



## **Traffic and Transport Assessment**

Strategic Housing Development at Broomfield Lands, Malahide

April 2022

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**Quality Assurance – Approval Status**

This document has been prepared and checked in accordance with Waterman Group's IMS (BS EN ISO 9001: 2015 and BS EN ISO 14001: 2015)

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# 1. Introduction

## 1.1 Context

This Traffic and Transport Assessment (TTA) has been prepared by Waterman Moylan to accompany a planning application to An Bord Pleanála for a proposed residential development in lands at Broomfield, Malahide, Co. Dublin.

The proposed development consists of two sites. The northern site consists of 328 residential units and a creche approximately 476 sqm. The southern site will consist of 87 residential units.

The combined total of proposed development is 415 residential units, comprising of 252 houses, 28 duplex units and 135 apartments, as set out in the Schedule of Accommodation below:

Description	1-bed	2-bed	3-bed	4-bed	5-bed	GFA (Sqm)	Total
<b>Northern Site</b>							
House	-	-	133	36	12	-	181
Duplex	-	6	6	-	-	-	12
Apartment	37	93	5	-	-	-	135
Creche	-	-	-	-	-	476 sqm	-
<b>Northern Total</b>	<b>37</b>	<b>99</b>	<b>144</b>	<b>36</b>	<b>12</b>	<b>476sqm</b>	<b>328 units 476 sqm</b>
<b>Southern Site</b>							
House	-	-	59	12	-	-	71
Duplex	-	8	8	-	-	-	16
<b>Southern Total</b>	<b>-</b>	<b>8</b>	<b>67</b>	<b>12</b>	<b>-</b>	<b>-</b>	<b>87</b>
<b>Total Site</b>	<b>37</b>	<b>107</b>	<b>211</b>	<b>48</b>	<b>12</b>	<b>476sqm</b>	<b>415 units 476 sqm</b>

**Table 1 | Schedule of Accommodation – Northern Site and Southern Site**

The development includes all associated site works, boundary treatments, drainage and service connections.

## 1.2 Scope

This TTA is a comprehensive review of all the potential transport impacts of the overall development, including a detailed assessment of the transportation systems provided and the impact of the proposed development on the surrounding environment and transportation network.

The TTA is accompanied by a Travel Plan to implement the mobility management policies for the development and achieve the sustainable travel targets.

## 1.3 Standards

This Traffic and Transport Assessment has been prepared in accordance with the requirements of the Traffic and Transport Assessment Guidelines published by National Roads Authority in May 2014.

## **1.4 Threshold for Transport Assessment**

Section 2.1 of the Traffic and Transport Assessment Guidelines (May 2014) requires submission of a Transport Assessment where a proposed development meets one or more of the following criteria:

1. Traffic to and from the development exceeds 10% of the traffic flow on the adjoining road;
2. Traffic to and from the development exceeds 5% of the traffic flow on the adjoining road where congestion exists, or the location is sensitive;
3. Residential development in excess of 200 dwellings;
4. Retail and leisure development in excess of 1,000sqm;
5. Office, education and hospital development in excess of 2,500sqm;
6. Industrial development in excess of 5,000sqm;
7. Distribution and warehousing in excess of 10,000sqm.

The subject development exceeds 200 dwellings, and on that basis a TTA is required.

## **1.5 Contents of the Transport Assessment**

In accordance with Section 3.3 of the Traffic and Transport Assessment Guidelines (May 2014), the contents of this TTA include:

- Description of the existing and proposed traffic/transportation conditions including information on the current traffic, critical junctions, pedestrians, cycle and public transport facilities;
- A description of the proposed development;
- The traffic and transportation implications of the development including consideration of trip generation/attraction, mode choice and trip distribution;
- The time periods applicable to the TTA;
- The impact of the development on the surrounding road network including analysis of junction capacity;
- Description and analysis of future developments in the area;
- Review of the historical data related to road safety;
- Description of car and cycle parking requirements and proposals.

## **1.6 Location of Development**

The subject site is located in Broomfield, Malahide, Co. Dublin. The development entrance is from Back Road, 0.55km east of the junction between Back Road and Kinsealy Lane.

The overall proposed development is divided into 2 sites, as shown in the Figure below:



**Figure 1 | Site Location (Source: Google Maps)**

The north site is located between the existing Ashwood Hall residential development to the west and the Dublin-Belfast rail line to the east, with agricultural land to the south and residential properties and Back Road to the north.

The southern site is bounded by the Hazelbrook development to the west, Brookfield development to the north and agricultural lands to the south and east.

## 1.7 Methodology

The methodology for the preparation of this Traffic and Transport Assessment included: -

- Descriptions of the proposed, committed and potential future developments.
- Descriptions of the receiving environment including roads and junctions, public transport, parking and servicing, cycle facilities and pedestrian facilities.
- Description of existing travel characteristics including traffic surveys.
- Descriptions of committed and future transportation improvements to roads, junctions. public transport, cycle and pedestrian facilities.
- Review of travel characteristics and future modal split.
- Calculation of trip generation and distribution for proposed, committed and potential future developments.
- Determination of future traffic movements in 2026, 2031 and 2041.
- Determination of transportation impact on roads, junctions. public transport, cycle and pedestrian facilities.

## 1.8 Programme

It is anticipated that construction of the proposed development will commence in 2023 for completion in 2026. (Note: The assessment years may lag pending approval of the planning application and may differ from the programme)

## 1.9 Assessment Years

Base Year: 2022

Opening Year (With / Without Development): 2026

Opening Year + 5 Years Forecast (With / Without Development): 2031

Opening Year + 15 Years Forecast (With / Without Development): 2041

(Note: The Baseline Year may lag pending the approval of the planning application and may differ from the programme and submission date)

## 2. Policy Framework

### 2.1 Fingal Development Plan (2017 – 2023)

The Fingal Development Plan (2017 – 2023) sets out the authority’s policies and objectives for the development of the County for the period of 2017 to 2023. The Plan seeks to develop and improve in a sustainable manner the social, economic, cultural and environments assets of the county. In the context of the subject development site and the proposed residential scheme a number of most relevant policies include:

#### 2.1.1 Strategic Policy

*“Seek the development of a high quality public transport system throughout the County and linking to adjoining counties, including the development of the indicative route for New Metro North and Light Rail Corridor, improvements to railway infrastructure including the DART Expansion Programme, Quality Bus Corridors (QBCs) and Bus Rapid Transit (BRT) systems, together with enhanced facilities for walking and cycling.”*

*“Promote, improve and develop a well-connected national, regional and local road and public transport infrastructure system, geared to meet the needs of the County and the Region, and providing for all road users, prioritising walking, cycling and public transport.”*

#### 2.1.2 Integrated Land Use and Transportation

*“Objective MT05: Integrate land use with transportation by allowing higher density development along higher capacity public transport corridors.”*

#### 2.1.3 Parking

*“Objective MT08: Control on-street parking in the interests of the viability, vitality and amenity of commercial centres by maximising the supply of short stay parking for shoppers, while providing appropriate levels of long-term parking within a reasonable distance for employees.”*

#### 2.1.4 Walking and Cycling

*“Objective MT13: Promote walking and cycling as efficient, health, and environmentally-friendly modes of transport by securing the development of a network of direct, comfortable, convenient and safe cycle routes and footpaths, particularly in urban areas.”*

*“Objective MT19: Design roads and promote the design of roads, including cycle infrastructure, in line with the Principals of Sustainable Safety in a manner consistent with the National Cycle Manual and the Design Manual for Urban Roads and Streets.”*

*“Objective MT22: Improve pedestrian and cycle connectivity to stations and other public transport interchanges.”*

#### 2.1.5 Traffic Calming

*“Objective MT37: Implement traffic calming on particular roads and in appropriate areas of the County, especially residential areas, to reduce vehicle speeds in the interests of road safety and residential amenity. Ensure that where appropriate, traffic calming is included as a pre-condition as part of the development of all new estates or extensions to existing estates.”*

## 2.1.6 Road Construction and Improvement Measures

*“Objective MT40: Implement a programme of road construction and improvement works closely integrated with existing and planned land uses, taking into account both car and non-car modes of transport whilst promoting road safety as a high priority. Major road construction and improvement works will include an appraisal of environmental impacts.”*

## 2.1.7 Green Infrastructure and Planning

*“Objective GI18: Require all Local Area Plans to protect, enhance, provide and manage green infrastructure in an integrated and coherent manner addressing the five GI themes set out in the Development Plan – Biodiversity, Parks, Open Space and Recreation, Sustainable Water Management, Archaeological and Architectural Heritage, and Landscape.”*

*“Objective GI20: Require all new development to contribute to the protection and enhancement of existing green infrastructure and the delivery of new green infrastructure, as appropriate.”*

## 2.1.8 Malahide Development Plan Objectives

*“Objective MALAHIDE 11: Prepare and/or implement the following Masterplans during the lifetime of this Plan:*

- *Broomfield Masterplan (see Map Sheet 9, MP 9.B)*
- *Streamstown Masterplan (see Map Sheet 9, MP 9.A)*



### **3. Receiving Environment**

The assessment of the public transport and the surrounding existing roads, junctions and pathways is shown in Section 3. The proposed development has adequate capacity of current public transport infrastructure with access to Malahide Dart Station and several Dublin Bus routes. Section 4 of this TTA covers the public transport and cycle network improvements which will further increase the capacity and accessibility for the proposed development.

#### **3.1 Existing Roads and Junctions**

The northern vehicular access to the proposed development will be provided from the north via Back Road. Back Road is a single carriageway road that runs generally east–west for approximately 1.8km between the Malahide Road (R107) to the west and the Hill Road (R124) to the east. This road, which crosses the railway line via an existing bridge, currently comprises a carriageway of approximately 7.30m with narrow footpaths running along both sides of the road for the majority of its length. The speed limit on Back Road is 50km/hr.

The Malahide Road (R107) continues north, intersecting with the R106 which continues east towards Malahide village and west towards Swords. Travelling south, the Malahide Road intersects with the Clontarf Road (R105), which continues south-west towards Connolly Station and Dublin city centre. At the portion of the road that intersects with Back Road, the Malahide Road has a posted speed limit of 60km/hr.

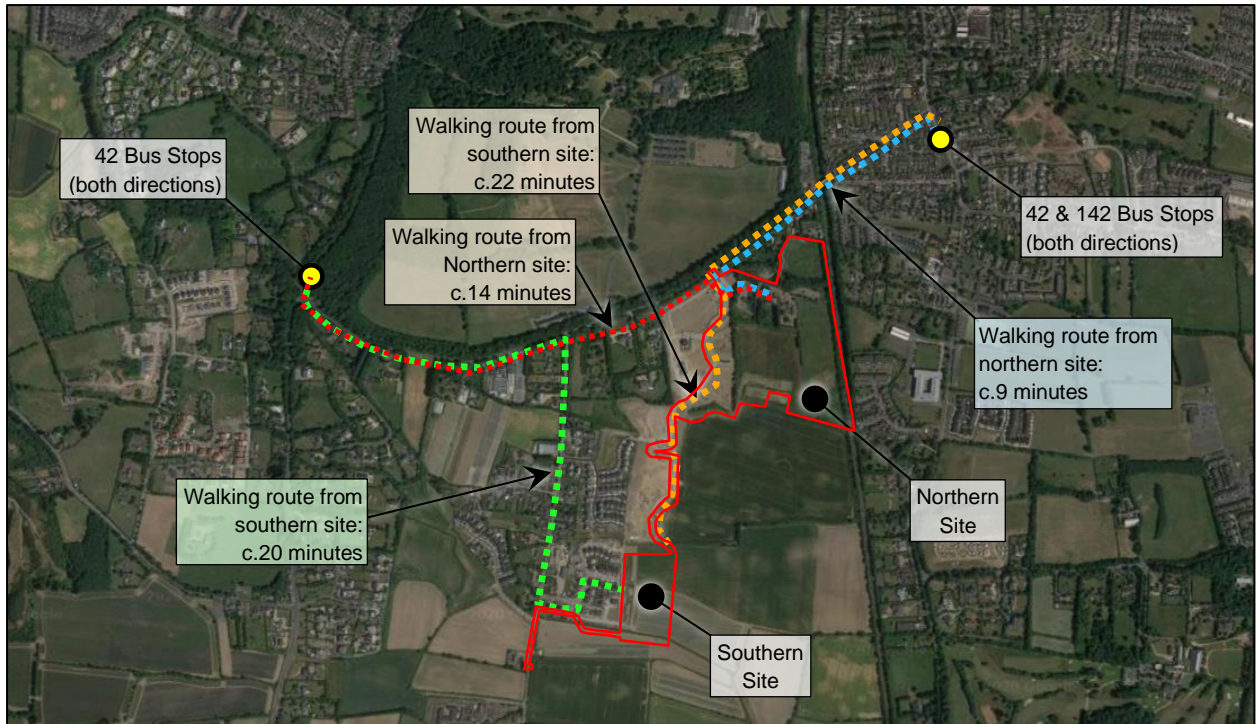
The R124 intersects with the R106 to the north of the subject site in the centre of Malahide village and continues south to the Moyne Road (R123).

The southern vehicular access to the proposed development is from Kinsealy Lane, via Hazelbrook residential development.

#### **3.2 Existing Public Transport Network**

##### **3.2.1 Bus Network**

The subject site is served by Dublin Bus Routes 42 and 142. Route 42 connects Sand's Hotel in Portmarnock to Talbot Street in Dublin City Centre, and Route 142 connects Portmarnock to UCD Belfield via the Port Tunnel.



**Figure 2 | Bus Stop Locations**

The nearest bus stops to the subject site are located on either side of The Hill Road (R124), immediately south of the junction with Back Road. These stops are approximately 900m north-east of the subject site entrance. This equates to a c. 9-minute walk from the northern site.

The walking distance to these bus stops from the southern site is longer, approximately 1.7km, which equates to a c.22-minute walk. Residents at the southern site also have the option of walking to bus stops on the Malahide Road (R107), immediately north of the junction with Back Road, which are served by the 42 Bus Route. The walking route is via Hazelbrook and Kinsealy Lane, and is approximately 1.6km, which equates to a c.20-minute walk. From the northern site it is approximately a 14-minute walk to the bus stops on Malahide Road (R107).

A summary of the Dublin Bus Route frequencies is presented in the Table below. Travel time on the 42 bus between Malahide and Talbot Street is approximately 42 minutes in either direction, while the travel time on the 142 between Malahide and UCD Belfield is approximately 60 minutes in either direction.

Route No.	From	To	AM Weekday Frequency	PM Weekday Frequency
			(07:00 to 09:00)	(17:00 to 19:00)
42	Sand's Hotel (Portmarnock)	Talbot Street	Every 20 minutes	Every 20 to 25 minutes
42	Talbot Street	Sand's Hotel (Portmarnock)	Every 15 to 30 minutes	Every 20 to 25 minutes
42d	Portmarnock	DCU	Bus leaves terminus at 07:30	No Evening buses
42d	DCU	Portmarnock	No Morning buses	Bus leaves terminus at 17:10

142	Portmarnock	UCD Belfield	Bus leaves terminus at: 07:10, 07:35, 07:55	No evening buses
142	UCD Belfield	Portmarnock	No morning buses	Bus leaves terminus at: 16:35, 17:05

**Table 2 | Dublin Bus AM and PM Weekday Frequencies**

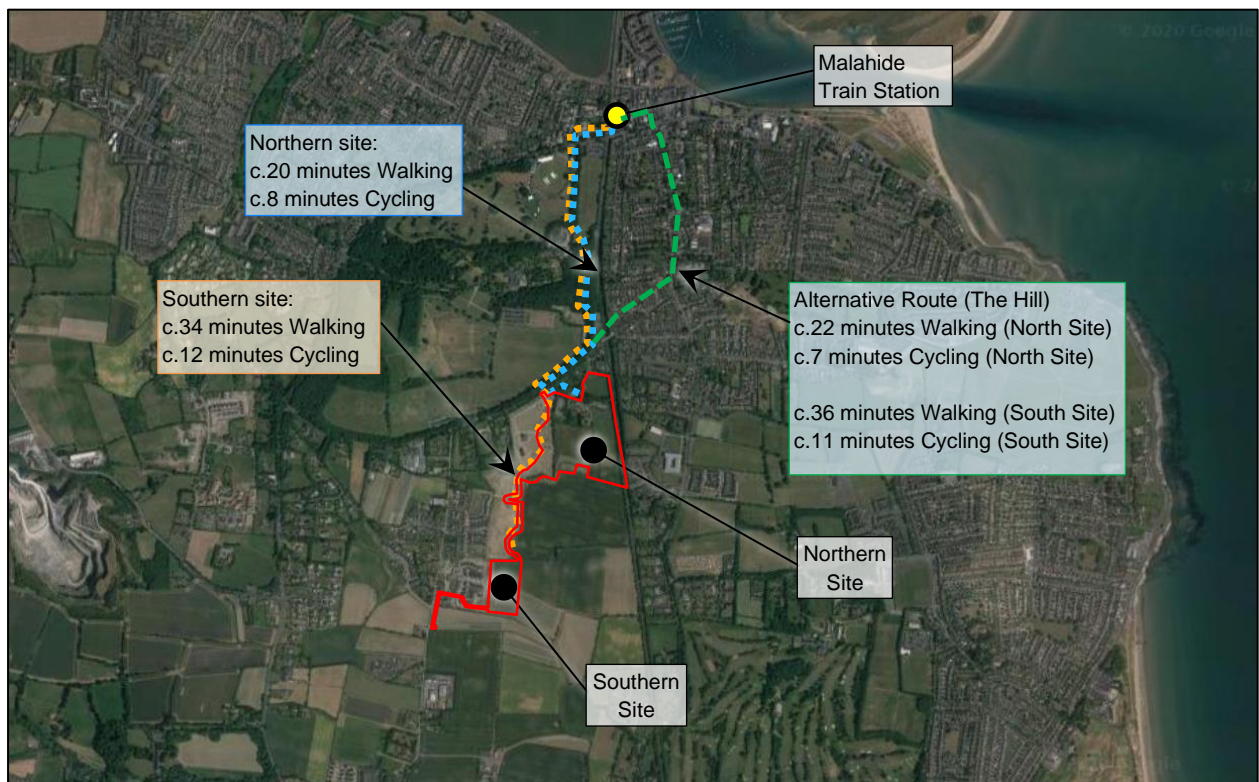
### 3.2.2 Rail Network

The nearest train station to the subject site is the Malahide station, located approximately 1.6km from the northern site (c. 20-minute walk or c.6-minute cycle) and 2.7km north-east of the southern site (c.34-minute walk or c.10-minute cycle). It is also possible to take the 42 Bus to Malahide Train Station, which reduces the travel time from the northern site from c.20 minutes to c.14 minutes.

The route through Malahide Castle Gardens closes at certain times. The alternative route using The Hill Road is shown in Figure 3 below. It is approximately 1.8km (22-minute walk or 7-minute cycle) from the proposed site entrance to Malahide Dart Station using this route.

The Malahide Station is served by Commuter Rail and DART services. The Commuter Rail service through Malahide Station serves all main stations from Dundalk through Dublin City Centre to Gorey. The service operates at 3 to 4 services per hour in both direction on weekdays.

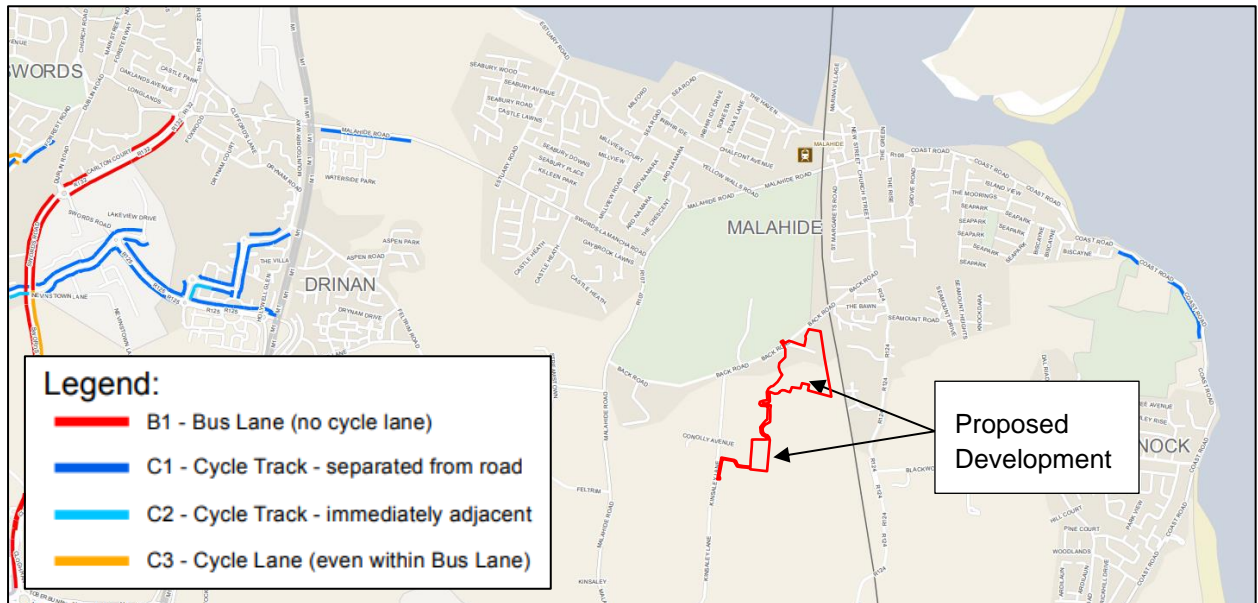
The DART service through Malahide Station serves all stations from Malahide through Dublin City Centre to Bray and Greystones. On weekdays, this service operates at a 20-minute frequency in both directions.



**Figure 3 | Railway Station Location**

### 3.3 Existing Cycle Facilities

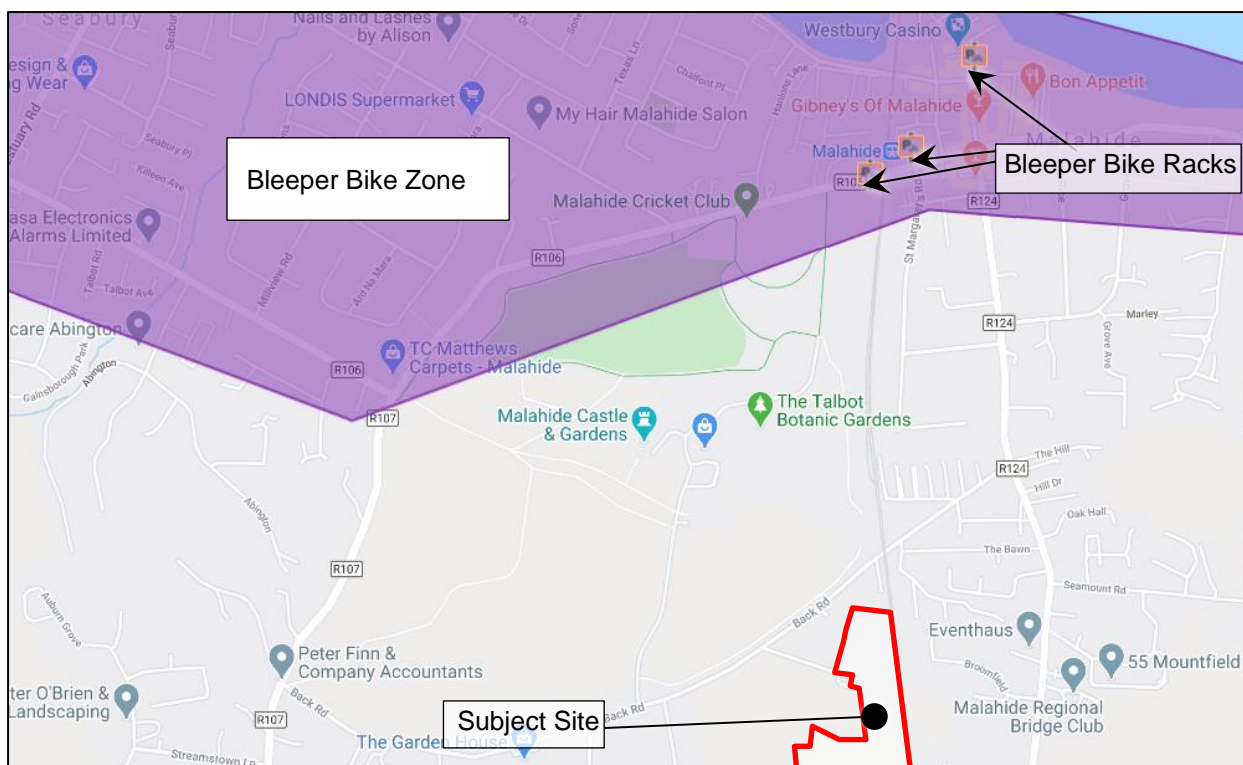
Malahide town does not currently have dedicated cycle tracks or cycle lane facilities, as indicated on the Existing Facilities Maps Sheet E9, extracted below, from the Greater Dublin Area Cycle Network Plan.



**Figure 4 | Existing Facilities Map – Sheet E9, Extracted from GDA Cycle Network Plan**

The Bleeper Bike scheme is Ireland’s first stationless bike sharing scheme and has been implemented widely in Dublin City. Stationless bikes are equipped with a fixed smart lock that controls usage of the bike by communicating with the app. Bleeper Bikes do not require custom built docking bays; however, they must be parked at designated bike racks.

There are cycle routes available along the roads and through Malahide Castle ground connecting to Malahide Town Centre.



**Figure 5 | Bleper Bike Designated Racks in Malahide**

Three designated bike racks are provided in Malahide centre. The location of these racks is illustrated in the Figure above. The purple zone shown in the Figure is a dedicated area where users will be able to find available Bleper Bikes to use.

### 3.4 Existing Pedestrian Network

The existing pedestrian facilities in the surrounding area comprise a network of footways linking the various neighbourhoods to each other, to the existing schools, to the Malahide train station and village, and to the surrounding public network.

### 3.5 Receiving Environment – Conclusion

As can be seen in section 3, there is currently adequate public transport and infrastructure in the area within reasonable walking and cycling distance from the proposed development. There are cycle lanes within the Malahide Castle gardens that provided access to the DART which provides access to the city centre. There are also several bus services within a 10-20 minute walk along pedestrian pathways.

## 4. Transportation Improvements

### 4.1 Public Transport Network Improvements

#### 4.1.1 BusConnects

The Bus Connects project currently being implemented by the National Transport Authority aims to deliver a much-enhanced bus service to the Greater Dublin Area (GDA). This will further increase the capacity that is discussed in Section 12.

There are several new bus routes proposed in the vicinity of the site, as shown in the Figure below:

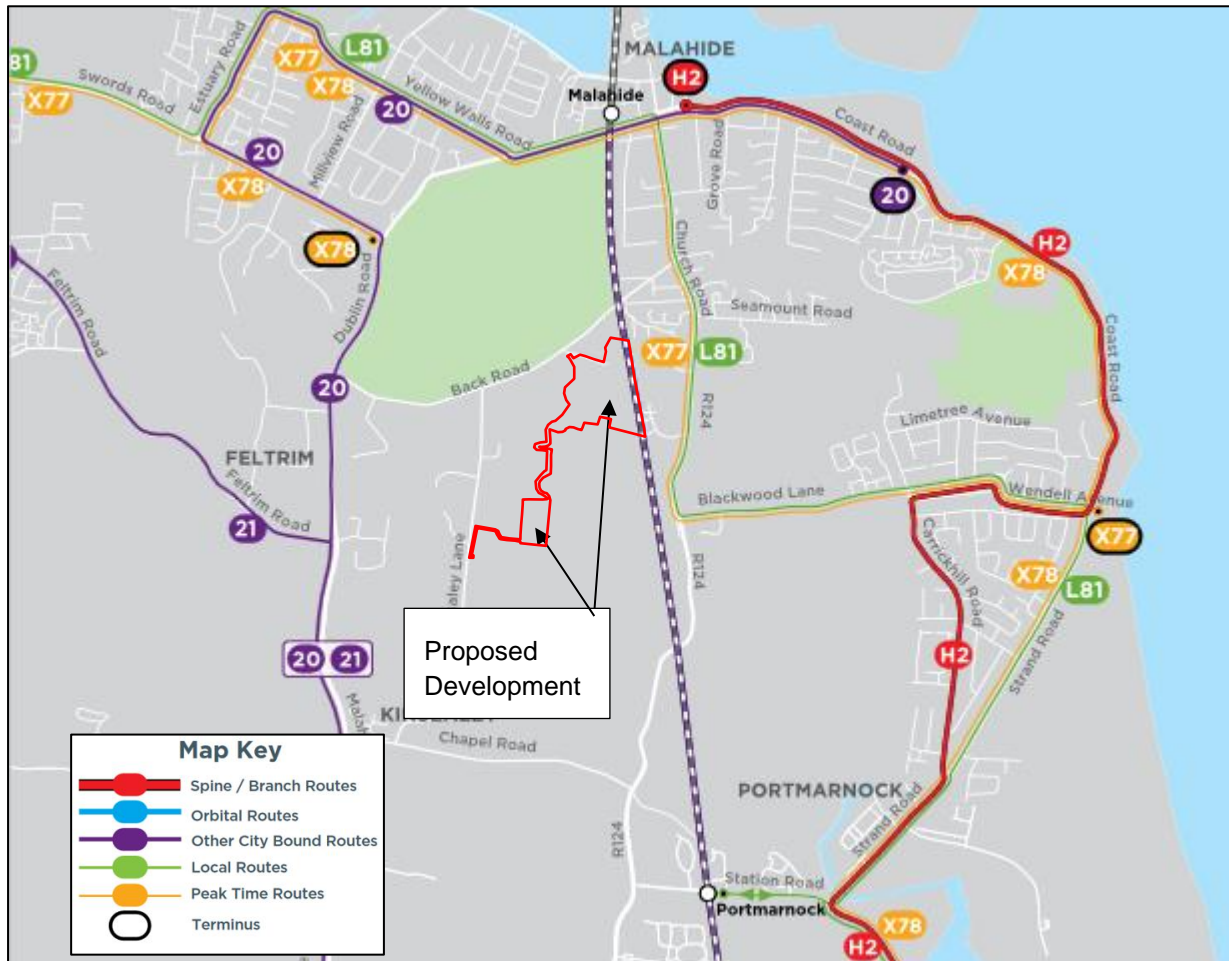


Figure 6 | BusConnects Route Map

The routes are as follows:

- 20: Malahide – Kinsealy – City Centre (Every 30-minutes)
- 21: Swords Business Park – Kinsealy – City Centre (Every 30-minutes)

#### 4.1.2 Dart Expansion Programme

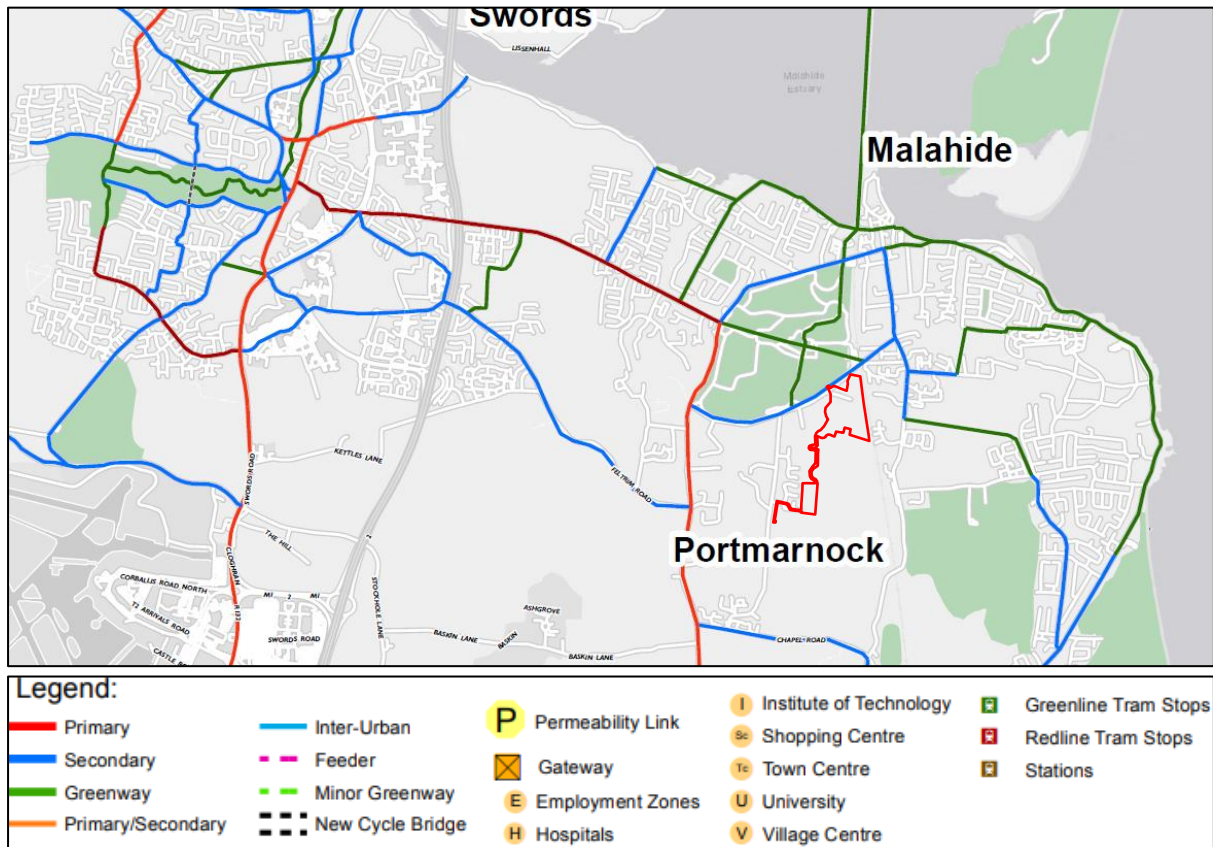
The Dart Expansion Programme is included within the 10-year horizon for the National Development Plan 2018 – 2027. It includes for an extension of the DART service to Balbriggan and an increased

weekday frequency of 15 minutes in each direction. This will further increase the capacity that is discussed in Section 12.

## 4.2 Cycle Facility Improvements

Proposals for the Greater Dublin Area Cycle Network Plan were published by the National Transport Authority in December 2013. The plan sets out a vision and a strategy for the construction and/or designation of a comprehensive network of cycling routes throughout the Greater Dublin Area (Counties Dublin, Meath, Kildare and Wicklow).

The Figure below shows an extract of Sheet N9, Proposed Cycle Network Swords & Malahide, from the Greater Dublin Area Cycle Network Plan:



**Figure 7 | Proposed Cycle Network Upgrades**

The Greater Dublin Area Cycle Network Plan includes proposed new primary/secondary, greenway and feeder cycle routes in close proximity to the site, providing direct cycle routes to Malahide village, Swords and Portmarnock.

It is approximately an 18-minute cycle to Swords from the proposed development. The route will use the cycle lanes provided as part of the GDA Cycle Network Plan.

## 4.3 Local Road Improvements

There are several local road improvements either planned or underway. The Chapel Road/Malahide Road junction has recently been signalised. The subject applicant contributed towards provision of a

pedestrian bridge over the railway line on Back Road, which is now in place. The subject applicant also provided footpath upgrades along Kinsealy Lane.



## 5. Broomfield Development Lands

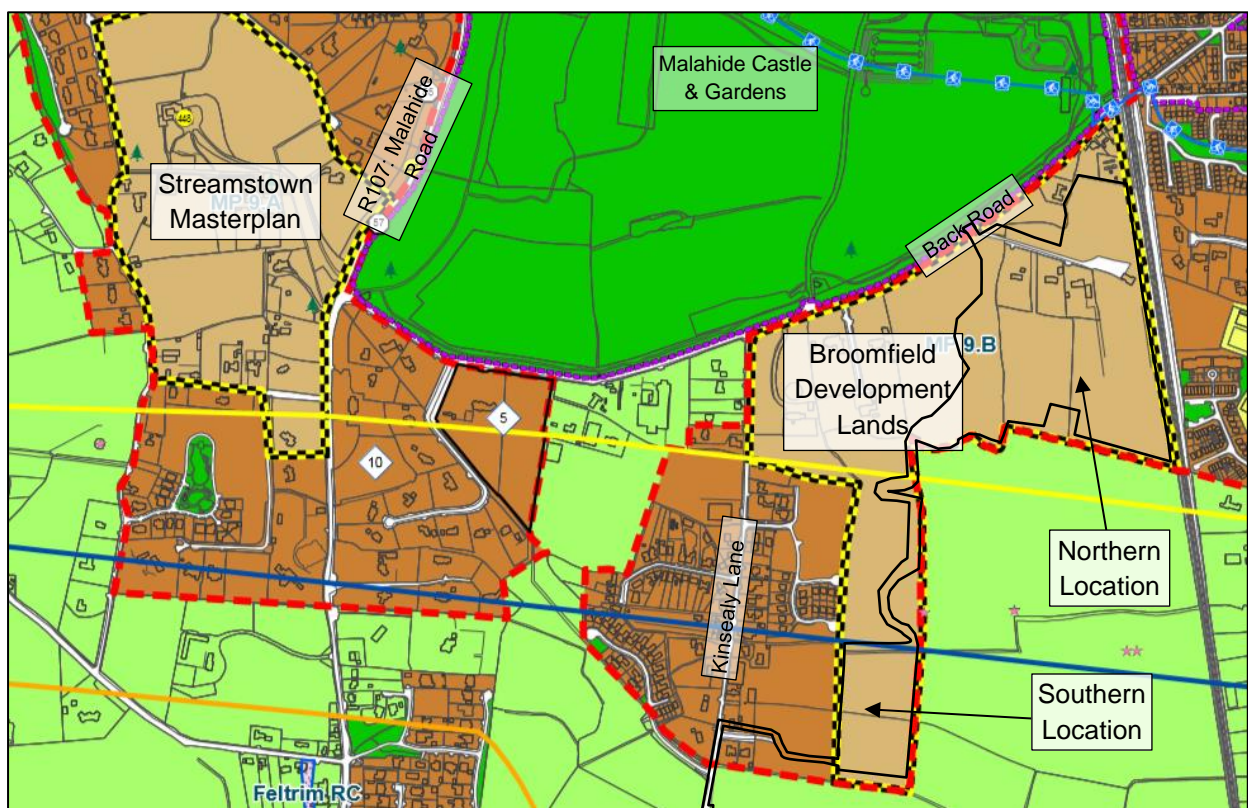
### 5.1 Description

In the Fingal Development Plan 2017 – 2023, the Broomfield Development Lands falls within the zoning objective type of:

**“RA – Residential Area:** provide for new residential communities subject to the provision of the necessary social and physical infrastructure.

*Ensure the provision of high quality new residential environments with good layout and design, with adequate public transport and cycle links within walking distance of community facilities. Provide an appropriate mix of house sizes, types and tenures in order to meet household needs and to promote balanced communities.”*

The location of the subject site within the Broomfield Development Lands is shown in the Figure below:



**Figure 8 | Location Map for Broomfield Development Lands – FDP, Sheet 9**

At the time of writing in 2022, two developments Ashwood Hall and Brookfield have been approved under Planning References F13A/0459 and F13A/0460 on Broomfield Development Plans, is substantially constructed and occupied and partially under construction.

### 5.2 Ashwood Hall and Brookfield (Planning Ref's. F13A/0459 and F13A/0460)

The Ashwood Hall and Brookfield developments in Broomfield Development Lands comprise a total of 149 residential units (61 dwelling under Ashwood Hall (Planning Reference F13A/0459) and 88 dwellings under Brookfield (Planning Reference F13A/0460)). It is expected that both developments will

be fully developed and occupied by 2023. Ashwood hall and Brookfield has also been assessed with regards to trip generation/distribution and additional population.

The overall proposal of the approved development of Ashwood Hall (Planning Reference F13A/0459) also includes the upgrade of the existing priority-controlled T-junction between Back Road and Broomfield Access Road to accommodate a right turning lane to facilitate access for traffic traveling from west on Back Road onto Broomfield lands.

### 5.3 Proposed Development

The proposed development consists of two sites. The northern site consists of 328 residential units and a creche approximately 476 sqm. The southern site will consist of 87 residential units. The combined total of proposed development is 415 residential units, comprising of 252 houses, 28 duplex units and 135 apartments, as set out in the Schedule of Accommodation below:

Description	1-bed	2-bed	3-bed	4-bed	5-bed	GFA (Sqm)	Total
<b>Northern Site</b>							
House	-	-	133	36	12	-	181
Duplex	-	6	6	-	-	-	12
Apartment	37	93	5	-	-	-	135
Creche	-	-	-	-	-	476 sqm	-
<b>Northern Total</b>	<b>37</b>	<b>99</b>	<b>144</b>	<b>36</b>	<b>12</b>	<b>476sqm</b>	<b>328 units 476 sqm</b>
<b>Southern Site</b>							
<b>House</b>	-	-	<b>59</b>	<b>12</b>	-	-	<b>71</b>
<b>Duplex</b>	-	<b>8</b>	<b>8</b>	-	-	-	<b>16</b>
<b>Southern Total</b>	-	<b>8</b>	<b>67</b>	<b>12</b>	-	-	<b>87</b>
<b>Total Site</b>	<b>37</b>	<b>107</b>	<b>211</b>	<b>48</b>	<b>12</b>	<b>476sqm</b>	<b>415 units 476 sqm</b>

**Table 3** | Schedule of Accommodation – Northern Site and Southern Site

### 5.4 Overall Broomfield Access Points

The overall Broomfield Masterplan site access will be two separate access points. The northern access point will be to the north of the overall site connecting to Back Road and creating a priority T-Junction. The site access will be the adjacent to the East of Ashwood Hall and will be the primary access point for Ashwood Hall, Brookfield and the proposed developments northern site. The other site access point is to the south of the overall Broomfield Masterplan connecting to Hazelbrook housing estate and then connecting to the existing junction with Kinsealy Lane. All internal roads are connected, and all subject developments can use all access points.

