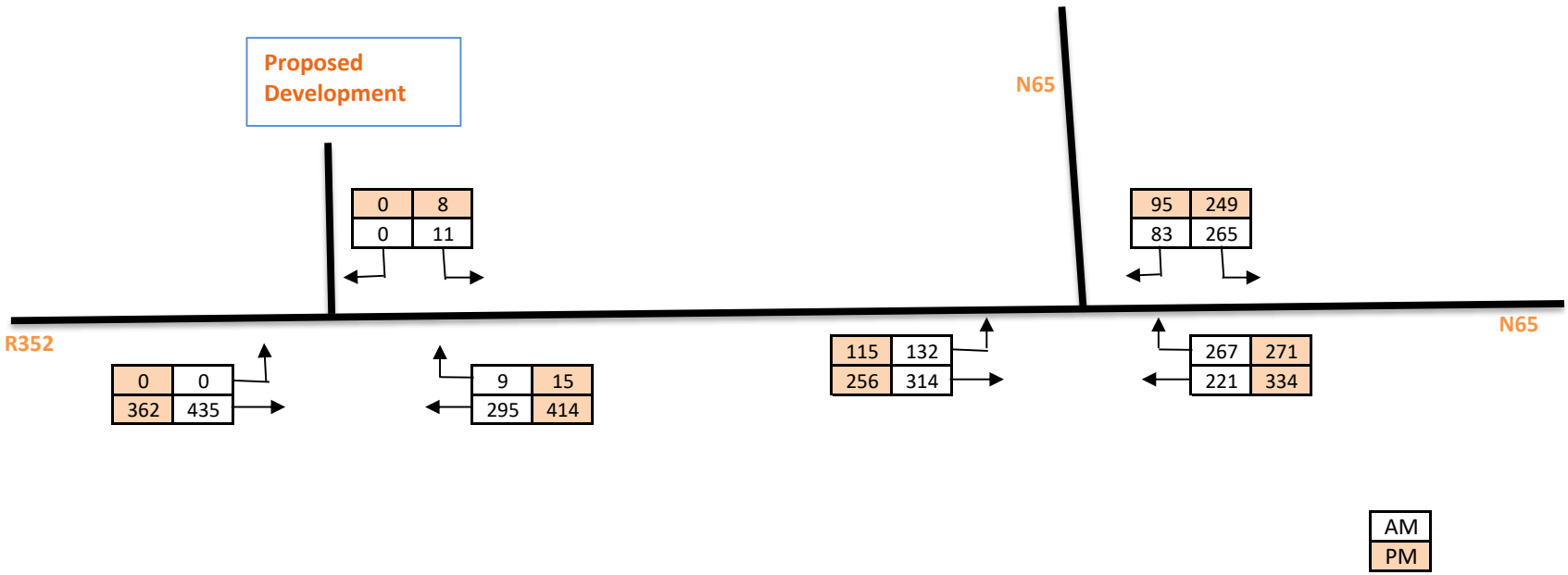
2028 OPENING YEAR PEAK HOUR TRAFFIC FLOWS WITH DEVELOPMENT



CST Group
Chartered Consulting Engineers

Job No: 124422
Job Title: TTA for Proposed Housing Development, Portumna, County Galway

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



CST Group
Chartered Consulting Engineers

Job No: 124422
Job Title: TTA for Proposed Housing Development, Portumna, County Galway

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

APPENDIX D1: R352/ N65 T-JUNCTION

EXISTING JUNCTION (PICADY OUTPUTS)

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: 124422 - Junction 1 - R352-N65 T-Junction 2025 03 24.j9
Path: I:\CST\124\401-450\124422\calcs\PICADY
Report generation date: 20/05/2025 12:46:26

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-C	D1	0.6	2.6	9.55	0.36	A	5.36	A	58 % [Stream B-A]	D2	0.5	2.4	9.15	0.34	A	5.37	A	55 % [Stream B-A]
Stream B-A		0.2	1.2	13.23	0.20	B					0.3	1.3	13.66	0.22	B			
Stream C-AB		0.9	4.4	9.42	0.43	A					1.1	5.4	8.85	0.46	A			
	2028 Without Dev																	
Stream B-C	D3	0.7	2.9	10.37	0.40	B	5.91	A	45 % [Stream B-A]	D4	0.6	2.8	9.87	0.38	A	5.95	A	43 % [Stream B-A]
Stream B-A		0.3	1.3	14.38	0.22	B					0.3	1.5	14.94	0.25	B			
Stream C-AB		1.1	5.1	10.26	0.48	B					1.4	6.3	9.66	0.51	A			
	2033 Without Dev																	
Stream B-C	D5	0.8	3.2	11.61	0.45	B	6.80	A	33 % [Stream B-A]	D6	0.7	3.0	10.93	0.42	B	6.92	A	30 % [Stream B-A]
Stream B-A		0.3	1.1	16.18	0.26	C					0.4	1.7	16.95	0.30	C			
Stream C-AB		1.5	6.3	11.67	0.55	B					1.8	8.1	11.12	0.58	B			
	2043 Without Dev																	
Stream B-C	D7	1.1	3.8	14.30	0.54	B	8.80	A	17 % [Stream B-A]	D8	1.0	3.6	13.19	0.50	B	9.21	A	15 % [Stream B-A]
Stream B-A		0.5	2.0	20.13	0.33	C					0.6	2.8	21.41	0.38	C			
Stream C-AB		2.3	10.5	14.93	0.65	B					3.0	15.0	14.79	0.69	B			
	2028 With Dev																	
Stream B-C	D9	0.7	2.9	10.51	0.41	B	5.93	A	43 % [Stream B-A]	D10	0.6	2.8	10.00	0.38	B	5.99	A	40 % [Stream B-A]
Stream B-A		0.3	1.4	14.70	0.23	B					0.4	1.2	15.38	0.27	C			
Stream C-AB		1.2	5.3	10.32	0.49	B					1.4	6.6	9.71	0.52	A			
	2033 With Dev																	
Stream B-C	D11	0.8	3.2	11.80	0.46	B	6.85	A	31 % [Stream B-A]	D12	0.7	3.1	11.14	0.43	B	7.02	A	27 % [Stream B-A]
Stream B-A		0.4	1.3	16.61	0.27	C					0.5	1.9	17.61	0.31	C			
Stream C-AB		1.5	6.5	11.79	0.55	B					1.9	8.5	11.23	0.59	B			
	2043 With Dev																	
Stream B-C	D13	1.2	3.9	14.68	0.54	B	8.96	A	15 % [Stream B-A]	D14	1.0	3.7	13.49	0.51	B	9.44	A	13 % [Stream B-A]
Stream B-A		0.5	2.3	20.96	0.35	C					0.6	3.0	22.32	0.39	C			
Stream C-AB		2.4	11.2	15.18	0.66	C					3.1	15.9	15.12	0.70	C			

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	24/03/2025
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	08:15	09:45	15	✓
D2	2025 Survey Year	PM	ONE HOUR	15:30	17:00	15	✓
D3	2028 Without Dev	AM	ONE HOUR	08:15	09:45	15	✓
D4	2028 Without Dev	PM	ONE HOUR	15:30	17:00	15	✓
D5	2033 Without Dev	AM	ONE HOUR	08:15	09:45	15	✓
D6	2033 Without Dev	PM	ONE HOUR	15:30	17:00	15	✓
D7	2043 Without Dev	AM	ONE HOUR	08:15	09:45	15	✓
D8	2043 Without Dev	PM	ONE HOUR	15:30	17:00	15	✓
D9	2028 With Dev	AM	ONE HOUR	08:15	09:45	15	✓
D10	2028 With Dev	PM	ONE HOUR	15:30	17:00	15	✓
D11	2033 With Dev	AM	ONE HOUR	08:15	09:45	15	✓
D12	2033 With Dev	PM	ONE HOUR	15:30	17:00	15	✓
D13	2043 With Dev	AM	ONE HOUR	08:15	09:45	15	✓
D14	2043 With Dev	PM	ONE HOUR	15:30	17:00	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	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	T-Junction	Two-way		5.36	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	58	Stream B-A

Arms

Arms

Arm	Name	Description	Arm type
A	R352		Major
B	N65 North		Minor
C	N65 East		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.00			120.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	9.00	6.00	3.00	3.00	✓	2.00	15	15

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	513	0.093	0.236	0.149	0.337
B-C	704	0.108	0.273	-	-
C-B	643	0.249	0.249	-	-

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	08:15	09:45	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	✓	329	100.000
B		ONE HOUR	✓	255	100.000
C		ONE HOUR	✓	358	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	98	231
	B	60	0	195
	C	162	196	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	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-C	0.36	9.55	0.6	2.6	A	179	268
B-A	0.20	13.23	0.2	1.2	B	55	83
C-AB	0.43	9.42	0.9	4.4	A	234	350
C-A						95	142
A-B						90	135
A-C						212	318

Main Results for each time segment

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-C	147	37	630	0.233	146	0.0	0.3	7.411	A
B-A	45	11	396	0.114	45	0.0	0.1	10.224	B
C-AB	181	45	664	0.272	179	0.0	0.4	7.401	A
C-A	89	22			89				
A-B	74	18			74				
A-C	174	43			174				

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-C	175	44	614	0.285	175	0.3	0.4	8.184	A
B-A	54	13	372	0.145	54	0.1	0.2	11.294	B
C-AB	226	56	669	0.337	225	0.4	0.6	8.100	A
C-A	96	24			96				
A-B	88	22			88				
A-C	208	52			208				

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-C	215	54	592	0.363	214	0.4	0.6	9.514	A
B-A	66	17	339	0.195	66	0.2	0.2	13.182	B
C-AB	294	73	677	0.434	292	0.6	0.9	9.359	A
C-A	100	25			100				
A-B	108	27			108				
A-C	254	64			254				

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-C	215	54	592	0.363	215	0.6	0.6	9.552	A
B-A	66	17	338	0.195	66	0.2	0.2	13.227	B
C-AB	294	74	677	0.434	294	0.9	0.9	9.419	A
C-A	100	25			100				
A-B	108	27			108				
A-C	254	64			254				