It is noted that local residents may raise concerns about rat running and increased traffic flows due to the addition of the access to Kinsealy Lane. In this regard it is proposed that Fingal County Council, along with the developer, will monitor the road in order to assess if ‘rat-running’ becomes an issue. Should rat running become an issue then Fingal County Council can introduce bollards to prevent through traffic in order to stop ‘rat-running’ from occurring.

It is however considered that the route between Back Road and Kinsealy Lane and vice versa through the proposed development, will not create a “rat-run”. This is owing to the fact that the layout of the proposed route is meandering, and has frequent interruptions such; as raised tables, pedestrian crossings and low radii corners which will effectively enforce a slower vehicular speed and make it a less attractive vehicular route. This is in accordance with DMURS guidelines which are discussed further in the reports accompanying this planning application.

A full assessment of the proposed site access points is shown in Appendix D of this TTA. This includes an assessment of all site access options and the impacts of each option.

## 5.5 Overall Broomfield Development Lands

The overall Broomfield Development Lands, including Ashwood Hall and Brookfield and the subject development, is expected to be fully completed and occupied by 2026. The number of units is presented in the Table below:

Phase	Total Residential Units (Houses & Apartments)
Ashwood and Brookfield Developments	149
Subject Application	415
<b>Overall Broomfield Development Lands</b>	<b>566</b>

*Table 4 | Overall Broomfield Development Lands 2026*

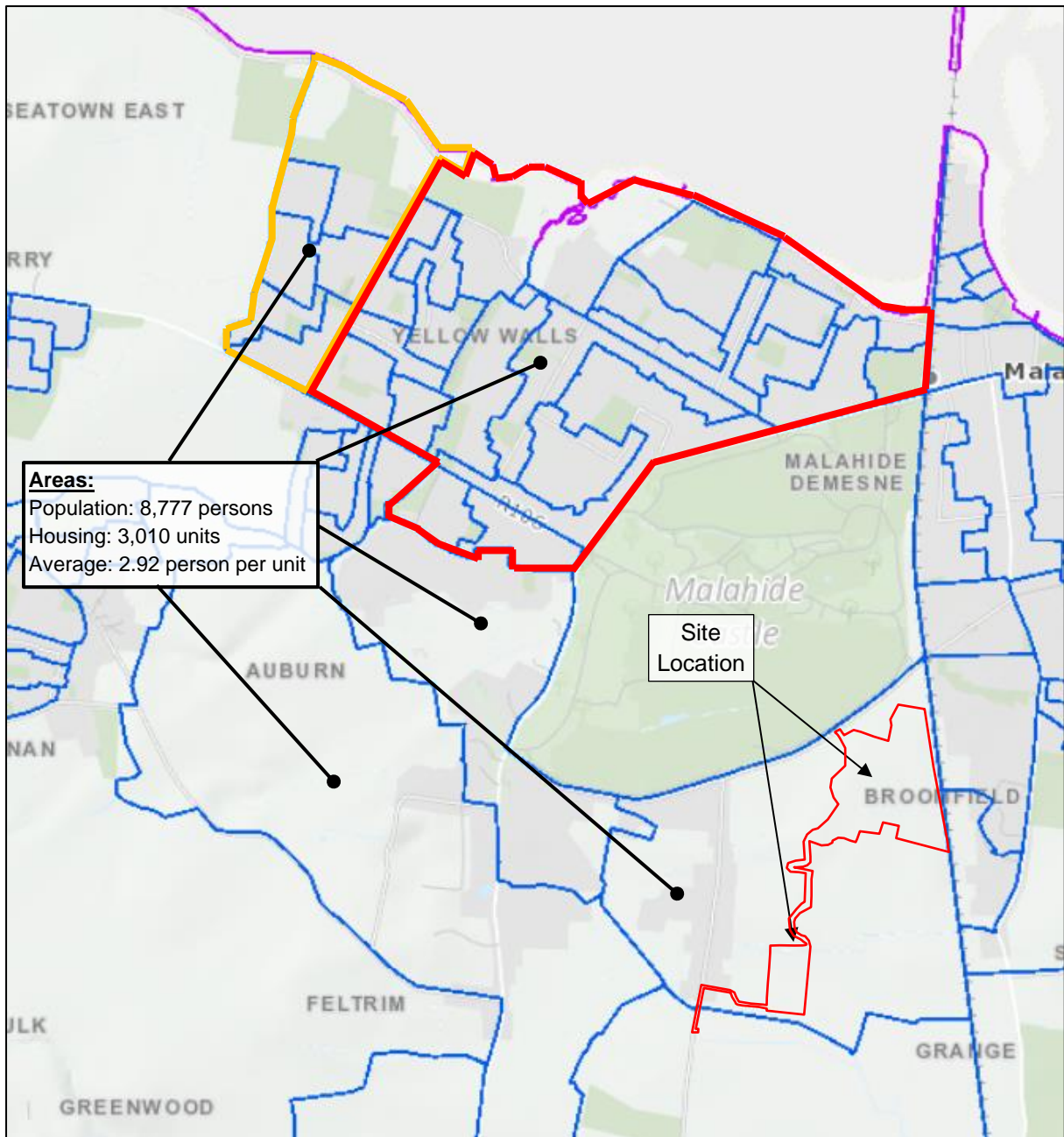
## 5.6 Overall Broomfield Development Lands Population 2026

During the 2016 Census, the resident population in the areas surrounding the proposed development site was 8,777 persons in 3,010 housing units equivalent to 2.92 persons per unit – refer to Figure 9 below, which shows the census areas.

On the basis of 607 residential units and an average of 2.92 persons per unit as recorded by Census 2016, it is estimated that the overall Broomfield Development Lands will have a resident population of 1,647 persons when fully completed and occupied.

Phase	Total Residential Units	People per Unit	Total
Ashwood and Brookfield Developments	149	2.92	435
Subject Application	415	2.92	1,212
<b>Overall Broomfield Development Lands</b>	<b>564</b>	<b>2.92</b>	<b>1,647</b>

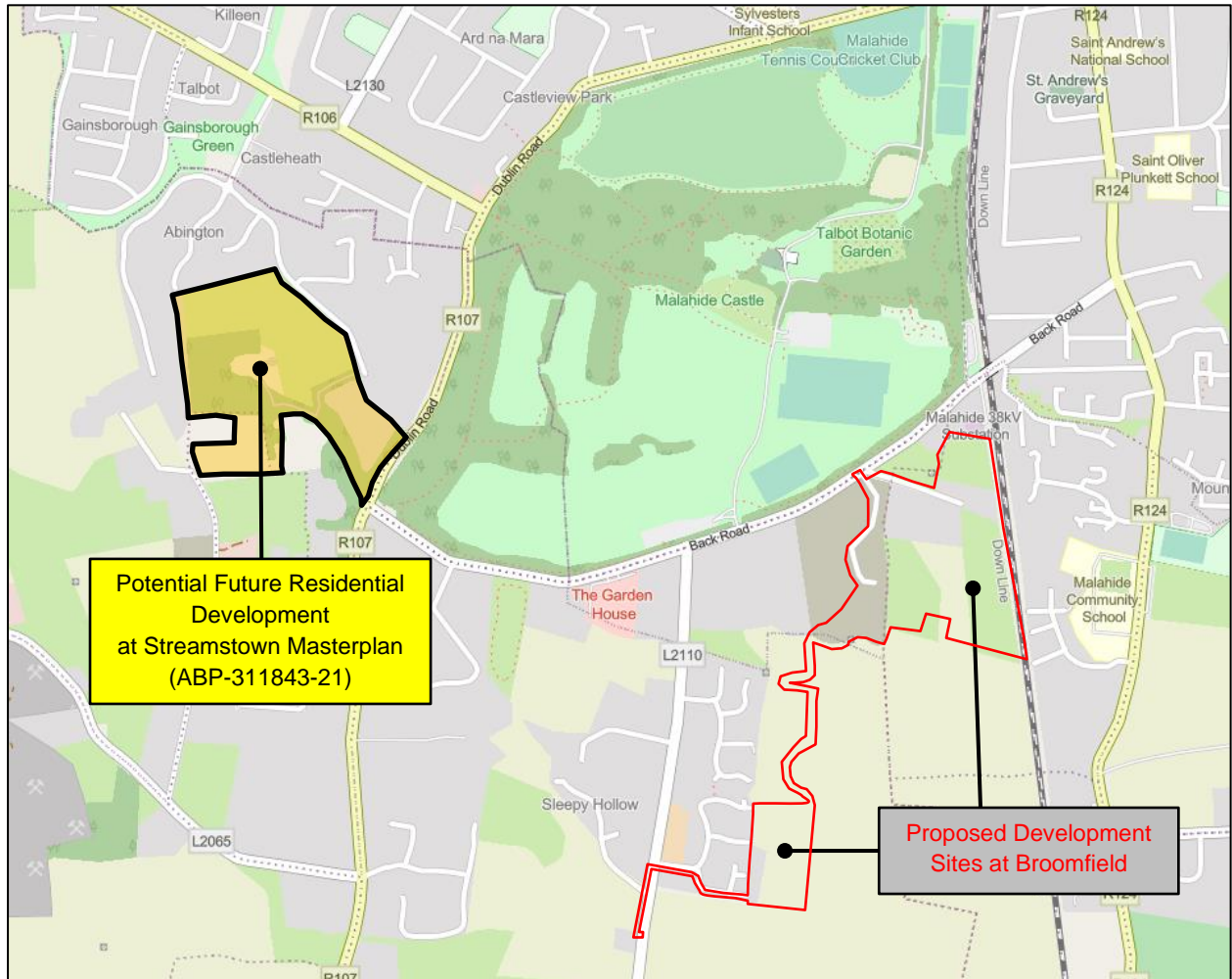
*Table 5 | Overall Broomfield Population 2026*



**Figure 9 | Areas for Census 2016 – Extracted from SAPMAPs**

## 6. Potential Future Developments

In order to provide a robust assessment of the transportation network in the local area, the following potential future developments, illustrated in Figure 10 below have also been assessed with regards to trip generation and additional population.



**Figure 10 | Location Map for Proposed Development and Potential Future Development Sites.**

### 6.1 Development at Streamstown Masterplan

The first main element of the Streamstown Masterplan as set out in the Fingal Development Plan 2017 - 2023 requires the provision of low-density residential developments reflective of the character of the area. At the time of writing in 2022, some low-density residential units are complete in the Streamstown Masterplan area.

Planning application for a further c. 369 residential units (88 no. houses, 239 no. apartments and 42 no. duplexes) within Streamstown Masterplan, which would result in a population increase of c. 1,077 people when fully completed and occupied. A planning application for Streamstown is understood to be imminent.

## 6.2 Sensitivity Analysis

Due to the additional potential developments in the area and the sensitivity of the road network a sensitivity analysis is included in the traffic and transport assessment. The sensitivity analysis will include the overall Broomfield site including the proposed development and the potential development at Streamstown.

The Sensitivity Analysis will be for the following years:

- Opening Year + 5 Years Forecast: 2031
- Opening Year + 15 Years Forecast: 2041

The potential new developments will affect assessment years after 2026 (Proposed Development opening year), therefore, 2026 was not assessed as part of the sensitivity analysis.

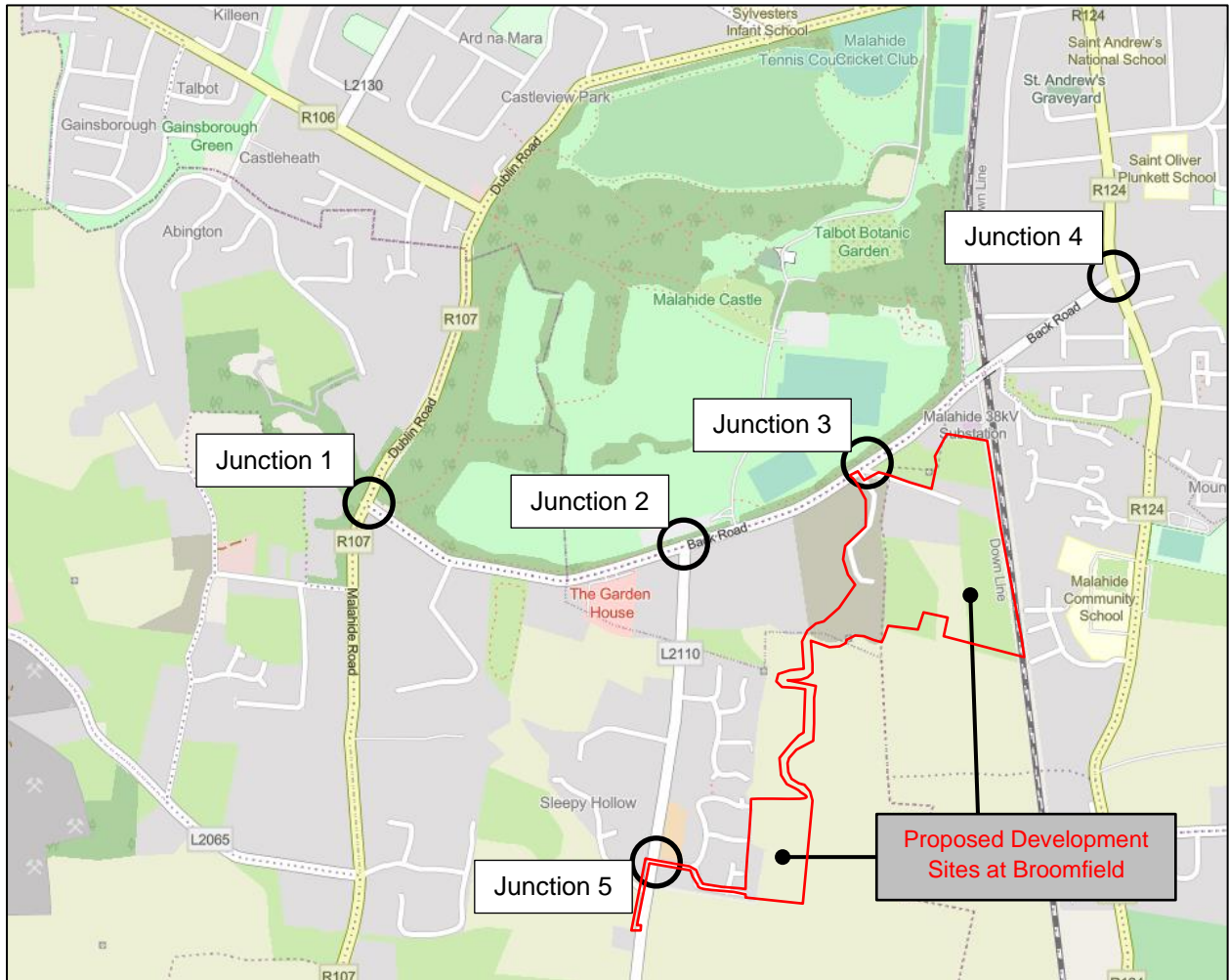
The sensitivity analysis was requested by Fingal County Council due to the surrounding roads and the number of new potential developments within the area. The sensitivity analysis is used as a stress test on all assessed junctions and whether the inclusion of the proposed development and the new potential developments will cause the assessed junctions to go over capacity. The purpose of this exercise is to test the limits of the junctions.

If any junction is deemed near capacity due to the inclusion of the developments above a further analysis will be done adjusting the trip distribution to find the limit of the junction capacity. Travel Characteristics

## 7. Road Traffic Surveys

In order to determine the volume of traffic movements at key points on the road network surrounding the subject site, traffic count data has been assessed for the following five junctions:

- **Junction 1:** R107 Malahide Road / Back Road
- **Junction 2:** Back Road / Kinsealy Lane
- **Junction 3:** Back Road / Broomfield Access Road
- **Junction 4:** Back Road / The Hill
- **Junction 5:** Kinsealy Lane / Hazelbrook



**Figure 11 | Location of Surveyed Junctions.**

Traffic Counts were performed by IDASO on Wednesday 08th September for all five junctions. The survey identified the peak hours within the 24 hours period for all junctions. These peak hours were 08:00 – 09:00 and 17:00 – 18:00. These identified peak hour volumes are illustrated in Figure 19 below. It should be noted that the traffic between 13:00 – 14:00 also has a high volume of traffic.

Due to the impact of Covid 19 and ongoing restrictions such as working from home these traffic counts for September 2021 were compared to previous traffic counts from 2018 which had been ‘factored up’ using industry standard growth factors provided by TII to increase them, by three year growth to 2021.

When comparing both sets of traffic counts there was no significant difference between the datasets and therefore the September 2021 Traffic Counts were not modified or factored up.

Full Traffic Survey is shown in Appendix A.

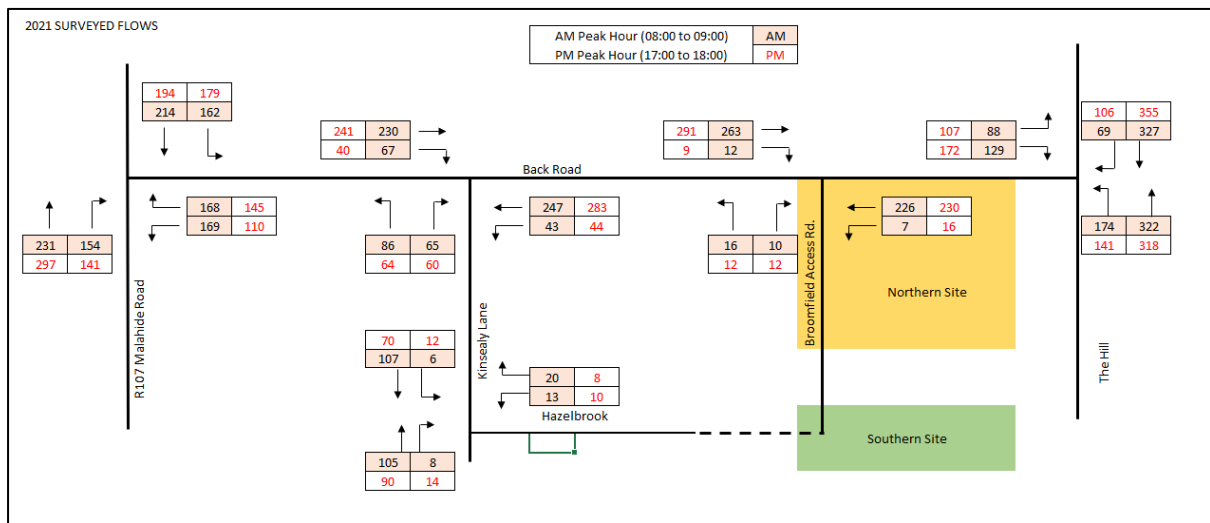


Figure 12 |Traffic Survey 2021 – AM and PM Peak Hour Flows.

In order to get a more robust assessment, the 2021 Traffic Counts were factored up to 2022. The background traffic growth rate used to factor up the 2021 base year traffic movements illustrated in Figure 13 is in accordance with Table 6.2: Link-Based Growth Rates: County Annual Growth Rates (excluding Metropolitan Area) within the TII Publications – Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections (May 2019). This is:

1.016 (Central Growth) growth factor from 2021 to 2022

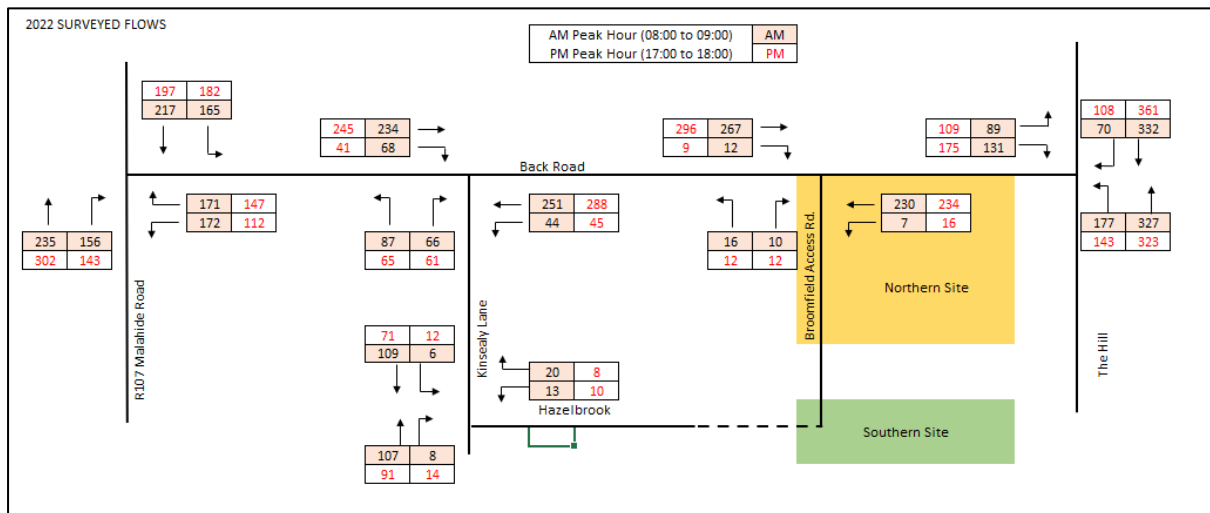


Figure 13 |Traffic Survey 2022– AM and PM Peak Hour Flows.



## 8. Trip Generation

### 8.1 TRIC Rates

In order to assess the likely impact of the traffic generation arising from the proposed development at Broomfield Development Lands Trip Rates were taken from previously agreed trip rates used in the Ashwood Hall development which is currently under construction. Trip Rates for apartments were taken from the TRICS Database.

TRICS is the national standard of trip generation and analysis in Ireland. It is a database system which allows users to identify representative trip rates and to establish potential levels of trip generation for a wide variety of developments.

TRICS trip rates have been used to estimate trips for Apartments. These trip rates are shown in Table 6 below. Previously approved Trip rates for Houses/Duplexes are as shown in Table 9. Full TRICS trip rates for apartments, which were sourced from the TRICS version 7.3.2, have been provided in Appendix B.

Use	CAR TRIP RATES				Source
	08:00 – 09:00		17:00 – 18:00		
	IN	OUT	IN	OUT	
<b>Houses</b>	0.147	0.380	0.380	0.194	(F13A/0459 Approved TIA)
<b>Apartments</b>	0.029	0.221	0.221	0.064	TRICS Consultation
<b>Duplexes</b>	0.147	0.380	0.380	0.194	(F13A/0459 Approved TIA)

**Table 6** | Car Trip Rates – Source: TRICS

### 8.2 Broomfield Development Lands

#### 8.2.1 Under-construction Ashwood Hall and Brookfield (Planning Ref's F13A/0459 and F13A/0460)

The permission for the under-construction Ashwood Hall and Brookfield of Broomfield Development Lands provided for the construction of a total of 149 no. houses (61 no. houses under Planning Reference F13A/0459 and 88 no. houses under Planning Reference F13A/0460). The AM and PM peak hour trip generation to/from the under-construction Ashwood Hall and Brookfield development - extracted from the Traffic Impact Assessment approved under Planning Reference F13A/0459 is presented in Table 7 below.

Use	Units	ASHWOOD HALL AND BROOKFIELD			
		08:00 – 09:00		17:00 – 18:00	
		IN	OUT	IN	OUT
Houses (F13A/0459)	61	9	23	23	12
Houses (F13A/0460)	88	13	37	34	22
<b>Total</b>	<b>149</b>	<b>22</b>	<b>60</b>	<b>57</b>	<b>34</b>

**Table 7 | Car Trip Generation – Under-construction Ashwood Hall and Brookfield.**

As can be seen from the above, based on the TIA approved under Planning Ref. F13A/0459, the under-construction Ashwood Hall and Brookfield development (including both planning applications) is estimated to generate a total of 82 vehicle movements in the AM peak hour (22 arrivals and 60 departures) and a total of 91 vehicles movements in the PM peak hour (57 arrivals and 34 departures).

### 8.2.2 Proposed Development (Current Application)

#### Northern Site

The proposed northern site will comprise a total of 328 no. residential units (181 no. houses, 135 no. apartments, 12 no. duplexes and a creche). The AM and PM peak hour trip generation to/from the proposed development is shown in Table 8 below.

The creche located in the Northern site is assumed to be used for internal use and therefore no trips will be generated except for staff for the creche.

Use	Units / No. of classrooms	PROPOSED Northern Site			
		08:00 – 09:00		17:00 – 18:00	
		IN	OUT	IN	OUT
Houses	181	27	72	69	41
Apartments	135	4	30	30	9
Duplexes	12	2	6	4	0
Creche	8 Classrooms	8	-	-	8
<b>Total</b>	<b>328 Units 8 No. Classrooms</b>	<b>41</b>	<b>108</b>	<b>103</b>	<b>58</b>

**Table 8 | Car Trip Generation – Proposed Development Northern Site (Current Application).**

As can be seen from the above, the northern site under the subject application is estimated to generate a total of 159 vehicle movements in the AM peak hour (14 arrivals and 108 departures) and a total of 161 vehicle movements in the PM peak hour (103 arrivals and 58 departures).

#### Southern Site

The proposed southern site will comprise a total of 87 no. residential units (71 no. houses and 16 no. duplexes). The AM and PM peak hour trip generation to/from the proposed development, is shown in Table 9.

Use	Units	PROPOSED Southern Site			
		08:00 – 09:00		17:00 – 18:00	
		IN	OUT	IN	OUT

<b>Houses</b>	71	10	27	27	14
<b>Duplexes</b>	16	2	6	6	4
<b>Total</b>	<b>87</b>	<b>12</b>	<b>33</b>	<b>33</b>	<b>18</b>

**Table 9 | Car Trip Generation – Proposed Development Southern Site (Current Application).**

As can be seen from the above, the southern site under the subject application is estimated to generate a total of 45 vehicle movements in the AM peak hour (12 arrivals and 33 departures) and a total of 51 vehicle movements in the PM peak hour (33 arrivals and 18 departures).

### 8.2.3 Summary of Trips Generated

A summary of all trips generated from the overall Broomfield site is shown below in Table 10.

Site	Units / No. of Classrooms	08:00 – 09:00		17:00 – 18:00	
		IN	OUT	IN	OUT
<b>Proposed Dev. – Northern Site</b>	<b>328 Units 8 No. Classrooms</b>	41	108	103	58
<b>Proposed Dev. – Southern Site</b>	<b>87 Units</b>	12	33	33	18
<b>Proposed Dev. - Total</b>	<b>415 Units 8 No. Classrooms</b>	53	141	136	76
<b>Ashwood Hall and Brookfield</b>	<b>149 Units</b>	<b>22</b>	<b>60</b>	<b>30</b>	<b>29</b>
<b>Broomfield Development Lands Total</b>	<b>566 Units 8 No. Classroom (Creche)</b>	75	201	166	105

**Table 10 | Car Trip Generation – Summary**

## 8.3 Potential Future Developments

### 8.3.1 Potential Future Development at Streamstown

Trip generation for the potential future residential development at Streamstown Masterplan is presented in Table 11 below. It has been based upon the following future development as set out in Section 7 of this report.:

- 369 residential units (88 no. houses, 239 no. apartments and 42 no. duplexes)
- Car Trips rates as per Table 6 from this report.

Use	Units	Potential Future Development at Streamstown			
		08:00 – 09:00		17:00 – 18:00	
		IN	OUT	IN	OUT
<b>Houses</b>	88	13	33	33	17
<b>Apartments</b>	239	7	53	53	15
<b>Duplexes</b>	42	6	16	16	8
<b>Total</b>	<b>369</b>	<b>26</b>	<b>102</b>	<b>102</b>	<b>40</b>

**Table 11 | Car Trip Generation – Potential Future Residential Development at Streamstown Masterplan**

As can be seen from the above, based on 369 no. residential units and the trip rates set out in Table 9, the potential future development at Streamstown Masterplan is estimated to generate a total of 128 trips in the 08:00 – 09:00 peak hour (26 arrivals and 102 departures) and a total of 142 trips in the 17:00 – 18:00 peak hour (102 arrivals and 40 departures)

## 9. Trip Distribution

In order to determine the amount of new car trips expected to travel through each surveyed junction in the vicinity of the proposed development site, the calculated car trips for each assessed development have been distributed. These are presented below.

### 9.1 Broomfield Development Lands

#### 9.1.1 Under-construction Ashwood Hall and Brookfield (Planning Ref's F13A/0459 and F13A/0460)

The peak hour vehicular trip distribution for the under-construction Ashwood Hall and Brookfield of Broomfield is detailed in Figure 13 below. The percentages shown in Figure 14 have been extracted from the approved TIA prepared for Ashwood Hall and Brookfield (Planning Ref. F13A/0459). The extracted approved distribution was adjusted to account for the site access point at Kinsealy Lane which is proposed as part of this planning application. It has been assumed that 5% of the trips will use this additional access point to travel south along Kinsealy Lane. The corresponding AM and PM peak hour traffic flows for the under-construction Ashwood Hall and Brookfield development, based upon this trip distribution in Figure 14 are shown in Figure 15.

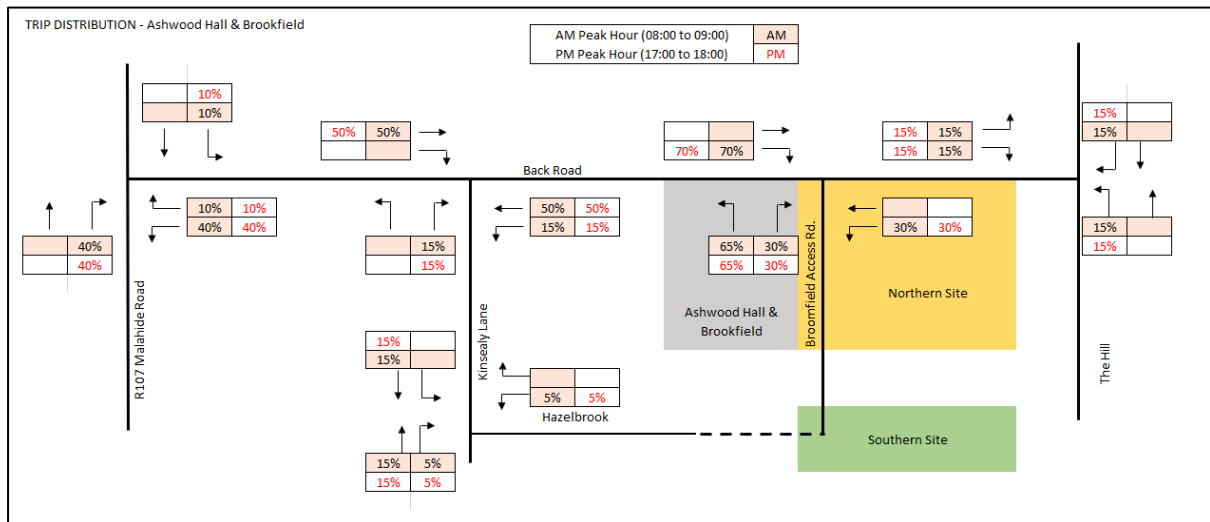


Figure 14 | Trip Distribution – Ashwood Hall & Brookfield

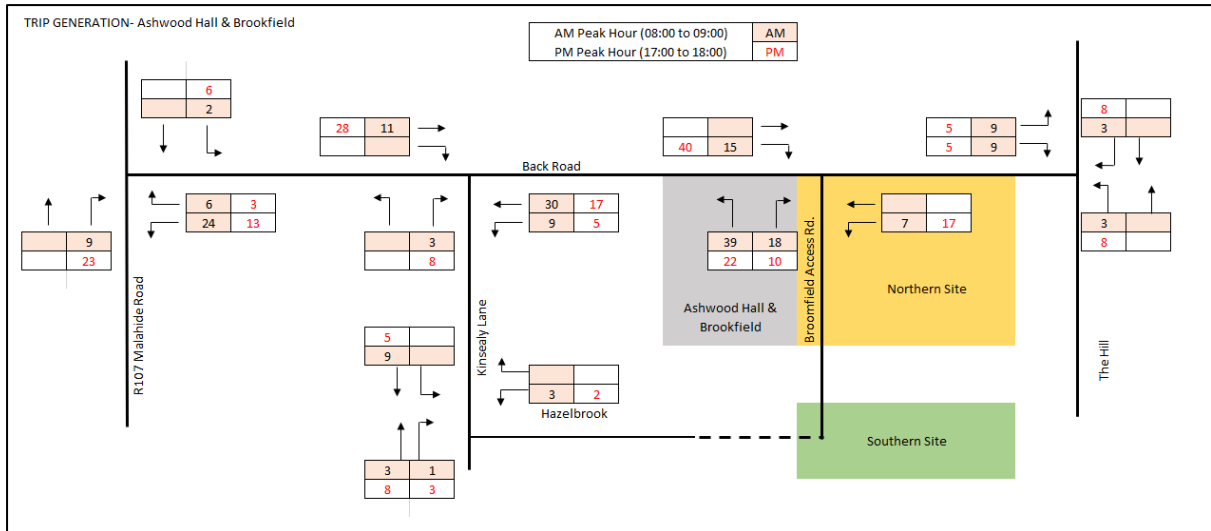


Figure 15 | Trip Generation – Ashwood Hall & Brookfield

### 9.1.2 Proposed Development (Current Application)

#### Northern Site

The trip distribution for the peak hour generated traffic for the northern site is detailed in Figure 16 below. The northern site is assumed to have 90% of the trips using the northern access point on Back Road and 10% using the southern access point to travel south on Kinsealy Lane. Of the 95% of trips, 30% will travel to/from west on Back Road towards the Hill with 10% travelling to/from the north and 20% travelling to/from south. The other 65% will travel to/from west on Malahide Road with 15% travelling south to/from Kinsealy Lane and the 50% continuing onto R107 Malahide Road with 35% travelling to/from south on Malahide Road and the remaining 15% travelling to/from north on Malahide Road.

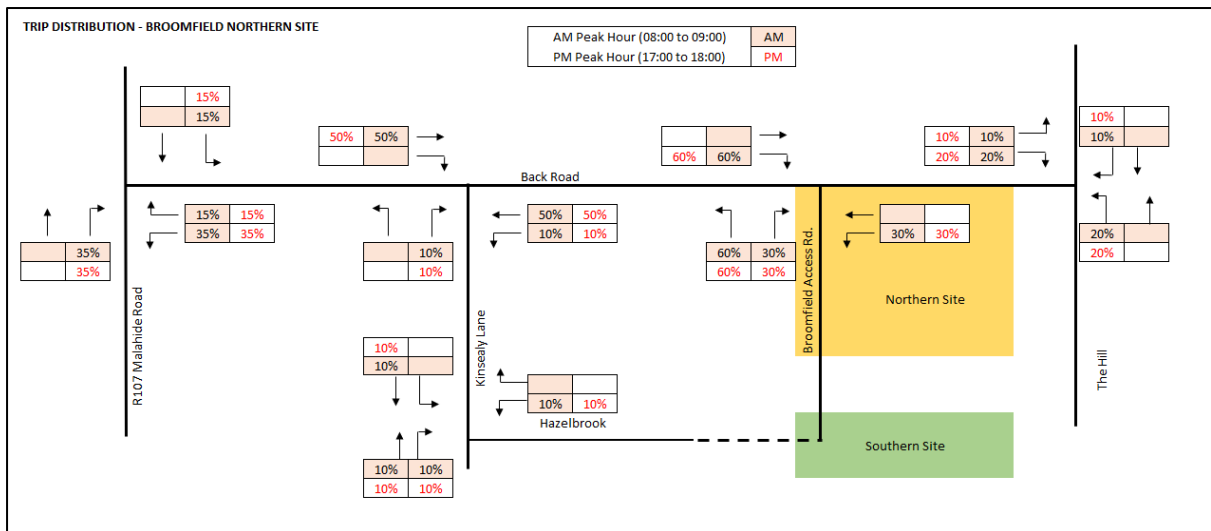


Figure 16 | Trip Distribution – Proposed Development: Northern Site(Current Application).

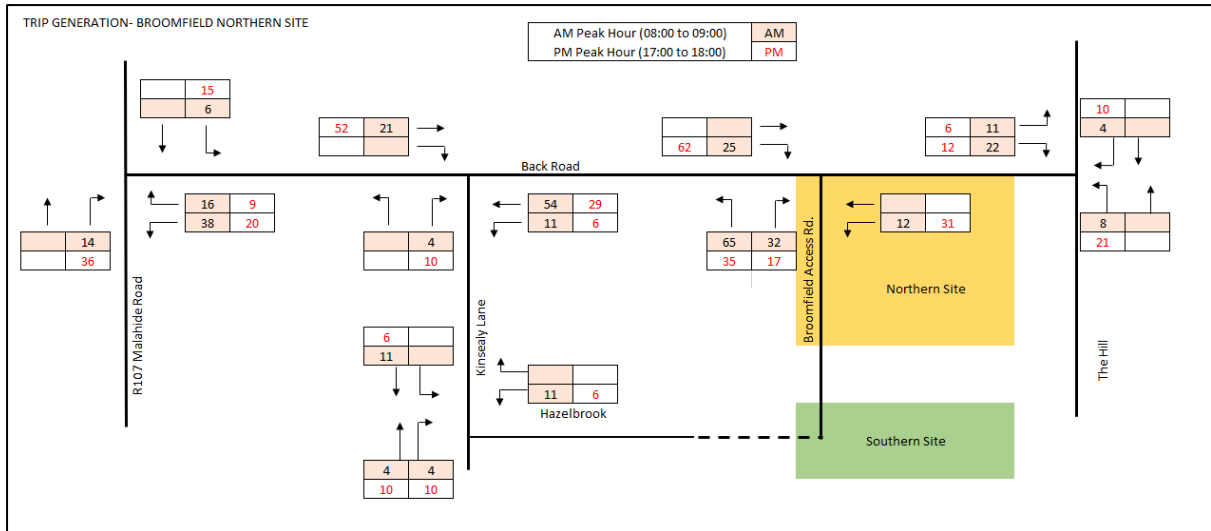


Figure 17 | Trip Generation – Proposed Development: Northern Site (Current Application).

### Southern Site

The trip distribution for the peak hour generated traffic for the southern site is detailed in Figure 16 below. The southern site is assumed to have 90% of the trips using the site access road on Kinsealy Lane and 10% using the site access onto Back Road. Of the 90% of trips, 15% will travel to/from south on Kinsealy Lane and 75% to/from Back Road. On Back Road, 55% will travel west to/from Malahide Road with 40% travelling to/from south on Malahide Road and 15% travelling to/from north on Malahide Road. Of the trips travelling from the Kinsealy Road access point, 20% will travel east on Back Road, joining with the 10% of trips from the site access on Back Road to/from The Hill Road. On The Hill Road, 10% will travel to/from the north and 20% to/from the south.

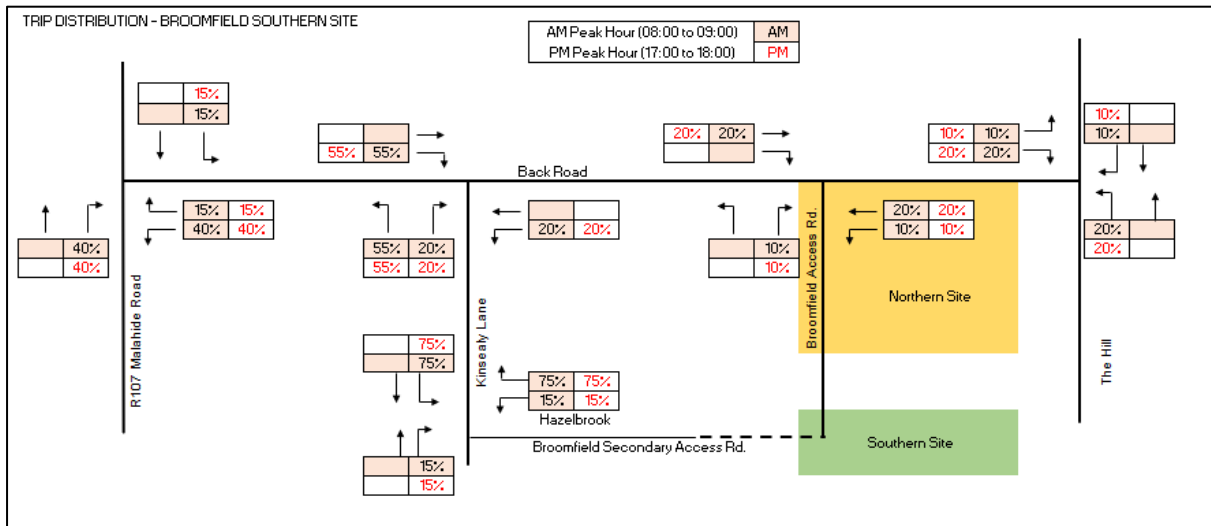
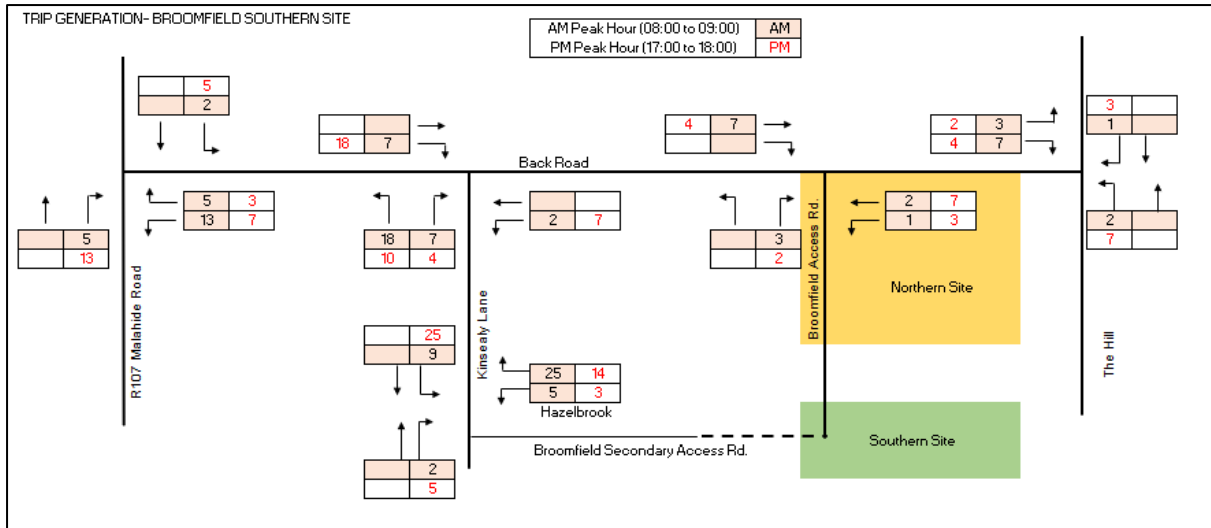


Figure 18 | Trip Distribution – Proposed Development: Southern Site (Current Application).



**Figure 19 | Trip Generation – Proposed Development: Southern Site (Current Application).**

## 9.2 Potential Future Development

### 9.2.1 Potential Future Development at Streamstown

Access to the potential future residential development at Streamstown Masterplan will be provided via two access points, one from southeast via an additional western arm of the on the between R107 Malahide Road / Back Road junction and the other from southwest via Carey’s Lane. For the purpose of this TTA, and in order to undertake a conservative assessment of R107 Malahide Road / Back Road junction, it was assumed that 80% of the generated trips to/from the potential future residential development at Streamstown Masterplan will access/egress the site from southeast via R107 Malahide Road / Back Road junction, whilst the remaining 20% will access/egress the site from southwest via Carey’s Lane.

The trip distribution for the peak hours generated traffic for the potential future residential development at Streamstown Masterplan across the analysed junctions is detailed in Figure 20 and the corresponding AM and PM peak hour flows, based on the assumed distribution, are shown in Figure 21.



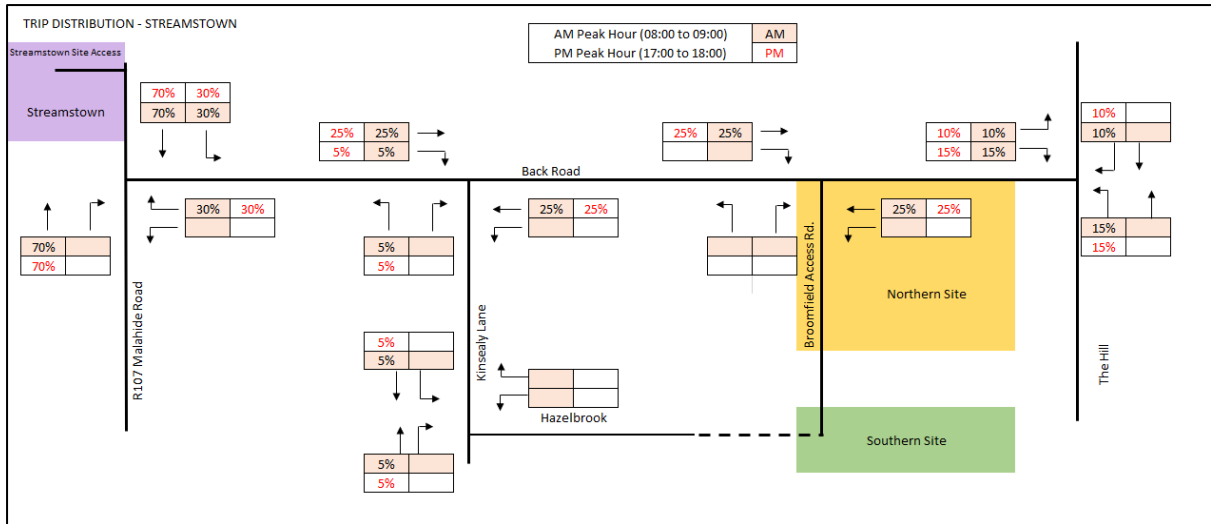


Figure 20 | Trip Distribution – Potential Future Residential Development at Streamstown Masterplan.

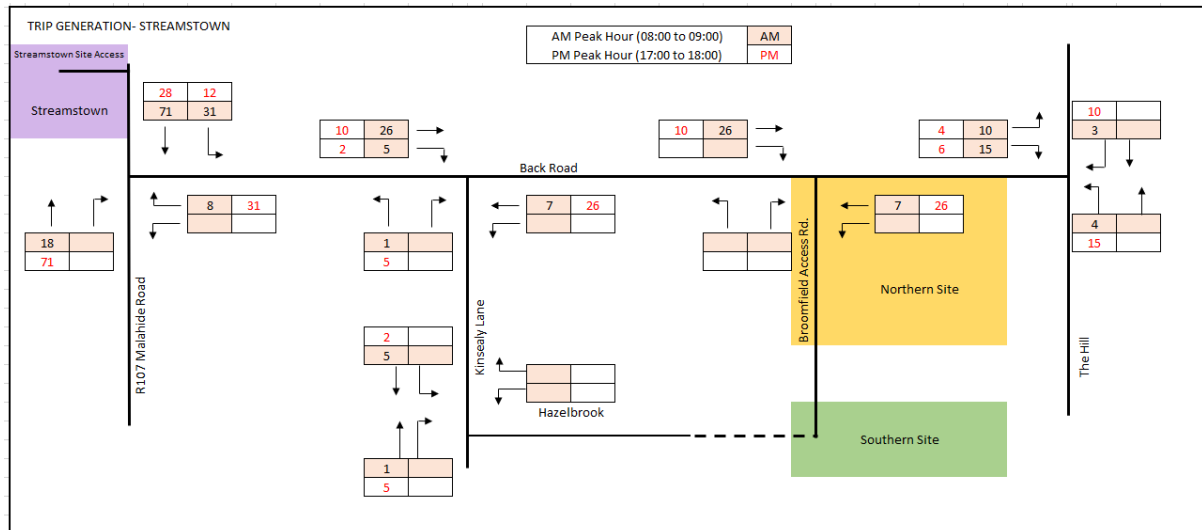


Figure 21 | Trip Generation – Potential Future Residential Development at Streamstown Masterplan.

## 10. Junction Assessment

### 10.1 Junctions Assessed

The junctions that have been assessed within this Traffic and Transport Assessment are the following:

- **Junction 1:** R107 Malahide Road / Back Road
- **Junction 2:** Back Road / Kinsealy Lane
- **Junction 3:** Back Road / Broomfield Access Road
- **Junction 4:** The Hill / Back Road.
- **Junction 5:** Kinsealy Lane / Hazelbrook

### 10.2 Assessment Scenarios

For the purposes of this TTA, several assessment scenarios were analysed for the proposed development, committed developments and the surrounding traffic network. A sensitivity analysis was also complete for the potential future developments in the area.

- **BASELINE SCENARIO 2022:** Baseline 2022 Traffic Survey Road Network
- **DO NOTHING 2026:** Baseline 2022 Road Network with traffic flows factored up + traffic to/from Ashwood Hall and Brookfield
- **DO NOTHING 2031:** Baseline 2022 Road Network with traffic flows factored up + traffic to/from Ashwood Hall and Brookfield
- **DO NOTHING 2041:** Baseline 2022 Road Network with traffic flows factored up + traffic to/from Ashwood Hall and Brookfield
- **DO SOMETHING 2026:** Baseline 2022 Road Network with traffic flows factored up + traffic to/from Ashwood Hall and Brookfield + traffic to/from the proposed development
- **DO SOMETHING 2031:** Baseline 2022 Road Network with traffic flows factored up + traffic to/from Ashwood Hall and Brookfield + traffic to/from the proposed development
- **DO SOMETHING 2041:** Baseline 2022 Road Network with traffic flows factored up + traffic to/from Ashwood Hall and Brookfield + traffic to/from the proposed development
- **SENSITIVITY ANALYSIS 2031:** Baseline 2022 Road Network with traffic flows factored up + traffic to/from Ashwood Hall and Brookfield + traffic to/from the proposed development + traffic to/from Potential Development at Streamstown
- **SENSITIVITY ANALYSIS 2041:** Baseline 2022 Road Network with traffic flows factored up + traffic to/from Ashwood Hall and Brookfield + traffic to/from the proposed development + traffic to/from Potential Development at Streamstown

Table 12 below shows assessment scenarios with Green meaning the development was constructed and Red meaning the development was not constructed.

Assessment Scenarios	Baseline Road Network	Proposed Development	Ashwood Hall and Brookfield	Streamstown Development
Baseline Scenario	Green	Red	Red	Red
Do Nothing 2026	Green	Red	Green	Red
Do Nothing 2031	Green	Red	Green	Red
Do Nothing 2041	Green	Red	Green	Red
Do Something 2026	Green	Green	Green	Red
Do Something 2031	Green	Green	Green	Red
Do Something 2041	Green	Green	Green	Red
Sensitivity Analysis 2031	Green	Green	Green	Green
Sensitivity Analysis 2041	Green	Green	Green	Green

**Table 12 | Assessment Scenarios**

### 10.3 Future Assessment Year – 2026

The future traffic on the surrounding road network in 2026 (Opening Year of the Proposed Development) is illustrated in Figure 20 below. It has been assumed within this TTA that the proposed development will be constructed over a period of approximately 3 years. Therefore, the assumed year of opening is 2026. As per methodology adopted in the ‘Transport Assessment Guidelines (May 2014)’, which the subject TTA is based on.

It was assumed that, by the Opening Year 2026, Ashwood Hall and Brookfield, and the associated Junction 3 improvements will be fully constructed and occupied. These upgrades include a right turning lane into the Broomfield entrance on Back Road as part of the Ashwood Hall development.

Based on that, the movements illustrated in Figure 22 below were obtained by factoring up the 2022 base year traffic illustrated in Figure 13 and adding the movements from the assessed development.

The background traffic growth rate used to factor up the 2022 base year traffic movements illustrated in Figure 13 is in accordance with *Table 6.2: Link-Based Growth Rates: County Annual Growth Rates (excluding Metropolitan Area)* within the TII Publications – Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections (May 2019). This is:

**1.066 (Central Growth) growth factor from 2022 to 2026**

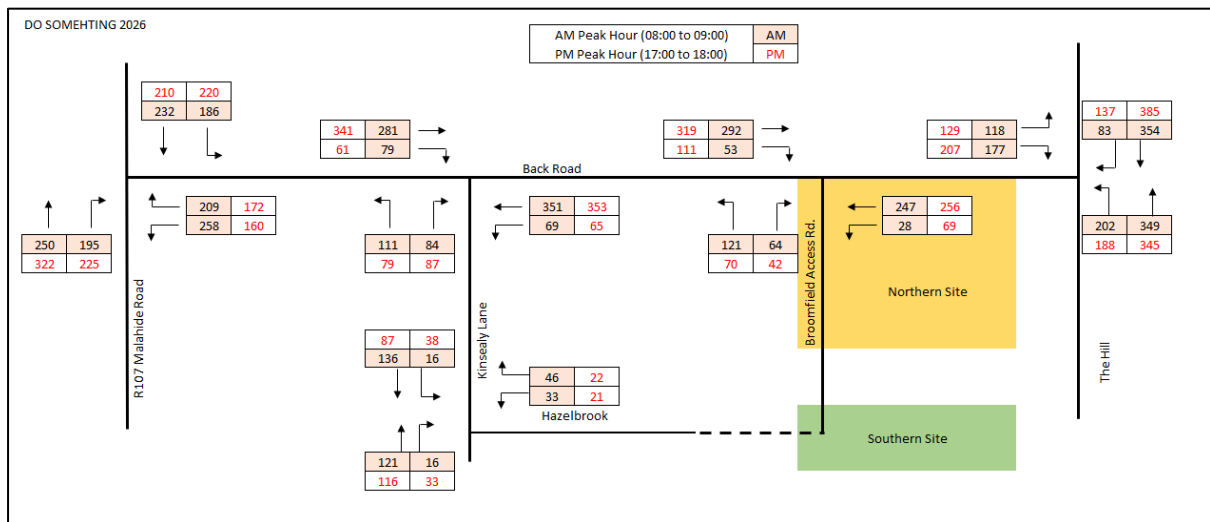


Figure 22 | 2026 Future Assessment Year.

**10.4 Future Assessment Year – 2031**

The future traffic on the surrounding road network in 2031 (Opening Year of the Proposed Development) is illustrated in Figure 23 below. It has been assumed within this TTA that the proposed development will be constructed over a period of approximately 3 years. Therefore, the assumed year of opening is 2026. As per methodology adopted in the ‘Transport Assessment Guidelines (May 2014)’, which the subject TTA is based on, therefore assessment is required for 2031 (Opening year +5 Years)

Based on that, the movements illustrated in Figure 23 below were obtained by factoring up the 2021 base year traffic illustrated in Figure 13 and adding the movements from the each assessed development.

The background traffic growth rate used to factor up the 2021 base year traffic movements illustrated in Figure 13 is in accordance with *Table 6.2: Link-Based Growth Rates: County Annual Growth Rates (excluding Metropolitan Area)* within the TII Publications – Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections (May 2019). This is:

**1.143 (Central Growth) growth factor from 2022 to 2031**

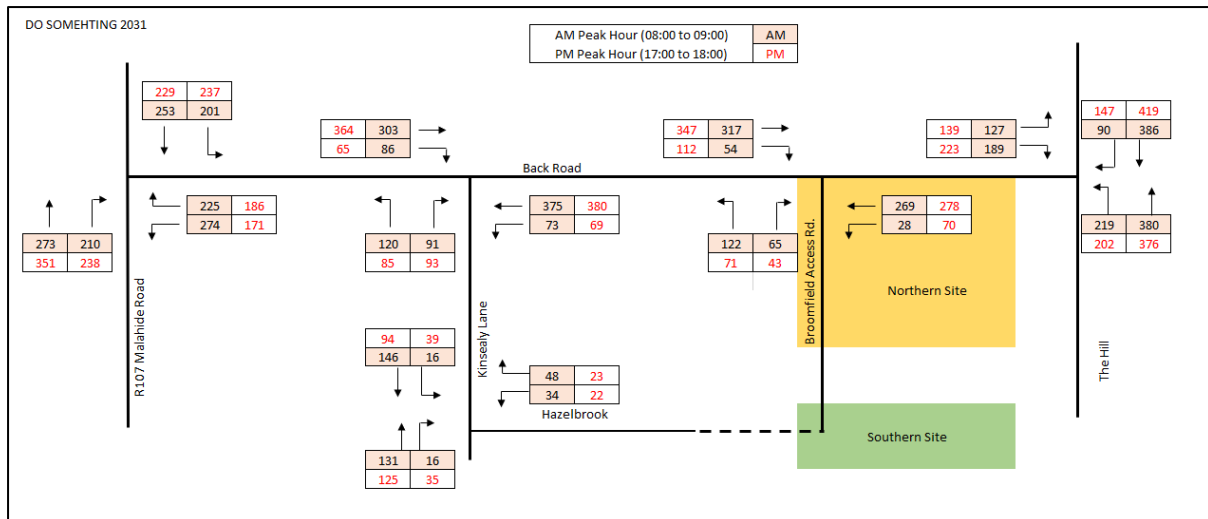


Figure 23 | 2031 Future Assessment Year.

## 10.5 Future Assessments Year – 2041

The future traffic on the surrounding road network in 2041 is illustrated in Figure 24 below. It has been assumed within this TTA that the proposed development will be constructed over a period of approximately 3 years. Therefore, the assumed year of opening is 2026. As per methodology adopted in the 'Transport Assessment Guidelines (May 2014)', which the subject TTA is based on, the future design year (worst-case scenario) for junction assessment is 2041 (Opening year +15 years).

Based on that, the movements illustrated in Figure 30 below were obtained by factoring up the 2021 base year traffic illustrated in Figure 14 and adding the movements from the each assessed development.

The background traffic growth rate used to factor up the 2021 base year traffic movements illustrated in Figure 13 is in accordance with *Table 6.2: Link-Based Growth Rates: County Annual Growth Rates (excluding Metropolitan Area)* within the TII Publications – Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections (May 2019). This is:

### 1.203 (Central Growth) growth factor from 2022 to 2041

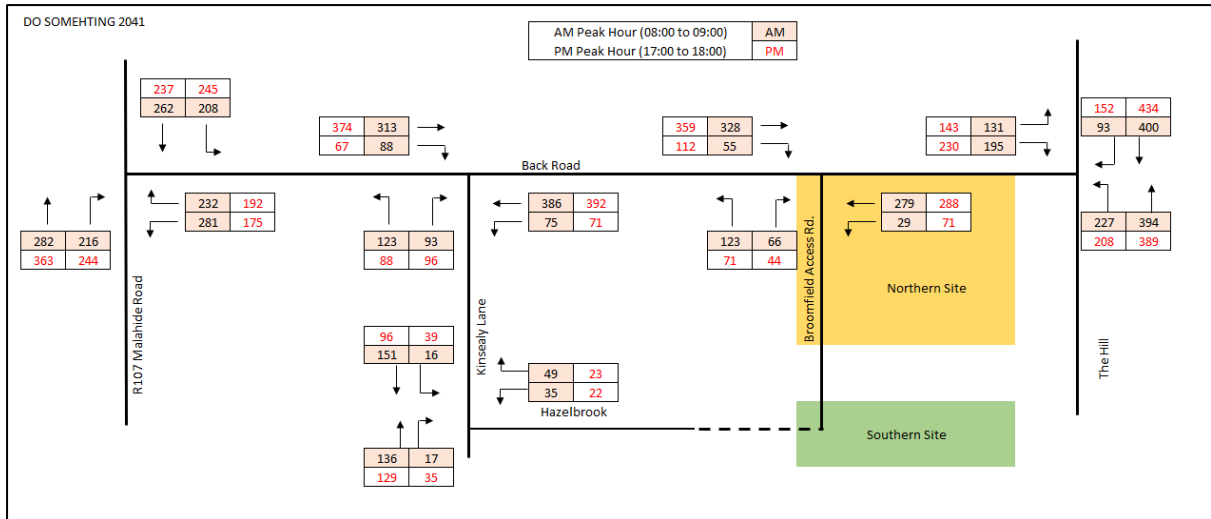


Figure 24 | 2041 Future Assessment Year.

## 10.6 Sensitivity Analysis

The sensitive analysis for the surrounding road network includes the potential future development at Streamstown. For the purpose of this TTA the opening years for the development have been assumed to be 2031.

As per methodology adopted in the 'Transport Assessment Guidelines (May 2014)', which the subject TTA is based on, the future design year (worst-case scenario) for the Sensitivity Analysis is 2041 (Opening year +15 years).

Figure 25, and Figure 26 below illustrates the movements obtained and factoring up the 2021 Traffic Survey and including all relevant developments and potential future developments also.

The background traffic growth rate used to factor up the 2021 base year traffic movements illustrated in Figure 12 is in accordance with *Table 6.2: Link-Based Growth Rates: County Annual Growth Rates (excluding Metropolitan Area)* within the TII Publications – Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections (May 2019). This is:

- **1.156 (Central Growth) growth factor from 2021 to 2031**
- **1.210 (Central Growth) growth factor from 2021 to 2041**



Typically, a junction is said to be working satisfactorily when the DOS% or RFC of each link does not exceed 90%/0.9. Acceptable DOS% or RFC values are considered to be in the range of 80%/0.8 to 100%/1.0 with higher values indicating restrained movements.

## 10.8 Cumulative Impact

The cumulative impact from the proposed development for each junction is shown below. Based on the Section 2.1 of the Traffic and Transport Assessment Guidelines (May 2014) junctions require further assessment when the expected increase of Traffic is above 10% for junctions or 5% for sensitive junctions. Table 13 and Table 14 below shows the details for each junction.

For this development, Fingal County Council have requested that we use of a 2.5% threshold for junctions and therefore this is the required threshold for further analysis.

Junction	Junction Existing Flow - 08:00 – 09:00	Additional Traffic 08:00 – 09:00	% Expected Increase 08:00 – 09:00
Junction 1	1098	108	10%
Junction 2	738	113	15%
Junction 3	534	156	29%
Junction 4	1109	59	5%
Junction 5	259	66	25%

**Table 13 |** Cumulative Impact on Junctions: 08:00 – 09:00

Junction	Junction Existing Flow - 17:00 – 18:00	Additional Traffic 17:00 – 18:00	% Expected Increase 17:00 – 18:00
Junction 1	1066	118	11%
Junction 2	732	145	20%
Junction 3	570	169	30%
Junction 4	1199	65	5%
Junction 5	204	73	36%

**Table 14 |** Cumulative Impact on Junctions: 17:00 – 18:00

As can be seen in the tables above, all junctions are above the 2.5% threshold and therefore further assessment is required.



## 11. Junction Analysis Results

### 11.1 Junction 1: R107 Malahide Road / Back Road

Junction 1 is an existing three-armed priority-controlled junction located west of the proposed development site. This junction has been modelled based on its current configuration and the PICADY analysis results are summarised in Table 15 below. The arms of the junction were labelled as follows within the PICADY model:

- Arm A: R107 Malahide Road (N)
- Arm B: Back Road (E)
- Arm C: R107 Malahide Road (S)

2022 Baseline				
Stream	08:00 – 09:00		17:00 – 18:00	
	Queue (Veh.)	RFC	Queue (Veh.)	RFC
Stream B-C	0.4	0.30	0.2	0.19
Stream B-A	0.7	0.40	0.5	0.34
Stream C-AB	0.7	0.33	0.7	0.32
DO NOTHING 2026				
Stream	08:00 – 09:00		17:00 – 18:00	
	Queue (Veh.)	RFC	Queue (Veh.)	RFC
Stream B-C	0.6	0.39	0.3	0.23
Stream B-A	0.9	0.47	0.7	0.40
Stream C-AB	0.9	0.39	1.0	0.40
DO SOMETHING 2026				
Stream	08:00 – 09:00		17:00 – 18:00	
	Queue (Veh.)	RFC	Queue (Veh.)	RFC
Stream B-C	1.1	0.52	0.4	0.29
Stream B-A	1.3	0.56	0.8	0.45
Stream C-AB	1.0	0.43	1.6	0.52
DO NOTHING 2041				
Stream	08:00 – 09:00		17:00 – 18:00	
	Queue (Veh.)	RFC	Queue (Veh.)	RFC
Stream B-C	0.9	0.48	0.4	0.28
Stream B-A	1.3	0.57	0.9	0.48

Stream C-AB	1.1	0.45	1.3	0.47
<b>DO SOMETHING 2041</b>				
Stream	08:00 – 09:00		17:00 – 18:00	
	Queue (Veh.)	RFC	Queue (Veh.)	RFC
Stream B-C	1.9	0.66	0.5	0.35
Stream B-A	2.3	0.70	1.2	0.54
Stream C-AB	1.4	0.50	2.2	0.60
<b>SENSITIVITY ANALYSIS 2041</b>				
Stream	08:00 – 09:00		17:00 – 18:00	
	Queue (Veh.)	RFC	Queue (Veh.)	RFC
Stream B-C	3.5	0.80	0.7	0.43
Stream B-A	4.1	0.82	2.0	0.68
Stream C-AB	1.6	0.52	2.8	0.64

**Table 15 | Junction 1 – PICADY Analysis Results**

### **Junction 1 - Conclusion**

As shown in Table 15 above, the junction will remain under capacity for the scenario DO SOMETHING 2041 with the highest RFC of 0.70 and a corresponding queue of 2.3 vehicles in the AM peak hour and the highest RFC of 0.60 and a corresponding queue of 2.2 vehicles in the PM Peak hour.

For the Sensitivity Analysis 2041 the AM peak hour is under capacity with an RFC of 0.82 and a corresponding queue of 4.1 vehicles and under capacity in the PM peak hour with an RFC of 0.68 and a corresponding queue of 2.0 vehicles.

Full junction analysis is available in Appendix C.

## **11.2 Junction 2: Back Road / Kinsealy Lane**

Junction 2 is an existing priority-controlled T-junction located west of the proposed development site. This junction has been modelled based on its current configuration and the PICADY analysis results are summarised in Table 16 below. The arms of the junction were labelled as follows within the PICADY model:

- Arm A: Back Road (E).
- Arm B: Kinsealy Lane (S).
- Arm C: Back Road (W).

<b>2022 Baseline</b>				
Stream	08:00 – 09:00		17:00 – 18:00	
	Queue (Veh.)	RFC	Queue (Veh.)	RFC
<b>Stream B-AC</b>	0.5	0.34	0.4	0.29

<b>Stream C-AB</b>	0.2	0.14	0.2	0.09
<b>DO NOTHING 2026</b>				
<b>Stream</b>	08:00 – 09:00		17:00 – 18:00	
	Queue (Veh.)	RFC	Queue (Veh.)	RFC
Stream B-AC	0.6	0.39	0.5	0.35
Stream C-AB	0.3	0.16	0.2	0.10
<b>DO SOMETHING 2026</b>				
<b>Stream</b>	08:00 – 09:00		17:00 – 18:00	
	Queue (Veh.)	RFC	Queue (Veh.)	RFC
Stream B-AC	0.9	0.47	0.7	0.42
Stream C-AB	0.4	0.18	0.3	0.15
<b>DO NOTHING 2041</b>				
<b>Stream</b>	08:00 – 09:00		17:00 – 18:00	
	Queue (Veh.)	RFC	Queue (Veh.)	RFC
Stream B-AC	0.8	0.45	0.7	0.40
Stream C-AB	0.4	0.19	0.2	0.12
<b>DO SOMETHING 2041</b>				
<b>Stream</b>	08:00 – 09:00		17:00 – 18:00	
	Queue (Veh.)	RFC	Queue (Veh.)	RFC
Stream B-AC	1.2	0.54	0.9	0.48
Stream C-AB	0.4	0.21	0.4	0.17
<b>SENSITIVITY ANALYSIS 2041</b>				
<b>Stream</b>	08:00 – 09:00		17:00 – 18:00	
	Queue (Veh.)	RFC	Queue (Veh.)	RFC
Stream B-AC	1.2	0.55	1.0	0.50
Stream C-AB	0.5	0.23	0.4	0.18

**Table 16 | Junction 2 – PICADY Analysis Results**

**Junction 2 - Conclusion**

As shown in Table 16 above, the junction will remain under capacity for the scenario DO SOMETHING 2041 with the highest RFC of 0.55 and a corresponding queue of 1.2 vehicles in the AM peak hour and the highest RFC of 0.50 and a corresponding queue of 1.0 vehicles in the PM Peak hour.

For the Sensitivity Analysis 2041 the AM peak hour is under capacity with an RFC of 0.55 and a corresponding queue of 1.2 vehicles and in the PM peak hour with an RFC of 0.50 and a corresponding queue of 1.0 vehicles.

Full junction analysis is available in Appendix C.

### 11.3 Junction 3: Back Road / Broomfield Access Road

Junction 3 is an existing priority-controlled T-junction located north of the proposed development site. As described earlier in Section 5.2, the overall proposal of the approved development of Ashwood Hall (Planning Reference F13A/0459) includes the upgrade of this junction to accommodate a right turning lane to facilitate access for traffic traveling from west on Back Road onto Broomfield lands. It is expected for the junction to be upgraded by 2023. Therefore, Junction 3 has been modelled based on its future configuration with a dedicated right turning lane for the DO NOTHING and DO SOMETHING scenarios and the PICADY analysis results are summarised in Table 17 below. The arms of the junction were labelled as follows within the PICADY model:

- Arm A: Back Road (E).
- Arm B: Broomfield Access Road (S).
- Arm C: Back Road (W).

Baseline 2022				
Stream	08:00 – 09:00		17:00 – 18:00	
	Queue (Veh.)	RFC	Queue (Veh.)	RFC
Stream B-AC	0.1	0.06	0.1	0.06
Stream C-AB	0.0	0.02	0.0	0.02

DO NOTHING 2026				
Stream	08:00 – 09:00		17:00 – 18:00	
	Queue (Veh.)	RFC	Queue (Veh.)	RFC
Stream B-AC	0.2	0.19	0.2	0.13
Stream C-B	0.1	0.05	0.1	0.09

DO SOMETHING 2026				
Stream	08:00 – 09:00		17:00 – 18:00	
	Queue (Veh.)	RFC	Queue (Veh.)	RFC
Stream B-AC	0.7	0.42	0.4	0.27
Stream C-B	0.1	0.09	0.3	0.20

DO NOTHING 2041				
Stream	08:00 – 09:00		17:00 – 18:00	
	Queue (Veh.)	RFC	Queue (Veh.)	RFC
Stream B-AC	0.2	0.20	0.2	0.15
Stream C-B	0.1	0.05	0.1	0.09

<b>DO SOMETHING 2041</b>				
<b>Stream</b>	08:00 – 09:00		17:00 – 18:00	
	Queue (Veh.)	RFC	Queue (Veh.)	RFC
Stream B-AC	0.8	0.44	0.4	0.29
Stream C-B	0.1	0.10	0.3	0.21
<b>SENSITIVITY ANALYSIS 2041</b>				
<b>Stream</b>	08:00 – 09:00		17:00 – 18:00	
	Queue (Veh.)	RFC	Queue (Veh.)	RFC
Stream B-AC	0.8	0.44	0.4	0.29
Stream C-B	0.1	0.10	0.3	0.21

**Table 17 | Junction 3 – PICADY Analysis Results**

### **Junction 3 - Conclusion**

As shown in Table 17 above, the junction will remain under capacity for the scenario DO SOMETHING 2041 with the highest RFC of 0.44 and a corresponding queue of 0.8 vehicles in the AM peak hour and the highest RFC of 0.29 and a corresponding queue of 0.4 vehicles in the PM Peak hour.

For the Sensitivity Analysis 2041 the AM peak hour is under capacity with an RFC of 0.44 and a corresponding queue of 0.8 vehicles and in the PM peak hour with an RFC of 0.29 and a corresponding queue of 0.4 vehicles.

Full junction analysis is available in Appendix C.

### **11.4 Junction 4: Back Road / The Hill**

Junction 4 is an existing priority-controlled T-junction located west of the proposed development site. This junction has been modelled based on its current configuration and the PICADY analysis results are summarised in Table 18 below. The arms of the junction were labelled as follows within the PICADY model:

- Arm A: The Hill (S)
- Arm B: Back Road
- Arm C: The Hill (N)

<b>Baseline 2022</b>				
<b>Stream</b>	08:00 – 09:00		17:00 – 18:00	
	Queue (Veh.)	RFC	Queue (Veh.)	RFC
<b>Stream B-AC</b>	2.0	0.68	7.3	0.92
<b>Stream C-AB</b>	0.5	0.21	0.8	0.32
<b>DO NOTHING 2026</b>				
<b>Stream</b>	08:00 – 09:00		17:00 – 18:00	

	Queue (Veh.)	RFC	Queue (Veh.)	RFC
Stream B-AC	3.8	0.81	19.7	1.07
Stream C-AB	0.6	0.24	1.0	0.38
<b>DO SOMETHING 2026</b>				
Stream	08:00 – 09:00		17:00 – 18:00	
	Queue (Veh.)	RFC	Queue (Veh.)	RFC
Stream B-AC	8.4	0.94	32.0	1.16
Stream C-AB	0.6	0.25	1.2	0.42
<b>DO NOTHING 2041</b>				
Stream	08:00 – 09:00		17:00 – 18:00	
	Queue (Veh.)	RFC	Queue (Veh.)	RFC
Stream B-AC	11.6	0.99	54.9	1.33
Stream C-AB	0.8	0.29	1.5	0.46
<b>DO SOMETHING 2041</b>				
Stream	08:00 – 09:00		17:00 – 18:00	
	Queue (Veh.)	RFC	Queue (Veh.)	RFC
Stream B-AC	27.4	1.13	68.9	1.41
Stream C-AB	0.8	0.30	1.7	0.50
<b>SENSITIVITY ANALYSIS 2041</b>				
Stream	08:00 – 09:00		17:00 – 18:00	
	Queue (Veh.)	RFC	Queue (Veh.)	RFC
Stream B-AC	46.3	1.26	89.4	0.53
Stream C-AB	0.9	0.32	2.2	0.56

**Table 18 | Junction 4 – PICADY Analysis Results**

#### **Junction 4 - Conclusion**

As can be seen in Table 18 above the junction is over capacity for the DO NOTHING 2026 scenario in the PM Peak hour with an RFC of 1.15 and a corresponding queue of 31.6 vehicles. For the DO SOMETHING 2041 scenario, the junction has an RFC of 1.13 and a corresponding queue of 27.4 vehicles in the AM peak hour and an RFC of 1.41 and a corresponding queue of 68.9 vehicles in the PM Peak Hour. When compared with DO NOTHING 2041 the RFC increase is very small and while the junction is over capacity the proposed development has minimal impact on the junction.

Full junction analysis is available in Appendix C.

### **11.5 Junction 5: Kinsealy Lane / Hazelbrook**

Junction 5 is an existing priority-controlled T-junction located west of the proposed development site. This junction has been modelled based on its current configuration and the PICADY analysis results

are summarised in Table 19 below. The arms of the junction were labelled as follows within the PICADY model:

- Arm A: Kinsealy Lane (N)
- Arm B: Hazelbrook
- Arm C: Kinsealy Lane (S)

<b>Baseline 2022</b>				
<b>Stream</b>	08:00 – 09:00		17:00 – 18:00	
	Queue (Veh.)	RFC	Queue (Veh.)	RFC
<b>Stream B-AC</b>	0.1	0.06	0.0	0.03
<b>Stream C-AB</b>	0.0	0.01	0.0	0.02
<b>DO NOTHING 2026</b>				
<b>Stream</b>	08:00 – 09:00		17:00 – 18:00	
	Queue (Veh.)	RFC	Queue (Veh.)	RFC
Stream B-AC	0.1	0.07	0.0	0.04
Stream C-AB	0.0	0.02	0.0	0.03
<b>DO SOMETHING 2026</b>				
<b>Stream</b>	08:00 – 09:00		17:00 – 18:00	
	Queue (Veh.)	RFC	Queue (Veh.)	RFC
Stream B-AC	0.2	0.14	0.1	0.07
Stream C-AB	0.0	0.03	0.1	0.06
<b>DO NOTHING 2041</b>				
<b>Stream</b>	08:00 – 09:00		17:00 – 18:00	
	Queue (Veh.)	RFC	Queue (Veh.)	RFC
Stream B-AC	0.1	0.08	0.0	0.04
Stream C-AB	0.0	0.02	0.0	0.03
<b>DO SOMETHING 2041</b>				
<b>Stream</b>	08:00 – 09:00		17:00 – 18:00	
	Queue (Veh.)	RFC	Queue (Veh.)	RFC
Stream B-AC	0.2	0.15	0.1	0.08
Stream C-AB	0.0	0.03	0.1	0.06
<b>SENSITIVITY ANALYSIS 2041</b>				
<b>Stream</b>	08:00 – 09:00		17:00 – 18:00	
	Queue (Veh.)	RFC	Queue (Veh.)	RFC

Stream B-AC	0.2	0.15	0.1	0.08
Stream C-AB	0.0	0.03	0.1	0.06

**Table 19 | Junction 5 – PICADY Analysis Results**

**Junction 5 - Conclusion**

As shown in Table 19 above, the junction will remain under capacity for the scenario DO SOMETHING 2041 with the highest RFC of 0.14 and a corresponding queue of 0.2 vehicles in the AM peak hour and the highest RFC of 0.08 and a corresponding queue of 0.1 vehicles in the PM Peak hour.

For the Sensitivity Analysis 2041 the AM peak hour is under capacity with an RFC of 0.14 and a corresponding queue of 0.2 vehicles and in the PM peak hour with an RFC of 0.08 and a corresponding queue of 0.1 vehicles.

Full junction analysis is available in Appendix C.

**11.6 Junction Assessment Conclusion**

All junction assessment above shows minimal impact from the proposed development. Junctions 1, 2, 3 and 5 will remain under capacity for the worst-case scenario DO SOMETHING 2041 and SENSITIVITY ANALYSIS 2041. Junction 4 is over capacity for DO NOTHING 2026, when comparing the junction with and without the development, the proposed development will have minimal impact on the overall junction with an increase of 5.67%.

**11.7 Sensitivity Analysis Results**

As seen above the sensitivity analysis shows that the inclusion of the potential development, the approved development and the proposed development does not exceed the capacity of any junction except for junction 4 which is overcapacity regardless of the inclusion of any development.

The remaining junctions remain well under capacity for the worst-case scenario 2041. The inclusion of the proposed development will have minimal impact on the road network and assessed junctions. There was no junction near capacity therefore there was no further assessment of the trip distribution required to test the limit of the junction capacity.



## 12. Public Transport Assessment

### 12.1 Background and Methodology

The purpose of this chapter is to demonstrate that the public transport serving the area within which the proposed development is to be located will remain within capacity once all of the committed and proposed developments contributing to the service have been completed.

The methodology used in this chapter is set out below

- Determination of the resident population based on the size and number of residential units proposed.
- Determination of the modal split for the proposed development
- Calculation of the future passenger demand from the proposed development
- Determination of future passenger demand from contiguous developments.
- Determination of bus capacity for the time and direction of peak demand
- Determination of passenger loadings from the bus capacity survey
- Determination of spare bus capacity available, if any, to serve the proposed development
- Determination of passenger loadings from the Dart Census 2019
- Determination of current passenger capacity and peak hour boardings for Malahide Station
- Determination of spare Dart capacity available, if any, to serve the proposed development

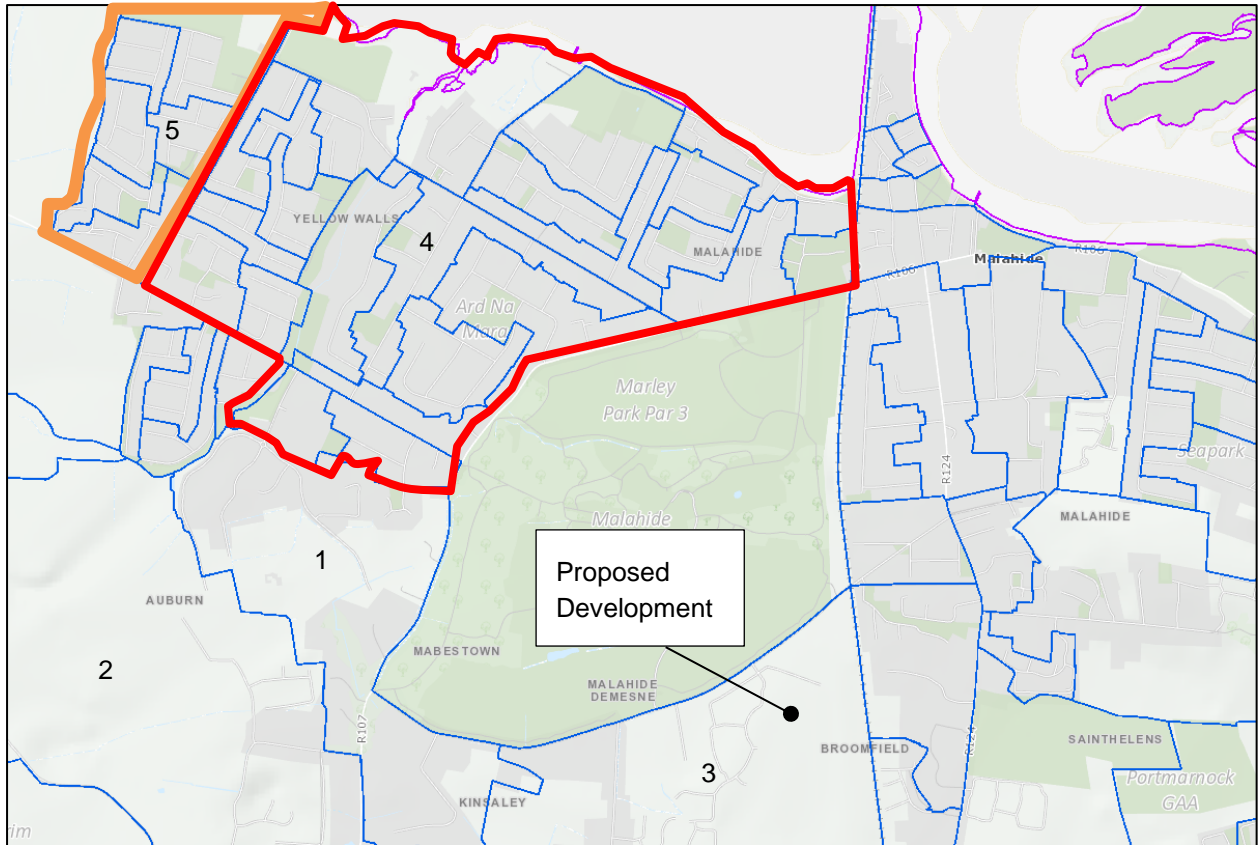
For the purpose of this report and based on experience from a number of surveys, the peak travel time and direction of travel in the Malahide area has been assumed to be southbound towards the City Centre during the AM Peak Hour between 07:30 and 08:30 on a weekday.