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-C	175	44	614	0.285	176	0.6	0.4	8.226	A
B-A	54	13	372	0.145	54	0.2	0.2	11.345	B
C-AB	226	56	670	0.337	227	0.9	0.6	8.168	A
C-A	96	24			96				
A-B	88	22			88				
A-C	208	52			208				

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	147	37	630	0.233	147	0.4	0.3	7.463	A
B-A	45	11	396	0.114	45	0.2	0.1	10.285	B
C-AB	181	45	665	0.273	182	0.6	0.4	7.478	A
C-A	88	22			88				
A-B	74	18			74				
A-C	174	43			174				

Queue Variation Results for each time segment

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-C	0.30	0.00	0.00	0.30	0.30			N/A	N/A
B-A	0.13	0.00	0.00	0.13	0.13			N/A	N/A
C-AB	0.43	0.00	0.00	0.43	0.43			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-C	0.39	0.00	0.00	0.39	0.39			N/A	N/A
B-A	0.17	0.00	0.00	0.17	0.17			N/A	N/A
C-AB	0.60	0.55	1.00	1.40	1.45			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-C	0.56	0.03	0.26	0.56	0.56			N/A	N/A
B-A	0.24	0.03	0.26	0.46	0.49			N/A	N/A
C-AB	0.92	0.03	0.26	0.92	0.92			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-C	0.57	0.03	0.29	1.29	2.63			N/A	N/A
B-A	0.24	0.03	0.29	0.79	1.16			N/A	N/A
C-AB	0.93	0.03	0.30	1.23	4.45			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-C	0.40	0.00	0.00	0.40	0.40			N/A	N/A
B-A	0.17	0.00	0.00	0.17	0.17			N/A	N/A
C-AB	0.62	0.17	0.92	1.38	1.44			N/A	N/A

09:30 - 09:45

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-C	0.31	0.00	0.00	0.31	0.31			N/A	N/A
B-A	0.13	0.00	0.00	0.13	0.13			N/A	N/A
C-AB	0.44	0.03	0.34	1.13	1.32			N/A	N/A

2025 Survey Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
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	T-Junction	Two-way		5.37	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	55	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	15:30	17:00	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	✓	274	100.000
B		ONE HOUR	✓	254	100.000
C		ONE HOUR	✓	444	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	84	190
	B	68	0	186
	C	244	200	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	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-C	0.34	9.15	0.5	2.4	A	171	256
B-A	0.22	13.66	0.3	1.3	B	62	94
C-AB	0.46	8.85	1.1	5.4	A	268	402
C-A						139	209
A-B						77	116
A-C						174	262

Main Results for each time segment

15:30 - 15:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	140	35	635	0.221	139	0.0	0.3	7.244	A
B-A	51	13	397	0.129	51	0.0	0.1	10.375	B
C-AB	203	51	715	0.283	201	0.0	0.5	6.979	A
C-A	132	33			132				
A-B	63	16			63				
A-C	143	36			143				

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	167	42	620	0.270	167	0.3	0.4	7.940	A
B-A	61	15	373	0.164	61	0.1	0.2	11.540	B
C-AB	258	64	731	0.352	257	0.5	0.7	7.600	A
C-A	142	35			142				
A-B	76	19			76				
A-C	171	43			171				

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	205	51	598	0.342	204	0.4	0.5	9.122	A
B-A	75	19	339	0.221	75	0.2	0.3	13.607	B
C-AB	344	86	753	0.457	342	0.7	1.1	8.778	A
C-A	145	36			145				
A-B	92	23			92				
A-C	209	52			209				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	205	51	598	0.342	205	0.5	0.5	9.154	A
B-A	75	19	338	0.221	75	0.3	0.3	13.663	B
C-AB	344	86	753	0.457	344	1.1	1.1	8.846	A
C-A	145	36			145				
A-B	92	23			92				
A-C	209	52			209				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	167	42	620	0.270	168	0.5	0.4	7.978	A
B-A	61	15	372	0.164	61	0.3	0.2	11.601	B
C-AB	258	65	732	0.353	260	1.1	0.7	7.678	A
C-A	141	35			141				
A-B	76	19			76				
A-C	171	43			171				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	140	35	634	0.221	140	0.4	0.3	7.292	A
B-A	51	13	396	0.129	51	0.2	0.2	10.447	B
C-AB	203	51	716	0.284	204	0.7	0.5	7.059	A
C-A	131	33			131				
A-B	63	16			63				
A-C	143	36			143				

Queue Variation Results for each time segment

15:30 - 15:45

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-C	0.28	0.00	0.00	0.28	0.28			N/A	N/A
B-A	0.15	0.00	0.00	0.15	0.15			N/A	N/A
C-AB	0.49	0.00	0.00	0.49	0.49			N/A	N/A

15:45 - 16:00

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-C	0.37	0.00	0.00	0.37	0.37			N/A	N/A
B-A	0.19	0.00	0.00	0.19	0.19			N/A	N/A
C-AB	0.69	0.55	1.00	1.40	1.45			N/A	N/A

16:00 - 16:15

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-C	0.51	0.03	0.26	0.51	0.51			N/A	N/A
B-A	0.28	0.03	0.26	0.46	0.49			N/A	N/A
C-AB	1.09	0.03	0.26	1.09	1.09			N/A	N/A

16:15 - 16:30

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-C	0.52	0.03	0.30	1.33	2.39			N/A	N/A
B-A	0.28	0.03	0.30	1.00	1.32			N/A	N/A
C-AB	1.10	0.03	0.30	1.57	5.38			N/A	N/A

16:30 - 16:45

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-C	0.37	0.00	0.00	0.37	0.37			N/A	N/A
B-A	0.20	0.00	0.00	0.20	0.20			N/A	N/A
C-AB	0.71	0.51	0.98	1.40	1.45			N/A	N/A

16:45 - 17:00

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-C	0.29	0.00	0.00	0.29	0.29			N/A	N/A
B-A	0.15	0.00	0.00	0.15	0.15			N/A	N/A
C-AB	0.50	0.05	0.49	1.29	1.40			N/A	N/A

2028 Without Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
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	T-Junction	Two-way		5.91	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	45	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	08:15	09:45	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	✓	356	100.000
B		ONE HOUR	✓	277	100.000
C		ONE HOUR	✓	388	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	106	250
	B	65	0	212
	C	175	213	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	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-C	0.40	10.37	0.7	2.9	B	195	292
B-A	0.22	14.38	0.3	1.3	B	60	89
C-AB	0.48	10.26	1.1	5.1	B	260	390
C-A						96	144
A-B						97	146
A-C						229	344

Main Results for each time segment

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-C	160	40	624	0.256	158	0.0	0.3	7.712	A
B-A	49	12	386	0.127	48	0.0	0.1	10.638	B
C-AB	200	50	666	0.300	198	0.0	0.5	7.665	A
C-A	92	23			92				
A-B	80	20			80				
A-C	188	47			188				

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-C	191	48	606	0.314	190	0.3	0.5	8.640	A
B-A	58	15	360	0.162	58	0.1	0.2	11.928	B
C-AB	251	63	672	0.373	250	0.5	0.7	8.526	A
C-A	98	25			98				
A-B	95	24			95				
A-C	225	56			225				

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-C	233	58	581	0.402	233	0.5	0.7	10.312	B
B-A	72	18	322	0.222	71	0.2	0.3	14.312	B
C-AB	328	82	680	0.482	326	0.7	1.1	10.167	B
C-A	99	25			99				
A-B	117	29			117				
A-C	275	69			275				

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-C	233	58	581	0.402	233	0.7	0.7	10.366	B
B-A	72	18	322	0.222	72	0.3	0.3	14.381	B
C-AB	329	82	681	0.483	329	1.1	1.1	10.261	B
C-A	99	25			99				
A-B	117	29			117				
A-C	275	69			275				

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-C	191	48	606	0.315	191	0.7	0.5	8.701	A
B-A	58	15	359	0.163	59	0.3	0.2	12.001	B
C-AB	251	63	673	0.373	253	1.1	0.7	8.625	A
C-A	98	24			98				
A-B	95	24			95				
A-C	225	56			225				

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	160	40	623	0.256	160	0.5	0.3	7.780	A
B-A	49	12	385	0.127	49	0.2	0.1	10.714	B
C-AB	200	50	667	0.301	201	0.7	0.5	7.760	A
C-A	92	23			92				
A-B	80	20			80				
A-C	188	47			188				

Queue Variation Results for each time segment

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-C	0.34	0.00	0.00	0.34	0.34			N/A	N/A
B-A	0.14	0.00	0.00	0.14	0.14			N/A	N/A
C-AB	0.50	0.00	0.00	0.50	0.50			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-C	0.45	0.00	0.00	0.45	0.45			N/A	N/A
B-A	0.19	0.00	0.00	0.19	0.19			N/A	N/A
C-AB	0.70	0.55	1.00	1.40	1.45			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-C	0.66	0.03	0.26	0.66	0.66			N/A	N/A
B-A	0.28	0.03	0.26	0.47	0.49			N/A	N/A
C-AB	1.12	0.03	0.27	1.12	1.23			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-C	0.67	0.03	0.29	1.15	2.89			N/A	N/A
B-A	0.28	0.03	0.31	1.01	1.32			N/A	N/A
C-AB	1.14	0.03	0.29	1.14	5.09			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-C	0.47	0.04	0.37	1.19	1.34			N/A	N/A
B-A	0.20	0.00	0.00	0.20	0.20			N/A	N/A
C-AB	0.73	0.21	0.93	1.39	1.44			N/A	N/A

09:30 - 09:45

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-C	0.35	0.03	0.26	0.46	0.49			N/A	N/A
B-A	0.15	0.00	0.00	0.15	0.15			N/A	N/A
C-AB	0.51	0.05	0.49	1.30	1.40			N/A	N/A

2028 Without Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
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	T-Junction	Two-way		5.95	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	43	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	15:30	17:00	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	✓	296	100.000
B		ONE HOUR	✓	276	100.000
C		ONE HOUR	✓	481	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	91	205
	B	74	0	202
	C	264	217	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	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-C	0.38	9.87	0.6	2.8	A	185	278
B-A	0.25	14.94	0.3	1.5	B	68	102
C-AB	0.51	9.66	1.4	6.3	A	301	451
C-A						140	211
A-B						84	125
A-C						188	282

Main Results for each time segment

15:30 - 15:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	152	38	629	0.242	151	0.0	0.3	7.514	A
B-A	56	14	387	0.144	55	0.0	0.2	10.824	B
C-AB	225	56	722	0.312	223	0.0	0.6	7.202	A
C-A	137	34			137				
A-B	69	17			69				
A-C	154	39			154				

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	182	45	612	0.297	181	0.3	0.4	8.345	A
B-A	67	17	360	0.185	66	0.2	0.2	12.231	B
C-AB	288	72	739	0.390	287	0.6	0.8	7.981	A
C-A	144	36			144				
A-B	82	20			82				
A-C	184	46			184				

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	222	56	588	0.379	222	0.4	0.6	9.821	A
B-A	81	20	323	0.252	81	0.2	0.3	14.857	B
C-AB	388	97	763	0.508	386	0.8	1.3	9.555	A
C-A	142	35			142				
A-B	100	25			100				
A-C	226	56			226				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	222	56	587	0.379	222	0.6	0.6	9.867	A
B-A	81	20	322	0.253	81	0.3	0.3	14.942	B
C-AB	388	97	764	0.509	388	1.3	1.4	9.662	A
C-A	141	35			141				
A-B	100	25			100				
A-C	226	56			226				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	182	45	612	0.297	182	0.6	0.4	8.398	A
B-A	67	17	360	0.185	67	0.3	0.2	12.319	B
C-AB	289	72	740	0.391	291	1.4	0.9	8.092	A
C-A	143	36			143				
A-B	82	20			82				
A-C	184	46			184				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	152	38	628	0.242	152	0.4	0.3	7.577	A
B-A	56	14	386	0.144	56	0.2	0.2	10.913	B
C-AB	226	57	722	0.313	227	0.9	0.6	7.301	A
C-A	136	34			136				
A-B	69	17			69				
A-C	154	39			154				

Queue Variation Results for each time segment

15:30 - 15:45

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-C	0.32	0.00	0.00	0.32	0.32			N/A	N/A
B-A	0.17	0.00	0.00	0.17	0.17			N/A	N/A
C-AB	0.57	0.55	1.00	1.40	1.45			N/A	N/A

15:45 - 16:00

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-C	0.42	0.00	0.00	0.42	0.42			N/A	N/A
B-A	0.22	0.00	0.00	0.22	0.22			N/A	N/A
C-AB	0.82	0.54	1.00	1.40	1.45			N/A	N/A

16:00 - 16:15

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-C	0.60	0.03	0.26	0.60	0.60			N/A	N/A
B-A	0.33	0.03	0.26	0.46	0.49			N/A	N/A
C-AB	1.35	0.03	0.27	1.35	1.97			N/A	N/A

16:15 - 16:30

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-C	0.60	0.03	0.29	1.25	2.77			N/A	N/A
B-A	0.33	0.03	0.31	1.16	1.49			N/A	N/A
C-AB	1.37	0.03	0.30	1.49	6.30			N/A	N/A

16:30 - 16:45

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-C	0.43	0.00	0.00	0.43	0.43			N/A	N/A
B-A	0.23	0.00	0.00	0.23	0.23			N/A	N/A
C-AB	0.85	0.45	0.98	1.41	1.46			N/A	N/A

16:45 - 17:00

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-C	0.32	0.00	0.00	0.32	0.32			N/A	N/A
B-A	0.17	0.00	0.00	0.17	0.17			N/A	N/A
C-AB	0.59	0.07	0.69	1.34	1.42			N/A	N/A

2033 Without Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
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	T-Junction	Two-way		6.80	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	33	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	08:15	09:45	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	✓	388	100.000
B		ONE HOUR	✓	304	100.000
C		ONE HOUR	✓	426	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	115	273
	B	71	0	233
	C	191	235	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	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-C	0.45	11.61	0.8	3.2	B	214	321
B-A	0.26	16.18	0.3	1.1	C	65	98
C-AB	0.55	11.67	1.5	6.3	B	295	443
C-A						96	144
A-B						106	158
A-C						251	376

Main Results for each time segment

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-C	175	44	616	0.285	174	0.0	0.4	8.117	A
B-A	53	13	373	0.143	53	0.0	0.2	11.206	B
C-AB	225	56	669	0.337	223	0.0	0.6	8.046	A
C-A	95	24			95				
A-B	87	22			87				
A-C	206	51			206				

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-C	209	52	596	0.351	209	0.4	0.5	9.280	A
B-A	64	16	344	0.186	64	0.2	0.2	12.829	B
C-AB	284	71	675	0.420	283	0.6	0.9	9.171	A
C-A	99	25			99				
A-B	103	26			103				
A-C	245	61			245				

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-C	257	64	567	0.453	255	0.5	0.8	11.516	B
B-A	78	20	301	0.259	78	0.2	0.3	16.058	C
C-AB	375	94	685	0.547	372	0.9	1.5	11.500	B
C-A	94	24			94				
A-B	127	32			127				
A-C	301	75			301				

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-C	257	64	567	0.453	256	0.8	0.8	11.608	B
B-A	78	20	301	0.260	78	0.3	0.3	16.181	C
C-AB	375	94	686	0.547	375	1.5	1.5	11.670	B
C-A	94	23			94				
A-B	127	32			127				
A-C	301	75			301				

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-C	209	52	596	0.352	211	0.8	0.6	9.372	A
B-A	64	16	343	0.186	64	0.3	0.2	12.939	B
C-AB	285	71	676	0.421	287	1.5	0.9	9.333	A
C-A	98	25			98				
A-B	103	26			103				
A-C	245	61			245				

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	175	44	615	0.285	176	0.6	0.4	8.205	A
B-A	53	13	372	0.144	54	0.2	0.2	11.308	B
C-AB	226	57	669	0.338	227	0.9	0.6	8.177	A
C-A	95	24			95				
A-B	87	22			87				
A-C	206	51			206				

Queue Variation Results for each time segment

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-C	0.39	0.00	0.00	0.39	0.39			N/A	N/A
B-A	0.16	0.00	0.00	0.16	0.16			N/A	N/A
C-AB	0.60	0.55	1.00	1.40	1.45			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-C	0.53	0.53	1.00	1.40	1.45			N/A	N/A
B-A	0.22	0.00	0.00	0.22	0.22			N/A	N/A
C-AB	0.86	0.51	0.99	1.40	1.46			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-C	0.81	0.03	0.26	0.81	0.81			N/A	N/A
B-A	0.34	0.03	0.26	0.47	0.49			N/A	N/A
C-AB	1.46	0.03	0.28	1.46	3.62			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-C	0.82	0.03	0.28	0.94	3.19			N/A	N/A
B-A	0.35	0.03	0.31	1.09	1.09			N/A	N/A
C-AB	1.48	0.03	0.29	1.48	6.26			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-C	0.55	0.06	0.65	1.33	1.42			N/A	N/A
B-A	0.23	0.00	0.00	0.23	0.23			N/A	N/A
C-AB	0.90	0.16	0.96	1.44	1.44			N/A	N/A

09:30 - 09:45

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-C	0.40	0.03	0.32	1.06	1.28			N/A	N/A
B-A	0.17	0.00	0.00	0.17	0.17			N/A	N/A
C-AB	0.62	0.06	0.62	1.36	1.45			N/A	N/A

2033 Without Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
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	T-Junction	Two-way		6.92	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	30	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	15:30	17:00	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	✓	324	100.000
B		ONE HOUR	✓	302	100.000
C		ONE HOUR	✓	527	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	100	224
	B	81	0	221
	C	288	239	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	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-C	0.42	10.93	0.7	3.0	B	203	304
B-A	0.30	16.95	0.4	1.7	C	74	111
C-AB	0.58	11.12	1.8	8.1	B	345	518
C-A						138	208
A-B						92	138
A-C						206	308

Main Results for each time segment

15:30 - 15:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	166	42	621	0.268	165	0.0	0.4	7.844	A
B-A	61	15	374	0.163	60	0.0	0.2	11.439	B
C-AB	256	64	729	0.351	253	0.0	0.7	7.541	A
C-A	141	35			141				
A-B	75	19			75				
A-C	169	42			169				

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	199	50	602	0.330	198	0.4	0.5	8.899	A
B-A	73	18	345	0.211	73	0.2	0.3	13.218	B
C-AB	330	82	748	0.441	328	0.7	1.0	8.588	A
C-A	144	36			144				
A-B	90	22			90				
A-C	201	50			201				

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	243	61	573	0.425	242	0.5	0.7	10.853	B
B-A	89	22	302	0.295	89	0.3	0.4	16.797	C
C-AB	448	112	775	0.578	445	1.0	1.8	10.917	B
C-A	132	33			132				
A-B	110	28			110				
A-C	247	62			247				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	243	61	573	0.425	243	0.7	0.7	10.932	B
B-A	89	22	301	0.296	89	0.4	0.4	16.951	C
C-AB	449	112	776	0.579	449	1.8	1.8	11.123	B
C-A	131	33			131				
A-B	110	28			110				
A-C	247	62			247				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	199	50	602	0.330	200	0.7	0.5	8.976	A
B-A	73	18	343	0.212	73	0.4	0.3	13.359	B
C-AB	331	83	750	0.442	334	1.8	1.1	8.771	A
C-A	143	36			143				
A-B	90	22			90				
A-C	201	50			201				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	166	42	620	0.268	167	0.5	0.4	7.948	A
B-A	61	15	373	0.163	61	0.3	0.2	11.558	B
C-AB	257	64	730	0.352	259	1.1	0.7	7.679	A
C-A	139	35			139				
A-B	75	19			75				
A-C	169	42			169				

Queue Variation Results for each time segment

15:30 - 15:45

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-C	0.36	0.00	0.00	0.36	0.36			N/A	N/A
B-A	0.19	0.00	0.00	0.19	0.19			N/A	N/A
C-AB	0.68	0.55	1.00	1.40	1.45			N/A	N/A