### 12.2 Existing Modal Split – Adjoining Areas

In order to estimate the trips generated by the proposed development for bus and Dart services, the existing modal split for the surrounding area was found using the 2016 Census data.

Census 2016 was carried out by the Central Statistics Office (CSO) on 24<sup>th</sup> April 2016. The data obtained included information regarding car ownership and the modal split for the journey to work, school or college.

The data for five areas surrounding the proposed development site have been consulted to determine an estimate of the opening year modal split. Areas 1, 2 and 3 in the Figure below are Small Areas which have been defined by the Central Statistics Office in 2016. Areas 4 and 5 are grouping some Small Areas defined by CSO.



**Figure 27 | Areas for Census 2016 - Extracted from the SAPMAPs**

The surveyed 'modal split for the journey to work school or college' by residents at the five consulted areas as surveyed in Census 2016 recorded that 70% of the 8,777-population generated by 6,122 trips for the journey to work, school or college. Some 54.0% of trips were by car, 13.8% by train, 13.4% by bus, 2.1% by cycle, 8.8% by walk and the remaining 7.8% by others or were not stated.

The survey results for each consulted area are presented in Table 20 below:

Area	Pop.		Car Driver	Car Passenger	Train	Bus	Bicycle	On Foot	Others/Not Stated	Total Trips
1	333	No. of People	110	53	25	17	5	7	16	233
		Percentage of Pop.	47.2	22.7	10.7	7.3	2.1	3.0	6.9	100
2	321	No. of People	84	65	22	22	4	8	26	231
		Percentage of Pop.	36.4	28.1	9.5	9.5	1.7	3.5	11.3	100
3	357	No. of People	95	69	22	17	10	8	31	252

		Percentage of Pop.	37.7	27.4	8.7	6.7	4.0	3.2	12.3	100
4	6,224	No. of People	1,570	507	641	507	83	438	314	4,060
		Percentage of Pop.	38.7	12.5	15.8	12.5	2.0	10.8	7.7	100
5	1,547	No. of People	536	221	132	258	29	78	92	1,346
		Percentage of Pop.	39.8	16.4	9.8	19.2	2.2	5.8	6.8	100
Total	8,777	No. of People	2,395	915	842	821	131	539	479	6,122
		Percentage of Pop.	39.1	14.9	13.8	13.4	2.1	8.8	7.9	100

**Table 20 / Surveyed Modal Split for the Journey to Work, School or College – Census 2016.**

### 12.3 Future Passenger Demand – Proposed Development

It is estimated that the number of residents in the proposed development will be some 11,85 persons as calculated in Table 21.

Unit Size	No. of Units	Persons
1 - Bed (2-person)	37	37
2 - Bed (2-person)	107	107
3 - Bed (3-person)	211	211
4- Bed (4-person)	48	48
5 - Bed (6- persons)	12	12
<b>Total</b>	<b>415</b>	<b>1,185</b>

**Table 21 / Proposed Development – Development Population.**

Based on the modal split from Table 21 above, some 13.4% of the residential population equivalent to 159 persons are expected to use the bus for the journey to work or education during the AM peak hour between 7 and 10 each week.

The modal split also expects 13.8% of the residential population to use the Dart services available in Malahide Dart Station. This is equivalent to 159 persons expected to use the Dart for the journey to work or education during the AM peak hour between 7 and 10 each week.

Of these, 50% or 79 persons are expected to travel during AM Peak hour between 7:30 – 8:30.

Having regard to the location of the proposed development, 90% are expected to travel south and 10% to the north. As stated previously, this transport capacity assessment will focus on peak capacity time travelling southbound. The proposed development will generate 143 persons who are expected to travel southbound during the AM peak hour.

Source	AM Peak 7 – 10		AM Peak Hour 7.45 – 8.45	
Proposed Development	Northbound	Southbound	Northbound	Southbound
	16	143	8	71

**Table 22 / Proposed Development – Future Passenger Demand Summary**

## 12.4 Dublin Bus – Passenger Capacity

### 12.4.1 Bus Capacity

Services on the primary bus routes 42 and 142, are provided by various double deck buses within the Dublin Bus Fleet. The average capacity of a double decker based on information from the Dublin Bus website is 91 passengers as calculated in Table 23.

For the purpose of this report, the average capacity of a double deck bus operated by Dublin Bus for these routes has been taken to be 90 passengers including standing passengers.

Fleet Code	No in Fleet	Capacity	Total Capacity
AV	76	91	6,916
AX	192	91	17,472
EV	97	94	9,118
VG	50	88	4,400
GT	160	78	12,480
SG	369	95	35,055
<b>Total</b>	938	91	85,441

**Table 23 / Average Bus Capacity**

### 12.4.2 Bus Capacity Survey

A bus capacity survey was carried out by Waterman Moylan during the AM Peak at two locations in Malahide on 29th March. The surveys were carried out on the southbound buses at Stop 3632 and Stop 3645.

Bus Stop 3632 is located east of the proposed development on The Hill Road. The purpose of these surveys was to determine the spare capacity available for persons from the subject development to board at this location before the bus arrive at Malahide Town.

Bus Stop 3645 is located west of the proposed development on Malahide Road. The purpose of these surveys was to determine the spare capacity available for persons from the subject development to board at this location after Malahide Town were potential boarding and alighting's may be high.

The results of the bus survey are presented in Table 24 below. The results a significant spare capacity of 1,107 passengers between 07:30 and 08:30 when compared to the predicted demand of 143 passengers from the proposed development heading southbound during the AM peak hour.

Time	No of Buses	Bus Capacity	No of Passengers	Spare Capacity
<b>07:30 - 07:45</b>	4	360	7	353
<b>07:45 - 08:00</b>	3	270	14	256
<b>08:00 - 08:15</b>	3	270	25	245
<b>08:15 - 08:30</b>	2	270	17	253
<b>Total</b>	13	1,170	127	1,107

**Table 24 / Bus Capacity Survey Results**

## 12.5 Dart Services – Passenger Capacity

### 12.5.1 Rail Travel - Census 2019

The National Heavy Rail Census was carried out by Iarnród Éireann in 2019 on behalf of the National Transport Authority (NTA). The final report published in July 2020 recorded ongoing annual increases in passenger numbers at Malahide Railway Station. These increases are likely to continue for a number of years into the future. For the purposes of this TTA, the passenger capacity will focus on the Boardings in the AM peak period only.

The results of the Census for passengers' numbers per day at Malahide Station are presented in Table 25 and Table 26 below.

Station	Activity	2019	2018	2017	2016	2015	2014	2013
<b>Malahide</b>	Boarding	3,546	3,952	3,324	2,626	2,604	2,086	2,177

**Table 25 / Daily Passenger Numbers at Malahide Station 2012 – 2019.**

Station	Activity	Northbound	Southbound	Total
<b>Malahide</b>	Boarding	636	2,820	3,456

**Table 26 / Daily Boarding's at Malahide Station 2012 – 2019.**

### 12.5.2 Daily Rail Passenger Numbers 2022

The surveyed passenger numbers for Malahide Station show an average year on year increase of 7% per annum over the six years between 2013 and 2019. The rate of increase was applied to the 2019 survey numbers to estimate the numbers in 2020 and 2022. The results are shown in Table 27, Table 28 and Table 29.

Station	Activity	Northbound	Southbound	Total
<b>Malahide</b>	Boarding	681	3,017	3,698

**Table 27 / Daily Boarding's at Malahide Station 2020.**

Station	Activity	Northbound	Southbound	Total
<b>Malahide</b>	Boarding	728	3,229	3,957

**Table 28** / Daily Boarding's and Alightings at Malahide Station 2021.

Station	Activity	Northbound	Southbound	Total
<b>Malahide</b>	Boarding	779	3,455	4,234

**Table 29** / Daily Boarding's and Alightings at Malahide Station 2022 (Existing).

### 12.5.3 Peak hour Rail Boardings 2022

The hourly profile surveyed during the Rail Census recorded that 17% of the overall daily passenger demand occurred during the AM peak hour.

The proportion of passenger numbers during the AM Peak Hour varies significantly with the location of the rail station whether the city centre or the Greater Dublin Area.

It was assumed that 25% of the daily boarding occur during the AM Peak hour. Based on these assumptions, the peak hour passenger numbers for Malahide Station in 2022 are presented in Table 30 below.

Period	Activity	Northbound	Southbound	Total
<b>AM Peak Hour</b>	Boarding	195	864	1,059 (25%)

**Table 30** / Peak Hours Boarding's and Alightings at Malahide Station 2022 (Existing).

### 12.5.4 Additional Rail Passengers – Capacity

Details of train capacity by type are set out in Appendix C of the National Rail Census 2019. The commuter train capacity table from Appendix C of the National Heavy Rail Census Report 2019 (NHRCR) is reproduced below.

Due to the large volume of passengers using Malahide Station during the peak hour, the '8 car Dart set' is assumed to be used.

Train Type		Capacity	
4-DART	(4 car DART set)	700	- Seats + Standing Accommodation
6-DART	(6 car DART set)	1050	- Seats + Standing Accommodation
8-DART	(8 car dart set)	1400	- Seats + Standing Accommodation
2 x 2600	(2 car commuter rail car)	206	- Seats + Standing Accommodation
2 x 2800	(2 car commuter rail car)	221	- Seats + Standing Accommodation
4 x 29000	(4 car Commuter railcar)	640	- Seats + Standing Accommodation
8 x 29000	(8 car Commuter railcar)	1280	- Seats + Standing Accommodation
1 x 3ICR	(3-car InterCity railcar)	190	- Seats
1 x 6ICR	(6-car Premier Class InterCity railcar)	376	- Seats
1 x 6HCR	(6-car High Capacity InterCity Railcar)	406	- Seats
7 x MkIV	(7 car Mk IV set)	348	- Seats
7 x DD	(7 car De Dietrich set)	358	- Seats

**Table 31** / Commuter Train capacity – Appendix C of NHRCR 2019

As shown in section 12.3, a total of 143 persons from the proposed development will use the Railway service in Malahide Station. This will occur during the AM Peak hour with the assumption of travelling southbound.

Based on the information shown in Table 31, the Commuter Rail will remain under capacity with the inclusion of trips created by the proposed development.

## 12.6 Summary

Based on the predicted demand and capacity survey, the bus and rail services serving the proposed development have more than adequate spare capacity to the proposed development now and into the future.

### **13. Construction Traffic**

It is anticipated that the generation of HGV movements during the construction period of the proposed development will be evenly spread throughout the day and as such will not impact significantly during the peak traffic periods. An appropriate routing strategy for HGVs can be implemented for the duration of site works if found necessary. Furthermore, during the various phases of construction, sufficient parking will be sought to be provided on site to accommodate the aforementioned construction generated vehicle movements, thereby ensuring that there is not an overspill of parked vehicles onto the surrounding local road network. For the above reasons, we do not believe that construction traffic will generate any traffic concerns or impede upon the operational performance of the local road network and its surrounding junctions.

A construction traffic management plan (CTMP) will be required to be prepared by the appointed building contractor. A preliminary CTMP is included with this application which provides guidance to the contractor on suitable construction traffic management arrangements for the subject site.

All construction traffic and transport will be managed strictly according to the CTMP. This will be monitored regularly and adjusted as necessary to ensure that construction traffic does not negatively impact the surrounding road network.



## 14. Car Parking

### 14.1 Fingal County Council Development Plan 2017-2023 Standards

Standards for car parking in new developments are set out in Table 12.8 of the Fingal County Council Development plan 2017-2023.

The maximum car parking standards for the proposed development (Broomfield Northern and Southern Site) are listed in Table 32 below.

Land Use	Standard
<b>Residential – Apartments (1 Bedroom)</b>	1 Space per unit (Plus 1 Visitor per 5 units)
<b>Residential – Apartments (2 Bedroom)</b>	1.5 Spaces per unit (Plus 1 Visitor per 5 units)
<b>Residential – Apartments (3+ Bedroom)</b>	2 Spaces per unit (Plus 1 Visitor per 5 units)
<b>House - urban/suburban 3 or more bedrooms</b>	2 Spaces per unit
<b>Creche</b>	0.5 Spaces per classroom

**Table 32** | Fingal County Council Development Plan Standards.

### 14.2 Car Parking Required

Based on the car parking standard set out in the Fingal County Council Development Plan 2017-2023, the quantum of car parking required to serve the proposed development is 723 spaces as calculated in Table 33 below.

Land Use	No. of units/No. of classrooms	FINGAL COUNTY COUNCIL Standard	Spaces Required
<b>Apartments (1 Bedroom)</b>	37	1 Space per unit*	37 Spaces 7 Visitor Spaces
<b>Apartments (2 Bedroom)</b>	93	1.5 Spaces per unit*	140 Spaces 19 Visitor Spaces
<b>Apartments (3+ Bedroom)</b>	5	2 Spaces per unit*	10 Spaces 1 Visitor Space
<b>House - urban/suburban 3 or more bedrooms</b>	252	2 Spaces per unit	504 Spaces
<b>Creche</b>	10	0.5 Spaces per classroom	5 Spaces
<b>Total</b>			691 Residential 27 Visitor 5 Creche

\*Plus 1 Visitor Space per 5 units

**Table 33** | Fingal County Council Standards – Car Parking Spaces Required

### 14.3 Design Standards for New Apartments – December 2020

The Design Standards for New Apartments – December 2020 set out standards for new apartments. The standards facilitate a reduction in the number of car parking spaces required for new apartments depending on their location. Based on the Design Standards for New Apartments criteria the proposed development can be classified as a “Peripheral and/or Less Accessible Urban Locations”. This classification is judged on the Apartments only and does not reflect the overall accessibility of the proposed development. An extract from the design standards for New Apartments is shown below:

*“Such locations are generally suitable for limited, very small-scale (will vary subject to location), higher density development that may wholly comprise apartments, or residential development of any scale that will include a minority of apartments at low-medium densities (will also vary, but broadly <45 dwellings per hectare net)”*

The proposed development is served by public transport within walking distance but has 37.5 units per hectare overall. Therefore, the proposed development can be classified as a “Peripheral and/or Less Accessible Urban Location”. While the proposed development is accessible by public transport the density of the proposed development is less than the criteria outlined above. Below is an extract of the standards used for car parking based on the above criteria.

*“As a benchmark guideline for apartments in relatively peripheral or less accessible urban locations, one car parking space per unit, together with an element of visitor parking, such as one space for every 3-4 apartments, should generally be required.”*

Based on the above criteria a minimum of 1.25 spaces per unit for Apartments is the recommended as acceptable.

### 14.4 Car Parking Proposed

The number of car parking spaces proposed to serve the development is presented in Table 34 below.

Description	No. of Units	Spaces per Unit	Total Spaces
<b>Apartment Blocks A &amp; B</b>	110	1.25	138 (Includes 28 visitor spaces)
<b>Apartment Block C</b>	25	1.25	31 (Includes 6 visitor spaces)
<b>Duplex Block D + creche</b>	24	1.25	28 (Includes 10 visitor spaces)
<b>Duplex Block E</b>	16	1.25	20 (Includes 4 visitor spaces)
<b>Houses</b>	252	2	504
<b>Total</b>	415	-	721

**Table 34 | Proposed Parking Spaces**

As seen from the above table, the proposed will be served with 721 car parking spaces, with 217 being provided for the apartment and Duplex units (1.25 car parking spaces per unit). In-curtilage parking is proposed for each of the houses. The creche includes 6 no. pickup and drop off spaces and 10 staff parking which also serve as visitor parking for Apartment Block D during off peak times.

There are 7 disabled car parking spaces included in the Apartment/ Duplex Blocks. This consists of 1 disabled car parking space per blocks C, D and E with 4 disabled car parking spaces for Blocks A and B.

The reduced provision of car parking spaces per apartment reflects the location of the proposed development in relation to public transport services.

As per the Fingal Development 2017 – 2023, One space or more per 100 spaces should be reserved for electric vehicles with charging facilities. Therefore, as part of the proposed development, there will be 7 electric vehicle charging points within the Proposed Development.

## 15. Bicycle Parking

### 15.1 Fingal County Council Development Plan 2017-2023 Standards

Standards for bicycle parking in new developments are set out in Table 12.9 of the Fingal County Council Development plan 2017-2023.

The maximum bicycle parking standards for the proposed development (Broomfield Northern and Southern Site) are listed in Table 35 below.

Land Uses	FFC Standards
Apartment, townhouse 1 bedroom	1 Bike per unit (Plus 1 Visitor Space per 5 units)
Pre-school facilities / creche	0.5 bikes per classroom

**Table 35** | Fingal County Council Bicycle Parking Standards

### 15.2 Bicycle Parking Required

Based on the bicycle parking standard set out in the Fingal County Council Development Plan, the quantum of bicycle parking required for the proposed development is shown in Table 36 below.

Land Use	No. of units/No. of classrooms	FINGAL COUNTY COUNCIL Standard	Spaces Required
Apartments (1,2 or 3 Bedroom)	163	1 Space per unit*	163 Spaces + 81 visitor spaces
House - urban/suburban 3 or more bedrooms	242	No spaces required	-
Creche	4	0.5 Spaces per classroom	2 Spaces

**Table 36** | Fingal County Council Bicycling Parking Standards required

### 15.3 Design Standards for New Apartments - December 2020

The Design Standards for New Apartments – December 2020 set out standards for new apartments. Cycling provides a flexible, efficient and attractive transport option for urban living and these guidelines require that this transport mode is fully integrated into the design and operation of all new apartment development schemes.

An extract from the design standards – “a general minimum standard of 1 cycle storage space per bedroom shall be applied. For studio units, at least 1 cycle storage space shall be provided. Visitor cycle parking shall also be provided at a standard of 1 space per 2 residential units. Any deviation from these standards shall be at the discretion of the planning authority and shall be justified with respect to factors such as location, quality of facilities proposed, flexibility for future enhancement/enlargement, etc.”

### 15.4 Bicycle/Motorbike Parking Proposed

The number of bicycle & motorbike parking spaces projected to serve the proposed development is presented in Table 37 below.

Land Uses	Motorbike Storage	Secure Cargo Bikes	Visitors Bikes
<b>Residential</b>	5	169	53
<b>Creche</b>	-	-	5
<b>Total</b>	5	169	58

**Table 37** | *Proposed Bicycle/Motorbike Parking*

As can be seen above, the proposed number of bicycle parking to serve the subject development is 227 spaces with an additional 5 for motorbikes. This exceeds the Fingal County Council Development Plan 2017-2023.

## 16. Conclusion

- Waterman Moylan Consulting Engineers have been appointed by Birchwell Developments Ltd. to prepare this Traffic and Transport Assessment (TTA) in support of a planning application for a residential development in Broomfield, Malahide, Co. Dublin.
- Access to the proposed development will be provided from Back Road via an existing priority-controlled T-junction. Improvements to this junction to include a right turning lane onto Broomfield lands is approved Ashwood Hall (Planning Reference F13A/0459). Ashwood Hall and Brookfield are currently under construction. A new junction is also proposed from Kinsealy Lane, via Hazelbrook. This access from Kinsealy Lane was requested by Fingal County Council during the SHD pre-planning process. The purpose of the access is to facilitate improved vehicular connectivity for the southern site and to lessen the trip distribution on to the four assess junctions on Back Road. It is also considered to better meet compliance with DMURS in terms of improved connectivity
- Currently there is good levels of public transport within the area. There are several bus stops within walking distance and the Dart Station in Malahide town offers cycle parking. These public transport services give access to Dublin City Centre and other towns within the area.
- The volume of traffic expected to be generated by the proposed development has been derived using the trip rates from TRICS database and from the approved TIA prepared for Ashwood Hall and Brookfield of Broomfield.
- The trips generated by the proposed development are 54 arrivals and 161 departures for the AM Peak Hour, and 136 arrivals and 71 departures for the PM Peak Hour.
- The analysis results indicate that the proposed development will have minimal impact on all analysed junctions.
- Based on the predicted demand and capacity survey for public transport, the bus and rail services serving the proposed development have more than adequate spare capacity to the proposed development now and into the future.
- This document should be read in conjunction with the Travel Plan (TP) report accompanying the documentation package. The TP focuses on how residents could be encouraged to use sustainable means of transport to and from the site and to minimise the number of residents who will drive to work, college or school.
- The implementation of the strategy proposed in the TP, such as the provision of secure cycle parking spaces, up-to-date information of public transport routes and bus stop locations, and information about the bike to work scheme to all residents, will encourage residents to reduce dependency of private car and increase the travel by green modes of transport. These measures will not only benefit the residents but will also mitigate against any negative transport impacts that can be provoked by the operational phase of the proposed development.

# Appendices

## **A. Appendix A – Traffic Survey**





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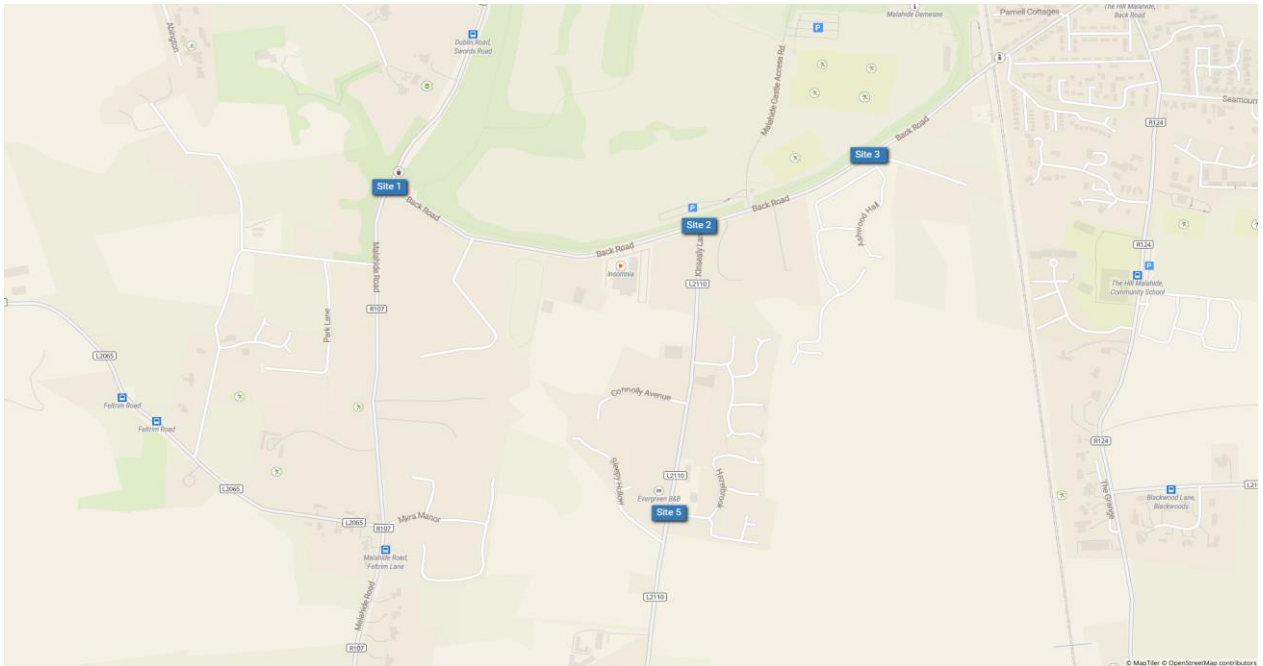
**Data Analysis Services**  
Traffic-Transportation- Commercial-Innovation

## 139 21312 Back Road Traffic Survey

**with compliments**

Idaso

Survey Name: 139 21312 Back Road Traffic Survey  
Date: Wed 08 Sep 2021











C => A										C => B										C => C									
P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	7	2	0	0	0	0	9	9	0	0	2	2	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	
0	0	2	1	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	1	4	2	2	0	0	0	9	8.4	0	1	0	0	0	0	0	0	1	0.4	0	0	0	0	0	0	0	0	0	
0	0	3	0	0	1	0	0	4	4.5	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	
0	1	16	5	2	1	0	0	25	24.9	0	1	3	2	0	0	0	0	6	5.4	0	0	0	0	0	0	0	0	0	
0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	1	0	0	0	1	1	0	0	1	1	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	
0	0	2	1	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	2	1	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	7	2	1	0	0	0	10	10	0	0	1	1	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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0	0	1	2	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	5	2	1	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	1	1	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	3	1	2	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	4	1	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	1	2	1	0	0	4	4.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	1	0	1	0	0	0	2	2	0	0	2	0	0	1	0	0	3	3.5	0	0	0	0	0	0	0	0	0	
0	0	7	2	3	1	0	0	13	13.5	0	0	2	0	0	1	0	0	3	3.5	0	0	0	0	0	0	0	0	0	
0	0	3	0	0	0	2	0	5	7.6	0	0	2	0	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0	
0	0	8	0	2	0	0	0	10	10	0	0	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0	0	
0	0	8	0	1	0	0	0	9	9	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	
0	0	17	0	2	2	0	0	21	22	0	0	2	1	1	1	1	0	6	7.8	0	0	0	0	0	0	0	0	0	
0	0	36	0	5	2	2	0	45	48.6	0	0	4	1	5	1	1	0	12	13.8	0	0	0	0	0	0	0	0	0	
2	0	12	0	2	0	0	1	17	16.4	0	1	6	0	4	0	1	0	12	12.7	0	0	0	0	0	0	0	0	0	
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2	0	13	1	1	1	0	3	21	22.9	1	0	8	1	1	1	1	0	13	14	0	0	0	0	0	0	0	0	0	
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6	0	82	1	18	3	3	8	121	129.6	1	1	42	2	15	2	3	1	67	71.5	0	0	1	0	0	0	0	1	1	
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7	0	168	4	18	5	0	2	204	202.9	4	0	84	3	8	3	1	0	103	102.6	0	0	0	0	0	0	0	0	0	
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1	0	47	1	8	1	0	0	58	57.7	0	0	20	0	0	0	0	0	20	20	0	0	0	0	0	0	0	0	0	
0	0	25	3	3	0	0	1	32	33	0	0	17	1	2	0	0	0	20	20	0	0	0	0	0	0	0	0	0	
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0	0	39	0	7	4	0	1	51	54	0	0	29	1	1	1	0	0	33	34.8	0	0	0	0	0	0	0	0	0	
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2	1	202	4	15	5	2	2	233	237.9	0	0	130	1	8	4	2	1	146	151.6	0	0	0	0	0	0	0	0	0	
1	1	49	2	7	0	0	2	62	62.6	0	0	30	0																







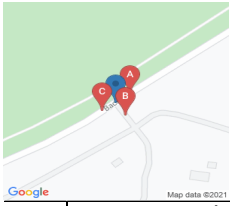






C => A										C => B										C => C									
P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	4	0	0	0	0	0	4	4	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	
0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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0	0	45	0	4	1	0	0	50	50.5	0	0	5	1	2	1	0	0	9	9.5	0	0	0	0	0	0	0	0	0	
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0	0	50	1	4	1	0	1	57	58.5	0	0	18	0	0	0	0	0	18	18	0	0	0	0	0	0	0	0	0	
0	0	65	1	3	3	0	0	72	73.5	0	0	14	0	0	0	0	0	14	14	0	0	0	0	0	0	0	0	0	
0	1	63	1	3	1	0	0	69	68.9	0	0	13	1	1	0	1	0	16	17.3	0	0	0	0	0	0	0	0	0	
0	1	214	3	12	6	0	1	237	240.4	0	0	50	1	1	0	2	0	54	56.6	0	0	0	0	0	0	0	0	0	
1	0	88	0	4	4	1	0	98	100.5	0	0	4	2	1	0	0	0	7	7	0	0	0	0	0	0	0	0	0	
1	0	55	0	2	1	0	0	59	58.7	0	0	6	0	1	0	0	0	7	7	0	0	0	0	0					





Idaso

Survey Name: 139 21312 Back Road Traffic Survey  
 Site: Site 3  
 Location: Back Road/Brookfield Access Road  
 Date: Wed 08-Sep-2021

TIME	A => A									A => B									A => C											
	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
<b>H/TOT</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>5</b>	
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
<b>H/TOT</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>3</b>	
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>H/TOT</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	
<b>H/TOT</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>4</b>	
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
<b>H/TOT</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>4</b>	
05:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	2.5	
05:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	
05:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2	
05:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	3	3	
<b>H/TOT</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>8.5</b>		
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	2	
06:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	5	
06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	1	0	0	0	8	8	
06:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	5	0	2	0	0	8	7.2	
<b>H/TOT</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>23</b>	<b>22.2</b>	
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	18	0	4	0	0	0	22	22	
07:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	21	0	3	0	2	0	28	29.2	
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	26	0	1	0	3	0	30	33.9	
07:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	34	1	3	2	0	2	43	45.2	
<b>H/TOT</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>99</b>	<b>1</b>	<b>11</b>	<b>2</b>	<b>5</b>	<b>2</b>	<b>123</b>	<b>130.3</b>	
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	42	0	1	0	0	0	44	43.2
08:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	2	0	61	0	4	0	0	2	67	69	
08:30	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2	1.2	0	68	2	4	0	0	0	74	74	
08:45	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	3	2.2	1	76	1	2	1	0	0	81	80.7	
<b>H/TOT</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>5.4</b>	<b>2</b>	<b>0</b>	<b>247</b>	<b>3</b>	<b>11</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>266</b>	<b>266.9</b>	
09:00	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	0	0	0	5	5	1	0	63	3	4	1	0	1	73	73.7
09:15	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0.2	1	0	69	1	2	2	2	0	77	79.8
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	3	0	1	0	54	55.3	
09:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	40	0	4	3	0	48	48.7	
<b>H/TOT</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>6.2</b>	<b>3</b>	<b>0</b>	<b>222</b>	<b>4</b>	<b>13</b>	<b>6</b>	<b>3</b>	<b>1</b>	<b>252</b>	<b>257.5</b>	
10:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	2	0	37	1	1	1	0	1	43	42.9
10:15	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	2	0	0	44	1	3	3	0	51	52.5	
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	42	2	4	2	0	50	51	
10:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	1	45	1	0	1	1	49	50.2	
<b>H/TOT</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>5</b>	<b>2</b>	<b>1</b>	<b>168</b>	<b>5</b>	<b>8</b>	<b>7</b>	<b>1</b>	<b>1&lt;/</b>			























C=>A							C=>B							C=>C															
P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	4	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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0	0	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	
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0	0	18	1	2	0	0	0	21	21	0	0	3	1	1	0	0	0	5	5	0	0	0	0	0	0	0	0	0	
2	0	91	3	7	1	1	0	105	105.2	0	0	6	1	1	0	0	0	8	8	0	0	0	0	0	0	0	0	0	
2	0	23	0	0	0	0	0	25	23.4	0	0	1	0	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0	
0	0	19	1	1	0	0	0	21	21	0	0	3	0	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0	
0	0	10	0	2	0	0	0	12	12	0	0	1	0	0	1	0	0	2	2.5	0	0	0	0	0	0	0	0	0	
0	0	9	0	2	1	0	0	12	12.5	0	0	1	1	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	
2	0	61	1	5	1	0	0	70	68.9	0	0	6	1	2	1	0	0	10	10.5	0	0	0	0	0	0	0	0	0	
0	0	9	0	0	0	0	0	9	9	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	



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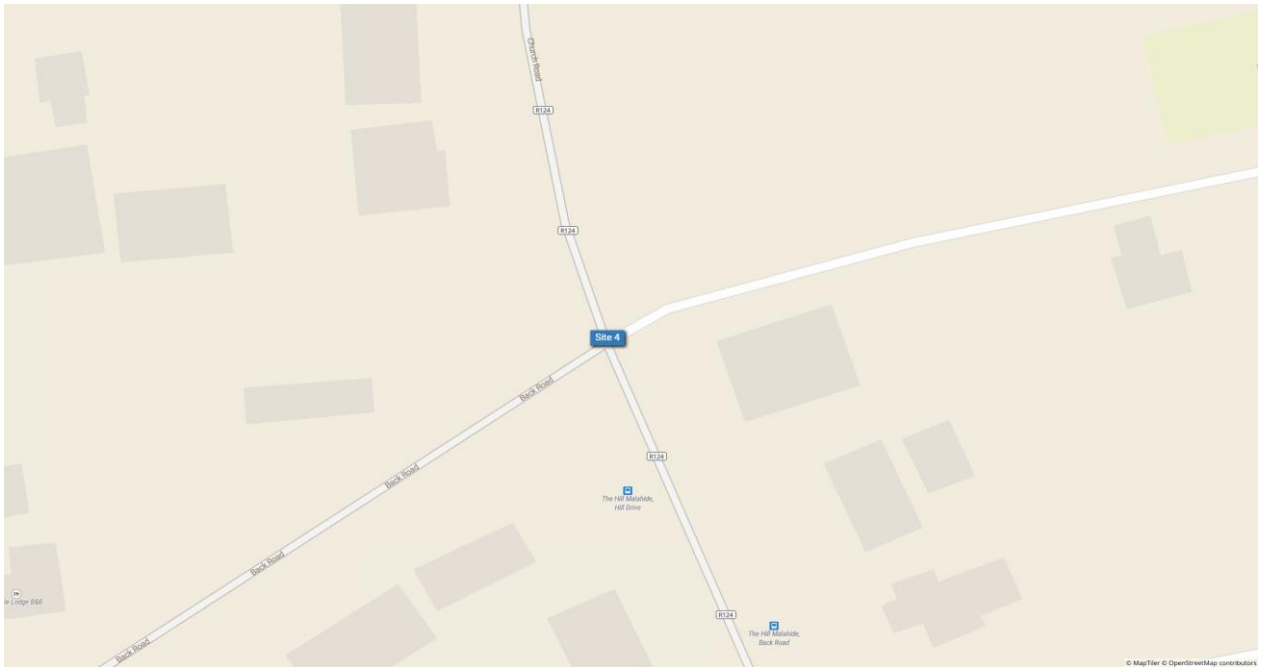
**Data Analysis Services**  
Traffic-Transportation- Commercial-Innovation

## 139 21312 Back Road Traffic Survey ( Site 4 - 12 hrs)

**with compliments**

Idaso

**Survey Name:** 139 21312 Back Road Traffic Survey ( Site 4 - 12 hrs)  
**Date:** Wed 08 Sep 2021













**B. Appendix B – TRICS**

Calculation Reference: AUDIT-561501-201027-1030

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

15 GREATER DUBLIN  
DL DUBLIN 1 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: 140 to 140 (units: )  
Range Selected by User: 80 to 220 (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: 01/01/12 to 10/09/13

*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:

Tuesday 1 days

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

Selected survey types:

Manual count 1 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 undertaken using machines.*

Selected Locations:

Suburban Area (PPS6 Out of Centre) 1

*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 1

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

Secondary Filtering selection:

Use Class:

C3 1 days

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

Population within 500m Range:

All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

25,001 to 50,000 1 days

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

Population within 5 miles:

500,001 or More 1 days

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

Car ownership within 5 miles:

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 1 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 1 days

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

LIST OF SITES relevant to selection parameters

1	DL-03-C-14	BLOCKS OF FLATS	DUBLIN
	BALLINTEER ROAD		
	DUBLIN		
	DUNDRUM		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	140	
	Survey date: TUESDAY	10/09/13	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/C - FLATS PRIVATELY OWNED

TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	1	140	0.021	1	140	0.236	1	140	0.257
08:00 - 09:00	1	140	0.029	1	140	0.364	1	140	0.393
09:00 - 10:00	1	140	0.071	1	140	0.136	1	140	0.207
10:00 - 11:00	1	140	0.014	1	140	0.021	1	140	0.035
11:00 - 12:00	1	140	0.043	1	140	0.064	1	140	0.107
12:00 - 13:00	1	140	0.057	1	140	0.079	1	140	0.136
13:00 - 14:00	1	140	0.043	1	140	0.071	1	140	0.114
14:00 - 15:00	1	140	0.100	1	140	0.021	1	140	0.121
15:00 - 16:00	1	140	0.086	1	140	0.021	1	140	0.107
16:00 - 17:00	1	140	0.150	1	140	0.021	1	140	0.171
17:00 - 18:00	1	140	0.221	1	140	0.014	1	140	0.235
18:00 - 19:00	1	140	0.314	1	140	0.107	1	140	0.421
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			1.149			1.155			2.304

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

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

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Parameter summary

Trip rate parameter range selected: 140 - 140 (units: )  
 Survey date range: 01/01/12 - 10/09/13  
 Number of weekdays (Monday-Friday): 1  
 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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.*

**C. Appendix C – Junction Modelling - Output Reports**

<h1>Junctions 9</h1>
<h2>PICADY 9 - Priority Intersection Module</h2>
Version: 9.5.1.7462 © Copyright TRL Limited, 2019
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**Filename:** Junction 1.j9

**Path:** M:\Projects\18\18-091- Broomfield LAP Malahide\Design\Civil\Traffic\MODELLING SEPT 2021\Junction 1

**Report generation date:** 08/04/2022 11:07:42

- 
- »JUNCTION 1 - Baseline 2022, AM
  - »JUNCTION 1 - Baseline 2022, PM
  - »JUNCTION 1 - DO NOTHING 2026, AM
  - »JUNCTION 1 - DO NOTHING 2026, PM
  - »JUNCTION 1 - DO SOMETHING 2026, AM
  - »JUNCTION 1 - DO SOMETHING 2026, PM
  - »JUNCTION 1 - SENSITIVITY ANALYSIS 2026, AM
  - »JUNCTION 1 - SENSITIVITY ANALYSIS 2026, PM
  - »JUNCTION 1 - DO NOTHING 2031, AM
  - »JUNCTION 1 - DO NOTHING 2031, PM
  - »JUNCTION 1 - DO SOMETHING 2031, AM
  - »JUNCTION 1 - DO SOMETHING 2031, PM
  - »JUNCTION 1 - SENSITIVITY ANALYSIS 2031, AM
  - »JUNCTION 1 - SENSITIVITY ANALYSIS 2031, PM
  - »JUNCTION 1 - DO NOTHING 2041, AM
  - »JUNCTION 1 - DO NOTHING 2041, PM
  - »JUNCTION 1 - DO SOMETHING 2041, AM
  - »JUNCTION 1 - DO SOMETHING 2041, PM
  - »JUNCTION 1 - SENSITIVITY ANALYSIS 2041, AM
  - »JUNCTION 1 - SENSITIVITY ANALYSIS 2041, PM

### Summary of junction performance

	AM		PM	
	Queue (Veh)	RFC	Queue (Veh)	RFC
<b>JUNCTION 1 - Baseline 2022</b>				
Stream B-C	0.4	0.30	0.2	0.19
Stream B-A	0.7	0.40	0.5	0.34
Stream C-AB	0.7	0.33	0.7	0.32
<b>JUNCTION 1 - DO NOTHING 2026</b>				
Stream B-C	0.6	0.39	0.3	0.23
Stream B-A	0.9	0.47	0.7	0.40
Stream C-AB	0.9	0.39	1.0	0.40
<b>JUNCTION 1 - DO SOMETHING 2026</b>				
Stream B-C	1.1	0.52	0.4	0.29
Stream B-A	1.3	0.56	0.8	0.45
Stream C-AB	1.0	0.43	1.6	0.52
<b>JUNCTION 1 - SENSITIVITY ANALYSIS 2026</b>				
Stream B-C	1.1	0.52	0.4	0.29
Stream B-A	1.3	0.56	0.8	0.45
Stream C-AB	1.0	0.43	1.6	0.52
<b>JUNCTION 1 - DO NOTHING 2031</b>				
Stream B-C	0.8	0.45	0.4	0.26
Stream B-A	1.1	0.54	0.8	0.45
Stream C-AB	1.0	0.43	1.2	0.45
<b>JUNCTION 1 - DO SOMETHING 2031</b>				
Stream B-C	1.5	0.61	0.5	0.33
Stream B-A	1.9	0.66	1.1	0.52
Stream C-AB	1.2	0.48	1.9	0.57
<b>JUNCTION 1 - SENSITIVITY ANALYSIS 2031</b>				
Stream B-C	2.3	0.70	0.6	0.39
Stream B-A	2.8	0.75	1.7	0.64
Stream C-AB	1.4	0.50	2.5	0.62
<b>JUNCTION 1 - DO NOTHING 2041</b>				
Stream B-C	0.9	0.48	0.4	0.28
Stream B-A	1.3	0.57	0.9	0.48
Stream C-AB	1.1	0.45	1.3	0.47
<b>JUNCTION 1 - DO SOMETHING 2041</b>				
Stream B-C	1.9	0.66	0.5	0.35
Stream B-A	2.3	0.70	1.2	0.54
Stream C-AB	1.4	0.50	2.2	0.60
<b>JUNCTION 1 - SENSITIVITY ANALYSIS 2041</b>				
Stream B-C	3.5	0.80	0.7	0.43
Stream B-A	4.1	0.82	2.0	0.68
Stream C-AB	1.6	0.52	2.8	0.64

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



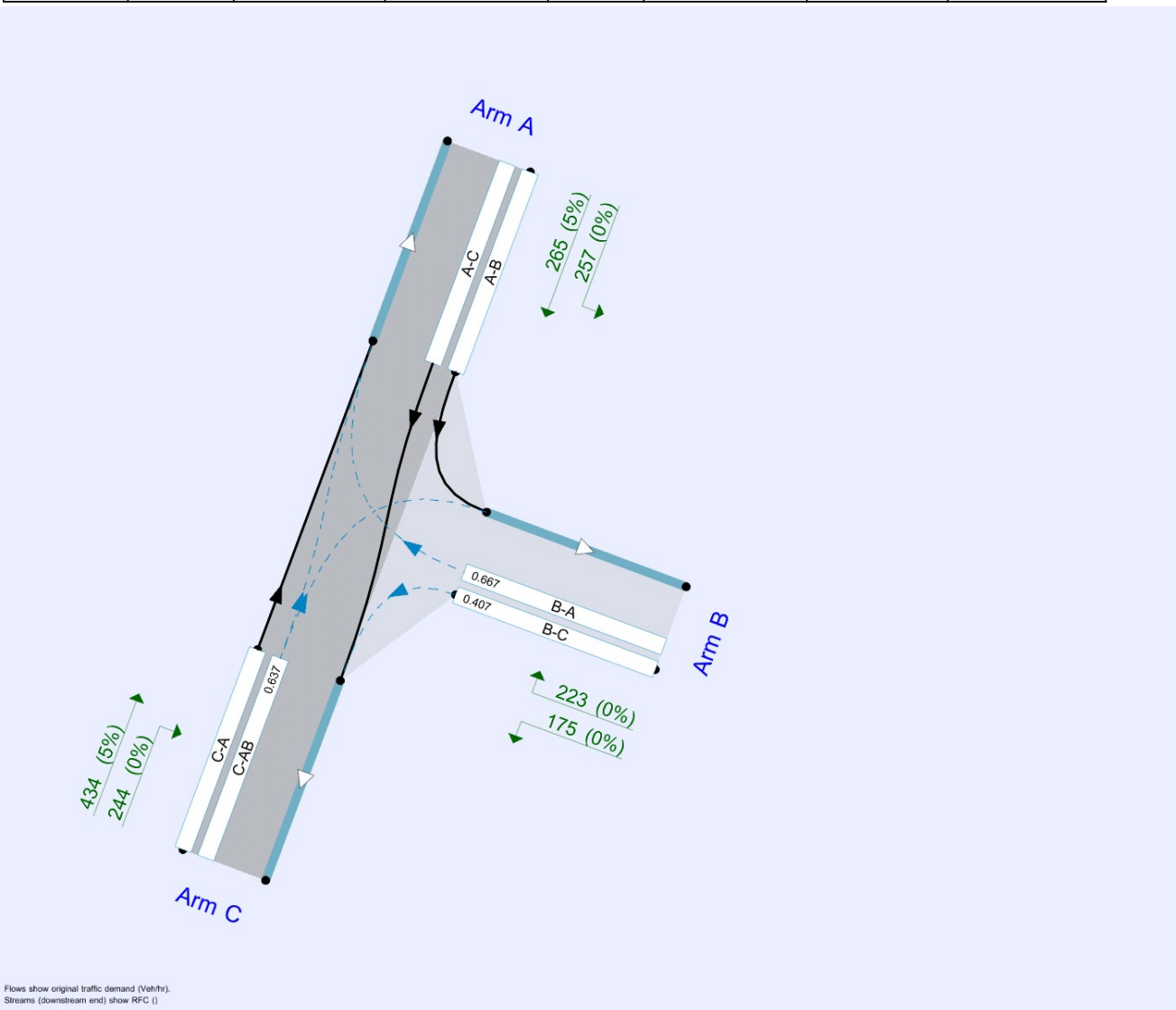
## File summary

### File Description

Title	
Location	
Site number	
Date	27/02/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAINf.silva
Description	

## Units

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



The junction diagram reflects the last run of Junctions.

### Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

### Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	Baseline 2022	AM	FLAT	08:00	09:00	60	15
D2	Baseline 2022	PM	FLAT	18:00	19:30	90	15
D3	DO NOTHING 2026	AM	FLAT	08:00	09:00	60	15
D4	DO NOTHING 2026	PM	FLAT	18:00	19:30	90	15
D5	DO SOMETHING 2026	AM	FLAT	08:00	09:00	60	15
D6	DO SOMETHING 2026	PM	FLAT	18:00	19:30	90	15
D7	SENSITIVITY ANALYSIS 2026	AM	FLAT	08:00	09:00	60	15
D8	SENSITIVITY ANALYSIS 2026	PM	FLAT	18:00	19:30	90	15
D9	DO NOTHING 2031	AM	FLAT	08:00	09:00	60	15
D10	DO NOTHING 2031	PM	FLAT	18:00	19:30	90	15
D11	DO SOMETHING 2031	AM	FLAT	08:00	09:00	60	15
D12	DO SOMETHING 2031	PM	FLAT	18:00	19:30	90	15
D13	SENSITIVITY ANALYSIS 2031	AM	FLAT	08:00	09:00	60	15
D14	SENSITIVITY ANALYSIS 2031	PM	FLAT	18:00	19:30	90	15
D15	DO NOTHING 2041	AM	FLAT	08:00	09:00	60	15
D16	DO NOTHING 2041	PM	FLAT	18:00	19:30	90	15
D17	DO SOMETHING 2041	AM	FLAT	08:00	09:00	60	15
D18	DO SOMETHING 2041	PM	FLAT	18:00	19:30	90	15
D19	SENSITIVITY ANALYSIS 2041	AM	FLAT	08:00	09:00	60	15
D20	SENSITIVITY ANALYSIS 2041	PM	FLAT	18:00	19:30	90	15

### Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	JUNCTION 1	100.000

# JUNCTION 1 - Baseline 2022, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		5.08	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Name	Description	Arm type
A	R107 - Malahide Road (N)		Major
B	Back Road (E)		Minor
C	R107 - Malahide Road (S)		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	9.40			85.0	✓	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	10.00	8.00	4.00	3.30		1.00	50	50

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	605	0.094	0.237	0.149	0.339
B-C	738	0.096	0.244	-	-
C-B	623	0.206	0.206	-	-

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

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

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

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	Baseline 2022	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	382	100.000
B		✓	343	100.000
C		✓	391	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	165	217
	B	171	0	172
	C	235	156	0

## Vehicle Mix

### Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.30	9.13	0.4	A
B-A	0.40	13.87	0.7	B
C-AB	0.33	7.71	0.7	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	172	569	0.302	170	0.4	8.993	A
B-A	171	432	0.396	168	0.6	13.547	B
C-AB	234	703	0.333	232	0.7	7.617	A
C-A	157			157			
A-B	165			165			
A-C	217			217			

**08:15 - 08:30**

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	172	566	0.304	172	0.4	9.131	A
B-A	171	431	0.397	171	0.6	13.861	B
C-AB	235	704	0.334	235	0.7	7.707	A
C-A	156			156			
A-B	165			165			
A-C	217			217			

**08:30 - 08:45**

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	172	566	0.304	172	0.4	9.132	A
B-A	171	431	0.397	171	0.7	13.865	B
C-AB	235	704	0.334	235	0.7	7.709	A
C-A	156			156			
A-B	165			165			
A-C	217			217			

**08:45 - 09:00**

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	172	566	0.304	172	0.4	9.133	A
B-A	171	431	0.397	171	0.7	13.868	B
C-AB	235	704	0.334	235	0.7	7.711	A
C-A	156			156			
A-B	165			165			
A-C	217			217			

# JUNCTION 1 - Baseline 2022, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		4.02	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	Baseline 2022	PM	FLAT	18:00	19:30	90	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	379	100.000
B		✓	259	100.000
C		✓	445	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	182	197
	B	147	0	112
	C	302	143	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.19	7.37	0.2	A
B-A	0.34	12.88	0.5	B
C-AB	0.32	7.09	0.7	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	112	603	0.186	111	0.2	7.307	A
B-A	147	427	0.344	145	0.5	12.659	B
C-AB	240	749	0.320	237	0.7	7.008	A
C-A	205			205			
A-B	182			182			
A-C	197			197			

#### 18:15 - 18:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	112	601	0.186	112	0.2	7.364	A
B-A	147	427	0.345	147	0.5	12.872	B
C-AB	241	750	0.321	241	0.7	7.086	A
C-A	204			204			
A-B	182			182			
A-C	197			197			

#### 18:30 - 18:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	112	601	0.186	112	0.2	7.365	A
B-A	147	427	0.345	147	0.5	12.875	B
C-AB	241	750	0.321	241	0.7	7.091	A
C-A	204			204			
A-B	182			182			
A-C	197			197			

#### 18:45 - 19:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	112	601	0.186	112	0.2	7.365	A
B-A	147	427	0.345	147	0.5	12.875	B
C-AB	241	750	0.321	241	0.7	7.088	A
C-A	204			204			
A-B	182			182			
A-C	197			197			

19:00 - 19:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	112	601	0.186	112	0.2	7.365	A
B-A	147	427	0.345	147	0.5	12.875	B
C-AB	241	750	0.321	241	0.7	7.088	A
C-A	204			204			
A-B	182			182			
A-C	197			197			

19:15 - 19:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	112	601	0.186	112	0.2	7.365	A
B-A	147	427	0.345	147	0.5	12.875	B
C-AB	241	750	0.321	241	0.7	7.091	A
C-A	204			204			
A-B	182			182			
A-C	197			197			



# JUNCTION 1 - DO NOTHING 2026, AM

## Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		6.14	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D3	DO NOTHING 2026	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	410	100.000
B		✓	395	100.000
C		✓	426	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	178	232
	B	188	0	207
	C	250	176	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.39	10.94	0.6	B
B-A	0.47	16.67	0.9	C
C-AB	0.39	8.30	0.9	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	207	540	0.383	205	0.6	10.643	B
B-A	188	406	0.463	185	0.8	16.057	C
C-AB	272	708	0.384	269	0.8	8.162	A
C-A	154			154			
A-B	178			178			
A-C	232			232			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	207	536	0.386	207	0.6	10.933	B
B-A	188	404	0.465	188	0.9	16.654	C
C-AB	273	709	0.385	273	0.8	8.293	A
C-A	153			153			
A-B	178			178			
A-C	232			232			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	207	536	0.386	207	0.6	10.940	B
B-A	188	404	0.466	188	0.9	16.668	C
C-AB	273	709	0.385	273	0.9	8.296	A
C-A	153			153			
A-B	178			178			
A-C	232			232			

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	207	536	0.386	207	0.6	10.941	B
B-A	188	404	0.466	188	0.9	16.672	C
C-AB	273	709	0.385	273	0.9	8.297	A
C-A	153			153			
A-B	178			178			
A-C	232			232			

# JUNCTION 1 - DO NOTHING 2026, PM

## Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		4.84	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D4	DO NOTHING 2026	PM	FLAT	18:00	19:30	90	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	410	100.000
B		✓	293	100.000
C		✓	497	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	200	210
	B	160	0	133
	C	322	175	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.23	8.07	0.3	A
B-A	0.40	14.76	0.7	B
C-AB	0.40	7.99	1.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	133	582	0.228	132	0.3	7.970	A
B-A	160	405	0.395	157	0.6	14.397	B
C-AB	304	758	0.402	300	1.0	7.846	A
C-A	193			193			
A-B	200			200			
A-C	210			210			

#### 18:15 - 18:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	133	579	0.230	133	0.3	8.067	A
B-A	160	404	0.396	160	0.6	14.747	B
C-AB	306	759	0.403	306	1.0	7.989	A
C-A	191			191			
A-B	200			200			
A-C	210			210			

#### 18:30 - 18:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	133	579	0.230	133	0.3	8.068	A
B-A	160	404	0.396	160	0.6	14.754	B
C-AB	306	759	0.403	306	1.0	7.990	A
C-A	191			191			
A-B	200			200			
A-C	210			210			

#### 18:45 - 19:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	133	579	0.230	133	0.3	8.069	A
B-A	160	404	0.396	160	0.7	14.757	B
C-AB	306	759	0.403	306	1.0	7.993	A
C-A	191			191			
A-B	200			200			
A-C	210			210			

19:00 - 19:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	133	579	0.230	133	0.3	8.069	A
B-A	160	404	0.396	160	0.7	14.757	B
C-AB	306	759	0.403	306	1.0	7.993	A
C-A	191			191			
A-B	200			200			
A-C	210			210			

19:15 - 19:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	133	579	0.230	133	0.3	8.069	A
B-A	160	404	0.396	160	0.7	14.757	B
C-AB	306	759	0.403	306	1.0	7.993	A
C-A	191			191			
A-B	200			200			
A-C	210			210			

# JUNCTION 1 - DO SOMETHING 2026, AM

## Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		8.30	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D5	DO SOMETHING 2026	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	418	100.000
B		✓	467	100.000
C		✓	445	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	186	232
	B	209	0	258
	C	250	195	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.52	15.00	1.1	B
B-A	0.56	22.06	1.3	C
C-AB	0.43	8.94	1.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	258	506	0.510	254	1.0	14.074	B
B-A	209	376	0.556	204	1.2	20.475	C
C-AB	302	707	0.427	298	1.0	8.763	A
C-A	143			143			
A-B	186			186			
A-C	232			232			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	258	498	0.518	258	1.0	14.947	B
B-A	209	372	0.562	209	1.2	21.973	C
C-AB	303	708	0.428	303	1.0	8.940	A
C-A	142			142			
A-B	186			186			
A-C	232			232			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	258	498	0.518	258	1.1	14.991	B
B-A	209	372	0.562	209	1.3	22.036	C
C-AB	303	708	0.428	303	1.0	8.942	A
C-A	142			142			
A-B	186			186			
A-C	232			232			

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	258	498	0.518	258	1.1	14.995	B
B-A	209	372	0.562	209	1.3	22.056	C
C-AB	303	708	0.428	303	1.0	8.943	A
C-A	142			142			
A-B	186			186			
A-C	232			232			

# JUNCTION 1 - DO SOMETHING 2026, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		6.37	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D6	DO SOMETHING 2026	PM	FLAT	18:00	19:30	90	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	430	100.000
B		✓	332	100.000
C		✓	547	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	220	210
	B	172	0	160
	C	322	225	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0



## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.29	9.09	0.4	A
B-A	0.45	17.38	0.8	C
C-AB	0.52	10.07	1.6	B
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	160	561	0.285	158	0.4	8.907	A
B-A	172	381	0.451	169	0.8	16.730	C
C-AB	393	755	0.520	387	1.5	9.722	A
C-A	154			154			
A-B	220			220			
A-C	210			210			

#### 18:15 - 18:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	160	556	0.288	160	0.4	9.086	A
B-A	172	379	0.454	172	0.8	17.359	C
C-AB	395	756	0.523	395	1.5	10.059	B
C-A	152			152			
A-B	220			220			
A-C	210			210			

#### 18:30 - 18:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	160	556	0.288	160	0.4	9.091	A
B-A	172	379	0.454	172	0.8	17.374	C
C-AB	395	756	0.523	395	1.5	10.068	B
C-A	152			152			
A-B	220			220			
A-C	210			210			

#### 18:45 - 19:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	160	556	0.288	160	0.4	9.092	A
B-A	172	379	0.454	172	0.8	17.378	C
C-AB	395	756	0.523	395	1.5	10.073	B
C-A	152			152			
A-B	220			220			
A-C	210			210			

19:00 - 19:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	160	556	0.288	160	0.4	9.092	A
B-A	172	379	0.454	172	0.8	17.380	C
C-AB	395	756	0.523	395	1.6	10.072	B
C-A	152			152			
A-B	220			220			
A-C	210			210			

19:15 - 19:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	160	556	0.288	160	0.4	9.092	A
B-A	172	379	0.454	172	0.8	17.381	C
C-AB	395	756	0.523	395	1.6	10.073	B
C-A	152			152			
A-B	220			220			
A-C	210			210			

# JUNCTION 1 - SENSITIVITY ANALYSIS 2026, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		8.30	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D7	SENSITIVITY ANALYSIS 2026	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	418	100.000
B		✓	467	100.000
C		✓	445	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	186	232
	B	209	0	258
	C	250	195	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.52	15.00	1.1	B
B-A	0.56	22.06	1.3	C
C-AB	0.43	8.94	1.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	258	506	0.510	254	1.0	14.074	B
B-A	209	376	0.556	204	1.2	20.475	C
C-AB	302	707	0.427	298	1.0	8.763	A
C-A	143			143			
A-B	186			186			
A-C	232			232			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	258	498	0.518	258	1.0	14.947	B
B-A	209	372	0.562	209	1.2	21.973	C
C-AB	303	708	0.428	303	1.0	8.940	A
C-A	142			142			
A-B	186			186			
A-C	232			232			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	258	498	0.518	258	1.1	14.991	B
B-A	209	372	0.562	209	1.3	22.036	C
C-AB	303	708	0.428	303	1.0	8.942	A
C-A	142			142			
A-B	186			186			
A-C	232			232			

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	258	498	0.518	258	1.1	14.995	B
B-A	209	372	0.562	209	1.3	22.056	C
C-AB	303	708	0.428	303	1.0	8.943	A
C-A	142			142			
A-B	186			186			
A-C	232			232			

# JUNCTION 1 - SENSITIVITY ANALYSIS 2026, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		6.37	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D8	SENSITIVITY ANALYSIS 2026	PM	FLAT	18:00	19:30	90	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	430	100.000
B		✓	332	100.000
C		✓	547	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	220	210
	B	172	0	160
	C	322	225	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.29	9.09	0.4	A
B-A	0.45	17.38	0.8	C
C-AB	0.52	10.07	1.6	B
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	160	561	0.285	158	0.4	8.907	A
B-A	172	381	0.451	169	0.8	16.730	C
C-AB	393	755	0.520	387	1.5	9.722	A
C-A	154			154			
A-B	220			220			
A-C	210			210			

#### 18:15 - 18:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	160	556	0.288	160	0.4	9.086	A
B-A	172	379	0.454	172	0.8	17.359	C
C-AB	395	756	0.523	395	1.5	10.059	B
C-A	152			152			
A-B	220			220			
A-C	210			210			

#### 18:30 - 18:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	160	556	0.288	160	0.4	9.091	A
B-A	172	379	0.454	172	0.8	17.374	C
C-AB	395	756	0.523	395	1.5	10.068	B
C-A	152			152			
A-B	220			220			
A-C	210			210			

#### 18:45 - 19:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	160	556	0.288	160	0.4	9.092	A
B-A	172	379	0.454	172	0.8	17.378	C
C-AB	395	756	0.523	395	1.5	10.073	B
C-A	152			152			
A-B	220			220			
A-C	210			210			

19:00 - 19:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	160	556	0.288	160	0.4	9.092	A
B-A	172	379	0.454	172	0.8	17.380	C
C-AB	395	756	0.523	395	1.6	10.072	B
C-A	152			152			
A-B	220			220			
A-C	210			210			

19:15 - 19:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	160	556	0.288	160	0.4	9.092	A
B-A	172	379	0.454	172	0.8	17.381	C
C-AB	395	756	0.523	395	1.6	10.073	B
C-A	152			152			
A-B	220			220			
A-C	210			210			

# JUNCTION 1 - DO NOTHING 2031, AM

## Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		7.23	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D9	DO NOTHING 2031	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	446	100.000
B		✓	427	100.000
C		✓	464	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	193	253
	B	204	0	223
	C	273	191	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0



## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.45	13.03	0.8	B
B-A	0.54	20.39	1.1	C
C-AB	0.43	8.86	1.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	223	506	0.441	220	0.8	12.450	B
B-A	204	383	0.532	200	1.1	19.200	C
C-AB	308	718	0.430	304	1.0	8.672	A
C-A	156			156			
A-B	193			193			
A-C	253			253			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	223	499	0.446	223	0.8	13.008	B
B-A	204	381	0.536	204	1.1	20.336	C
C-AB	310	719	0.431	310	1.0	8.851	A
C-A	154			154			
A-B	193			193			
A-C	253			253			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	223	499	0.447	223	0.8	13.025	B
B-A	204	380	0.536	204	1.1	20.374	C
C-AB	310	719	0.431	310	1.0	8.855	A
C-A	154			154			
A-B	193			193			
A-C	253			253			

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	223	499	0.447	223	0.8	13.032	B
B-A	204	380	0.536	204	1.1	20.386	C
C-AB	310	719	0.431	310	1.0	8.858	A
C-A	154			154			
A-B	193			193			
A-C	253			253			

# JUNCTION 1 - DO NOTHING 2031, PM

## Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		5.48	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D10	DO NOTHING 2031	PM	FLAT	18:00	19:30	90	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	446	100.000
B		✓	318	100.000
C		✓	540	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	217	229
	B	175	0	143
	C	351	189	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.26	8.88	0.4	A
B-A	0.45	17.02	0.8	C
C-AB	0.45	8.55	1.2	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	143	553	0.259	142	0.3	8.723	A
B-A	175	388	0.451	172	0.8	16.432	C
C-AB	347	772	0.449	342	1.2	8.346	A
C-A	193			193			
A-B	217			217			
A-C	229			229			

#### 18:15 - 18:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	143	548	0.261	143	0.3	8.880	A
B-A	175	386	0.453	175	0.8	17.006	C
C-AB	349	773	0.452	349	1.2	8.546	A
C-A	191			191			
A-B	217			217			
A-C	229			229			

#### 18:30 - 18:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	143	548	0.261	143	0.4	8.883	A
B-A	175	386	0.453	175	0.8	17.018	C
C-AB	349	773	0.452	349	1.2	8.549	A
C-A	191			191			
A-B	217			217			
A-C	229			229			

#### 18:45 - 19:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	143	548	0.261	143	0.4	8.883	A
B-A	175	386	0.453	175	0.8	17.022	C
C-AB	349	773	0.452	349	1.2	8.550	A
C-A	191			191			
A-B	217			217			
A-C	229			229			

19:00 - 19:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	143	548	0.261	143	0.4	8.884	A
B-A	175	386	0.453	175	0.8	17.024	C
C-AB	349	773	0.452	349	1.2	8.552	A
C-A	191			191			
A-B	217			217			
A-C	229			229			

19:15 - 19:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	143	548	0.261	143	0.4	8.884	A
B-A	175	386	0.453	175	0.8	17.024	C
C-AB	349	773	0.452	349	1.2	8.553	A
C-A	191			191			
A-B	217			217			
A-C	229			229			

# JUNCTION 1 - DO SOMETHING 2031, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		10.78	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D11	DO SOMETHING 2031	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	454	100.000
B		✓	499	100.000
C		✓	483	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	201	253
	B	225	0	274
	C	273	210	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.61	20.38	1.5	C
B-A	0.66	30.37	1.9	D
C-AB	0.48	9.64	1.2	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	274	464	0.590	269	1.4	17.948	C
B-A	225	349	0.645	218	1.7	26.368	D
C-AB	339	716	0.474	335	1.2	9.380	A
C-A	144			144			
A-B	201			201			
A-C	253			253			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	274	452	0.607	274	1.5	20.140	C
B-A	225	344	0.655	224	1.8	29.977	D
C-AB	341	717	0.476	341	1.2	9.630	A
C-A	142			142			
A-B	201			201			
A-C	253			253			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	274	451	0.608	274	1.5	20.329	C
B-A	225	343	0.656	225	1.8	30.274	D
C-AB	341	717	0.476	341	1.2	9.634	A
C-A	142			142			
A-B	201			201			
A-C	253			253			

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	274	450	0.608	274	1.5	20.384	C
B-A	225	343	0.656	225	1.9	30.366	D
C-AB	341	717	0.476	341	1.2	9.636	A
C-A	142			142			
A-B	201			201			
A-C	253			253			

# JUNCTION 1 - DO SOMETHING 2031, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		7.37	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D12	DO SOMETHING 2031	PM	FLAT	18:00	19:30	90	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	466	100.000
B		✓	357	100.000
C		✓	589	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	237	229
	B	186	0	171
	C	351	238	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.33	10.32	0.5	B
B-A	0.52	20.61	1.1	C
C-AB	0.57	11.10	1.9	B
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	171	527	0.324	169	0.5	9.995	A
B-A	186	363	0.512	182	1.0	19.478	C
C-AB	438	768	0.570	431	1.9	10.575	B
C-A	151			151			
A-B	237			237			
A-C	229			229			

#### 18:15 - 18:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	171	520	0.329	171	0.5	10.307	B
B-A	186	361	0.516	186	1.0	20.558	C
C-AB	442	771	0.573	442	1.9	11.076	B
C-A	147			147			
A-B	237			237			
A-C	229			229			

#### 18:30 - 18:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	171	520	0.329	171	0.5	10.319	B
B-A	186	361	0.516	186	1.0	20.594	C
C-AB	442	771	0.574	442	1.9	11.095	B
C-A	147			147			
A-B	237			237			
A-C	229			229			

#### 18:45 - 19:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	171	520	0.329	171	0.5	10.322	B
B-A	186	361	0.516	186	1.1	20.604	C
C-AB	442	771	0.574	442	1.9	11.098	B
C-A	147			147			
A-B	237			237			
A-C	229			229			



19:00 - 19:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	171	520	0.329	171	0.5	10.323	B
B-A	186	361	0.516	186	1.1	20.609	C
C-AB	442	771	0.574	442	1.9	11.101	B
C-A	147			147			
A-B	237			237			
A-C	229			229			

19:15 - 19:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	171	520	0.329	171	0.5	10.323	B
B-A	186	361	0.516	186	1.1	20.612	C
C-AB	442	771	0.574	442	1.9	11.104	B
C-A	147			147			
A-B	237			237			
A-C	229			229			

# JUNCTION 1 - SENSITIVITY ANALYSIS 2031, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		14.39	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D13	SENSITIVITY ANALYSIS 2031	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	556	100.000
B		✓	507	100.000
C		✓	501	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	232	324
	B	233	0	274
	C	291	210	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.70	31.08	2.3	D
B-A	0.75	45.85	2.8	E
C-AB	0.50	10.26	1.4	B
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	274	413	0.664	267	1.8	23.635	C
B-A	233	320	0.729	224	2.3	34.781	D
C-AB	356	711	0.500	350	1.4	9.925	A
C-A	145			145			
A-B	232			232			
A-C	324			324			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	274	393	0.698	273	2.1	29.541	D
B-A	233	312	0.747	232	2.7	43.708	E
C-AB	358	712	0.503	358	1.4	10.244	B
C-A	143			143			
A-B	232			232			
A-C	324			324			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	274	390	0.703	274	2.2	30.666	D
B-A	233	311	0.750	232	2.8	45.261	E
C-AB	358	712	0.503	358	1.4	10.252	B
C-A	143			143			
A-B	232			232			
A-C	324			324			

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	274	389	0.705	274	2.3	31.077	D
B-A	233	310	0.751	233	2.8	45.852	E
C-AB	358	712	0.503	358	1.4	10.257	B
C-A	143			143			
A-B	232			232			
A-C	324			324			

# JUNCTION 1 - SENSITIVITY ANALYSIS 2031, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		9.29	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D14	SENSITIVITY ANALYSIS 2031	PM	FLAT	18:00	19:30	90	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	506	100.000
B		✓	388	100.000
C		✓	660	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	249	257
	B	217	0	171
	C	422	238	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.39	13.62	0.6	B
B-A	0.64	29.43	1.7	D
C-AB	0.62	11.75	2.5	B
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	171	452	0.379	169	0.6	12.614	B
B-A	217	343	0.633	211	1.6	26.170	D
C-AB	496	811	0.611	487	2.3	11.003	B
C-A	164			164			
A-B	249			249			
A-C	257			257			

#### 18:15 - 18:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	171	437	0.392	171	0.6	13.529	B
B-A	217	339	0.640	217	1.7	29.141	D
C-AB	502	815	0.616	501	2.4	11.706	B
C-A	158			158			
A-B	249			249			
A-C	257			257			

#### 18:30 - 18:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	171	436	0.392	171	0.6	13.584	B
B-A	217	339	0.640	217	1.7	29.325	D
C-AB	502	815	0.616	502	2.4	11.736	B
C-A	158			158			
A-B	249			249			
A-C	257			257			

#### 18:45 - 19:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	171	436	0.393	171	0.6	13.602	B
B-A	217	339	0.640	217	1.7	29.381	D
C-AB	502	815	0.616	502	2.4	11.745	B
C-A	158			158			
A-B	249			249			
A-C	257			257			

19:00 - 19:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	171	435	0.393	171	0.6	13.612	B
B-A	217	339	0.640	217	1.7	29.399	D
C-AB	502	815	0.616	502	2.5	11.747	B
C-A	158			158			
A-B	249			249			
A-C	257			257			

19:15 - 19:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	171	435	0.393	171	0.6	13.616	B
B-A	217	339	0.640	217	1.7	29.426	D
C-AB	502	815	0.616	502	2.5	11.752	B
C-A	158			158			
A-B	249			249			
A-C	257			257			

# JUNCTION 1 - DO NOTHING 2041, AM

## Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		7.88	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D15	DO NOTHING 2041	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	462	100.000
B		✓	441	100.000
C		✓	479	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	200	262
	B	211	0	230
	C	282	197	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.48	14.34	0.9	B
B-A	0.57	22.64	1.3	C
C-AB	0.45	9.13	1.1	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	230	490	0.470	227	0.9	13.521	B
B-A	211	373	0.566	206	1.2	20.995	C
C-AB	324	721	0.449	319	1.1	8.917	A
C-A	155			155			
A-B	200			200			
A-C	262			262			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	230	481	0.478	230	0.9	14.298	B
B-A	211	370	0.570	211	1.3	22.552	C
C-AB	325	722	0.451	325	1.1	9.126	A
C-A	154			154			
A-B	200			200			
A-C	262			262			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	230	481	0.478	230	0.9	14.333	B
B-A	211	370	0.570	211	1.3	22.620	C
C-AB	325	722	0.451	325	1.1	9.130	A
C-A	154			154			
A-B	200			200			
A-C	262			262			

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	230	481	0.478	230	0.9	14.341	B
B-A	211	370	0.571	211	1.3	22.636	C
C-AB	325	722	0.451	325	1.1	9.130	A
C-A	154			154			
A-B	200			200			
A-C	262			262			



# JUNCTION 1 - DO NOTHING 2041, PM

## Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		5.81	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D16	DO NOTHING 2041	PM	FLAT	18:00	19:30	90	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	461	100.000
B		✓	329	100.000
C		✓	558	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	224	237
	B	181	0	148
	C	363	195	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.28	9.32	0.4	A
B-A	0.48	18.21	0.9	C
C-AB	0.47	8.84	1.3	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	148	540	0.274	147	0.4	9.121	A
B-A	181	380	0.476	177	0.9	17.453	C
C-AB	366	778	0.470	361	1.3	8.600	A
C-A	192			192			
A-B	224			224			
A-C	237			237			

#### 18:15 - 18:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	148	534	0.277	148	0.4	9.318	A
B-A	181	379	0.478	181	0.9	18.182	C
C-AB	369	779	0.473	368	1.3	8.833	A
C-A	189			189			
A-B	224			224			
A-C	237			237			

#### 18:30 - 18:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	148	534	0.277	148	0.4	9.323	A
B-A	181	379	0.478	181	0.9	18.199	C
C-AB	369	779	0.473	369	1.3	8.838	A
C-A	189			189			
A-B	224			224			
A-C	237			237			

#### 18:45 - 19:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	148	534	0.277	148	0.4	9.324	A
B-A	181	379	0.478	181	0.9	18.205	C
C-AB	369	779	0.473	369	1.3	8.841	A
C-A	189			189			
A-B	224			224			
A-C	237			237			

19:00 - 19:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	148	534	0.277	148	0.4	9.324	A
B-A	181	379	0.478	181	0.9	18.207	C
C-AB	369	779	0.473	369	1.3	8.840	A
C-A	189			189			
A-B	224			224			
A-C	237			237			

19:15 - 19:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	148	534	0.277	148	0.4	9.325	A
B-A	181	379	0.478	181	0.9	18.209	C
C-AB	369	779	0.473	369	1.3	8.840	A
C-A	189			189			
A-B	224			224			
A-C	237			237			

# JUNCTION 1 - DO SOMETHING 2041, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		12.68	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D17	DO SOMETHING 2041	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	470	100.000
B		✓	513	100.000
C		✓	498	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	208	262
	B	232	0	281
	C	282	216	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.66	24.81	1.9	C
B-A	0.70	36.75	2.3	E
C-AB	0.50	9.98	1.4	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	281	444	0.633	275	1.6	20.569	C
B-A	232	337	0.689	224	2.0	30.119	D
C-AB	355	720	0.494	350	1.3	9.680	A
C-A	143			143			
A-B	208			208			
A-C	262			262			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	281	428	0.657	280	1.8	24.196	C
B-A	232	330	0.703	231	2.2	35.838	E
C-AB	357	721	0.496	357	1.3	9.968	A
C-A	141			141			
A-B	208			208			
A-C	262			262			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	281	426	0.659	281	1.9	24.660	C
B-A	232	329	0.704	232	2.3	36.525	E
C-AB	357	721	0.496	357	1.3	9.978	A
C-A	141			141			
A-B	208			208			
A-C	262			262			

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	281	426	0.660	281	1.9	24.806	C
B-A	232	329	0.705	232	2.3	36.753	E
C-AB	357	721	0.496	357	1.4	9.978	A
C-A	141			141			
A-B	208			208			
A-C	262			262			

# JUNCTION 1 - DO SOMETHING 2041, PM

## Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		7.93	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D18	DO SOMETHING 2041	PM	FLAT	18:00	19:30	90	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	482	100.000
B		✓	367	100.000
C		✓	607	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	245	237
	B	192	0	175
	C	363	244	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.35	11.02	0.5	B
B-A	0.54	22.43	1.2	C
C-AB	0.60	11.70	2.2	B
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	175	511	0.342	173	0.5	10.581	B
B-A	192	355	0.540	188	1.1	20.951	C
C-AB	459	774	0.593	451	2.0	11.052	B
C-A	148			148			
A-B	245			245			
A-C	237			237			

#### 18:15 - 18:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	175	502	0.348	175	0.5	10.994	B
B-A	192	353	0.545	192	1.2	22.346	C
C-AB	464	777	0.597	464	2.1	11.661	B
C-A	143			143			
A-B	245			245			
A-C	237			237			

#### 18:30 - 18:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	175	502	0.349	175	0.5	11.009	B
B-A	192	352	0.545	192	1.2	22.400	C
C-AB	464	777	0.597	464	2.1	11.684	B
C-A	143			143			
A-B	245			245			
A-C	237			237			

#### 18:45 - 19:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	175	502	0.349	175	0.5	11.013	B
B-A	192	352	0.545	192	1.2	22.417	C
C-AB	464	777	0.597	464	2.1	11.693	B
C-A	143			143			
A-B	245			245			
A-C	237			237			

19:00 - 19:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	175	502	0.349	175	0.5	11.014	B
B-A	192	352	0.545	192	1.2	22.415	C
C-AB	464	777	0.597	464	2.2	11.697	B
C-A	143			143			
A-B	245			245			
A-C	237			237			

19:15 - 19:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	175	502	0.349	175	0.5	11.015	B
B-A	192	352	0.545	192	1.2	22.428	C
C-AB	464	777	0.597	464	2.2	11.696	B
C-A	143			143			
A-B	245			245			
A-C	237			237			



# JUNCTION 1 - SENSITIVITY ANALYSIS 2041, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		20.30	C

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D19	SENSITIVITY ANALYSIS 2041	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	572	100.000
B		✓	521	100.000
C		✓	517	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	239	333
	B	240	0	281
	C	301	216	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.80	48.06	3.5	E
B-A	0.82	65.52	4.1	F
C-AB	0.52	10.67	1.6	B
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	281	389	0.723	272	2.3	28.841	D
B-A	240	307	0.783	228	2.9	41.448	E
C-AB	373	715	0.522	367	1.5	10.281	B
C-A	144			144			
A-B	239			239			
A-C	333			333			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	281	362	0.776	278	3.0	41.123	E
B-A	240	296	0.811	237	3.6	57.730	F
C-AB	376	717	0.525	376	1.5	10.658	B
C-A	141			141			
A-B	239			239			
A-C	333			333			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	281	356	0.789	280	3.3	45.624	E
B-A	240	293	0.819	239	3.9	62.804	F
C-AB	376	717	0.525	376	1.5	10.667	B
C-A	141			141			
A-B	239			239			
A-C	333			333			

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	281	353	0.796	280	3.5	48.061	E
B-A	240	292	0.823	239	4.1	65.521	F
C-AB	376	717	0.525	376	1.6	10.672	B
C-A	141			141			
A-B	239			239			
A-C	333			333			

# JUNCTION 1 - SENSITIVITY ANALYSIS 2041, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		10.37	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D20	SENSITIVITY ANALYSIS 2041	PM	FLAT	18:00	19:30	90	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	522	100.000
B		✓	398	100.000
C		✓	678	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	257	265
	B	223	0	175
	C	434	244	0

## Vehicle Mix

### Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.43	15.34	0.7	C
B-A	0.68	33.49	2.0	D
C-AB	0.64	12.56	2.8	B
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	175	430	0.407	172	0.7	13.825	B
B-A	223	334	0.667	216	1.8	28.852	D
C-AB	520	817	0.637	510	2.6	11.616	B
C-A	158			158			
A-B	257			257			
A-C	265			265			

#### 18:15 - 18:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	175	412	0.425	175	0.7	15.175	C
B-A	223	331	0.675	222	2.0	32.975	D
C-AB	527	821	0.642	527	2.7	12.494	B
C-A	151			151			
A-B	257			257			
A-C	265			265			

#### 18:30 - 18:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	175	410	0.426	175	0.7	15.282	C
B-A	223	330	0.675	223	2.0	33.296	D
C-AB	527	821	0.642	527	2.7	12.538	B
C-A	151			151			
A-B	257			257			
A-C	265			265			

#### 18:45 - 19:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	175	410	0.427	175	0.7	15.317	C
B-A	223	330	0.675	223	2.0	33.402	D
C-AB	527	821	0.642	527	2.8	12.552	B
C-A	151			151			
A-B	257			257			
A-C	265			265			

19:00 - 19:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	175	410	0.427	175	0.7	15.329	C
B-A	223	330	0.675	223	2.0	33.453	D
C-AB	527	821	0.642	527	2.8	12.558	B
C-A	151			151			
A-B	257			257			
A-C	265			265			

19:15 - 19:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	175	410	0.427	175	0.7	15.338	C
B-A	223	330	0.675	223	2.0	33.486	D
C-AB	527	821	0.642	527	2.8	12.562	B
C-A	151			151			
A-B	257			257			
A-C	265			265			

# Junctions 9

## PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462  
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**Filename:** Junction 2.j9

**Path:** M:\Projects\18\18-091- Broomfield LAP Malahide\Design\Civil\Traffic\MODELLING SEPT 2021\Junction 2

**Report generation date:** 08/04/2022 11:17:16

- 
- »JUNCTION 1 - Baseline 2022, AM
  - »JUNCTION 1 - Baseline 2022, PM
  - »JUNCTION 1 - DO NOTHING 2026, AM
  - »JUNCTION 1 - DO NOTHING 2026, PM
  - »JUNCTION 1 - DO SOMETHING 2026, AM
  - »JUNCTION 1 - DO SOMETHING 2026, PM
  - »JUNCTION 1 - SENSITIVITY ANALYSIS 2026, AM
  - »JUNCTION 1 - SENSITIVITY ANALYSIS 2026, PM
  - »JUNCTION 1 - DO NOTHING 2031, AM
  - »JUNCTION 1 - DO NOTHING 2031, PM
  - »JUNCTION 1 - DO SOMETHING 2031, AM
  - »JUNCTION 1 - DO SOMETHING 2031, PM
  - »JUNCTION 1 - SENSITIVITY ANALYSIS 2031, AM
  - »JUNCTION 1 - SENSITIVITY ANALYSIS 2031, PM
  - »JUNCTION 1 - DO NOTHING 2041, AM
  - »JUNCTION 1 - DO NOTHING 2041, PM
  - »JUNCTION 1 - DO SOMETHING 2041, AM
  - »JUNCTION 1 - DO SOMETHING 2041, PM
  - »JUNCTION 1 - SENSITIVITY ANALYSIS 2041, AM
  - »JUNCTION 1 - SENSITIVITY ANALYSIS 2041, PM

### Summary of junction performance

	AM		PM	
	Queue (Veh)	RFC	Queue (Veh)	RFC
<b>JUNCTION 1 - Baseline 2022</b>				
Stream B-AC	0.5	0.34	0.4	0.29
Stream C-AB	0.2	0.14	0.2	0.09
<b>JUNCTION 1 - DO NOTHING 2026</b>				
Stream B-AC	0.6	0.39	0.5	0.35
Stream C-AB	0.3	0.16	0.2	0.10
<b>JUNCTION 1 - DO SOMETHING 2026</b>				
Stream B-AC	0.9	0.47	0.7	0.42
Stream C-AB	0.4	0.18	0.3	0.15
<b>JUNCTION 1 - SENSITIVITY ANALYSIS 2026</b>				
Stream B-AC	0.9	0.47	0.7	0.42
Stream C-AB	0.4	0.18	0.3	0.15
<b>JUNCTION 1 - DO NOTHING 2031</b>				
Stream B-AC	0.8	0.43	0.6	0.38
Stream C-AB	0.3	0.18	0.2	0.11
<b>JUNCTION 1 - DO SOMETHING 2031</b>				
Stream B-AC	1.1	0.52	0.9	0.46
Stream C-AB	0.4	0.20	0.3	0.16
<b>JUNCTION 1 - SENSITIVITY ANALYSIS 2031</b>				
Stream B-AC	1.1	0.53	0.9	0.48
Stream C-AB	0.5	0.22	0.4	0.17
<b>JUNCTION 1 - DO NOTHING 2041</b>				
Stream B-AC	0.8	0.45	0.7	0.40
Stream C-AB	0.4	0.19	0.2	0.12
<b>JUNCTION 1 - DO SOMETHING 2041</b>				
Stream B-AC	1.2	0.54	0.9	0.48
Stream C-AB	0.4	0.21	0.4	0.17
<b>JUNCTION 1 - SENSITIVITY ANALYSIS 2041</b>				
Stream B-AC	1.2	0.55	1.0	0.50
Stream C-AB	0.5	0.23	0.4	0.18

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

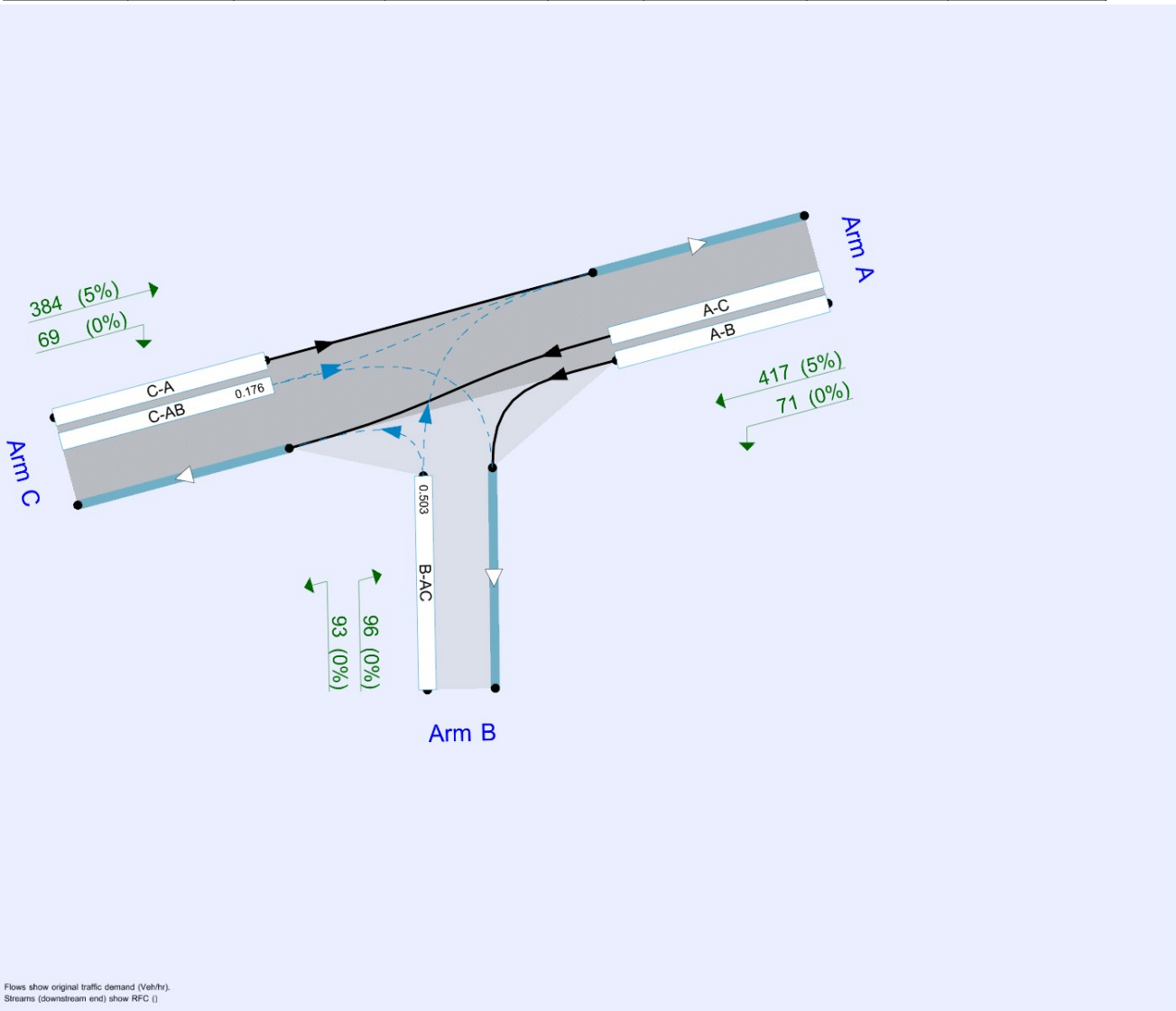
### File summary

#### File Description

Title	
Location	
Site number	
Date	27/02/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAINf.silva
Description	

**Units**

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



Flows show original traffic demand (Veh/hr).  
Streams (downstream end) show RFC ()

The junction diagram reflects the last run of Junctions.