15:45 - 16:00

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-C	0.49	0.00	0.00	0.49	0.49			N/A	N/A
B-A	0.26	0.00	0.00	0.26	0.26			N/A	N/A
C-AB	1.01	0.52	1.03	1.42	1.42			N/A	N/A

16:00 - 16:15

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-C	0.72	0.03	0.26	0.72	0.72			N/A	N/A
B-A	0.41	0.03	0.26	0.47	0.49			N/A	N/A
C-AB	1.80	0.03	0.28	1.80	6.36			N/A	N/A

16:15 - 16:30

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-C	0.73	0.03	0.29	1.07	3.03			N/A	N/A
B-A	0.41	0.03	0.31	1.32	1.67			N/A	N/A
C-AB	1.83	0.03	0.29	1.83	8.10			N/A	N/A

16:30 - 16:45

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-C	0.50	0.05	0.47	1.29	1.39			N/A	N/A
B-A	0.27	0.00	0.00	0.27	0.27			N/A	N/A
C-AB	1.07	0.23	1.05	1.49	1.78			N/A	N/A

16:45 - 17:00

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-C	0.37	0.03	0.28	0.55	1.03			N/A	N/A
B-A	0.20	0.00	0.00	0.20	0.20			N/A	N/A
C-AB	0.71	0.07	0.72	1.15	1.15			N/A	N/A

2043 Without Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
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	T-Junction	Two-way		8.80	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	17	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	08:15	09:45	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	✓	435	100.000
B		ONE HOUR	✓	345	100.000
C		ONE HOUR	✓	481	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	129	306
	B	80	0	265
	C	214	267	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	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-C	0.54	14.30	1.1	3.8	B	243	365
B-A	0.33	20.13	0.5	2.0	C	73	110
C-AB	0.65	14.93	2.3	10.5	B	350	525
C-A						91	137
A-B						118	178
A-C						281	421

Main Results for each time segment

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-C	200	50	604	0.330	198	0.0	0.5	8.818	A
B-A	60	15	355	0.170	59	0.0	0.2	12.167	B
C-AB	264	66	673	0.393	261	0.0	0.8	8.709	A
C-A	98	24			98				
A-B	97	24			97				
A-C	230	58			230				

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-C	238	60	581	0.410	237	0.5	0.7	10.472	B
B-A	72	18	320	0.225	72	0.2	0.3	14.473	B
C-AB	336	84	681	0.493	334	0.8	1.2	10.393	B
C-A	97	24			97				
A-B	116	29			116				
A-C	275	69			275				

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-C	292	73	544	0.536	290	0.7	1.1	14.073	B
B-A	88	22	268	0.328	87	0.3	0.5	19.819	C
C-AB	448	112	692	0.647	444	1.2	2.2	14.458	B
C-A	82	20			82				
A-B	142	36			142				
A-C	337	84			337				

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-C	292	73	543	0.537	292	1.1	1.1	14.304	B
B-A	88	22	267	0.330	88	0.5	0.5	20.127	C
C-AB	449	112	693	0.648	449	2.2	2.3	14.925	B
C-A	80	20			80				
A-B	142	36			142				
A-C	337	84			337				

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-C	238	60	580	0.411	240	1.1	0.7	10.648	B
B-A	72	18	318	0.226	73	0.5	0.3	14.709	B
C-AB	337	84	682	0.494	341	2.3	1.2	10.744	B
C-A	95	24			95				
A-B	116	29			116				
A-C	275	69			275				

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	200	50	603	0.331	200	0.7	0.5	8.955	A
B-A	60	15	353	0.171	61	0.3	0.2	12.324	B
C-AB	265	66	674	0.394	267	1.2	0.8	8.921	A
C-A	97	24			97				
A-B	97	24			97				
A-C	230	58			230				

Queue Variation Results for each time segment

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-C	0.49	0.00	0.00	0.49	0.49			N/A	N/A
B-A	0.20	0.00	0.00	0.20	0.20			N/A	N/A
C-AB	0.77	0.55	1.00	1.40	1.45			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-C	0.68	0.17	0.91	1.38	1.44			N/A	N/A
B-A	0.28	0.00	0.00	0.28	0.28			N/A	N/A
C-AB	1.17	0.23	1.11	1.69	1.92			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-C	1.12	0.03	0.27	1.12	1.44			N/A	N/A
B-A	0.47	0.03	0.26	0.47	0.50			N/A	N/A
C-AB	2.20	0.03	0.30	2.70	10.49			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-C	1.14	0.03	0.28	1.14	3.82			N/A	N/A
B-A	0.48	0.03	0.31	1.43	2.01			N/A	N/A
C-AB	2.27	0.03	0.30	2.27	9.85			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-C	0.71	0.07	0.74	1.42	1.50			N/A	N/A
B-A	0.30	0.00	0.00	0.30	0.30			N/A	N/A
C-AB	1.24	0.10	1.05	2.17	2.86			N/A	N/A

09:30 - 09:45

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-C	0.50	0.04	0.42	1.29	1.42			N/A	N/A
B-A	0.21	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.80	0.05	0.52	1.57	2.10			N/A	N/A

2043 Without Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
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	T-Junction	Two-way		9.21	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	15	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	15:30	17:00	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	✓	363	100.000
B		ONE HOUR	✓	341	100.000
C		ONE HOUR	✓	594	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	112	251
	B	92	0	249
	C	323	271	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	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-C	0.50	13.19	1.0	3.6	B	228	343
B-A	0.38	21.41	0.6	2.8	C	84	127
C-AB	0.69	14.79	3.0	15.0	B	416	624
C-A						129	194
A-B						103	154
A-C						230	345

Main Results for each time segment

15:30 - 15:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	187	47	609	0.308	186	0.0	0.4	8.467	A
B-A	69	17	356	0.195	68	0.0	0.2	12.490	B
C-AB	304	76	741	0.410	300	0.0	0.9	8.137	A
C-A	143	36			143				
A-B	84	21			84				
A-C	189	47			189				

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	224	56	586	0.382	223	0.4	0.6	9.893	A
B-A	83	21	321	0.257	82	0.2	0.3	15.042	C
C-AB	395	99	763	0.518	393	0.9	1.4	9.758	A
C-A	139	35			139				
A-B	101	25			101				
A-C	226	56			226				

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	274	69	548	0.500	273	0.6	1.0	12.996	B
B-A	101	25	271	0.374	100	0.3	0.6	20.987	C
C-AB	545	136	794	0.686	539	1.4	2.8	14.144	B
C-A	109	27			109				
A-B	123	31			123				
A-C	276	69			276				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	274	69	547	0.501	274	1.0	1.0	13.187	B
B-A	101	25	269	0.376	101	0.6	0.6	21.411	C
C-AB	548	137	796	0.688	547	2.8	3.0	14.787	B
C-A	106	27			106				
A-B	123	31			123				
A-C	276	69			276				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	224	56	585	0.383	225	1.0	0.6	10.045	B
B-A	83	21	319	0.259	84	0.6	0.4	15.348	C
C-AB	398	100	765	0.520	404	3.0	1.5	10.200	B
C-A	136	34			136				
A-B	101	25			101				
A-C	226	56			226				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	187	47	608	0.308	188	0.6	0.5	8.584	A
B-A	69	17	354	0.196	70	0.4	0.2	12.684	B
C-AB	306	76	742	0.412	308	1.5	0.9	8.362	A
C-A	142	35			142				
A-B	84	21			84				
A-C	189	47			189				

Queue Variation Results for each time segment

15:30 - 15:45

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-C	0.44	0.00	0.00	0.44	0.44			N/A	N/A
B-A	0.24	0.00	0.00	0.24	0.24			N/A	N/A
C-AB	0.89	0.55	1.00	1.40	1.45			N/A	N/A

15:45 - 16:00

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-C	0.61	0.15	0.90	1.38	1.44			N/A	N/A
B-A	0.34	0.00	0.00	0.34	0.34			N/A	N/A
C-AB	1.40	0.21	1.25	2.12	2.73			N/A	N/A

16:00 - 16:15

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-C	0.97	0.03	0.26	0.97	0.97			N/A	N/A
B-A	0.58	0.03	0.26	0.58	0.58			N/A	N/A
C-AB	2.85	0.03	0.33	5.32	15.04			N/A	N/A

16:15 - 16:30

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-C	0.99	0.03	0.28	0.99	3.58			N/A	N/A
B-A	0.59	0.03	0.31	1.06	2.76			N/A	N/A
C-AB	2.96	0.03	0.31	3.50	13.99			N/A	N/A

16:30 - 16:45

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-C	0.63	0.07	0.72	1.35	1.43			N/A	N/A
B-A	0.36	0.03	0.27	0.48	0.80			N/A	N/A
C-AB	1.50	0.11	1.20	2.82	3.71			N/A	N/A

16:45 - 17:00

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-C	0.45	0.04	0.39	1.22	1.36			N/A	N/A
B-A	0.25	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.93	0.05	0.56	1.90	2.77			N/A	N/A

2028 With Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
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	T-Junction	Two-way		5.93	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	43	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	08:15	09:45	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	✓	367	100.000
B		ONE HOUR	✓	279	100.000
C		ONE HOUR	✓	395	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	109	258
	B	67	0	212
	C	182	213	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	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-C	0.41	10.51	0.7	2.9	B	195	292
B-A	0.23	14.70	0.3	1.4	B	61	92
C-AB	0.49	10.32	1.2	5.3	B	263	394
C-A						99	149
A-B						100	150
A-C						237	355

Main Results for each time segment

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-C	160	40	621	0.257	158	0.0	0.3	7.761	A
B-A	50	13	384	0.131	50	0.0	0.1	10.752	B
C-AB	202	50	668	0.302	200	0.0	0.5	7.669	A
C-A	96	24			96				
A-B	82	21			82				
A-C	194	49			194				

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-C	191	48	603	0.316	190	0.3	0.5	8.715	A
B-A	60	15	357	0.169	60	0.1	0.2	12.100	B
C-AB	253	63	674	0.376	253	0.5	0.7	8.542	A
C-A	102	25			102				
A-B	98	24			98				
A-C	232	58			232				

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-C	233	58	576	0.405	233	0.5	0.7	10.447	B
B-A	74	18	319	0.231	73	0.2	0.3	14.629	B
C-AB	333	83	683	0.487	331	0.7	1.2	10.223	B
C-A	102	26			102				
A-B	120	30			120				
A-C	284	71			284				

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-C	233	58	576	0.405	233	0.7	0.7	10.505	B
B-A	74	18	319	0.232	74	0.3	0.3	14.704	B
C-AB	333	83	684	0.488	333	1.2	1.2	10.325	B
C-A	102	25			102				
A-B	120	30			120				
A-C	284	71			284				

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-C	191	48	602	0.316	191	0.7	0.5	8.778	A
B-A	60	15	357	0.169	61	0.3	0.2	12.178	B
C-AB	254	63	675	0.376	256	1.2	0.7	8.647	A
C-A	101	25			101				
A-B	98	24			98				
A-C	232	58			232				

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	160	40	620	0.257	160	0.5	0.4	7.829	A
B-A	50	13	383	0.132	51	0.2	0.2	10.829	B
C-AB	202	51	668	0.303	203	0.7	0.5	7.767	A
C-A	95	24			95				
A-B	82	21			82				
A-C	194	49			194				

Queue Variation Results for each time segment

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-C	0.34	0.00	0.00	0.34	0.34			N/A	N/A
B-A	0.15	0.00	0.00	0.15	0.15			N/A	N/A
C-AB	0.51	0.51	1.00	1.40	1.45			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-C	0.46	0.00	0.00	0.46	0.46			N/A	N/A
B-A	0.20	0.00	0.00	0.20	0.20			N/A	N/A
C-AB	0.72	0.55	1.00	1.40	1.45			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-C	0.67	0.03	0.26	0.67	0.67			N/A	N/A
B-A	0.29	0.03	0.26	0.47	0.49			N/A	N/A
C-AB	1.15	0.03	0.27	1.15	1.39			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-C	0.67	0.03	0.29	1.15	2.91			N/A	N/A
B-A	0.30	0.03	0.31	1.06	1.37			N/A	N/A
C-AB	1.17	0.03	0.29	1.17	5.26			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-C	0.47	0.04	0.38	1.21	1.35			N/A	N/A
B-A	0.21	0.00	0.00	0.21	0.21			N/A	N/A
C-AB	0.75	0.22	0.94	1.39	1.45			N/A	N/A

09:30 - 09:45

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-C	0.35	0.03	0.26	0.47	0.49			N/A	N/A
B-A	0.15	0.00	0.00	0.15	0.15			N/A	N/A
C-AB	0.52	0.05	0.51	1.30	1.40			N/A	N/A

2028 With Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
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	T-Junction	Two-way		5.99	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	40	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	15:30	17:00	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	✓	305	100.000
B		ONE HOUR	✓	279	100.000
C		ONE HOUR	✓	493	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	94	211
	B	77	0	202
	C	276	217	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	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-C	0.38	10.00	0.6	2.8	B	185	278
B-A	0.27	15.38	0.4	1.2	C	71	106
C-AB	0.52	9.71	1.4	6.6	A	307	460
C-A						146	218
A-B						86	129
A-C						194	290

Main Results for each time segment

15:30 - 15:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	152	38	626	0.243	151	0.0	0.3	7.562	A
B-A	58	14	385	0.151	57	0.0	0.2	10.966	B
C-AB	229	57	726	0.315	227	0.0	0.6	7.184	A
C-A	142	36			142				
A-B	71	18			71				
A-C	159	40			159				

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	182	45	608	0.298	181	0.3	0.4	8.416	A
B-A	69	17	358	0.194	69	0.2	0.2	12.458	B
C-AB	294	73	744	0.394	293	0.6	0.8	7.975	A
C-A	150	37			150				
A-B	85	21			85				
A-C	190	47			190				

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	222	56	583	0.382	222	0.4	0.6	9.955	A
B-A	85	21	319	0.265	84	0.2	0.4	15.282	C
C-AB	397	99	770	0.515	394	0.8	1.4	9.598	A
C-A	146	37			146				
A-B	103	26			103				
A-C	232	58			232				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	222	56	582	0.382	222	0.6	0.6	10.005	B
B-A	85	21	319	0.266	85	0.4	0.4	15.380	C
C-AB	397	99	771	0.516	397	1.4	1.4	9.714	A
C-A	145	36			145				
A-B	103	26			103				
A-C	232	58			232				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	182	45	608	0.299	182	0.6	0.4	8.473	A
B-A	69	17	357	0.194	70	0.4	0.2	12.554	B
C-AB	295	74	745	0.395	297	1.4	0.9	8.092	A
C-A	149	37			149				
A-B	85	21			85				
A-C	190	47			190				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	152	38	625	0.243	153	0.4	0.3	7.627	A
B-A	58	14	384	0.151	58	0.2	0.2	11.062	B
C-AB	230	57	727	0.316	231	0.9	0.6	7.288	A
C-A	141	35			141				
A-B	71	18			71				
A-C	159	40			159				

Queue Variation Results for each time segment

15:30 - 15:45

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-C	0.32	0.00	0.00	0.32	0.32			N/A	N/A
B-A	0.17	0.00	0.00	0.17	0.17			N/A	N/A
C-AB	0.58	0.55	1.00	1.40	1.45			N/A	N/A

15:45 - 16:00

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-C	0.42	0.00	0.00	0.42	0.42			N/A	N/A
B-A	0.24	0.00	0.00	0.24	0.24			N/A	N/A
C-AB	0.84	0.54	1.00	1.40	1.45			N/A	N/A

16:00 - 16:15

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-C	0.61	0.03	0.26	0.61	0.61			N/A	N/A
B-A	0.35	0.03	0.26	0.47	0.49			N/A	N/A
C-AB	1.40	0.03	0.27	1.40	2.44			N/A	N/A

16:15 - 16:30

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-C	0.61	0.03	0.29	1.24	2.79			N/A	N/A
B-A	0.36	0.03	0.31	1.22	1.23			N/A	N/A
C-AB	1.43	0.03	0.30	1.57	6.58			N/A	N/A

16:30 - 16:45

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-C	0.43	0.00	0.00	0.43	0.43			N/A	N/A
B-A	0.24	0.00	0.00	0.24	0.24			N/A	N/A
C-AB	0.88	0.47	0.98	1.41	1.47			N/A	N/A

16:45 - 17:00

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-C	0.33	0.00	0.00	0.33	0.33			N/A	N/A
B-A	0.18	0.00	0.00	0.18	0.18			N/A	N/A
C-AB	0.60	0.07	0.71	1.34	1.42			N/A	N/A

2033 With Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
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	T-Junction	Two-way		6.85	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	31	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	08:15	09:45	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	✓	400	100.000
B		ONE HOUR	✓	306	100.000
C		ONE HOUR	✓	433	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	119	281
	B	73	0	233
	C	198	235	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	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-C	0.46	11.80	0.8	3.2	B	214	321
B-A	0.27	16.61	0.4	1.3	C	67	100
C-AB	0.55	11.79	1.5	6.5	B	299	448
C-A						99	148
A-B						109	164
A-C						258	387

Main Results for each time segment

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-C	175	44	613	0.286	174	0.0	0.4	8.172	A
B-A	55	14	371	0.148	54	0.0	0.2	11.333	B
C-AB	228	57	670	0.339	225	0.0	0.6	8.057	A
C-A	98	25			98				
A-B	90	22			90				
A-C	212	53			212				

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-C	209	52	593	0.354	209	0.4	0.5	9.370	A
B-A	66	16	341	0.192	65	0.2	0.2	13.036	B
C-AB	287	72	677	0.424	286	0.6	0.9	9.204	A
C-A	102	25			102				
A-B	107	27			107				
A-C	253	63			253				

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-C	257	64	562	0.456	255	0.5	0.8	11.696	B
B-A	80	20	298	0.270	80	0.2	0.4	16.479	C
C-AB	380	95	688	0.553	378	0.9	1.5	11.609	B
C-A	96	24			96				
A-B	131	33			131				
A-C	309	77			309				

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-C	257	64	562	0.457	256	0.8	0.8	11.796	B
B-A	80	20	297	0.271	80	0.4	0.4	16.613	C
C-AB	381	95	688	0.554	381	1.5	1.5	11.791	B
C-A	96	24			96				
A-B	131	33			131				
A-C	309	77			309				

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-C	209	52	592	0.354	211	0.8	0.6	9.464	A
B-A	66	16	340	0.193	66	0.4	0.2	13.157	B
C-AB	288	72	678	0.425	291	1.5	0.9	9.372	A
C-A	101	25			101				
A-B	107	27			107				
A-C	253	63			253				

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	175	44	612	0.287	176	0.6	0.4	8.265	A
B-A	55	14	370	0.148	55	0.2	0.2	11.441	B
C-AB	228	57	671	0.340	230	0.9	0.6	8.189	A
C-A	98	24			98				
A-B	90	22			90				
A-C	212	53			212				

Queue Variation Results for each time segment

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-C	0.40	0.00	0.00	0.40	0.40			N/A	N/A
B-A	0.17	0.00	0.00	0.17	0.17			N/A	N/A
C-AB	0.61	0.55	1.00	1.40	1.45			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-C	0.54	0.54	1.00	1.40	1.45			N/A	N/A
B-A	0.23	0.00	0.00	0.23	0.23			N/A	N/A
C-AB	0.88	0.51	0.99	1.41	1.46			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-C	0.82	0.03	0.26	0.82	0.82			N/A	N/A
B-A	0.36	0.03	0.26	0.47	0.49			N/A	N/A
C-AB	1.50	0.03	0.28	1.50	4.06			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-C	0.83	0.03	0.28	0.94	3.23			N/A	N/A
B-A	0.37	0.03	0.31	1.23	1.29			N/A	N/A
C-AB	1.53	0.03	0.29	1.53	6.51			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-C	0.56	0.06	0.66	1.33	1.42			N/A	N/A
B-A	0.24	0.00	0.00	0.24	0.24			N/A	N/A
C-AB	0.92	0.16	0.97	1.02	1.53			N/A	N/A