**Analysis Options**

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00



### Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	Baseline 2022	AM	FLAT	08:00	09:00	60	15
D2	Baseline 2022	PM	FLAT	18:00	19:30	90	15
D3	DO NOTHING 2026	AM	FLAT	08:00	09:00	60	15
D4	DO NOTHING 2026	PM	FLAT	18:00	19:30	90	15
D5	DO SOMETHING 2026	AM	FLAT	08:00	09:00	60	15
D6	DO SOMETHING 2026	PM	FLAT	18:00	19:30	90	15
D7	SENSITIVITY ANALYSIS 2026	AM	FLAT	08:00	09:00	60	15
D8	SENSITIVITY ANALYSIS 2026	PM	FLAT	18:00	19:30	90	15
D9	DO NOTHING 2031	AM	FLAT	08:00	09:00	60	15
D10	DO NOTHING 2031	PM	FLAT	18:00	19:30	90	15
D11	DO SOMETHING 2031	AM	FLAT	08:00	09:00	60	15
D12	DO SOMETHING 2031	PM	FLAT	18:00	19:30	90	15
D13	SENSITIVITY ANALYSIS 2031	AM	FLAT	08:00	09:00	60	15
D14	SENSITIVITY ANALYSIS 2031	PM	FLAT	18:00	19:30	90	15
D15	DO NOTHING 2041	AM	FLAT	08:00	09:00	60	15
D16	DO NOTHING 2041	PM	FLAT	18:00	19:30	90	15
D17	DO SOMETHING 2041	AM	FLAT	08:00	09:00	60	15
D18	DO SOMETHING 2041	PM	FLAT	18:00	19:30	90	15
D19	SENSITIVITY ANALYSIS 2041	AM	FLAT	08:00	09:00	60	15
D20	SENSITIVITY ANALYSIS 2041	PM	FLAT	18:00	19:30	90	15

### Analysis Set Details

ID	Name	Network flow scaling factor (%)
A2	JUNCTION 1	100.000

# JUNCTION 1 - Baseline 2022, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.21	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Name	Description	Arm type
A	R107 - Malahide Road (N)		Major
B	Back Road (E)		Minor
C	R107 - Malahide Road (S)		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	6.82			85.0	✓	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	50	50

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	477	0.084	0.212	0.133	0.303
B-C	603	0.089	0.225	-	-
C-B	623	0.233	0.233	-	-

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

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

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

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	Baseline 2022	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	295	100.000
B		✓	153	100.000
C		✓	302	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	44	251
	B	66	0	87
	C	234	68	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.34	12.26	0.5	B
C-AB	0.14	5.92	0.2	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	153	447	0.342	151	0.5	12.090	B
C-AB	101	710	0.143	100	0.2	5.900	A
C-A	201			201			
A-B	44			44			
A-C	251			251			

**08:15 - 08:30**

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	153	447	0.343	153	0.5	12.257	B
C-AB	102	710	0.143	102	0.2	5.921	A
C-A	200			200			
A-B	44			44			
A-C	251			251			

**08:30 - 08:45**

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	153	447	0.343	153	0.5	12.260	B
C-AB	102	710	0.143	102	0.2	5.922	A
C-A	200			200			
A-B	44			44			
A-C	251			251			

**08:45 - 09:00**

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	153	447	0.343	153	0.5	12.260	B
C-AB	102	710	0.143	102	0.2	5.919	A
C-A	200			200			
A-B	44			44			
A-C	251			251			

# JUNCTION 1 - Baseline 2022, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.37	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	Baseline 2022	PM	FLAT	18:00	19:30	90	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	333	100.000
B		✓	126	100.000
C		✓	286	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	45	288
	B	61	0	65
	C	245	41	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.29	11.71	0.4	B
C-AB	0.09	5.57	0.2	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	126	433	0.291	124	0.4	11.592	B
C-AB	63	710	0.088	62	0.2	5.555	A
C-A	223			223			
A-B	45			45			
A-C	288			288			

#### 18:15 - 18:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	126	433	0.291	126	0.4	11.715	B
C-AB	63	710	0.089	63	0.2	5.566	A
C-A	223			223			
A-B	45			45			
A-C	288			288			

#### 18:30 - 18:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	126	433	0.291	126	0.4	11.715	B
C-AB	63	710	0.089	63	0.2	5.567	A
C-A	223			223			
A-B	45			45			
A-C	288			288			

#### 18:45 - 19:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	126	433	0.291	126	0.4	11.715	B
C-AB	63	710	0.089	63	0.2	5.567	A
C-A	223			223			
A-B	45			45			
A-C	288			288			

19:00 - 19:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	126	433	0.291	126	0.4	11.715	B
C-AB	63	710	0.089	63	0.2	5.569	A
C-A	223			223			
A-B	45			45			
A-C	288			288			

19:15 - 19:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	126	433	0.291	126	0.4	11.715	B
C-AB	63	710	0.089	63	0.2	5.569	A
C-A	223			223			
A-B	45			45			
A-C	288			288			

# JUNCTION 1 - DO NOTHING 2026, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.40	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D3	DO NOTHING 2026	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	353	100.000
B		✓	167	100.000
C		✓	333	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	56	297
	B	74	0	93
	C	260	73	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0



## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.39	13.73	0.6	B
C-AB	0.16	6.00	0.3	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	167	429	0.389	165	0.6	13.474	B
C-AB	115	716	0.160	113	0.3	5.971	A
C-A	218			218			
A-B	56			56			
A-C	297			297			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	167	429	0.389	167	0.6	13.728	B
C-AB	115	716	0.161	115	0.3	5.995	A
C-A	218			218			
A-B	56			56			
A-C	297			297			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	167	429	0.389	167	0.6	13.731	B
C-AB	115	716	0.161	115	0.3	5.997	A
C-A	218			218			
A-B	56			56			
A-C	297			297			

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	167	429	0.389	167	0.6	13.734	B
C-AB	115	716	0.161	115	0.3	5.998	A
C-A	218			218			
A-B	56			56			
A-C	297			297			

# JUNCTION 1 - DO NOTHING 2026, PM

## Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.60	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D4	DO NOTHING 2026	PM	FLAT	18:00	19:30	90	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	377	100.000
B		✓	143	100.000
C		✓	332	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	53	324
	B	74	0	69
	C	289	43	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.35	13.30	0.5	B
C-AB	0.10	5.46	0.2	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	143	414	0.346	141	0.5	13.094	B
C-AB	71	731	0.097	70	0.2	5.448	A
C-A	261			261			
A-B	53			53			
A-C	324			324			

#### 18:15 - 18:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	143	414	0.346	143	0.5	13.293	B
C-AB	71	731	0.098	71	0.2	5.461	A
C-A	261			261			
A-B	53			53			
A-C	324			324			

#### 18:30 - 18:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	143	414	0.346	143	0.5	13.295	B
C-AB	71	731	0.098	71	0.2	5.461	A
C-A	261			261			
A-B	53			53			
A-C	324			324			

#### 18:45 - 19:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	143	414	0.346	143	0.5	13.295	B
C-AB	71	731	0.098	71	0.2	5.463	A
C-A	261			261			
A-B	53			53			
A-C	324			324			

19:00 - 19:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	143	414	0.346	143	0.5	13.295	B
C-AB	71	731	0.098	71	0.2	5.463	A
C-A	261			261			
A-B	53			53			
A-C	324			324			

19:15 - 19:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	143	414	0.346	143	0.5	13.295	B
C-AB	71	731	0.098	71	0.2	5.461	A
C-A	261			261			
A-B	53			53			
A-C	324			324			

# JUNCTION 1 - DO SOMETHING 2026, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.99	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D5	DO SOMETHING 2026	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	420	100.000
B		✓	195	100.000
C		✓	360	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	69	351
	B	84	0	111
	C	281	79	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.47	16.43	0.9	C
C-AB	0.18	6.15	0.4	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	195	414	0.471	192	0.9	15.928	C
C-AB	130	717	0.181	129	0.3	6.116	A
C-A	230			230			
A-B	69			69			
A-C	351			351			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	195	414	0.471	195	0.9	16.414	C
C-AB	130	717	0.182	130	0.3	6.147	A
C-A	230			230			
A-B	69			69			
A-C	351			351			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	195	414	0.471	195	0.9	16.422	C
C-AB	130	717	0.182	130	0.4	6.146	A
C-A	230			230			
A-B	69			69			
A-C	351			351			

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	195	414	0.471	195	0.9	16.425	C
C-AB	130	717	0.182	130	0.4	6.148	A
C-A	230			230			
A-B	69			69			
A-C	351			351			

# JUNCTION 1 - DO SOMETHING 2026, PM

## Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.18	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D6	DO SOMETHING 2026	PM	FLAT	18:00	19:30	90	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	418	100.000
B		✓	166	100.000
C		✓	402	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	65	353
	B	87	0	79
	C	341	61	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.42	15.71	0.7	C
C-AB	0.15	5.57	0.3	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	166	395	0.420	163	0.7	15.335	C
C-AB	111	759	0.146	110	0.3	5.542	A
C-A	291			291			
A-B	65			65			
A-C	353			353			

#### 18:15 - 18:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	166	395	0.420	166	0.7	15.704	C
C-AB	111	759	0.147	111	0.3	5.566	A
C-A	291			291			
A-B	65			65			
A-C	353			353			

#### 18:30 - 18:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	166	395	0.420	166	0.7	15.710	C
C-AB	111	759	0.147	111	0.3	5.564	A
C-A	291			291			
A-B	65			65			
A-C	353			353			

#### 18:45 - 19:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	166	395	0.420	166	0.7	15.712	C
C-AB	111	759	0.147	111	0.3	5.566	A
C-A	291			291			
A-B	65			65			
A-C	353			353			



19:00 - 19:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	166	395	0.420	166	0.7	15.713	C
C-AB	111	759	0.147	111	0.3	5.566	A
C-A	291			291			
A-B	65			65			
A-C	353			353			

19:15 - 19:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	166	395	0.420	166	0.7	15.713	C
C-AB	111	759	0.147	111	0.3	5.566	A
C-A	291			291			
A-B	65			65			
A-C	353			353			

# JUNCTION 1 - SENSITIVITY ANALYSIS 2026, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.99	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D7	SENSITIVITY ANALYSIS 2026	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	420	100.000
B		✓	195	100.000
C		✓	360	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	69	351
	B	84	0	111
	C	281	79	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.47	16.43	0.9	C
C-AB	0.18	6.15	0.4	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	195	414	0.471	192	0.9	15.928	C
C-AB	130	717	0.181	129	0.3	6.116	A
C-A	230			230			
A-B	69			69			
A-C	351			351			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	195	414	0.471	195	0.9	16.414	C
C-AB	130	717	0.182	130	0.3	6.147	A
C-A	230			230			
A-B	69			69			
A-C	351			351			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	195	414	0.471	195	0.9	16.422	C
C-AB	130	717	0.182	130	0.4	6.146	A
C-A	230			230			
A-B	69			69			
A-C	351			351			

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	195	414	0.471	195	0.9	16.425	C
C-AB	130	717	0.182	130	0.4	6.148	A
C-A	230			230			
A-B	69			69			
A-C	351			351			

# JUNCTION 1 - SENSITIVITY ANALYSIS 2026, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.18	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D8	SENSITIVITY ANALYSIS 2026	PM	FLAT	18:00	19:30	90	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	418	100.000
B		✓	166	100.000
C		✓	402	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	65	353
	B	87	0	79
	C	341	61	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.42	15.71	0.7	C
C-AB	0.15	5.57	0.3	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	166	395	0.420	163	0.7	15.335	C
C-AB	111	759	0.146	110	0.3	5.542	A
C-A	291			291			
A-B	65			65			
A-C	353			353			

#### 18:15 - 18:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	166	395	0.420	166	0.7	15.704	C
C-AB	111	759	0.147	111	0.3	5.566	A
C-A	291			291			
A-B	65			65			
A-C	353			353			

#### 18:30 - 18:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	166	395	0.420	166	0.7	15.710	C
C-AB	111	759	0.147	111	0.3	5.564	A
C-A	291			291			
A-B	65			65			
A-C	353			353			

#### 18:45 - 19:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	166	395	0.420	166	0.7	15.712	C
C-AB	111	759	0.147	111	0.3	5.566	A
C-A	291			291			
A-B	65			65			
A-C	353			353			

19:00 - 19:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	166	395	0.420	166	0.7	15.713	C
C-AB	111	759	0.147	111	0.3	5.566	A
C-A	291			291			
A-B	65			65			
A-C	353			353			

19:15 - 19:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	166	395	0.420	166	0.7	15.713	C
C-AB	111	759	0.147	111	0.3	5.566	A
C-A	291			291			
A-B	65			65			
A-C	353			353			

# JUNCTION 1 - DO NOTHING 2031, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.72	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D9	DO NOTHING 2031	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	381	100.000
B		✓	182	100.000
C		✓	362	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	60	321
	B	80	0	102
	C	283	79	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.43	15.11	0.8	C
C-AB	0.18	6.04	0.3	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	182	420	0.433	179	0.7	14.738	B
C-AB	129	726	0.178	128	0.3	6.016	A
C-A	233			233			
A-B	60			60			
A-C	321			321			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	182	420	0.433	182	0.8	15.100	C
C-AB	130	726	0.179	130	0.3	6.044	A
C-A	232			232			
A-B	60			60			
A-C	321			321			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	182	420	0.433	182	0.8	15.106	C
C-AB	130	726	0.179	130	0.3	6.045	A
C-A	232			232			
A-B	60			60			
A-C	321			321			

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	182	420	0.433	182	0.8	15.106	C
C-AB	130	726	0.179	130	0.3	6.045	A
C-A	232			232			
A-B	60			60			
A-C	321			321			



# JUNCTION 1 - DO NOTHING 2031, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.81	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D10	DO NOTHING 2031	PM	FLAT	18:00	19:30	90	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	408	100.000
B		✓	155	100.000
C		✓	360	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	57	351
	B	79	0	76
	C	313	47	0

## Vehicle Mix

### Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.38	14.40	0.6	B
C-AB	0.11	5.46	0.2	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	155	405	0.383	153	0.6	14.129	B
C-AB	81	741	0.110	80	0.2	5.447	A
C-A	279			279			
A-B	57			57			
A-C	351			351			

#### 18:15 - 18:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	155	405	0.383	155	0.6	14.397	B
C-AB	82	742	0.110	82	0.2	5.460	A
C-A	278			278			
A-B	57			57			
A-C	351			351			

#### 18:30 - 18:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	155	405	0.383	155	0.6	14.399	B
C-AB	82	742	0.110	82	0.2	5.463	A
C-A	278			278			
A-B	57			57			
A-C	351			351			

#### 18:45 - 19:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	155	405	0.383	155	0.6	14.402	B
C-AB	82	742	0.110	82	0.2	5.461	A
C-A	278			278			
A-B	57			57			
A-C	351			351			

**19:00 - 19:15**

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	155	405	0.383	155	0.6	14.402	B
C-AB	82	742	0.110	82	0.2	5.463	A
C-A	278			278			
A-B	57			57			
A-C	351			351			

**19:15 - 19:30**

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	155	405	0.383	155	0.6	14.402	B
C-AB	82	742	0.110	82	0.2	5.463	A
C-A	278			278			
A-B	57			57			
A-C	351			351			

# JUNCTION 1 - DO SOMETHING 2031, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		4.50	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D11	DO SOMETHING 2031	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	448	100.000
B		✓	211	100.000
C		✓	389	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	73	375
	B	91	0	120
	C	303	86	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.52	18.61	1.1	C
C-AB	0.20	6.23	0.4	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	211	405	0.522	207	1.0	17.856	C
C-AB	148	727	0.203	146	0.4	6.196	A
C-A	241			241			
A-B	73			73			
A-C	375			375			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	211	404	0.522	211	1.1	18.592	C
C-AB	148	727	0.204	148	0.4	6.231	A
C-A	241			241			
A-B	73			73			
A-C	375			375			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	211	404	0.522	211	1.1	18.606	C
C-AB	148	727	0.204	148	0.4	6.235	A
C-A	241			241			
A-B	73			73			
A-C	375			375			

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	211	404	0.522	211	1.1	18.611	C
C-AB	148	727	0.204	148	0.4	6.235	A
C-A	241			241			
A-B	73			73			
A-C	375			375			

# JUNCTION 1 - DO SOMETHING 2031, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.48	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D12	DO SOMETHING 2031	PM	FLAT	18:00	19:30	90	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	449	100.000
B		✓	178	100.000
C		✓	429	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	69	380
	B	93	0	85
	C	364	65	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.46	17.38	0.9	C
C-AB	0.16	5.59	0.3	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	178	385	0.462	175	0.8	16.838	C
C-AB	123	769	0.160	122	0.3	5.565	A
C-A	306			306			
A-B	69			69			
A-C	380			380			

#### 18:15 - 18:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	178	385	0.462	178	0.8	17.359	C
C-AB	124	769	0.161	124	0.3	5.590	A
C-A	305			305			
A-B	69			69			
A-C	380			380			

#### 18:30 - 18:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	178	385	0.462	178	0.8	17.370	C
C-AB	124	769	0.161	124	0.3	5.588	A
C-A	305			305			
A-B	69			69			
A-C	380			380			

#### 18:45 - 19:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	178	385	0.462	178	0.9	17.373	C
C-AB	124	769	0.161	124	0.3	5.590	A
C-A	305			305			
A-B	69			69			
A-C	380			380			

19:00 - 19:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	178	385	0.462	178	0.9	17.375	C
C-AB	124	769	0.161	124	0.3	5.588	A
C-A	305			305			
A-B	69			69			
A-C	380			380			

19:15 - 19:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	178	385	0.462	178	0.9	17.375	C
C-AB	124	769	0.161	124	0.3	5.588	A
C-A	305			305			
A-B	69			69			
A-C	380			380			



# JUNCTION 1 - SENSITIVITY ANALYSIS 2031, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		4.55	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D13	SENSITIVITY ANALYSIS 2031	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	455	100.000
B		✓	212	100.000
C		✓	420	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	73	382
	B	91	0	121
	C	329	91	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.53	19.20	1.1	C
C-AB	0.22	6.22	0.5	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	212	400	0.530	208	1.1	18.367	C
C-AB	163	743	0.220	161	0.5	6.182	A
C-A	257			257			
A-B	73			73			
A-C	382			382			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	212	399	0.531	212	1.1	19.177	C
C-AB	164	744	0.221	164	0.5	6.222	A
C-A	256			256			
A-B	73			73			
A-C	382			382			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	212	399	0.531	212	1.1	19.192	C
C-AB	164	744	0.221	164	0.5	6.223	A
C-A	256			256			
A-B	73			73			
A-C	382			382			

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	212	399	0.531	212	1.1	19.199	C
C-AB	164	744	0.221	164	0.5	6.223	A
C-A	256			256			
A-B	73			73			
A-C	382			382			

# JUNCTION 1 - SENSITIVITY ANALYSIS 2031, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.62	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D14	SENSITIVITY ANALYSIS 2031	PM	FLAT	18:00	19:30	90	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	475	100.000
B		✓	184	100.000
C		✓	441	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	69	406
	B	93	0	91
	C	374	67	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.48	18.32	0.9	C
C-AB	0.17	5.63	0.4	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	184	381	0.483	180	0.9	17.679	C
C-AB	130	771	0.169	129	0.4	5.602	A
C-A	311			311			
A-B	69			69			
A-C	406			406			

#### 18:15 - 18:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	184	380	0.484	184	0.9	18.304	C
C-AB	131	771	0.170	131	0.4	5.631	A
C-A	310			310			
A-B	69			69			
A-C	406			406			

#### 18:30 - 18:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	184	380	0.484	184	0.9	18.314	C
C-AB	131	771	0.170	131	0.4	5.632	A
C-A	310			310			
A-B	69			69			
A-C	406			406			

#### 18:45 - 19:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	184	380	0.484	184	0.9	18.319	C
C-AB	131	771	0.170	131	0.4	5.632	A
C-A	310			310			
A-B	69			69			
A-C	406			406			

19:00 - 19:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	184	380	0.484	184	0.9	18.321	C
C-AB	131	771	0.170	131	0.4	5.630	A
C-A	310			310			
A-B	69			69			
A-C	406			406			

19:15 - 19:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	184	380	0.484	184	0.9	18.323	C
C-AB	131	771	0.170	131	0.4	5.630	A
C-A	310			310			
A-B	69			69			
A-C	406			406			

# JUNCTION 1 - DO NOTHING 2041, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.88	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D15	DO NOTHING 2041	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	393	100.000
B		✓	188	100.000
C		✓	374	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	61	332
	B	83	0	105
	C	292	82	0

## Vehicle Mix

### Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.45	15.81	0.8	C
C-AB	0.19	6.08	0.4	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	188	416	0.452	185	0.8	15.377	C
C-AB	137	730	0.187	135	0.4	6.051	A
C-A	237			237			
A-B	61			61			
A-C	332			332			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	188	416	0.452	188	0.8	15.800	C
C-AB	137	730	0.188	137	0.4	6.082	A
C-A	237			237			
A-B	61			61			
A-C	332			332			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	188	416	0.452	188	0.8	15.806	C
C-AB	137	730	0.188	137	0.4	6.083	A
C-A	237			237			
A-B	61			61			
A-C	332			332			

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	188	416	0.452	188	0.8	15.809	C
C-AB	137	730	0.188	137	0.4	6.083	A
C-A	237			237			
A-B	61			61			
A-C	332			332			

# JUNCTION 1 - DO NOTHING 2041, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.92	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D16	DO NOTHING 2041	PM	FLAT	18:00	19:30	90	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	422	100.000
B		✓	160	100.000
C		✓	372	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	59	363
	B	82	0	78
	C	323	49	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0



## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.40	15.00	0.7	C
C-AB	0.12	5.47	0.2	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	160	400	0.400	157	0.6	14.685	B
C-AB	86	746	0.116	86	0.2	5.449	A
C-A	286			286			
A-B	59			59			
A-C	363			363			

#### 18:15 - 18:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	160	400	0.400	160	0.7	14.996	B
C-AB	87	746	0.116	87	0.2	5.471	A
C-A	285			285			
A-B	59			59			
A-C	363			363			

#### 18:30 - 18:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	160	400	0.400	160	0.7	14.999	B
C-AB	87	746	0.116	87	0.2	5.469	A
C-A	285			285			
A-B	59			59			
A-C	363			363			

#### 18:45 - 19:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	160	400	0.400	160	0.7	15.002	C
C-AB	87	746	0.116	87	0.2	5.471	A
C-A	285			285			
A-B	59			59			
A-C	363			363			

19:00 - 19:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	160	400	0.400	160	0.7	15.002	C
C-AB	87	746	0.116	87	0.2	5.469	A
C-A	285			285			
A-B	59			59			
A-C	363			363			

19:15 - 19:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	160	400	0.400	160	0.7	15.002	C
C-AB	87	746	0.116	87	0.2	5.469	A
C-A	285			285			
A-B	59			59			
A-C	363			363			

# JUNCTION 1 - DO SOMETHING 2041, AM

## Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		4.68	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D17	DO SOMETHING 2041	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	461	100.000
B		✓	216	100.000
C		✓	401	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	75	386
	B	93	0	123
	C	313	88	0

## Vehicle Mix

### Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.54	19.53	1.2	C
C-AB	0.21	6.26	0.4	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	216	400	0.539	212	1.1	18.645	C
C-AB	154	731	0.211	152	0.4	6.215	A
C-A	247			247			
A-B	75			75			
A-C	386			386			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	216	400	0.540	216	1.1	19.501	C
C-AB	155	731	0.211	155	0.4	6.256	A
C-A	246			246			
A-B	75			75			
A-C	386			386			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	216	400	0.540	216	1.2	19.521	C
C-AB	155	731	0.211	155	0.4	6.254	A
C-A	246			246			
A-B	75			75			
A-C	386			386			

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	216	400	0.540	216	1.2	19.528	C
C-AB	155	731	0.211	155	0.4	6.257	A
C-A	246			246			
A-B	75			75			
A-C	386			386			

# JUNCTION 1 - DO SOMETHING 2041, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.65	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D18	DO SOMETHING 2041	PM	FLAT	18:00	19:30	90	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	463	100.000
B		✓	184	100.000
C		✓	441	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	71	392
	B	96	0	88
	C	374	67	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.48	18.30	0.9	C
C-AB	0.17	5.61	0.4	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	184	381	0.483	180	0.9	17.659	C
C-AB	130	773	0.168	128	0.4	5.579	A
C-A	311			311			
A-B	71			71			
A-C	392			392			

#### 18:15 - 18:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	184	381	0.483	184	0.9	18.281	C
C-AB	130	774	0.169	130	0.4	5.608	A
C-A	311			311			
A-B	71			71			
A-C	392			392			

#### 18:30 - 18:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	184	381	0.483	184	0.9	18.292	C
C-AB	130	774	0.169	130	0.4	5.606	A
C-A	311			311			
A-B	71			71			
A-C	392			392			

#### 18:45 - 19:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	184	381	0.483	184	0.9	18.298	C
C-AB	130	774	0.169	130	0.4	5.606	A
C-A	311			311			
A-B	71			71			
A-C	392			392			

19:00 - 19:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	184	381	0.483	184	0.9	18.299	C
C-AB	130	774	0.169	130	0.4	5.609	A
C-A	311			311			
A-B	71			71			
A-C	392			392			

19:15 - 19:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	184	381	0.483	184	0.9	18.301	C
C-AB	130	774	0.169	130	0.4	5.609	A
C-A	311			311			
A-B	71			71			
A-C	392			392			

# JUNCTION 1 - SENSITIVITY ANALYSIS 2041, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		4.78	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D19	SENSITIVITY ANALYSIS 2041	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	467	100.000
B		✓	218	100.000
C		✓	432	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	75	392
	B	93	0	125
	C	338	94	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0



## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.55	20.23	1.2	C
C-AB	0.23	6.27	0.5	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	218	396	0.550	213	1.2	19.248	C
C-AB	172	747	0.230	170	0.5	6.227	A
C-A	260			260			
A-B	75			75			
A-C	392			392			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	218	396	0.551	218	1.2	20.202	C
C-AB	173	748	0.231	173	0.5	6.271	A
C-A	259			259			
A-B	75			75			
A-C	392			392			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	218	396	0.551	218	1.2	20.226	C
C-AB	173	748	0.231	173	0.5	6.275	A
C-A	259			259			
A-B	75			75			
A-C	392			392			

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	218	396	0.551	218	1.2	20.234	C
C-AB	173	748	0.231	173	0.5	6.275	A
C-A	259			259			
A-B	75			75			
A-C	392			392			

# JUNCTION 1 - SENSITIVITY ANALYSIS 2041, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.80	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D20	SENSITIVITY ANALYSIS 2041	PM	FLAT	18:00	19:30	90	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	488	100.000
B		✓	189	100.000
C		✓	453	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	71	417
	B	96	0	93
	C	384	69	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.50	19.29	1.0	C
C-AB	0.18	5.65	0.4	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	189	376	0.503	185	1.0	18.525	C
C-AB	137	776	0.176	135	0.4	5.620	A
C-A	316			316			
A-B	71			71			
A-C	417			417			

#### 18:15 - 18:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	189	376	0.503	189	1.0	19.260	C
C-AB	137	776	0.177	137	0.4	5.648	A
C-A	316			316			
A-B	71			71			
A-C	417			417			

#### 18:30 - 18:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	189	376	0.503	189	1.0	19.277	C
C-AB	137	776	0.177	137	0.4	5.648	A
C-A	316			316			
A-B	71			71			
A-C	417			417			

#### 18:45 - 19:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	189	376	0.503	189	1.0	19.283	C
C-AB	137	776	0.177	137	0.4	5.651	A
C-A	316			316			
A-B	71			71			
A-C	417			417			

19:00 - 19:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	189	376	0.503	189	1.0	19.285	C
C-AB	137	776	0.177	137	0.4	5.651	A
C-A	316			316			
A-B	71			71			
A-C	417			417			

19:15 - 19:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	189	376	0.503	189	1.0	19.287	C
C-AB	137	776	0.177	137	0.4	5.649	A
C-A	316			316			
A-B	71			71			
A-C	417			417			

<h1>Junctions 9</h1>
<h2>PICADY 9 - Priority Intersection Module</h2>
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**Filename:** Junction 3.j9

**Path:** M:\Projects\18\18-091- Broomfield LAP Malahide\Design\Civil\Traffic\MODELLING SEPT 2021\Junction 3

**Report generation date:** 08/04/2022 11:21:03

- 
- »DO NOTHING - Baseline 2022, AM
  - »DO NOTHING - Baseline 2022, PM
  - »DO NOTHING - DO NOTHING 2026, AM
  - »DO NOTHING - DO NOTHING 2026, PM
  - »DO NOTHING - DO SOMETHING 2026, AM
  - »DO NOTHING - DO SOMETHING 2026, PM
  - »DO NOTHING - SENSITIVITY ANALYSIS 2026, AM
  - »DO NOTHING - SENSITIVITY ANALYSIS 2026, PM
  - »DO NOTHING - DO NOTHING 2031, AM
  - »DO NOTHING - DO NOTHING 2031, PM
  - »DO NOTHING - DO SOMETHING 2031, AM
  - »DO NOTHING - DO SOMETHING 2031, PM
  - »DO NOTHING - SENSITIVITY ANALYSIS 2031, AM
  - »DO NOTHING - SENSITIVITY ANALYSIS 2031, PM
  - »DO NOTHING - DO NOTHING 2041, AM
  - »DO NOTHING - DO NOTHING 2041, PM
  - »DO NOTHING - DO SOMETHING 2041, AM
  - »DO NOTHING - DO SOMETHING 2041, PM
  - »DO NOTHING - SENSITIVITY ANALYSIS 2041, AM
  - »DO NOTHING - SENSITIVITY ANALYSIS 2041, PM

### Summary of junction performance

	AM		PM	
	Queue (PCU)	RFC	Queue (PCU)	RFC
<b>DO NOTHING - Baseline 2022</b>				
Stream B-AC	0.1	0.06	0.1	0.06
Stream C-B	0.0	0.02	0.0	0.02
<b>DO NOTHING - DO NOTHING 2026</b>				
Stream B-AC	0.2	0.19	0.2	0.13
Stream C-B	0.1	0.05	0.1	0.09
<b>DO NOTHING - DO SOMETHING 2026</b>				
Stream B-AC	0.7	0.42	0.4	0.27
Stream C-B	0.1	0.09	0.3	0.20
<b>DO NOTHING - SENSITIVITY ANALYSIS 2026</b>				
Stream B-AC	0.7	0.42	0.4	0.27
Stream C-B	0.1	0.09	0.3	0.20
<b>DO NOTHING - DO NOTHING 2031</b>				
Stream B-AC	0.2	0.20	0.2	0.15
Stream C-B	0.1	0.05	0.1	0.09
<b>DO NOTHING - DO SOMETHING 2031</b>				
Stream B-AC	0.7	0.43	0.4	0.28
Stream C-B	0.1	0.10	0.3	0.21
<b>DO NOTHING - SENSITIVITY ANALYSIS 2031</b>				
Stream B-AC	0.8	0.43	0.4	0.28
Stream C-B	0.1	0.10	0.3	0.21
<b>DO NOTHING - DO NOTHING 2041</b>				
Stream B-AC	0.2	0.20	0.2	0.15
Stream C-B	0.1	0.05	0.1	0.09
<b>DO NOTHING - DO SOMETHING 2041</b>				
Stream B-AC	0.8	0.44	0.4	0.29
Stream C-B	0.1	0.10	0.3	0.21
<b>DO NOTHING - SENSITIVITY ANALYSIS 2041</b>				
Stream B-AC	0.8	0.44	0.4	0.29
Stream C-B	0.1	0.10	0.3	0.21

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

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

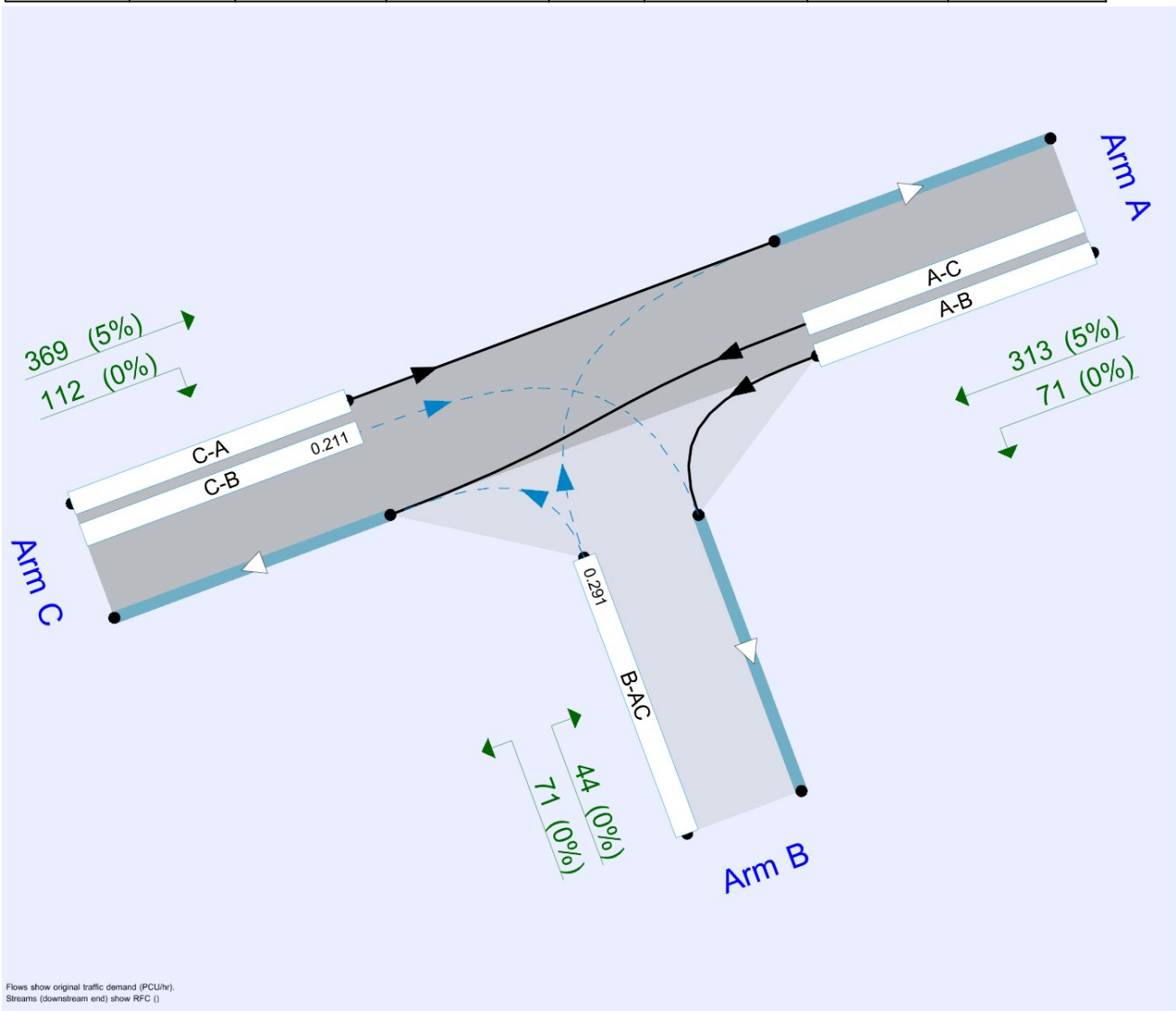
### File summary

#### File Description

Title	
Location	
Site number	
Date	29/01/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAIN\byrne
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



The junction diagram reflects the last run of Junctions.