09:30 - 09:45

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-C	0.41	0.03	0.33	1.09	1.29			N/A	N/A
B-A	0.18	0.00	0.00	0.18	0.18			N/A	N/A
C-AB	0.63	0.06	0.62	1.37	1.46			N/A	N/A

2033 With Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
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	T-Junction	Two-way		7.02	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	27	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	15:30	17:00	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	✓	332	100.000
B		ONE HOUR	✓	306	100.000
C		ONE HOUR	✓	539	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	102	230
	B	85	0	221
	C	300	239	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	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-C	0.43	11.14	0.7	3.1	B	203	304
B-A	0.31	17.61	0.5	1.9	C	78	117
C-AB	0.59	11.23	1.9	8.5	B	352	528
C-A						143	214
A-B						94	140
A-C						211	317

Main Results for each time segment

15:30 - 15:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	166	42	618	0.269	165	0.0	0.4	7.929	A
B-A	64	16	372	0.172	63	0.0	0.2	11.617	B
C-AB	260	65	734	0.354	257	0.0	0.7	7.525	A
C-A	146	36			146				
A-B	77	19			77				
A-C	173	43			173				

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	199	50	598	0.332	198	0.4	0.5	8.995	A
B-A	76	19	342	0.223	76	0.2	0.3	13.519	B
C-AB	336	84	754	0.445	334	0.7	1.0	8.590	A
C-A	149	37			149				
A-B	92	23			92				
A-C	207	52			207				

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	243	61	567	0.429	242	0.5	0.7	11.054	B
B-A	94	23	299	0.313	93	0.3	0.4	17.425	C
C-AB	458	115	782	0.585	455	1.0	1.9	11.007	B
C-A	135	34			135				
A-B	112	28			112				
A-C	253	63			253				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	243	61	566	0.430	243	0.7	0.7	11.138	B
B-A	94	23	298	0.314	94	0.4	0.5	17.605	C
C-AB	459	115	783	0.586	459	1.9	1.9	11.230	B
C-A	134	33			134				
A-B	112	28			112				
A-C	253	63			253				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	199	50	597	0.333	200	0.7	0.5	9.079	A
B-A	76	19	341	0.224	77	0.5	0.3	13.681	B
C-AB	337	84	756	0.446	341	1.9	1.1	8.785	A
C-A	147	37			147				
A-B	92	23			92				
A-C	207	52			207				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	166	42	617	0.270	167	0.5	0.4	8.011	A
B-A	64	16	371	0.172	64	0.3	0.2	11.749	B
C-AB	261	65	735	0.355	263	1.1	0.7	7.664	A
C-A	145	36			145				
A-B	77	19			77				
A-C	173	43			173				

Queue Variation Results for each time segment

15:30 - 15:45

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-C	0.36	0.00	0.00	0.36	0.36			N/A	N/A
B-A	0.20	0.00	0.00	0.20	0.20			N/A	N/A
C-AB	0.70	0.55	1.00	1.40	1.45			N/A	N/A

15:45 - 16:00

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-C	0.49	0.00	0.00	0.49	0.49			N/A	N/A
B-A	0.28	0.00	0.00	0.28	0.28			N/A	N/A
C-AB	1.04	0.51	1.04	1.10	1.55			N/A	N/A

16:00 - 16:15

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-C	0.74	0.03	0.26	0.74	0.74			N/A	N/A
B-A	0.44	0.03	0.26	0.47	0.49			N/A	N/A
C-AB	1.87	0.03	0.29	1.87	7.04			N/A	N/A

16:15 - 16:30

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-C	0.74	0.03	0.29	1.07	3.08			N/A	N/A
B-A	0.45	0.03	0.31	1.38	1.88			N/A	N/A
C-AB	1.91	0.03	0.30	1.91	8.54			N/A	N/A

16:30 - 16:45

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-C	0.51	0.05	0.49	1.30	1.40			N/A	N/A
B-A	0.29	0.00	0.00	0.29	0.29			N/A	N/A
C-AB	1.10	0.23	1.07	1.56	1.83			N/A	N/A

16:45 - 17:00

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-C	0.37	0.03	0.28	0.68	1.09			N/A	N/A
B-A	0.21	0.00	0.00	0.21	0.21			N/A	N/A
C-AB	0.73	0.07	0.73	1.30	1.30			N/A	N/A

2043 With Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
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	T-Junction	Two-way		8.96	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	15	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	08:15	09:45	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	✓	446	100.000
B		ONE HOUR	✓	348	100.000
C		ONE HOUR	✓	488	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	132	314
	B	83	0	265
	C	221	267	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	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-C	0.54	14.68	1.2	3.9	B	243	365
B-A	0.35	20.96	0.5	2.3	C	76	114
C-AB	0.66	15.18	2.4	11.2	C	354	532
C-A						93	140
A-B						121	182
A-C						288	432

Main Results for each time segment

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-C	200	50	600	0.332	198	0.0	0.5	8.895	A
B-A	62	16	353	0.177	62	0.0	0.2	12.341	B
C-AB	267	67	674	0.396	264	0.0	0.8	8.726	A
C-A	101	25			101				
A-B	99	25			99				
A-C	236	59			236				

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-C	238	60	576	0.413	237	0.5	0.7	10.598	B
B-A	75	19	317	0.235	74	0.2	0.3	14.788	B
C-AB	340	85	683	0.498	338	0.8	1.2	10.437	B
C-A	99	25			99				
A-B	119	30			119				
A-C	282	71			282				

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-C	292	73	538	0.543	290	0.7	1.1	14.419	B
B-A	91	23	265	0.345	91	0.3	0.5	20.590	C
C-AB	455	114	695	0.654	450	1.2	2.3	14.674	B
C-A	83	21			83				
A-B	145	36			145				
A-C	346	86			346				

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-C	292	73	537	0.544	292	1.1	1.2	14.676	B
B-A	91	23	263	0.347	91	0.5	0.5	20.959	C
C-AB	456	114	696	0.655	456	2.3	2.4	15.178	C
C-A	81	20			81				
A-B	145	36			145				
A-C	346	86			346				

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-C	238	60	575	0.414	240	1.2	0.7	10.795	B
B-A	75	19	315	0.237	75	0.5	0.3	15.053	C
C-AB	341	85	685	0.499	346	2.4	1.3	10.820	B
C-A	97	24			97				
A-B	119	30			119				
A-C	282	71			282				

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	200	50	600	0.333	200	0.7	0.5	9.037	A
B-A	62	16	351	0.178	63	0.3	0.2	12.513	B
C-AB	268	67	675	0.397	270	1.3	0.8	8.943	A
C-A	99	25			99				
A-B	99	25			99				
A-C	236	59			236				

Queue Variation Results for each time segment

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-C	0.49	0.00	0.00	0.49	0.49			N/A	N/A
B-A	0.21	0.00	0.00	0.21	0.21			N/A	N/A
C-AB	0.78	0.55	1.00	1.40	1.45			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-C	0.69	0.16	0.91	1.38	1.44			N/A	N/A
B-A	0.30	0.00	0.00	0.30	0.30			N/A	N/A
C-AB	1.19	0.23	1.13	1.74	1.96			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-C	1.15	0.03	0.27	1.15	1.71			N/A	N/A
B-A	0.51	0.03	0.26	0.51	0.51			N/A	N/A
C-AB	2.29	0.03	0.31	3.06	11.16			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-C	1.17	0.03	0.28	1.17	3.93			N/A	N/A
B-A	0.52	0.03	0.31	1.48	2.33			N/A	N/A
C-AB	2.36	0.03	0.30	2.36	10.40			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-C	0.72	0.07	0.74	1.16	1.16			N/A	N/A
B-A	0.32	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	1.27	0.10	1.06	2.30	2.95			N/A	N/A

09:30 - 09:45

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-C	0.51	0.04	0.42	1.30	1.43			N/A	N/A
B-A	0.22	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.81	0.05	0.50	1.62	2.25			N/A	N/A

2043 With Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
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	T-Junction	Two-way		9.44	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	13	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	15:30	17:00	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	✓	371	100.000
B		ONE HOUR	✓	344	100.000
C		ONE HOUR	✓	605	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	115	256
	B	95	0	249
	C	334	271	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	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-C	0.51	13.49	1.0	3.7	B	228	343
B-A	0.39	22.32	0.6	3.0	C	87	131
C-AB	0.70	15.12	3.1	15.9	C	423	635
C-A						132	197
A-B						106	158
A-C						235	352

Main Results for each time segment

15:30 - 15:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	187	47	606	0.309	186	0.0	0.4	8.524	A
B-A	72	18	354	0.202	71	0.0	0.2	12.671	B
C-AB	308	77	745	0.413	304	0.0	0.9	8.133	A
C-A	148	37			148				
A-B	87	22			87				
A-C	193	48			193				

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	224	56	583	0.384	223	0.4	0.6	9.992	A
B-A	85	21	319	0.268	85	0.2	0.4	15.372	C
C-AB	402	100	768	0.523	400	0.9	1.4	9.798	A
C-A	142	35			142				
A-B	103	26			103				
A-C	230	58			230				

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	274	69	542	0.506	273	0.6	1.0	13.272	B
B-A	105	26	267	0.391	104	0.4	0.6	21.827	C
C-AB	556	139	800	0.695	550	1.4	3.0	14.400	B
C-A	110	27			110				
A-B	127	32			127				
A-C	282	70			282				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	274	69	541	0.507	274	1.0	1.0	13.489	B
B-A	105	26	266	0.394	105	0.6	0.6	22.317	C
C-AB	559	140	803	0.697	559	3.0	3.1	15.115	C
C-A	107	27			107				
A-B	127	32			127				
A-C	282	70			282				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	224	56	581	0.385	225	1.0	0.6	10.158	B
B-A	85	21	316	0.270	86	0.6	0.4	15.721	C
C-AB	405	101	771	0.525	411	3.1	1.5	10.268	B
C-A	139	35			139				
A-B	103	26			103				
A-C	230	58			230				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	187	47	605	0.310	188	0.6	0.5	8.648	A
B-A	72	18	352	0.203	72	0.4	0.3	12.880	B
C-AB	310	78	747	0.415	312	1.5	1.0	8.366	A
C-A	145	36			145				
A-B	87	22			87				
A-C	193	48			193				

Queue Variation Results for each time segment

15:30 - 15:45

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-C	0.44	0.00	0.00	0.44	0.44			N/A	N/A
B-A	0.25	0.00	0.00	0.25	0.25			N/A	N/A
C-AB	0.91	0.55	1.00	1.40	1.45			N/A	N/A

15:45 - 16:00

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-C	0.61	0.15	0.90	1.38	1.44			N/A	N/A
B-A	0.36	0.00	0.00	0.36	0.36			N/A	N/A
C-AB	1.44	0.21	1.28	2.28	2.84			N/A	N/A

16:00 - 16:15

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-C	0.99	0.03	0.27	0.99	1.06			N/A	N/A
B-A	0.62	0.03	0.26	0.62	0.62			N/A	N/A
C-AB	2.99	0.03	0.33	5.94	15.94			N/A	N/A

16:15 - 16:30

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-C	1.01	0.03	0.28	1.01	3.66			N/A	N/A
B-A	0.64	0.03	0.31	1.13	2.97			N/A	N/A
C-AB	3.11	0.03	0.31	3.92	14.94			N/A	N/A

16:30 - 16:45

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-C	0.64	0.07	0.72	1.36	1.44			N/A	N/A
B-A	0.38	0.03	0.29	0.79	1.15			N/A	N/A
C-AB	1.55	0.11	1.21	2.93	3.89			N/A	N/A

16:45 - 17:00

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-C	0.45	0.04	0.39	1.23	1.37			N/A	N/A
B-A	0.26	0.03	0.25	0.46	0.48			N/A	N/A
C-AB	0.95	0.05	0.54	1.96	2.89			N/A	N/A

APPENDIX D2: PROPOSED DEVELOPMENT ACCESS T-JUNCTION ONTO R352

PROPOSED ACCESS JUNCTION (PICADY OUTPUTS)

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: 124422-Junction 2-Proposed Dev Access T-Junction onto R352 2025 03 24.j9
Path: I:\CST\124\401-450\124422\calcs\PICADY
Report generation date: 20/05/2025 12:54:09

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
	2028 With Dev																	
Stream B-AC	D1	0.0	0.5	7.50	0.02	A	0.25	A	367 % [Stream C-AB]	D2	0.0	0.5	7.23	0.02	A	0.27	A	274 % [Stream C-AB]
Stream C-AB		0.0	0.5	5.22	0.02	A					0.1	0.5	4.85	0.04	A			
	2033 With Dev																	
Stream B-AC	D3	0.0	0.5	7.63	0.03	A	0.23	A	334 % [Stream C-AB]	D4	0.0	0.5	7.33	0.02	A	0.26	A	248 % [Stream C-AB]
Stream C-AB		0.0	0.5	5.17	0.02	A					0.1	0.5	4.78	0.04	A			
	2043 With Dev																	
Stream B-AC	D5	0.0	0.5	7.82	0.03	A	0.21	A	293 % [Stream C-AB]	D6	0.0	0.5	7.48	0.02	A	0.24	A	216 % [Stream C-AB]
Stream C-AB		0.0	0.5	5.11	0.02	A					0.1	0.5	4.68	0.04	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	24/03/2025
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	2028 With Dev	AM	ONE HOUR	08:15	09:45	15	✓
D2	2028 With Dev	PM	ONE HOUR	15:30	17:00	15	✓
D3	2033 With Dev	AM	ONE HOUR	08:15	09:45	15	✓
D4	2033 With Dev	PM	ONE HOUR	15:30	17:00	15	✓
D5	2043 With Dev	AM	ONE HOUR	08:15	09:45	15	✓
D6	2043 With Dev	PM	ONE HOUR	15:30	17:00	15	✓

Analysis Set Details

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

2028 With Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
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	T-Junction	Two-way		0.25	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	367	Stream C-AB

Arms

Arms

Arm	Name	Description	Arm type
A	R352 West		Major
B	Development Access		Minor
C	R352 East		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.00			120.0	✓	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)	Visibility to left (m)	Visibility to right (m)
B	One lane	2.20	10	10

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	447	0.081	0.206	0.129	0.294
B-C	580	0.089	0.225	-	-
C-B	643	0.249	0.249	-	-

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	2028 With Dev	AM	ONE HOUR	08:15	09:45	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	✓	356	100.000
B		ONE HOUR	✓	11	100.000
C		ONE HOUR	✓	249	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	356
	B	0	0	11
	C	240	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	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-AC	0.02	7.50	0.0	0.5	A	10	15
C-AB	0.02	5.22	0.0	0.5	A	12	18
C-A						216	325
A-B						0	0
A-C						327	490

Main Results for each time segment

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-AC	8	2	520	0.016	8	0.0	0.0	7.040	A
C-AB	9	2	699	0.013	9	0.0	0.0	5.214	A
C-A	178	45			178				
A-B	0	0			0				
A-C	268	67			268				

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-AC	10	2	508	0.019	10	0.0	0.0	7.228	A
C-AB	12	3	712	0.016	12	0.0	0.0	5.140	A
C-A	212	53			212				
A-B	0	0			0				
A-C	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-AC	12	3	492	0.025	12	0.0	0.0	7.505	A
C-AB	16	4	730	0.021	16	0.0	0.0	5.039	A
C-A	259	65			259				
A-B	0	0			0				
A-C	392	98			392				

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-AC	12	3	492	0.025	12	0.0	0.0	7.505	A
C-AB	16	4	730	0.021	16	0.0	0.0	5.039	A
C-A	259	65			259				
A-B	0	0			0				
A-C	392	98			392				

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-AC	10	2	508	0.019	10	0.0	0.0	7.228	A
C-AB	12	3	712	0.016	12	0.0	0.0	5.143	A
C-A	212	53			212				
A-B	0	0			0				
A-C	320	80			320				

09:30 - 09:45

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-AC	8	2	520	0.016	8	0.0	0.0	7.043	A
C-AB	9	2	699	0.013	9	0.0	0.0	5.216	A
C-A	178	45			178				
A-B	0	0			0				
A-C	268	67			268				

Queue Variation Results for each time segment

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-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			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-AC	0.02	0.02	0.25	0.45	0.48			N/A	N/A
C-AB	0.02	0.02	0.25	0.45	0.48			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-AC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
C-AB	0.03	0.00	0.00	0.03	0.03			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-AC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
C-AB	0.03	0.00	0.00	0.03	0.03			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-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.02	0.00	0.00	0.02	0.02			N/A	N/A

09:30 - 09:45

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-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

2028 With Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
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	T-Junction	Two-way		0.27	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	274	Stream C-AB

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	2028 With Dev	PM	ONE HOUR	15:30	17:00	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	✓	297	100.000
B		ONE HOUR	✓	8	100.000
C		ONE HOUR	✓	353	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	297
	B	0	0	8
	C	338	15	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	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-AC	0.02	7.23	0.0	0.5	A	7	11
C-AB	0.04	4.85	0.1	0.5	A	23	35
C-A						301	451
A-B						0	0
A-C						273	409

Main Results for each time segment

15:30 - 15:45

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-AC	6	2	530	0.011	6	0.0	0.0	6.875	A
C-AB	17	4	759	0.022	17	0.0	0.0	4.850	A
C-A	249	62			249				
A-B	0	0			0				
A-C	224	56			224				

15:45 - 16:00

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-AC	7	2	520	0.014	7	0.0	0.0	7.022	A
C-AB	22	6	783	0.028	22	0.0	0.0	4.728	A
C-A	295	74			295				
A-B	0	0			0				
A-C	267	67			267				

16:00 - 16:15

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-AC	9	2	506	0.017	9	0.0	0.0	7.235	A
C-AB	30	8	818	0.037	30	0.0	0.1	4.570	A
C-A	358	90			358				
A-B	0	0			0				
A-C	327	82			327				

16:15 - 16:30

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-AC	9	2	506	0.017	9	0.0	0.0	7.235	A
C-AB	30	8	818	0.037	30	0.1	0.1	4.571	A
C-A	358	90			358				
A-B	0	0			0				
A-C	327	82			327				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	7	2	520	0.014	7	0.0	0.0	7.025	A
C-AB	22	6	783	0.028	22	0.1	0.0	4.731	A
C-A	295	74			295				
A-B	0	0			0				
A-C	267	67			267				

16:45 - 17:00

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-AC	6	2	530	0.011	6	0.0	0.0	6.878	A
C-AB	17	4	759	0.022	17	0.0	0.0	4.851	A
C-A	249	62			249				
A-B	0	0			0				
A-C	224	56			224				

Queue Variation Results for each time segment

15:30 - 15:45

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-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
C-AB	0.03	0.00	0.00	0.03	0.03			N/A	N/A

15:45 - 16:00

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-AC	0.01	0.01	0.25	0.45	0.48			N/A	N/A
C-AB	0.04	0.03	0.25	0.45	0.48			N/A	N/A

16:00 - 16:15

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-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.05	0.03	0.25	0.45	0.48			N/A	N/A

16:15 - 16:30

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-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.05	0.00	0.00	0.05	0.05			N/A	N/A

16:30 - 16:45

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-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
C-AB	0.04	0.00	0.00	0.04	0.04			N/A	N/A

16:45 - 17:00

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-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
C-AB	0.03	0.00	0.00	0.03	0.03			N/A	N/A

2033 With Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
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	T-Junction	Two-way		0.23	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	334	Stream C-AB

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	2033 With Dev	AM	ONE HOUR	08:15	09:45	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	✓	388	100.000
B		ONE HOUR	✓	11	100.000
C		ONE HOUR	✓	271	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	388
	B	0	0	11
	C	262	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	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-AC	0.03	7.63	0.0	0.5	A	10	15
C-AB	0.02	5.17	0.0	0.5	A	13	19
C-A						236	354
A-B						0	0
A-C						356	534

Main Results for each time segment

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-AC	8	2	514	0.016	8	0.0	0.0	7.115	A
C-AB	9	2	705	0.013	9	0.0	0.0	5.172	A
C-A	195	49			195				
A-B	0	0			0				
A-C	292	73			292				

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-AC	10	2	501	0.020	10	0.0	0.0	7.323	A
C-AB	12	3	719	0.017	12	0.0	0.0	5.090	A
C-A	232	58			232				
A-B	0	0			0				
A-C	349	87			349				

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-AC	12	3	484	0.025	12	0.0	0.0	7.631	A
C-AB	16	4	739	0.022	16	0.0	0.0	4.978	A
C-A	282	71			282				
A-B	0	0			0				
A-C	427	107			427				

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-AC	12	3	484	0.025	12	0.0	0.0	7.631	A
C-AB	16	4	739	0.022	16	0.0	0.0	4.980	A
C-A	282	71			282				
A-B	0	0			0				
A-C	427	107			427				

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-AC	10	2	501	0.020	10	0.0	0.0	7.326	A
C-AB	12	3	719	0.017	12	0.0	0.0	5.092	A
C-A	232	58			232				
A-B	0	0			0				
A-C	349	87			349				

09:30 - 09:45

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-AC	8	2	514	0.016	8	0.0	0.0	7.118	A
C-AB	9	2	705	0.013	9	0.0	0.0	5.174	A
C-A	195	49			195				
A-B	0	0			0				
A-C	292	73			292				

Queue Variation Results for each time segment

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-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.02	0.00	0.00	0.02	0.02			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-AC	0.02	0.02	0.25	0.45	0.48			N/A	N/A
C-AB	0.02	0.02	0.25	0.45	0.48			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-AC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
C-AB	0.03	0.00	0.00	0.03	0.03			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-AC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
C-AB	0.03	0.00	0.00	0.03	0.03			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-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.02	0.00	0.00	0.02	0.02			N/A	N/A

09:30 - 09:45

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-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.02	0.00	0.00	0.02	0.02			N/A	N/A

2033 With Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
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	T-Junction	Two-way		0.26	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	248	Stream C-AB

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	2033 With Dev	PM	ONE HOUR	15:30	17:00	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	✓	324	100.000
B		ONE HOUR	✓	8	100.000
C		ONE HOUR	✓	384	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	324
	B	0	0	8
	C	369	15	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	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-AC	0.02	7.33	0.0	0.5	A	7	11
C-AB	0.04	4.78	0.1	0.5	A	24	37
C-A						328	492
A-B						0	0
A-C						297	446

Main Results for each time segment

15:30 - 15:45

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-AC	6	2	525	0.011	6	0.0	0.0	6.936	A
C-AB	18	4	771	0.023	18	0.0	0.0	4.781	A
C-A	271	68			271				
A-B	0	0			0				
A-C	244	61			244				

15:45 - 16:00

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-AC	7	2	514	0.014	7	0.0	0.0	7.097	A
C-AB	23	6	797	0.029	23	0.0	0.0	4.649	A
C-A	322	81			322				
A-B	0	0			0				
A-C	291	73			291				

16:00 - 16:15

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-AC	9	2	500	0.018	9	0.0	0.0	7.333	A
C-AB	32	8	836	0.039	32	0.0	0.1	4.480	A
C-A	391	98			391				
A-B	0	0			0				
A-C	357	89			357				

16:15 - 16:30

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-AC	9	2	500	0.018	9	0.0	0.0	7.333	A
C-AB	32	8	836	0.039	32	0.1	0.1	4.480	A
C-A	391	98			391				
A-B	0	0			0				
A-C	357	89			357				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	7	2	514	0.014	7	0.0	0.0	7.100	A
C-AB	23	6	797	0.029	23	0.1	0.0	4.650	A
C-A	322	81			322				
A-B	0	0			0				
A-C	291	73			291				

16:45 - 17:00

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-AC	6	2	525	0.011	6	0.0	0.0	6.939	A
C-AB	18	4	771	0.023	18	0.0	0.0	4.782	A
C-A	271	68			271				
A-B	0	0			0				
A-C	244	61			244				

Queue Variation Results for each time segment

15:30 - 15:45

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-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
C-AB	0.03	0.00	0.00	0.03	0.03			N/A	N/A

15:45 - 16:00

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-AC	0.01	0.01	0.25	0.45	0.48			N/A	N/A
C-AB	0.04	0.03	0.25	0.45	0.48			N/A	N/A

16:00 - 16:15

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-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.05	0.03	0.25	0.45	0.48			N/A	N/A

16:15 - 16:30

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-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.05	0.00	0.00	0.05	0.05			N/A	N/A

16:30 - 16:45

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-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
C-AB	0.04	0.00	0.00	0.04	0.04			N/A	N/A

16:45 - 17:00

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-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
C-AB	0.03	0.00	0.00	0.03	0.03			N/A	N/A

2043 With Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
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	T-Junction	Two-way		0.21	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	293	Stream C-AB

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	2043 With Dev	AM	ONE HOUR	08:15	09:45	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	✓	435	100.000
B		ONE HOUR	✓	11	100.000
C		ONE HOUR	✓	304	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	435
	B	0	0	11
	C	295	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	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-AC	0.03	7.82	0.0	0.5	A	10	15
C-AB	0.02	5.11	0.0	0.5	A	13	20
C-A						266	398
A-B						0	0
A-C						399	599

Main Results for each time segment

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-AC	8	2	506	0.016	8	0.0	0.0	7.229	A
C-AB	10	2	715	0.014	10	0.0	0.0	5.107	A
C-A	219	55			219				
A-B	0	0			0				
A-C	327	82			327				

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-AC	10	2	492	0.020	10	0.0	0.0	7.467	A
C-AB	13	3	731	0.017	13	0.0	0.0	5.013	A
C-A	261	65			261				
A-B	0	0			0				
A-C	391	98			391				

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-AC	12	3	472	0.026	12	0.0	0.0	7.824	A
C-AB	17	4	754	0.023	17	0.0	0.0	4.885	A
C-A	317	79			317				
A-B	0	0			0				
A-C	479	120			479				

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-AC	12	3	472	0.026	12	0.0	0.0	7.824	A
C-AB	17	4	754	0.023	17	0.0	0.0	4.887	A
C-A	317	79			317				
A-B	0	0			0				
A-C	479	120			479				

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-AC	10	2	492	0.020	10	0.0	0.0	7.471	A
C-AB	13	3	731	0.017	13	0.0	0.0	5.015	A
C-A	261	65			261				
A-B	0	0			0				
A-C	391	98			391				

09:30 - 09:45

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-AC	8	2	506	0.016	8	0.0	0.0	7.232	A
C-AB	10	2	715	0.014	10	0.0	0.0	5.108	A
C-A	219	55			219				
A-B	0	0			0				
A-C	327	82			327				

Queue Variation Results for each time segment

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-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.02	0.00	0.00	0.02	0.02			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-AC	0.02	0.02	0.25	0.45	0.48			N/A	N/A
C-AB	0.02	0.02	0.25	0.45	0.48			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-AC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
C-AB	0.03	0.00	0.00	0.03	0.03			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-AC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
C-AB	0.03	0.00	0.00	0.03	0.03			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-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.02	0.00	0.00	0.02	0.02			N/A	N/A

09:30 - 09:45

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-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.02	0.00	0.00	0.02	0.02			N/A	N/A

2043 With Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
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	T-Junction	Two-way		0.24	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	216	Stream C-AB

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	2043 With Dev	PM	ONE HOUR	15:30	17:00	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	✓	362	100.000
B		ONE HOUR	✓	8	100.000
C		ONE HOUR	✓	429	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	362
	B	0	0	8
	C	414	15	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	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-AC	0.02	7.48	0.0	0.5	A	7	11
C-AB	0.04	4.68	0.1	0.5	A	26	39
C-A						367	551
A-B						0	0
A-C						332	498

Main Results for each time segment

15:30 - 15:45

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-AC	6	2	519	0.012	6	0.0	0.0	7.023	A
C-AB	19	5	788	0.024	19	0.0	0.0	4.681	A
C-A	304	76			304				
A-B	0	0			0				
A-C	273	68			273				

15:45 - 16:00

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-AC	7	2	507	0.014	7	0.0	0.0	7.206	A
C-AB	25	6	818	0.030	25	0.0	0.0	4.536	A
C-A	361	90			361				
A-B	0	0			0				
A-C	325	81			325				

16:00 - 16:15

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-AC	9	2	490	0.018	9	0.0	0.0	7.476	A
C-AB	35	9	862	0.041	35	0.0	0.1	4.352	A
C-A	437	109			437				
A-B	0	0			0				
A-C	399	100			399				

16:15 - 16:30

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-AC	9	2	490	0.018	9	0.0	0.0	7.476	A
C-AB	35	9	862	0.041	35	0.1	0.1	4.353	A
C-A	437	109			437				
A-B	0	0			0				
A-C	399	100			399				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	7	2	507	0.014	7	0.0	0.0	7.207	A
C-AB	25	6	818	0.030	25	0.1	0.0	4.537	A
C-A	361	90			361				
A-B	0	0			0				
A-C	325	81			325				

16:45 - 17:00

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-AC	6	2	519	0.012	6	0.0	0.0	7.026	A
C-AB	19	5	788	0.024	19	0.0	0.0	4.684	A
C-A	304	76			304				
A-B	0	0			0				
A-C	273	68			273				

Queue Variation Results for each time segment

15:30 - 15:45

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-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
C-AB	0.03	0.00	0.00	0.03	0.03			N/A	N/A

15:45 - 16:00

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-AC	0.01	0.01	0.25	0.45	0.48			N/A	N/A
C-AB	0.04	0.03	0.25	0.45	0.48			N/A	N/A

16:00 - 16:15

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-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.06	0.03	0.25	0.45	0.48			N/A	N/A

16:15 - 16:30

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-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.06	0.00	0.00	0.06	0.06			N/A	N/A

16:30 - 16:45

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-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
C-AB	0.04	0.00	0.00	0.04	0.04			N/A	N/A

16:45 - 17:00

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-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
C-AB	0.03	0.00	0.00	0.03	0.03			N/A	N/A