**Analysis Options**

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

### Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	Baseline 2022	AM	FLAT	08:00	09:00	60	15
D2	Baseline 2022	PM	FLAT	18:00	19:00	60	15
D3	DO NOTHING 2026	AM	FLAT	08:00	09:00	60	15
D4	DO NOTHING 2026	PM	FLAT	18:00	19:00	60	15
D5	DO SOMETHING 2026	AM	FLAT	08:00	09:00	60	15
D6	DO SOMETHING 2026	PM	FLAT	18:00	19:00	60	15
D7	SENSITIVITY ANALYSIS 2026	AM	FLAT	08:00	09:00	60	15
D8	SENSITIVITY ANALYSIS 2026	PM	FLAT	18:00	19:00	60	15
D9	DO NOTHING 2031	AM	FLAT	08:00	09:00	60	15
D10	DO NOTHING 2031	PM	FLAT	18:00	19:00	60	15
D11	DO SOMETHING 2031	AM	FLAT	08:00	09:00	60	15
D12	DO SOMETHING 2031	PM	FLAT	18:00	19:00	60	15
D13	SENSITIVITY ANALYSIS 2031	AM	FLAT	08:00	09:00	60	15
D14	SENSITIVITY ANALYSIS 2031	PM	FLAT	18:00	19:00	60	15
D15	DO NOTHING 2041	AM	FLAT	08:00	09:00	60	15
D16	DO NOTHING 2041	PM	FLAT	18:00	19:00	60	15
D17	DO SOMETHING 2041	AM	FLAT	08:00	09:00	60	15
D18	DO SOMETHING 2041	PM	FLAT	18:00	19:00	60	15
D19	SENSITIVITY ANALYSIS 2041	AM	FLAT	08:00	09:00	60	15
D20	SENSITIVITY ANALYSIS 2041	PM	FLAT	18:00	19:00	60	15

### Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	DO NOTHING	100.000



# DO NOTHING - Baseline 2022, AM

## Data Errors and Warnings

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

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.55	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

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

### Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	4.50		✓	2.20	100.0		-

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	2.50	0	0

## 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	454	0.088	0.223	0.140	0.318
B-C	593	0.097	0.245	-	-
C-B	632	0.261	0.261	-	-

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

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

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

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	Baseline 2022	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	237	100.000
B		✓	26	100.000
C		✓	279	100.000

## Origin-Destination Data

### Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	7	230
	B	10	0	16
	C	267	12	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 LOS
B-AC	0.06	8.46	0.1	A
C-A				
C-B	0.02	6.45	0.0	A
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	452	0.058	26	0.1	8.449	A
C-A	267			267			
C-B	12	570	0.021	12	0.0	6.450	A
A-B	7			7			
A-C	230			230			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	452	0.058	26	0.1	8.458	A
C-A	267			267			
C-B	12	570	0.021	12	0.0	6.450	A
A-B	7			7			
A-C	230			230			

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	452	0.058	26	0.1	8.458	A
C-A	267			267			
C-B	12	570	0.021	12	0.0	6.450	A
A-B	7			7			
A-C	230			230			

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	452	0.058	26	0.1	8.458	A
C-A	267			267			
C-B	12	570	0.021	12	0.0	6.450	A
A-B	7			7			
A-C	230			230			

# DO NOTHING - Baseline 2022, PM

## Data Errors and Warnings

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

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.47	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	Baseline 2022	PM	FLAT	18:00	19:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	250	100.000
B		✓	24	100.000
C		✓	305	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	16	234
	B	12	0	12
	C	296	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 LOS
B-AC	0.06	8.93	0.1	A
C-A				
C-B	0.02	6.45	0.0	A
A-B				
A-C				

### Main Results for each time segment

#### 18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	427	0.056	24	0.1	8.919	A
C-A	296			296			
C-B	9	567	0.016	9	0.0	6.454	A
A-B	16			16			
A-C	234			234			

#### 18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	427	0.056	24	0.1	8.927	A
C-A	296			296			
C-B	9	567	0.016	9	0.0	6.454	A
A-B	16			16			
A-C	234			234			

#### 18:30 - 18:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	427	0.056	24	0.1	8.927	A
C-A	296			296			
C-B	9	567	0.016	9	0.0	6.454	A
A-B	16			16			
A-C	234			234			

#### 18:45 - 19:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	427	0.056	24	0.1	8.927	A
C-A	296			296			
C-B	9	567	0.016	9	0.0	6.454	A
A-B	16			16			
A-C	234			234			

# DO NOTHING - DO NOTHING 2026, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.56	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D3	DO NOTHING 2026	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	259	100.000
B		✓	85	100.000
C		✓	313	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	14	245
	B	29	0	56
	C	285	28	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.19	9.83	0.2	A
C-A				
C-B	0.05	6.71	0.1	A
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	85	451	0.188	84	0.2	9.782	A
C-A	285			285			
C-B	28	564	0.050	28	0.1	6.710	A
A-B	14			14			
A-C	245			245			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	85	451	0.188	85	0.2	9.831	A
C-A	285			285			
C-B	28	564	0.050	28	0.1	6.711	A
A-B	14			14			
A-C	245			245			

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	85	451	0.188	85	0.2	9.831	A
C-A	285			285			
C-B	28	564	0.050	28	0.1	6.711	A
A-B	14			14			
A-C	245			245			

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	85	451	0.188	85	0.2	9.831	A
C-A	285			285			
C-B	28	564	0.050	28	0.1	6.711	A
A-B	14			14			
A-C	245			245			

# DO NOTHING - DO NOTHING 2026, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.29	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D4	DO NOTHING 2026	PM	FLAT	18:00	19:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	283	100.000
B		✓	58	100.000
C		✓	364	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	34	249
	B	23	0	35
	C	315	49	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0



## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.13	9.66	0.2	A
C-A				
C-B	0.09	7.07	0.1	A
A-B				
A-C				

### Main Results for each time segment

#### 18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	58	431	0.135	57	0.2	9.632	A
C-A	315			315			
C-B	49	558	0.088	49	0.1	7.062	A
A-B	34			34			
A-C	249			249			

#### 18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	58	430	0.135	58	0.2	9.665	A
C-A	315			315			
C-B	49	558	0.088	49	0.1	7.070	A
A-B	34			34			
A-C	249			249			

#### 18:30 - 18:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	58	430	0.135	58	0.2	9.665	A
C-A	315			315			
C-B	49	558	0.088	49	0.1	7.070	A
A-B	34			34			
A-C	249			249			

#### 18:45 - 19:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	58	430	0.135	58	0.2	9.665	A
C-A	315			315			
C-B	49	558	0.088	49	0.1	7.070	A
A-B	34			34			
A-C	249			249			

# DO NOTHING - DO SOMETHING 2026, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.67	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D5	DO SOMETHING 2026	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	275	100.000
B		✓	185	100.000
C		✓	345	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	28	247
	B	64	0	121
	C	292	53	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.42	13.95	0.7	B
C-A				
C-B	0.09	7.10	0.1	A
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	185	443	0.417	182	0.7	13.656	B
C-A	292			292			
C-B	53	560	0.095	53	0.1	7.086	A
A-B	28			28			
A-C	247			247			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	185	443	0.418	185	0.7	13.941	B
C-A	292			292			
C-B	53	560	0.095	53	0.1	7.097	A
A-B	28			28			
A-C	247			247			

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	185	443	0.418	185	0.7	13.943	B
C-A	292			292			
C-B	53	560	0.095	53	0.1	7.097	A
A-B	28			28			
A-C	247			247			

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	185	443	0.418	185	0.7	13.946	B
C-A	292			292			
C-B	53	560	0.095	53	0.1	7.097	A
A-B	28			28			
A-C	247			247			

# DO NOTHING - DO SOMETHING 2026, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.58	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D6	DO SOMETHING 2026	PM	FLAT	18:00	19:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	325	100.000
B		✓	112	100.000
C		✓	430	100.000

## Origin-Destination Data

### Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	69	256
	B	42	0	70
	C	319	111	0

## Vehicle Mix

### Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.27	11.83	0.4	B
C-A				
C-B	0.20	8.25	0.3	A
A-B				
A-C				

### Main Results for each time segment

#### 18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	112	417	0.269	111	0.4	11.709	B
C-A	319			319			
C-B	111	547	0.203	110	0.3	8.217	A
A-B	69			69			
A-C	256			256			

#### 18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	112	416	0.269	112	0.4	11.826	B
C-A	319			319			
C-B	111	547	0.203	111	0.3	8.254	A
A-B	69			69			
A-C	256			256			

#### 18:30 - 18:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	112	416	0.269	112	0.4	11.826	B
C-A	319			319			
C-B	111	547	0.203	111	0.3	8.254	A
A-B	69			69			
A-C	256			256			

#### 18:45 - 19:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	112	416	0.269	112	0.4	11.826	B
C-A	319			319			
C-B	111	547	0.203	111	0.3	8.254	A
A-B	69			69			
A-C	256			256			

# DO NOTHING - SENSITIVITY ANALYSIS 2026, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.67	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D7	SENSITIVITY ANALYSIS 2026	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	275	100.000
B		✓	185	100.000
C		✓	345	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	28	247
	B	64	0	121
	C	292	53	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.42	13.95	0.7	B
C-A				
C-B	0.09	7.10	0.1	A
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	185	443	0.417	182	0.7	13.656	B
C-A	292			292			
C-B	53	560	0.095	53	0.1	7.086	A
A-B	28			28			
A-C	247			247			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	185	443	0.418	185	0.7	13.941	B
C-A	292			292			
C-B	53	560	0.095	53	0.1	7.097	A
A-B	28			28			
A-C	247			247			

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	185	443	0.418	185	0.7	13.943	B
C-A	292			292			
C-B	53	560	0.095	53	0.1	7.097	A
A-B	28			28			
A-C	247			247			

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	185	443	0.418	185	0.7	13.946	B
C-A	292			292			
C-B	53	560	0.095	53	0.1	7.097	A
A-B	28			28			
A-C	247			247			

# DO NOTHING - SENSITIVITY ANALYSIS 2026, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.58	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D8	SENSITIVITY ANALYSIS 2026	PM	FLAT	18:00	19:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	325	100.000
B		✓	112	100.000
C		✓	430	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	69	256
	B	42	0	70
	C	319	111	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0



## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.27	11.83	0.4	B
C-A				
C-B	0.20	8.25	0.3	A
A-B				
A-C				

### Main Results for each time segment

#### 18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	112	417	0.269	111	0.4	11.709	B
C-A	319			319			
C-B	111	547	0.203	110	0.3	8.217	A
A-B	69			69			
A-C	256			256			

#### 18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	112	416	0.269	112	0.4	11.826	B
C-A	319			319			
C-B	111	547	0.203	111	0.3	8.254	A
A-B	69			69			
A-C	256			256			

#### 18:30 - 18:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	112	416	0.269	112	0.4	11.826	B
C-A	319			319			
C-B	111	547	0.203	111	0.3	8.254	A
A-B	69			69			
A-C	256			256			

#### 18:45 - 19:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	112	416	0.269	112	0.4	11.826	B
C-A	319			319			
C-B	111	547	0.203	111	0.3	8.254	A
A-B	69			69			
A-C	256			256			

# DO NOTHING - DO NOTHING 2031, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.54	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D9	DO NOTHING 2031	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	282	100.000
B		✓	88	100.000
C		✓	341	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	15	267
	B	30	0	58
	C	311	30	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.20	10.13	0.2	B
C-A				
C-B	0.05	6.81	0.1	A
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	88	443	0.199	87	0.2	10.077	B
C-A	311			311			
C-B	30	558	0.054	30	0.1	6.807	A
A-B	15			15			
A-C	267			267			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	88	443	0.199	88	0.2	10.131	B
C-A	311			311			
C-B	30	558	0.054	30	0.1	6.813	A
A-B	15			15			
A-C	267			267			

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	88	443	0.199	88	0.2	10.131	B
C-A	311			311			
C-B	30	558	0.054	30	0.1	6.813	A
A-B	15			15			
A-C	267			267			

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	88	443	0.199	88	0.2	10.131	B
C-A	311			311			
C-B	30	558	0.054	30	0.1	6.813	A
A-B	15			15			
A-C	267			267			

# DO NOTHING - DO NOTHING 2031, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.28	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D10	DO NOTHING 2031	PM	FLAT	18:00	19:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	308	100.000
B		✓	62	100.000
C		✓	394	100.000

## Origin-Destination Data

### Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	36	272
	B	24	0	38
	C	344	50	0

## Vehicle Mix

### Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.15	9.95	0.2	A
C-A				
C-B	0.09	7.18	0.1	A
A-B				
A-C				

### Main Results for each time segment

#### 18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	62	424	0.146	61	0.2	9.914	A
C-A	344			344			
C-B	50	552	0.091	50	0.1	7.172	A
A-B	36			36			
A-C	272			272			

#### 18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	62	424	0.146	62	0.2	9.951	A
C-A	344			344			
C-B	50	552	0.091	50	0.1	7.176	A
A-B	36			36			
A-C	272			272			

#### 18:30 - 18:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	62	424	0.146	62	0.2	9.951	A
C-A	344			344			
C-B	50	552	0.091	50	0.1	7.176	A
A-B	36			36			
A-C	272			272			

#### 18:45 - 19:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	62	424	0.146	62	0.2	9.951	A
C-A	344			344			
C-B	50	552	0.091	50	0.1	7.176	A
A-B	36			36			
A-C	272			272			

# DO NOTHING - DO SOMETHING 2031, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.63	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D11	DO SOMETHING 2031	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	297	100.000
B		✓	187	100.000
C		✓	371	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	28	269
	B	65	0	122
	C	317	54	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.43	14.51	0.7	B
C-A				
C-B	0.10	7.19	0.1	A
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	187	435	0.430	184	0.7	14.178	B
C-A	317			317			
C-B	54	554	0.097	54	0.1	7.181	A
A-B	28			28			
A-C	269			269			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	187	435	0.430	187	0.7	14.500	B
C-A	317			317			
C-B	54	554	0.097	54	0.1	7.193	A
A-B	28			28			
A-C	269			269			

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	187	435	0.430	187	0.7	14.506	B
C-A	317			317			
C-B	54	554	0.097	54	0.1	7.193	A
A-B	28			28			
A-C	269			269			

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	187	435	0.430	187	0.7	14.506	B
C-A	317			317			
C-B	54	554	0.097	54	0.1	7.193	A
A-B	28			28			
A-C	269			269			

# DO NOTHING - DO SOMETHING 2031, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.54	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D12	DO SOMETHING 2031	PM	FLAT	18:00	19:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	348	100.000
B		✓	114	100.000
C		✓	459	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	70	278
	B	43	0	71
	C	347	112	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0



## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.28	12.27	0.4	B
C-A				
C-B	0.21	8.39	0.3	A
A-B				
A-C				

### Main Results for each time segment

#### 18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	114	408	0.280	112	0.4	12.135	B
C-A	347			347			
C-B	112	541	0.207	111	0.3	8.349	A
A-B	70			70			
A-C	278			278			

#### 18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	114	407	0.280	114	0.4	12.264	B
C-A	347			347			
C-B	112	541	0.207	112	0.3	8.389	A
A-B	70			70			
A-C	278			278			

#### 18:30 - 18:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	114	407	0.280	114	0.4	12.266	B
C-A	347			347			
C-B	112	541	0.207	112	0.3	8.389	A
A-B	70			70			
A-C	278			278			

#### 18:45 - 19:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	114	407	0.280	114	0.4	12.266	B
C-A	347			347			
C-B	112	541	0.207	112	0.3	8.389	A
A-B	70			70			
A-C	278			278			

# DO NOTHING - SENSITIVITY ANALYSIS 2031, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.54	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D13	SENSITIVITY ANALYSIS 2031	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	304	100.000
B		✓	187	100.000
C		✓	397	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	28	276
	B	65	0	122
	C	343	54	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.43	14.74	0.8	B
C-A				
C-B	0.10	7.22	0.1	A
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	187	431	0.434	184	0.7	14.398	B
C-A	343			343			
C-B	54	553	0.098	54	0.1	7.208	A
A-B	28			28			
A-C	276			276			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	187	431	0.434	187	0.8	14.734	B
C-A	343			343			
C-B	54	553	0.098	54	0.1	7.219	A
A-B	28			28			
A-C	276			276			

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	187	431	0.434	187	0.8	14.739	B
C-A	343			343			
C-B	54	553	0.098	54	0.1	7.219	A
A-B	28			28			
A-C	276			276			

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	187	431	0.434	187	0.8	14.739	B
C-A	343			343			
C-B	54	553	0.098	54	0.1	7.219	A
A-B	28			28			
A-C	276			276			

# DO NOTHING - SENSITIVITY ANALYSIS 2031, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.50	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D14	SENSITIVITY ANALYSIS 2031	PM	FLAT	18:00	19:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	374	100.000
B		✓	114	100.000
C		✓	469	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	70	304
	B	43	0	71
	C	357	112	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.28	12.58	0.4	B
C-A				
C-B	0.21	8.52	0.3	A
A-B				
A-C				

### Main Results for each time segment

#### 18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	114	400	0.285	112	0.4	12.442	B
C-A	357			357			
C-B	112	534	0.210	111	0.3	8.483	A
A-B	70			70			
A-C	304			304			

#### 18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	114	400	0.285	114	0.4	12.582	B
C-A	357			357			
C-B	112	534	0.210	112	0.3	8.523	A
A-B	70			70			
A-C	304			304			

#### 18:30 - 18:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	114	400	0.285	114	0.4	12.585	B
C-A	357			357			
C-B	112	534	0.210	112	0.3	8.523	A
A-B	70			70			
A-C	304			304			

#### 18:45 - 19:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	114	400	0.285	114	0.4	12.585	B
C-A	357			357			
C-B	112	534	0.210	112	0.3	8.523	A
A-B	70			70			
A-C	304			304			

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## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.51	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D15	DO NOTHING 2041	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	291	100.000
B		✓	88	100.000
C		✓	351	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	15	276
	B	30	0	58
	C	321	30	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.20	10.22	0.2	B
C-A				
C-B	0.05	6.84	0.1	A
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	88	440	0.200	87	0.2	10.158	B
C-A	321			321			
C-B	30	556	0.054	30	0.1	6.838	A
A-B	15			15			
A-C	276			276			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	88	440	0.200	88	0.2	10.218	B
C-A	321			321			
C-B	30	556	0.054	30	0.1	6.843	A
A-B	15			15			
A-C	276			276			

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	88	440	0.200	88	0.2	10.218	B
C-A	321			321			
C-B	30	556	0.054	30	0.1	6.843	A
A-B	15			15			
A-C	276			276			

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	88	440	0.200	88	0.2	10.218	B
C-A	321			321			
C-B	30	556	0.054	30	0.1	6.843	A
A-B	15			15			
A-C	276			276			

# DO NOTHING - DO NOTHING 2041, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.27	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D16	DO NOTHING 2041	PM	FLAT	18:00	19:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	318	100.000
B		✓	62	100.000
C		✓	407	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	37	281
	B	25	0	37
	C	356	51	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0



## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.15	10.15	0.2	B
C-A				
C-B	0.09	7.23	0.1	A
A-B				
A-C				

### Main Results for each time segment

#### 18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	62	417	0.149	61	0.2	10.106	B
C-A	356			356			
C-B	51	549	0.093	51	0.1	7.217	A
A-B	37			37			
A-C	281			281			

#### 18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	62	417	0.149	62	0.2	10.146	B
C-A	356			356			
C-B	51	549	0.093	51	0.1	7.228	A
A-B	37			37			
A-C	281			281			

#### 18:30 - 18:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	62	417	0.149	62	0.2	10.146	B
C-A	356			356			
C-B	51	549	0.093	51	0.1	7.228	A
A-B	37			37			
A-C	281			281			

#### 18:45 - 19:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	62	417	0.149	62	0.2	10.146	B
C-A	356			356			
C-B	51	549	0.093	51	0.1	7.228	A
A-B	37			37			
A-C	281			281			

# DO NOTHING - DO SOMETHING 2041, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.65	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D17	DO SOMETHING 2041	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	308	100.000
B		✓	189	100.000
C		✓	383	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	29	279
	B	66	0	123
	C	328	55	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.44	14.87	0.8	B
C-A				
C-B	0.10	7.25	0.1	A
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	189	431	0.438	186	0.8	14.513	B
C-A	328			328			
C-B	55	552	0.100	55	0.1	7.237	A
A-B	29			29			
A-C	279			279			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	189	431	0.438	189	0.8	14.861	B
C-A	328			328			
C-B	55	552	0.100	55	0.1	7.249	A
A-B	29			29			
A-C	279			279			

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	189	431	0.438	189	0.8	14.867	B
C-A	328			328			
C-B	55	552	0.100	55	0.1	7.249	A
A-B	29			29			
A-C	279			279			

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	189	431	0.438	189	0.8	14.867	B
C-A	328			328			
C-B	55	552	0.100	55	0.1	7.249	A
A-B	29			29			
A-C	279			279			

# DO NOTHING - DO SOMETHING 2041, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.52	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D18	DO SOMETHING 2041	PM	FLAT	18:00	19:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	359	100.000
B		✓	115	100.000
C		✓	471	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	71	288
	B	44	0	71
	C	359	112	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.29	12.52	0.4	B
C-A				
C-B	0.21	8.44	0.3	A
A-B				
A-C				

### Main Results for each time segment

#### 18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	115	403	0.286	113	0.4	12.380	B
C-A	359			359			
C-B	112	538	0.208	111	0.3	8.405	A
A-B	71			71			
A-C	288			288			

#### 18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	115	402	0.286	115	0.4	12.520	B
C-A	359			359			
C-B	112	538	0.208	112	0.3	8.445	A
A-B	71			71			
A-C	288			288			

#### 18:30 - 18:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	115	402	0.286	115	0.4	12.522	B
C-A	359			359			
C-B	112	538	0.208	112	0.3	8.445	A
A-B	71			71			
A-C	288			288			

#### 18:45 - 19:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	115	402	0.286	115	0.4	12.522	B
C-A	359			359			
C-B	112	538	0.208	112	0.3	8.445	A
A-B	71			71			
A-C	288			288			

# DO NOTHING - SENSITIVITY ANALYSIS 2041, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.57	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D19	SENSITIVITY ANALYSIS 2041	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	314	100.000
B		✓	189	100.000
C		✓	409	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	29	285
	B	66	0	123
	C	354	55	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.44	15.10	0.8	C
C-A				
C-B	0.10	7.27	0.1	A
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	189	427	0.442	186	0.8	14.727	B
C-A	354			354			
C-B	55	550	0.100	55	0.1	7.260	A
A-B	29			29			
A-C	285			285			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	189	427	0.442	189	0.8	15.092	C
C-A	354			354			
C-B	55	550	0.100	55	0.1	7.272	A
A-B	29			29			
A-C	285			285			

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	189	427	0.442	189	0.8	15.098	C
C-A	354			354			
C-B	55	550	0.100	55	0.1	7.272	A
A-B	29			29			
A-C	285			285			

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	189	427	0.442	189	0.8	15.098	C
C-A	354			354			
C-B	55	550	0.100	55	0.1	7.272	A
A-B	29			29			
A-C	285			285			

# DO NOTHING - SENSITIVITY ANALYSIS 2041, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.49	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D20	SENSITIVITY ANALYSIS 2041	PM	FLAT	18:00	19:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	384	100.000
B		✓	115	100.000
C		✓	481	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	71	313
	B	44	0	71
	C	369	112	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0



## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.29	12.84	0.4	B
C-A				
C-B	0.21	8.58	0.3	A
A-B				
A-C				

### Main Results for each time segment

#### 18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	115	395	0.291	113	0.4	12.693	B
C-A	369			369			
C-B	112	532	0.211	111	0.3	8.534	A
A-B	71			71			
A-C	313			313			

#### 18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	115	395	0.291	115	0.4	12.842	B
C-A	369			369			
C-B	112	532	0.211	112	0.3	8.576	A
A-B	71			71			
A-C	313			313			

#### 18:30 - 18:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	115	395	0.291	115	0.4	12.844	B
C-A	369			369			
C-B	112	532	0.211	112	0.3	8.576	A
A-B	71			71			
A-C	313			313			

#### 18:45 - 19:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	115	395	0.291	115	0.4	12.844	B
C-A	369			369			
C-B	112	532	0.211	112	0.3	8.576	A
A-B	71			71			
A-C	313			313			

<h1>Junctions 9</h1>
<h2>PICADY 9 - Priority Intersection Module</h2>
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**Filename:** Junction 4.j9

**Path:** M:\Projects\18\18-091- Broomfield LAP Malahide\Design\Civil\Traffic\MODELLING SEPT 2021\Junction 4

**Report generation date:** 08/04/2022 11:26:35

- 
- »Junction 4 - Baseline 2022, AM
  - »Junction 4 - Baseline 2022, PM
  - »Junction 4 - Baseline 2026, AM
  - »Junction 4 - Baseline 2026, PM
  - »Junction 4 - Baseline 2031, AM
  - »Junction 4 - Baseline 2031, PM
  - »Junction 4 - Baseline 2041, AM
  - »Junction 4 - Baseline 2041, PM
  - »Junction 4 - 2026 + Developments, AM
  - »Junction 4 - 2026 + Developments, PM
  - »Junction 4 - 2031 + Developments, AM
  - »Junction 4 - 2031 + Developments, PM
  - »Junction 4 - 2041 + Developments, AM
  - »Junction 4 - 2041 + Developments, PM
  - »Junction 4 - Sensitivity Analysis 2026, AM
  - »Junction 4 - Sensitivity Analysis 2026, PM
  - »Junction 4 - Sensitivity Analysis 2031, AM
  - »Junction 4 - Sensitivity Analysis 2031, PM
  - »Junction 4 - Sensitivity Analysis 2041, AM
  - »Junction 4 - Sensitivity Analysis 2041, PM

### Summary of junction performance

	AM		PM	
	Queue (Veh)	RFC	Queue (Veh)	RFC
<b>Junction 4 - Baseline 2022</b>				
Stream B-AC	2.0	0.68	7.3	0.92
Stream C-AB	0.5	0.21	0.8	0.32
<b>Junction 4 - Baseline 2026</b>				
Stream B-AC	3.8	0.81	19.7	1.07
Stream C-AB	0.6	0.24	1.0	0.38
<b>Junction 4 - Baseline 2031</b>				
Stream B-AC	7.8	0.93	43.2	1.25
Stream C-AB	0.7	0.28	1.4	0.44
<b>Junction 4 - Baseline 2041</b>				
Stream B-AC	11.6	0.99	54.9	1.33
Stream C-AB	0.8	0.29	1.5	0.46
<b>Junction 4 - 2026 + Developments</b>				
Stream B-AC	8.4	0.94	32.0	1.16
Stream C-AB	0.6	0.25	1.2	0.42
<b>Junction 4 - 2031 + Developments</b>				
Stream B-AC	19.4	1.06	56.7	1.33
Stream C-AB	0.7	0.29	1.5	0.47
<b>Junction 4 - 2041 + Developments</b>				
Stream B-AC	27.4	1.13	68.9	1.41
Stream C-AB	0.8	0.30	1.7	0.50
<b>Junction 4 - Sensitivity Analysis 2026</b>				
Stream B-AC	9.9	0.96	35.4	1.19
Stream C-AB	0.6	0.26	1.3	0.43
<b>Junction 4 - Sensitivity Analysis 2031</b>				
Stream B-AC	37.0	1.19	72.0	1.44
Stream C-AB	0.8	0.31	1.9	0.53
<b>Junction 4 - Sensitivity Analysis 2041</b>				
Stream B-AC	46.3	1.26	89.4	1.53
Stream C-AB	0.9	0.32	2.2	0.56

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

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

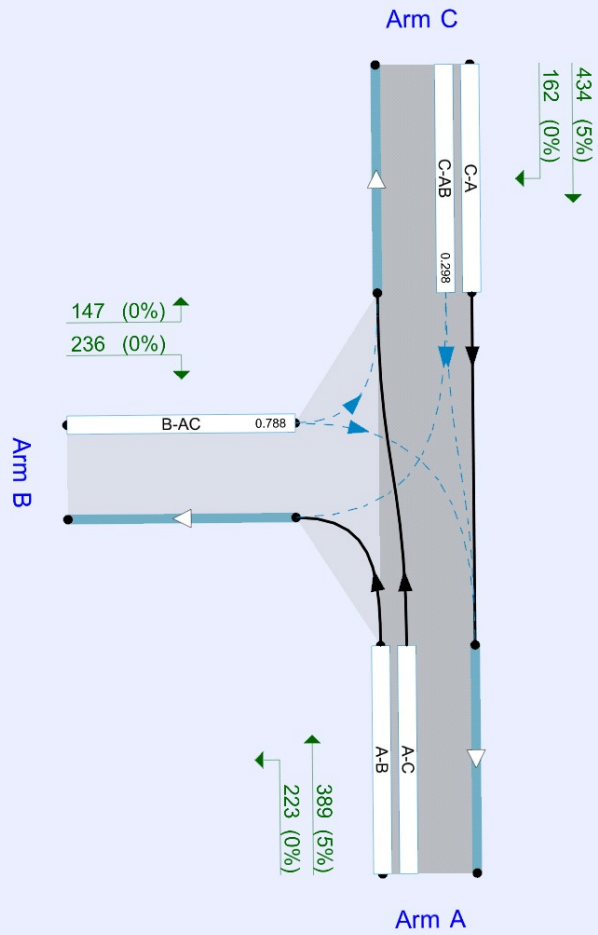
### File summary

#### File Description

Title	
Location	
Site number	
Date	02/02/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAIN\byrne
Description	

**Units**

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



Flows show original traffic demand (Veh/hr).  
Streams (downstream end) show RFC (l)

The junction diagram reflects the last run of Junctions.

**Analysis Options**

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

## Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Baseline 2022	AM	ONE HOUR	08:00	09:30	15	✓
D2	Baseline 2022	PM	ONE HOUR	17:00	18:30	15	✓
D3	Baseline 2026	AM	ONE HOUR	08:00	09:30	15	✓
D4	Baseline 2026	PM	ONE HOUR	17:00	18:30	15	✓
D5	Baseline 2031	AM	ONE HOUR	08:00	09:30	15	✓
D6	Baseline 2031	PM	ONE HOUR	17:00	18:30	15	✓
D7	Baseline 2041	AM	ONE HOUR	08:00	09:30	15	✓
D8	Baseline 2041	PM	ONE HOUR	17:00	18:30	15	✓
D13	2026 + Developments	AM	ONE HOUR	08:00	09:30	15	✓
D14	2026 + Developments	PM	ONE HOUR	17:00	18:30	15	✓
D15	2031 + Developments	AM	ONE HOUR	08:00	09:30	15	✓
D16	2031 + Developments	PM	ONE HOUR	17:00	18:30	15	✓
D17	2041 + Developments	AM	ONE HOUR	08:00	09:30	15	✓
D18	2041 + Developments	PM	ONE HOUR	17:00	18:30	15	✓
D19	Sensitivity Analysis 2026	AM	ONE HOUR	08:00	09:30	15	✓
D20	Sensitivity Analysis 2026	PM	ONE HOUR	17:00	18:30	15	✓
D21	Sensitivity Analysis 2031	AM	ONE HOUR	08:00	09:30	15	✓
D22	Sensitivity Analysis 2031	PM	ONE HOUR	17:00	18:30	15	✓
D23	Sensitivity Analysis 2041	AM	ONE HOUR	08:00	09:30	15	✓
D24	Sensitivity Analysis 2041	PM	ONE HOUR	17:00	18:30	15	✓

## Growth Factors

ID	Description	Use TEMPRO	Growth Factor
G1	2025		1.0660
G2	2030		1.1560
G3	2040		1.2100

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

## Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Junction 4	✓	100.000	100.000

# Junction 4 - Baseline 2022, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		6.61	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

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

### 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	4.00			100.0	✓	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	3.00	22	20

### Slope / Intercept / Capacity

#### Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	495	0.098	0.247	0.156	0.354
B-C	637	0.106	0.268	-	-
C-B	632	0.266	0.266	-	-

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	Baseline 2022	AM	ONE HOUR	08:00	09:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	504	100.000
B		ONE HOUR	✓	220	100.000
C		ONE HOUR	✓	402	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	177	327
	B	131	0	89
	C	332	70	0

## Vehicle Mix

### Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.68	31.29	2.0	D	202	303
C-AB	0.21	6.11	0.5	A	114	172
C-A					255	382
A-B					162	244
A-C					300	450

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	166	41	418	0.397	163	0.0	0.6	14.009	B
C-AB	82	20	701	0.117	81	0.0	0.2	5.808	A
C-A	221	55			221				
A-B	133	33			133				
A-C	246	62			246				

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	198	49	392	0.504	196	0.6	1.0	18.269	C
C-AB	108	27	718	0.151	108	0.2	0.3	5.899	A
C-A	253	63			253				
A-B	159	40			159				
A-C	294	73			294				

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	242	61	356	0.680	238	1.0	1.9	29.619	D
C-AB	152	38	743	0.205	152	0.3	0.5	6.088	A
C-A	290	73			290				
A-B	195	49			195				
A-C	360	90			360				

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	242	61	356	0.680	242	1.9	2.0	31.286	D
C-AB	153	38	743	0.205	153	0.5	0.5	6.111	A
C-A	290	72			290				
A-B	195	49			195				
A-C	360	90			360				

#### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	198	49	392	0.505	202	2.0	1.1	19.285	C
C-AB	108	27	718	0.151	109	0.5	0.3	5.941	A
C-A	253	63			253				
A-B	159	40			159				
A-C	294	73			294				

#### 09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	166	41	417	0.397	167	1.1	0.7	14.476	B
C-AB	82	21	701	0.117	83	0.3	0.2	5.843	A
C-A	220	55			220				
A-B	133	33			133				
A-C	246	62			246				



# Junction 4 - Baseline 2022, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		21.66	C

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Baseline 2022	PM	ONE HOUR	17:00	18:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	466	100.000
B		ONE HOUR	✓	284	100.000
C		ONE HOUR	✓	469	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	143	323
	B	175	0	109
	C	361	108	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.92	90.67	7.3	F	261	391
C-AB	0.32	6.83	0.8	A	183	275
C-A					247	371
A-B					131	197
A-C					296	445

### Main Results for each time segment

#### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	214	53	406	0.526	210	0.0	1.1	17.950	C
C-AB	130	33	722	0.181	129	0.0	0.3	6.065	A
C-A	223	56			223				
A-B	108	27			108				
A-C	243	61			243				

#### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	255	64	378	0.675	252	1.1	1.9	27.711	D
C-AB	173	43	744	0.233	172	0.3	0.5	6.301	A
C-A	249	62			249				
A-B	129	32			129				
A-C	290	73			290				

#### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	313	78	339	0.921	296	1.9	6.0	66.767	F
C-AB	246	61	775	0.317	244	0.5	0.8	6.789	A
C-A	271	68			271				
A-B	157	39			157				
A-C	356	89			356				

#### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	313	78	339	0.922	307	6.0	7.3	90.673	F
C-AB	246	62	775	0.317	246	0.8	0.8	6.831	A
C-A	270	68			270				
A-B	157	39			157				
A-C	356	89			356				

**18:00 - 18:15**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	255	64	378	0.675	276	7.3	2.3	40.108	E
C-AB	174	43	744	0.233	175	0.8	0.5	6.370	A
C-A	248	62			248				
A-B	129	32			129				
A-C	290	73			290				

**18:15 - 18:30**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	214	53	406	0.527	218	2.3	1.2	19.639	C
C-AB	131	33	723	0.181	132	0.5	0.3	6.122	A
C-A	222	56			222				
A-B	108	27			108				
A-C	243	61			243				

# Junction 4 - Baseline 2026, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		11.32	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	Baseline 2026	AM	ONE HOUR	08:00	09:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	541	100.000
B		ONE HOUR	✓	253	100.000
C		ONE HOUR	✓	432	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	192	349
	B	149	0	104
	C	354	78	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.81	52.72	3.8	F	232	348
C-AB	0.24	6.31	0.6	A	133	200
C-A					263	395
A-B					176	264
A-C					320	480

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	190	48	409	0.466	187	0.0	0.8	15.990	C
C-AB	94	24	706	0.134	93	0.0	0.2	5.876	A
C-A	231	58			231				
A-B	145	36			145				
A-C	263	66			263				

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	227	57	381	0.596	225	0.8	1.4	22.715	C
C-AB	126	31	724	0.173	125	0.2	0.4	6.008	A
C-A	263	66			263				
A-B	173	43			173				
A-C	314	78			314				

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	279	70	343	0.813	270	1.4	3.5	45.364	E
C-AB	179	45	752	0.238	178	0.4	0.6	6.278	A
C-A	296	74			296				
A-B	211	53			211				
A-C	384	96			384				

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	279	70	342	0.814	277	3.5	3.8	52.717	F
C-AB	180	45	752	0.239	180	0.6	0.6	6.306	A
C-A	296	74			296				
A-B	211	53			211				
A-C	384	96			384				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	227	57	381	0.597	236	3.8	1.6	26.191	D
C-AB	126	32	725	0.174	127	0.6	0.4	6.059	A
C-A	262	66			262				
A-B	173	43			173				
A-C	314	78			314				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	190	48	409	0.466	193	1.6	0.9	16.897	C
C-AB	95	24	706	0.134	95	0.4	0.3	5.918	A
C-A	230	58			230				
A-B	145	36			145				
A-C	263	66			263				

# Junction 4 - Baseline 2026, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		48.01	E

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	Baseline 2026	PM	ONE HOUR	17:00	18:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	506	100.000
B		ONE HOUR	✓	312	100.000
C		ONE HOUR	✓	508	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	161	345
	B	191	0	121
	C	385	123	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	1.07	203.83	19.7	F	286	429
C-AB	0.38	7.42	1.0	A	219	329
C-A					247	370
A-B					148	222
A-C					317	475

### Main Results for each time segment

#### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	235	59	395	0.595	229	0.0	1.4	21.094	C
C-AB	154	38	728	0.211	152	0.0	0.4	6.250	A
C-A	229	57			229				
A-B	121	30			121				
A-C	260	65			260				

#### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	280	70	365	0.769	275	1.4	2.9	37.661	E
C-AB	206	52	751	0.274	205	0.4	0.6	6.598	A
C-A	251	63			251				
A-B	145	36			145				
A-C	310	78			310				

#### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	344	86	322	1.068	305	2.9	12.6	116.664	F
C-AB	296	74	785	0.378	295	0.6	1.0	7.351	A
C-A	263	66			263				
A-B	177	44			177				
A-C	380	95			380				

#### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	344	86	321	1.069	315	12.6	19.7	203.830	F
C-AB	297	74	786	0.378	297	1.0	1.0	7.419	A
C-A	262	66			262				
A-B	177	44			177				
A-C	380	95			380				



18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	280	70	364	0.770	341	19.7	4.7	134.743	F
C-AB	207	52	752	0.275	209	1.0	0.6	6.689	A
C-A	250	62			250				
A-B	145	36			145				
A-C	310	78			310				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	235	59	394	0.595	247	4.7	1.6	26.291	D
C-AB	155	39	728	0.213	156	0.6	0.4	6.323	A
C-A	228	57			228				
A-B	121	30			121				
A-C	260	65			260				

# Junction 4 - Baseline 2031, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		20.75	C

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	Baseline 2031	AM	ONE HOUR	08:00	09:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	589	100.000
B		ONE HOUR	✓	274	100.000
C		ONE HOUR	✓	471	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	209	380
	B	161	0	113
	C	386	85	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.93	99.82	7.8	F	251	377
C-AB	0.28	6.51	0.7	A	155	233
C-A					277	416
A-B					192	288
A-C					349	523

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	206	52	397	0.520	202	0.0	1.0	18.139	C
C-AB	108	27	714	0.151	107	0.0	0.3	5.925	A
C-A	247	62			247				
A-B	157	39			157				
A-C	286	72			286				

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	246	62	366	0.672	243	1.0	1.9	28.385	D
C-AB	145	36	735	0.198	145	0.3	0.4	6.098	A
C-A	278	70			278				
A-B	188	47			188				
A-C	342	85			342				

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	302	75	323	0.933	284	1.9	6.2	71.686	F
C-AB	211	53	767	0.276	210	0.4	0.7	6.470	A
C-A	307	77			307				
A-B	230	58			230				
A-C	418	105			418				

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	302	75	323	0.933	295	6.2	7.8	99.820	F
C-AB	212	53	767	0.276	212	0.7	0.7	6.509	A
C-A	307	77			307				
A-B	230	58			230				
A-C	418	105			418				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	246	62	366	0.673	269	7.8	2.3	42.873	E
C-AB	146	36	736	0.198	147	0.7	0.4	6.159	A
C-A	277	69			277				
A-B	188	47			188				
A-C	342	85			342				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	206	52	396	0.520	211	2.3	1.1	19.849	C
C-AB	109	27	715	0.152	109	0.4	0.3	5.972	A
C-A	246	62			246				
A-B	157	39			157				
A-C	286	72			286				

# Junction 4 - Baseline 2031, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		95.71	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	Baseline 2031	PM	ONE HOUR	17:00	18:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	551	100.000
B		ONE HOUR	✓	339	100.000
C		ONE HOUR	✓	553	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	175	376
	B	208	0	131
	C	419	134	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	1.25	411.85	43.2	F	311	467
C-AB	0.44	8.04	1.4	A	256	384
C-A					252	378
A-B					161	241
A-C					345	518

### Main Results for each time segment

#### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	255	64	381	0.670	248	0.0	1.9	25.772	D
C-AB	176	44	738	0.239	174	0.0	0.5	6.381	A
C-A	240	60			240				
A-B	132	33			132				
A-C	283	71			283				

#### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	305	76	348	0.877	293	1.9	4.8	56.586	F
C-AB	239	60	764	0.313	238	0.5	0.7	6.847	A
C-A	258	65			258				
A-B	157	39			157				
A-C	338	85			338				

#### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	373	93	300	1.244	294	4.8	24.5	205.373	F
C-AB	350	88	802	0.436	348	0.7	1.3	7.937	A
C-A	259	65			259				
A-B	193	48			193				
A-C	414	103			414				

#### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	373	93	300	1.246	298	24.5	43.2	411.847	F
C-AB	351	88	803	0.437	351	1.3	1.4	8.042	A
C-A	257	64			257				
A-B	193	48			193				
A-C	414	103			414				

**18:00 - 18:15**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	305	76	347	0.879	339	43.2	34.6	407.874	F
C-AB	240	60	765	0.314	243	1.4	0.8	6.974	A
C-A	257	64			257				
A-B	157	39			157				
A-C	338	85			338				

**18:15 - 18:30**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	255	64	380	0.671	370	34.6	6.0	209.385	F
C-AB	177	44	739	0.240	179	0.8	0.5	6.470	A
C-A	239	60			239				
A-B	132	33			132				
A-C	283	71			283				

# Junction 4 - Baseline 2041, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		28.58	D

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	Baseline 2041	AM	ONE HOUR	08:00	09:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	610	100.000
B		ONE HOUR	✓	283	100.000
C		ONE HOUR	✓	488	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	216	394
	B	167	0	116
	C	400	88	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0



## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.99	139.16	11.6	F	260	390
C-AB	0.29	6.62	0.8	A	165	248
C-A					282	424
A-B					198	297
A-C					362	542

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	213	53	391	0.545	208	0.0	1.1	19.308	C
C-AB	114	29	718	0.159	113	0.0	0.3	5.946	A
C-A	253	63			253				
A-B	163	41			163				
A-C	297	74			297				

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	254	64	359	0.709	250	1.1	2.2	31.876	D
C-AB	155	39	740	0.209	154	0.3	0.5	6.142	A
C-A	284	71			284				
A-B	194	49			194				
A-C	354	89			354				

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	312	78	314	0.991	287	2.2	8.4	89.890	F
C-AB	227	57	773	0.293	225	0.5	0.8	6.574	A
C-A	311	78			311				
A-B	238	59			238				
A-C	434	108			434				

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	312	78	314	0.992	299	8.4	11.6	139.156	F
C-AB	227	57	774	0.294	227	0.8	0.8	6.615	A
C-A	310	78			310				
A-B	238	59			238				
A-C	434	108			434				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	254	64	359	0.709	290	11.6	2.8	65.264	F
C-AB	155	39	741	0.210	157	0.8	0.5	6.207	A
C-A	283	71			283				
A-B	194	49			194				
A-C	354	89			354				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	213	53	390	0.546	219	2.8	1.3	21.742	C
C-AB	115	29	719	0.160	115	0.5	0.3	6.001	A
C-A	253	63			253				
A-B	163	41			163				
A-C	297	74			297				

# Junction 4 - Baseline 2041, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		128.10	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Baseline 2041	PM	ONE HOUR	17:00	18:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	570	100.000
B		ONE HOUR	✓	351	100.000
C		ONE HOUR	✓	572	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	181	389
	B	215	0	136
	C	434	138	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	1.33	552.69	54.9	F	322	483
C-AB	0.46	8.35	1.5	A	272	407
C-A					253	380
A-B					166	249
A-C					357	535

### Main Results for each time segment

#### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	264	66	376	0.704	256	0.0	2.1	28.356	D
C-AB	186	46	743	0.250	183	0.0	0.5	6.437	A
C-A	245	61			245				
A-B	136	34			136				
A-C	293	73			293				

#### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	316	79	341	0.926	299	2.1	6.2	68.910	F
C-AB	253	63	770	0.329	252	0.5	0.8	6.956	A
C-A	261	65			261				
A-B	163	41			163				
A-C	350	87			350				

#### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	386	97	291	1.327	288	6.2	30.8	257.534	F
C-AB	374	93	810	0.461	371	0.8	1.5	8.215	A
C-A	256	64			256				
A-B	199	50			199				
A-C	428	107			428				

#### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	386	97	291	1.330	290	30.8	54.9	523.216	F
C-AB	375	94	812	0.462	375	1.5	1.5	8.347	A
C-A	254	64			254				
A-B	199	50			199				
A-C	428	107			428				

**18:00 - 18:15**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	316	79	340	0.928	334	54.9	50.4	552.693	F
C-AB	255	64	772	0.330	257	1.5	0.9	7.096	A
C-A	260	65			260				
A-B	163	41			163				
A-C	350	87			350				

**18:15 - 18:30**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	264	66	375	0.705	367	50.4	24.6	372.404	F
C-AB	187	47	744	0.251	188	0.9	0.6	6.529	A
C-A	244	61			244				
A-B	136	34			136				
A-C	293	73			293				

# Junction 4 - 2026 + Developments, AM

## Data Errors and Warnings

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

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		23.65	C

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2026 + Developments	AM	ONE HOUR	08:00	09:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	551	100.000
B		ONE HOUR	✓	295	100.000
C		ONE HOUR	✓	437	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	202	349
	B	177	0	118
	C	354	83	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 (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.94	99.55	8.4	F	271	406
C-AB	0.25	6.34	0.6	A	141	211
C-A					260	390
A-B					185	278
A-C					320	480

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	222	56	410	0.541	218	0.0	1.1	18.274	C
C-AB	100	25	711	0.141	99	0.0	0.3	5.881	A
C-A	229	57			229				
A-B	152	38			152				
A-C	263	66			263				

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	265	66	383	0.692	262	1.1	2.0	28.666	D
C-AB	133	33	730	0.182	132	0.3	0.4	6.030	A
C-A	260	65			260				
A-B	182	45			182				
A-C	314	78			314				

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	325	81	345	0.940	306	2.0	6.7	70.966	F
C-AB	189	47	759	0.249	188	0.4	0.6	6.321	A
C-A	292	73			292				
A-B	222	56			222				
A-C	384	96			384				

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	325	81	345	0.941	318	6.7	8.4	99.554	F
C-AB	189	47	759	0.249	189	0.6	0.6	6.337	A
C-A	292	73			292				
A-B	222	56			222				
A-C	384	96			384				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	265	66	383	0.692	289	8.4	2.5	44.673	E
C-AB	133	33	731	0.182	134	0.6	0.4	6.055	A
C-A	260	65			260				
A-B	182	45			182				
A-C	314	78			314				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	222	56	410	0.542	227	2.5	1.2	20.182	C
C-AB	100	25	711	0.141	101	0.4	0.3	5.909	A
C-A	229	57			229				
A-B	152	38			152				
A-C	263	66			263				



# Junction 4 - 2026 + Developments, PM

## Data Errors and Warnings

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

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		74.36	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2026 + Developments	PM	ONE HOUR	17:00	18:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	537	100.000
B		ONE HOUR	✓	336	100.000
C		ONE HOUR	✓	522	100.000

## Origin-Destination Data

### Demand (Veh/hr)

From	To		
	A	B	C
A	0	188	349
B	207	0	129
C	385	137	0

## Vehicle Mix

### Heavy Vehicle Percentages

From	To		
	A	B	C
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 (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	1.16	302.48	32.0	F	308	462
C-AB	0.42	7.91	1.2	A	244	365
C-A					235	353
A-B					173	259
A-C					320	480

### Main Results for each time segment

#### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	253	63	394	0.643	246	0.0	1.7	23.503	C
C-AB	171	43	730	0.234	169	0.0	0.5	6.418	A
C-A	222	55			222				
A-B	142	35			142				
A-C	263	66			263				

#### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	302	76	363	0.832	293	1.7	3.8	46.676	E
C-AB	229	57	753	0.304	228	0.5	0.7	6.870	A
C-A	240	60			240				
A-B	169	42			169				
A-C	314	78			314				

#### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	370	92	320	1.157	310	3.8	18.8	157.440	F
C-AB	329	82	788	0.418	327	0.7	1.2	7.844	A
C-A	246	61			246				
A-B	207	52			207				
A-C	384	96			384				

#### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	370	92	319	1.159	317	18.8	32.0	302.484	F
C-AB	330	82	789	0.418	330	1.2	1.2	7.911	A
C-A	245	61			245				
A-B	207	52			207				
A-C	384	96			384				

**18:00 - 18:15**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	302	76	362	0.834	351	32.0	19.7	267.951	F
C-AB	230	58	755	0.305	232	1.2	0.7	6.940	A
C-A	239	60			239				
A-B	169	42			169				
A-C	314	78			314				

**18:15 - 18:30**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	253	63	393	0.644	324	19.7	2.1	80.653	F
C-AB	172	43	731	0.236	173	0.7	0.5	6.484	A
C-A	221	55			221				
A-B	142	35			142				
A-C	263	66			263				

# Junction 4 - 2031 + Developments, AM

## Data Errors and Warnings

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

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		45.94	E

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2031 + Developments	AM	ONE HOUR	08:00	09:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	599	100.000
B		ONE HOUR	✓	316	100.000
C		ONE HOUR	✓	476	100.000

## Origin-Destination Data

### Demand (Veh/hr)

From	To		
	A	B	C
A	0	219	380
B	189	0	127
C	386	90	0

## Vehicle Mix

### Heavy Vehicle Percentages

From	To		
	A	B	C
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 (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	1.06	198.55	19.4	F	290	435
C-AB	0.29	6.54	0.7	A	163	244
C-A					274	411
A-B					201	301
A-C					349	523

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	238	59	399	0.597	232	0.0	1.4	21.008	C
C-AB	114	28	720	0.158	112	0.0	0.3	5.924	A
C-A	245	61			245				
A-B	165	41			165				
A-C	286	72			286				

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	284	71	369	0.770	278	1.4	2.9	37.362	E
C-AB	153	38	742	0.206	152	0.3	0.4	6.117	A
C-A	275	69			275				
A-B	197	49			197				
A-C	342	85			342				

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	348	87	327	1.063	309	2.9	12.5	114.361	F
C-AB	221	55	774	0.286	220	0.4	0.7	6.511	A
C-A	303	76			303				
A-B	241	60			241				
A-C	418	105			418				

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	348	87	327	1.064	320	12.5	19.4	198.551	F
C-AB	222	55	775	0.286	222	0.7	0.7	6.538	A
C-A	302	76			302				
A-B	241	60			241				
A-C	418	105			418				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	284	71	369	0.771	343	19.4	4.6	130.151	F
C-AB	153	38	743	0.206	154	0.7	0.5	6.147	A
C-A	275	69			275				
A-B	197	49			197				
A-C	342	85			342				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	238	59	398	0.597	250	4.6	1.6	26.037	D
C-AB	114	29	720	0.159	115	0.5	0.3	5.961	A
C-A	244	61			244				
A-B	165	41			165				
A-C	286	72			286				

# Junction 4 - 2031 + Developments, PM

## Data Errors and Warnings

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

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		136.87	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D16	2031 + Developments	PM	ONE HOUR	17:00	18:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	578	100.000
B		ONE HOUR	✓	362	100.000
C		ONE HOUR	✓	566	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	202	376
	B	223	0	139
	C	419	147	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 (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	1.33	562.21	56.7	F	332	498
C-AB	0.47	8.56	1.5	A	279	419
C-A					240	360
A-B					185	278
A-C					345	518

### Main Results for each time segment

#### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	273	68	381	0.715	264	0.0	2.2	28.752	D
C-AB	193	48	741	0.260	191	0.0	0.5	6.533	A
C-A	233	58			233				
A-B	152	38			152				
A-C	283	71			283				

#### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	325	81	348	0.935	308	2.2	6.5	70.482	F
C-AB	261	65	768	0.340	260	0.5	0.8	7.106	A
C-A	248	62			248				
A-B	182	45			182				
A-C	338	85			338				

#### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	399	100	301	1.326	297	6.5	31.9	258.066	F
C-AB	381	95	807	0.473	379	0.8	1.5	8.456	A
C-A	242	60			242				
A-B	222	56			222				
A-C	414	103			414				

#### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	399	100	300	1.329	299	31.9	56.7	524.449	F
C-AB	383	96	808	0.474	383	1.5	1.5	8.565	A
C-A	240	60			240				
A-B	222	56			222				
A-C	414	103			414				



**18:00 - 18:15**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	325	81	347	0.938	341	56.7	52.7	562.215	F
C-AB	263	66	770	0.341	265	1.5	0.9	7.214	A
C-A	246	62			246				
A-B	182	45			182				
A-C	338	85			338				

**18:15 - 18:30**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	273	68	381	0.716	374	52.7	27.5	391.397	F
C-AB	194	49	742	0.261	195	0.9	0.6	6.613	A
C-A	232	58			232				
A-B	152	38			152				
A-C	283	71			283				

# Junction 4 - 2041 + Developments, AM

## Data Errors and Warnings

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

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		61.10	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2041 + Developments	AM	ONE HOUR	08:00	09:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	621	100.000
B		ONE HOUR	✓	326	100.000
C		ONE HOUR	✓	493	100.000

## Origin-Destination Data

### Demand (Veh/hr)

From	To		
	A	B	C
A	0	227	394
B	195	0	131
C	400	93	0

## Vehicle Mix

### Heavy Vehicle Percentages

From	To		
	A	B	C
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 (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	1.13	266.05	27.4	F	299	449
C-AB	0.30	6.65	0.8	A	173	260
C-A					279	419
A-B					208	312
A-C					362	542

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	245	61	393	0.624	239	0.0	1.6	22.572	C
C-AB	120	30	724	0.166	119	0.0	0.3	5.947	A
C-A	251	63			251				
A-B	171	43			171				
A-C	297	74			297				

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	293	73	362	0.809	286	1.6	3.4	43.101	E
C-AB	162	41	747	0.217	161	0.3	0.5	6.162	A
C-A	281	70			281				
A-B	204	51			204				
A-C	354	89			354				

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	359	90	319	1.126	307	3.4	16.4	142.411	F
C-AB	236	59	781	0.303	235	0.5	0.8	6.617	A
C-A	306	77			306				
A-B	250	62			250				
A-C	434	108			434				

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	359	90	319	1.127	315	16.4	27.4	266.046	F
C-AB	237	59	782	0.303	237	0.8	0.8	6.646	A
C-A	306	76			306				
A-B	250	62			250				
A-C	434	108			434				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	293	73	362	0.810	349	27.4	13.3	215.895	F
C-AB	163	41	748	0.218	164	0.8	0.5	6.199	A
C-A	280	70			280				
A-B	204	51			204				
A-C	354	89			354				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	245	61	393	0.625	291	13.3	1.8	48.136	E
C-AB	121	30	724	0.167	121	0.5	0.3	5.985	A
C-A	250	63			250				
A-B	171	43			171				
A-C	297	74			297				

# Junction 4 - 2041 + Developments, PM

## Data Errors and Warnings

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

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		172.85	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2041 + Developments	PM	ONE HOUR	17:00	18:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	597	100.000
B		ONE HOUR	✓	373	100.000
C		ONE HOUR	✓	586	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	208	389
	B	230	0	143
	C	434	152	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 (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	1.41	713.26	68.9	F	342	513
C-AB	0.50	8.98	1.7	A	297	446
C-A					240	361
A-B					191	286
A-C					357	535

### Main Results for each time segment

#### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	281	70	375	0.748	271	0.0	2.6	31.797	D
C-AB	204	51	746	0.273	201	0.0	0.6	6.602	A
C-A	238	59			238				
A-B	157	39			157				
A-C	293	73			293				

#### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	335	84	341	0.984	312	2.6	8.5	86.910	F
C-AB	277	69	774	0.358	276	0.6	0.9	7.249	A
C-A	250	62			250				
A-B	187	47			187				
A-C	350	87			350				

#### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	411	103	291	1.410	289	8.5	38.8	319.377	F
C-AB	408	102	815	0.501	405	0.9	1.7	8.840	A
C-A	237	59			237				
A-B	229	57			229				
A-C	428	107			428				

#### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	411	103	291	1.413	290	38.8	68.9	644.293	F
C-AB	410	103	816	0.503	410	1.7	1.7	8.980	A
C-A	235	59			235				
A-B	229	57			229				
A-C	428	107			428				

**18:00 - 18:15**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	335	84	340	0.987	335	68.9	68.9	713.263	F
C-AB	279	70	776	0.360	282	1.7	0.9	7.376	A
C-A	248	62			248				
A-B	187	47			187				
A-C	350	87			350				

**18:15 - 18:30**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	281	70	375	0.750	369	68.9	46.8	566.908	F
C-AB	205	51	747	0.275	207	0.9	0.6	6.693	A
C-A	236	59			236				
A-B	157	39			157				
A-C	293	73			293				

# Junction 4 - Sensitivity Analysis 2026, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		26.71	D

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D19	Sensitivity Analysis 2026	AM	ONE HOUR	08:00	09:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	551	100.000
B		ONE HOUR	✓	295	100.000
C		ONE HOUR	✓	437	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	202	349
	B	177	0	118
	C	354	83	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0



## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.96	115.72	9.9	F	271	406
C-AB	0.26	6.47	0.6	A	142	213
C-A					259	388
A-B					185	278
A-C					320	480

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	222	56	404	0.549	217	0.0	1.2	18.825	C
C-AB	101	25	704	0.143	100	0.0	0.3	5.956	A
C-A	228	57			228				
A-B	152	38			152				
A-C	263	66			263				

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	265	66	376	0.705	261	1.2	2.2	30.232	D
C-AB	134	33	722	0.186	134	0.3	0.4	6.114	A
C-A	259	65			259				
A-B	182	45			182				
A-C	314	78			314				

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	325	81	337	0.964	303	2.2	7.5	78.773	F
C-AB	191	48	749	0.256	191	0.4	0.6	6.441	A
C-A	290	72			290				
A-B	222	56			222				
A-C	384	96			384				

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	325	81	337	0.965	315	7.5	9.9	115.720	F
C-AB	192	48	750	0.256	192	0.6	0.6	6.475	A
C-A	289	72			289				
A-B	222	56			222				
A-C	384	96			384				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	265	66	376	0.705	294	9.9	2.7	53.054	F
C-AB	134	34	723	0.186	135	0.6	0.4	6.171	A
C-A	258	65			258				
A-B	182	45			182				
A-C	314	78			314				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	222	56	404	0.550	228	2.7	1.3	21.031	C
C-AB	101	25	704	0.144	102	0.4	0.3	6.000	A
C-A	228	57			228				
A-B	152	38			152				
A-C	263	66			263				

# Junction 4 - Sensitivity Analysis 2026, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		80.43	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D20	Sensitivity Analysis 2026	PM	ONE HOUR	17:00	18:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	533	100.000
B		ONE HOUR	✓	336	100.000
C		ONE HOUR	✓	522	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	188	345
	B	207	0	129
	C	385	137	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	1.19	335.05	35.4	F	308	462
C-AB	0.43	8.15	1.3	A	246	369
C-A					233	349
A-B					173	259
A-C					317	475

### Main Results for each time segment

#### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	253	63	389	0.650	246	0.0	1.7	24.171	C
C-AB	172	43	723	0.238	170	0.0	0.5	6.502	A
C-A	221	55			221				
A-B	142	35			142				
A-C	260	65			260				

#### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	302	76	357	0.845	293	1.7	4.1	49.472	E
C-AB	231	58	746	0.310	230	0.5	0.7	6.983	A
C-A	238	60			238				
A-B	169	42			169				
A-C	310	78			310				

#### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	370	92	313	1.183	304	4.1	20.5	171.436	F
C-AB	333	83	779	0.428	331	0.7	1.2	8.048	A
C-A	241	60			241				
A-B	207	52			207				
A-C	380	95			380				

#### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	370	92	312	1.185	310	20.5	35.4	335.047	F
C-AB	334	84	780	0.429	334	1.2	1.3	8.146	A
C-A	240	60			240				
A-B	207	52			207				
A-C	380	95			380				

**18:00 - 18:15**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	302	76	357	0.847	347	35.4	24.2	309.448	F
C-AB	232	58	747	0.311	234	1.3	0.7	7.102	A
C-A	237	59			237				
A-B	169	42			169				
A-C	310	78			310				

**18:15 - 18:30**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	253	63	388	0.651	341	24.2	2.2	113.308	F
C-AB	173	43	724	0.239	174	0.7	0.5	6.589	A
C-A	220	55			220				
A-B	142	35			142				
A-C	260	65			260				

# Junction 4 - Sensitivity Analysis 2031, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		81.66	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D21	Sensitivity Analysis 2031	AM	ONE HOUR	08:00	09:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	603	100.000
B		ONE HOUR	✓	342	100.000
C		ONE HOUR	✓	479	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	223	380
	B	205	0	137
	C	386	93	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	1.19	344.88	37.0	F	314	471
C-AB	0.31	6.81	0.8	A	171	256
C-A					269	404
A-B					205	307
A-C					349	523

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	257	64	391	0.659	250	0.0	1.8	24.527	C
C-AB	118	30	712	0.166	117	0.0	0.3	6.053	A
C-A	242	61			242				
A-B	168	42			168				
A-C	286	72			286				

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	307	77	360	0.854	297	1.8	4.3	50.846	F
C-AB	160	40	732	0.218	159	0.3	0.5	6.280	A
C-A	271	68			271				
A-B	200	50			200				
A-C	342	85			342				

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	377	94	316	1.192	308	4.3	21.3	175.742	F
C-AB	233	58	764	0.305	231	0.5	0.8	6.766	A
C-A	295	74			295				
A-B	246	61			246				
A-C	418	105			418				

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	377	94	316	1.193	314	21.3	37.0	344.882	F
C-AB	233	58	764	0.305	233	0.8	0.8	6.814	A
C-A	294	74			294				
A-B	246	61			246				
A-C	418	105			418				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	307	77	359	0.855	350	37.0	26.3	325.312	F
C-AB	160	40	733	0.219	162	0.8	0.5	6.350	A
C-A	270	68			270				
A-B	200	50			200				
A-C	342	85			342				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	257	64	391	0.659	353	26.3	2.4	130.588	F
C-AB	119	30	712	0.167	120	0.5	0.3	6.107	A
C-A	242	60			242				
A-B	168	42			168				
A-C	286	72			286				



# Junction 4 - Sensitivity Analysis 2031, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		178.95	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D22	Sensitivity Analysis 2031	PM	ONE HOUR	17:00	18:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	593	100.000
B		ONE HOUR	✓	372	100.000
C		ONE HOUR	✓	576	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	217	376
	B	229	0	143
	C	419	157	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	1.44	751.53	72.0	F	341	512
C-AB	0.53	9.72	1.9	A	304	455
C-A					225	337
A-B					199	299
A-C					345	518

### Main Results for each time segment

#### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	280	70	372	0.753	270	0.0	2.6	32.481	D
C-AB	208	52	731	0.284	205	0.0	0.6	6.840	A
C-A	226	56			226				
A-B	163	41			163				
A-C	283	71			283				

#### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	334	84	336	0.994	309	2.6	8.9	90.937	F
C-AB	283	71	756	0.374	282	0.6	1.0	7.593	A
C-A	235	59			235				
A-B	195	49			195				
A-C	338	85			338				

#### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	410	102	286	1.434	284	8.9	40.3	337.262	F
C-AB	417	104	794	0.525	413	1.0	1.9	9.499	A
C-A	217	54			217				
A-B	239	60			239				
A-C	414	103			414				

#### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	410	102	285	1.438	285	40.3	71.6	677.808	F
C-AB	419	105	795	0.527	419	1.9	1.9	9.715	A
C-A	215	54			215				
A-B	239	60			239				
A-C	414	103			414				

**18:00 - 18:15**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	334	84	335	0.997	333	71.6	72.0	751.534	F
C-AB	285	71	759	0.376	289	1.9	1.0	7.798	A
C-A	233	58			233				
A-B	195	49			195				
A-C	338	85			338				

**18:15 - 18:30**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	280	70	371	0.755	366	72.0	50.5	604.989	F
C-AB	210	52	732	0.286	211	1.0	0.6	6.968	A
C-A	224	56			224				
A-B	163	41			163				
A-C	283	71			283				

# Junction 4 - Sensitivity Analysis 2041, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		102.64	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D23	Sensitivity Analysis 2041	AM	ONE HOUR	08:00	09:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	624	100.000
B		ONE HOUR	✓	351	100.000
C		ONE HOUR	✓	496	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	230	394
	B	210	0	141
	C	400	96	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	1.26	437.15	46.3	F	322	483
C-AB	0.32	6.94	0.9	A	181	272
C-A					274	411
A-B					211	317
A-C					362	542

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	264	66	386	0.685	256	0.0	2.0	26.472	D
C-AB	125	31	715	0.174	123	0.0	0.3	6.078	A
C-A	249	62			249				
A-B	173	43			173				
A-C	297	74			297				

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	316	79	353	0.893	303	2.0	5.2	59.499	F
C-AB	169	42	737	0.230	169	0.3	0.5	6.330	A
C-A	277	69			277				
A-B	207	52			207				
A-C	354	89			354				

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	386	97	307	1.257	302	5.2	26.2	213.241	F
C-AB	249	62	770	0.323	247	0.5	0.9	6.888	A
C-A	297	74			297				
A-B	253	63			253				
A-C	434	108			434				

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	386	97	307	1.258	306	26.2	46.3	429.112	F
C-AB	249	62	771	0.323	249	0.9	0.9	6.944	A
C-A	297	74			297				
A-B	253	63			253				
A-C	434	108			434				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	316	79	353	0.894	345	46.3	38.9	437.152	F
C-AB	170	43	738	0.230	172	0.9	0.5	6.409	A
C-A	276	69			276				
A-B	207	52			207				
A-C	354	89			354				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	264	66	385	0.686	375	38.8	11.1	248.272	F
C-AB	126	31	716	0.175	126	0.5	0.4	6.139	A
C-A	248	62			248				
A-B	173	43			173				
A-C	297	74			297				

# Junction 4 - Sensitivity Analysis 2041, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		229.15	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D24	Sensitivity Analysis 2041	PM	ONE HOUR	17:00	18:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	612	100.000
B		ONE HOUR	✓	383	100.000
C		ONE HOUR	✓	596	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To		
		A	B	C
From	A	0	223	389
	B	236	0	147
	C	434	162	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	1.53	966.78	89.4	F	351	527
C-AB	0.56	10.33	2.2	B	323	485
C-A					224	336
A-B					205	307
A-C					357	535

### Main Results for each time segment

#### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	288	72	366	0.788	276	0.0	3.1	36.322	E
C-AB	219	55	736	0.298	217	0.0	0.7	6.926	A
C-A	229	57			229				
A-B	168	42			168				
A-C	293	73			293				

#### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	344	86	329	1.047	310	3.1	11.7	112.446	F
C-AB	300	75	762	0.394	299	0.7	1.0	7.775	A
C-A	235	59			235				
A-B	200	50			200				
A-C	350	87			350				

#### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	422	105	276	1.528	275	11.7	48.4	417.620	F
C-AB	446	112	802	0.557	442	1.0	2.1	10.048	B
C-A	210	52			210				
A-B	246	61			246				
A-C	428	107			428				

#### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	422	105	275	1.533	275	48.4	85.1	818.582	F
C-AB	449	112	804	0.559	449	2.1	2.2	10.332	B
C-A	207	52			207				
A-B	246	61			246				
A-C	428	107			428				



18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	344	86	328	1.051	327	85.1	89.4	966.783	F
C-AB	303	76	765	0.396	307	2.2	1.1	8.025	A
C-A	233	58			233				
A-B	200	50			200				
A-C	350	87			350				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	288	72	365	0.790	361	89.4	71.3	803.290	F
C-AB	221	55	737	0.300	223	1.1	0.7	7.069	A
C-A	227	57			227				
A-B	168	42			168				
A-C	293	73			293				

<h1>Junctions 9</h1>
<h2>PICADY 9 - Priority Intersection Module</h2>
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**Filename:** Junction 5.j9

**Path:** M:\Projects\18\18-091- Broomfield LAP Malahide\Design\Civil\Traffic\MODELLING SEPT 2021\Junction 5

**Report generation date:** 08/04/2022 11:29:25

- 
- »Junction 5 - Baseline 2022, AM
  - »Junction 5 - Baseline 2022, PM
  - »Junction 5 - DO NOTHING 2026, AM
  - »Junction 5 - DO NOTHING 2026, PM
  - »Junction 5 - DO NOTHING 2031, AM
  - »Junction 5 - DO NOTHING 2031, PM
  - »Junction 5 - DO NOTHING 2041, AM
  - »Junction 5 - DO NOTHING 2041, PM
  - »Junction 5 - DO SOMETHING 2026, AM
  - »Junction 5 - DO SOMETHING 2026, PM
  - »Junction 5 - DO SOMETHING 2031, AM
  - »Junction 5 - DO SOMETHING 2031, PM
  - »Junction 5 - DO SOMETHING 2041, AM
  - »Junction 5 - DO SOMETHING 2041, PM
  - »Junction 5 - SENSITIVITY ANALYSIS 2026, AM
  - »Junction 5 - SENSITIVITY ANALYSIS 2026, PM
  - »Junction 5 - SENSITIVITY ANALYSIS 2031, AM
  - »Junction 5 - SENSITIVITY ANALYSIS 2031, PM
  - »Junction 5 - SENSITIVITY ANALYSIS 2041, AM
  - »Junction 5 - SENSITIVITY ANALYSIS 2041, PM

### Summary of junction performance

	AM		PM	
	Queue (PCU)	RFC	Queue (PCU)	RFC
<b>Junction 5 - Baseline 2022</b>				
Stream B-AC	0.1	0.06	0.0	0.03
Stream C-AB	0.0	0.01	0.0	0.02
<b>Junction 5 - DO NOTHING 2026</b>				
Stream B-AC	0.1	0.07	0.0	0.04
Stream C-AB	0.0	0.02	0.0	0.03
<b>Junction 5 - DO NOTHING 2031</b>				
Stream B-AC	0.1	0.08	0.0	0.04
Stream C-AB	0.0	0.02	0.0	0.03
<b>Junction 5 - DO NOTHING 2041</b>				
Stream B-AC	0.1	0.08	0.0	0.04
Stream C-AB	0.0	0.02	0.0	0.03
<b>Junction 5 - DO SOMETHING 2026</b>				
Stream B-AC	0.2	0.14	0.1	0.07
Stream C-AB	0.0	0.03	0.1	0.06
<b>Junction 5 - DO SOMETHING 2031</b>				
Stream B-AC	0.2	0.15	0.1	0.08
Stream C-AB	0.0	0.03	0.1	0.06
<b>Junction 5 - DO SOMETHING 2041</b>				
Stream B-AC	0.2	0.15	0.1	0.08
Stream C-AB	0.0	0.03	0.1	0.06
<b>Junction 5 - SENSITIVITY ANALYSIS 2026</b>				
Stream B-AC	0.2	0.14	0.1	0.07
Stream C-AB	0.0	0.03	0.1	0.06
<b>Junction 5 - SENSITIVITY ANALYSIS 2031</b>				
Stream B-AC	0.2	0.15	0.1	0.08
Stream C-AB	0.0	0.03	0.1	0.06
<b>Junction 5 - SENSITIVITY ANALYSIS 2041</b>				
Stream B-AC	0.2	0.15	0.1	0.08
Stream C-AB	0.0	0.03	0.1	0.06

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

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

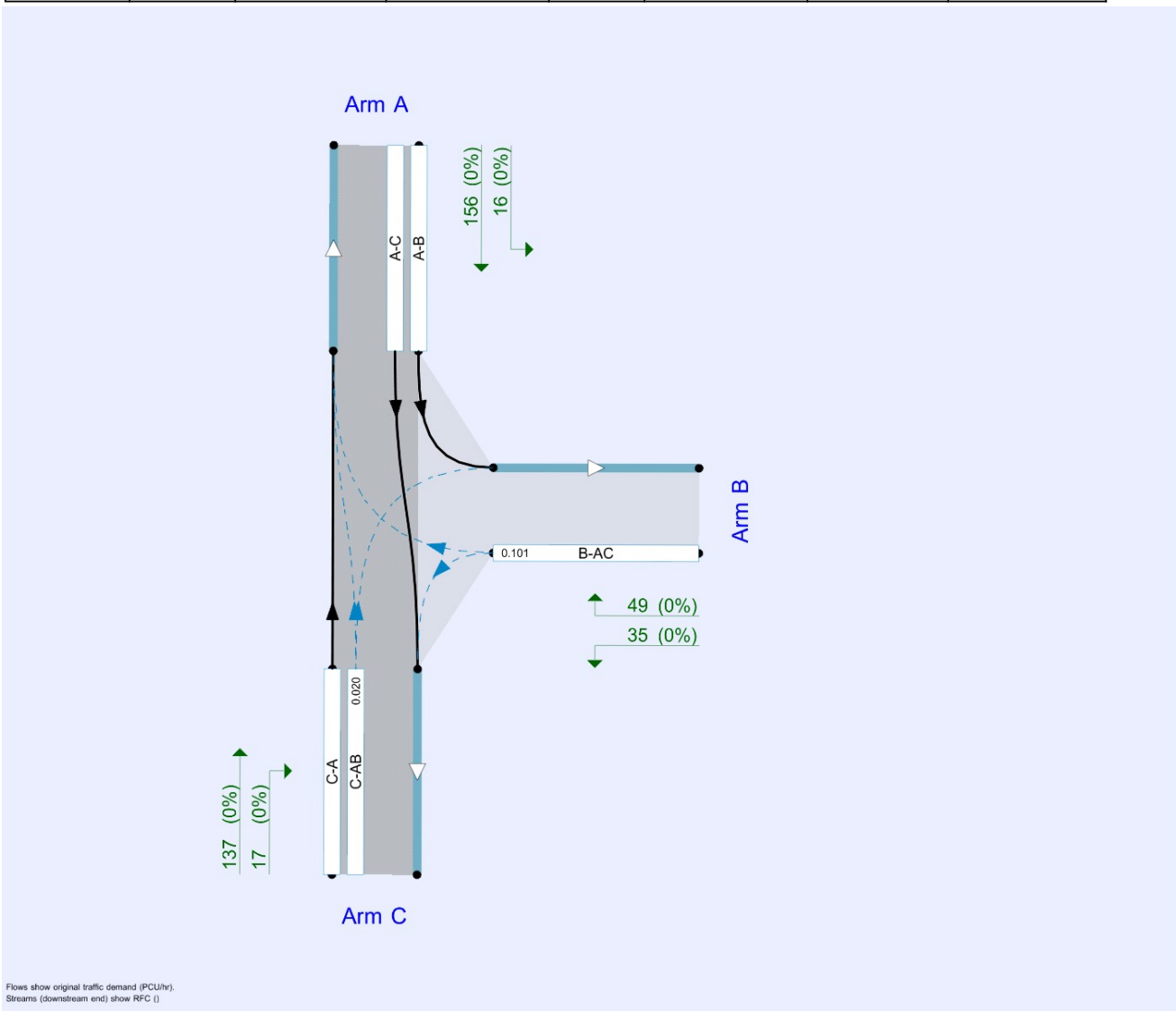
### File summary

#### File Description

Title	
Location	
Site number	
Date	19/11/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAIN\byrne
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



The junction diagram reflects the last run of Junctions.

**Analysis Options**

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

### Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Baseline 2022	AM	ONE HOUR	00:00	01:30	15	✓
D2	Baseline 2022	PM	ONE HOUR	00:00	01:30	15	✓
D3	DO NOTHING 2026	AM	ONE HOUR	00:00	01:30	15	✓
D4	DO NOTHING 2026	PM	ONE HOUR	00:00	01:30	15	✓
D5	DO NOTHING 2031	AM	ONE HOUR	00:00	01:30	15	✓
D6	DO NOTHING 2031	PM	ONE HOUR	00:00	01:30	15	✓
D7	DO NOTHING 2041	AM	ONE HOUR	00:00	01:30	15	✓
D8	DO NOTHING 2041	PM	ONE HOUR	00:00	01:30	15	✓
D9	DO SOMETHING 2026	AM	ONE HOUR	00:00	01:30	15	✓
D10	DO SOMETHING 2026	PM	ONE HOUR	00:00	01:30	15	✓
D11	DO SOMETHING 2031	AM	ONE HOUR	00:00	01:30	15	✓
D12	DO SOMETHING 2031	PM	ONE HOUR	00:00	01:30	15	✓
D13	DO SOMETHING 2041	AM	ONE HOUR	00:00	01:30	15	✓
D14	DO SOMETHING 2041	PM	ONE HOUR	00:00	01:30	15	✓
D15	SENSITIVITY ANALYSIS 2026	AM	ONE HOUR	00:00	01:30	15	✓
D16	SENSITIVITY ANALYSIS 2026	PM	ONE HOUR	00:00	01:30	15	✓
D17	SENSITIVITY ANALYSIS 2031	AM	ONE HOUR	00:00	01:30	15	✓
D18	SENSITIVITY ANALYSIS 2031	PM	ONE HOUR	00:00	01:30	15	✓
D19	SENSITIVITY ANALYSIS 2041	AM	ONE HOUR	00:00	01:30	15	✓
D20	SENSITIVITY ANALYSIS 2041	PM	ONE HOUR	00:00	01:30	15	✓

### Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Junction 5	✓	100.000	100.000

# Junction 5 - Baseline 2022, 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.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.94	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

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

### 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			250.0	✓	0.00

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

### Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	4.96	55	48

### 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	621	0.113	0.286	0.180	0.408
B-C	783	0.120	0.303	-	-
C-B	719	0.278	0.278	-	-

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	Baseline 2022	AM	ONE HOUR	00:00	01:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	115	100.000
B		ONE HOUR	✓	33	100.000
C		ONE HOUR	✓	115	100.000

## Origin-Destination Data

### Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	6	109
	B	20	0	13
	C	107	8	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 LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.06	6.15	0.1	A	30	45
C-AB	0.01	4.88	0.0	A	8	13
C-A					97	146
A-B					6	8
A-C					100	150

## Main Results for each time segment

### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	25	6	639	0.039	25	0.0	0.0	5.859	A
C-AB	7	2	744	0.009	7	0.0	0.0	4.881	A
C-A	80	20			80				
A-B	5	1			5				
A-C	82	21			82				

### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	30	7	632	0.047	30	0.0	0.0	5.978	A
C-AB	8	2	749	0.011	8	0.0	0.0	4.857	A
C-A	95	24			95				
A-B	5	1			5				
A-C	98	24			98				

### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	9	622	0.058	36	0.0	0.1	6.149	A
C-AB	10	3	757	0.014	10	0.0	0.0	4.824	A
C-A	116	29			116				
A-B	7	2			7				
A-C	120	30			120				

### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	9	622	0.058	36	0.1	0.1	6.149	A
C-AB	10	3	757	0.014	10	0.0	0.0	4.824	A
C-A	116	29			116				
A-B	7	2			7				
A-C	120	30			120				

### 01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	30	7	632	0.047	30	0.1	0.0	5.979	A
C-AB	8	2	749	0.011	8	0.0	0.0	4.859	A
C-A	95	24			95				
A-B	5	1			5				
A-C	98	24			98				

### 01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	25	6	639	0.039	25	0.0	0.0	5.862	A
C-AB	7	2	744	0.009	7	0.0	0.0	4.882	A
C-A	80	20			80				
A-B	5	1			5				
A-C	82	21			82				



# Junction 5 - Baseline 2022, 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.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.87	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Baseline 2022	PM	ONE HOUR	00:00	01:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	83	100.000
B		ONE HOUR	✓	18	100.000
C		ONE HOUR	✓	105	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	12	71
	B	8	0	10
	C	91	14	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 LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.03	5.60	0.0	A	17	25
C-AB	0.02	4.92	0.0	A	15	22
C-A					82	123
A-B					11	17
A-C					65	98

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	14	3	675	0.020	13	0.0	0.0	5.442	A
C-AB	12	3	743	0.016	12	0.0	0.0	4.920	A
C-A	67	17			67				
A-B	9	2			9				
A-C	53	13			53				

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	16	4	670	0.024	16	0.0	0.0	5.508	A
C-AB	14	4	748	0.019	14	0.0	0.0	4.904	A
C-A	80	20			80				
A-B	11	3			11				
A-C	64	16			64				

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	662	0.030	20	0.0	0.0	5.601	A
C-AB	18	4	755	0.024	18	0.0	0.0	4.883	A
C-A	98	24			98				
A-B	13	3			13				
A-C	78	20			78				

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	662	0.030	20	0.0	0.0	5.601	A
C-AB	18	4	755	0.024	18	0.0	0.0	4.885	A
C-A	98	24			98				
A-B	13	3			13				
A-C	78	20			78				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	16	4	670	0.024	16	0.0	0.0	5.510	A
C-AB	14	4	748	0.019	14	0.0	0.0	4.905	A
C-A	80	20			80				
A-B	11	3			11				
A-C	64	16			64				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	14	3	675	0.020	14	0.0	0.0	5.443	A
C-AB	12	3	743	0.016	12	0.0	0.0	4.922	A
C-A	67	17			67				
A-B	9	2			9				
A-C	53	13			53				

# Junction 5 - DO NOTHING 2026, 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.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.01	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	DO NOTHING 2026	AM	ONE HOUR	00:00	01:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	132	100.000
B		ONE HOUR	✓	39	100.000
C		ONE HOUR	✓	127	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	7	125
	B	22	0	17
	C	117	10	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 LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.07	6.22	0.1	A	36	54
C-AB	0.02	4.89	0.0	A	11	16
C-A					106	159
A-B					6	10
A-C					115	172

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	7	641	0.046	29	0.0	0.0	5.883	A
C-AB	9	2	745	0.011	8	0.0	0.0	4.885	A
C-A	87	22			87				
A-B	5	1			5				
A-C	94	24			94				

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	9	633	0.055	35	0.0	0.1	6.022	A
C-AB	10	3	751	0.014	10	0.0	0.0	4.862	A
C-A	104	26			104				
A-B	6	2			6				
A-C	112	28			112				

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	43	11	622	0.069	43	0.1	0.1	6.221	A
C-AB	13	3	759	0.018	13	0.0	0.0	4.829	A
C-A	127	32			127				
A-B	8	2			8				
A-C	138	34			138				

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	43	11	621	0.069	43	0.1	0.1	6.221	A
C-AB	13	3	759	0.018	13	0.0	0.0	4.830	A
C-A	127	32			127				
A-B	8	2			8				
A-C	138	34			138				

**01:00 - 01:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	9	633	0.055	35	0.1	0.1	6.023	A
C-AB	10	3	751	0.014	10	0.0	0.0	4.862	A
C-A	104	26			104				
A-B	6	2			6				
A-C	112	28			112				

**01:15 - 01:30**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	7	641	0.046	29	0.1	0.0	5.887	A
C-AB	9	2	745	0.011	9	0.0	0.0	4.887	A
C-A	87	22			87				
A-B	5	1			5				
A-C	94	24			94				

# Junction 5 - DO NOTHING 2026, 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.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.94	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	DO NOTHING 2026	PM	ONE HOUR	00:00	01:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	94	100.000
B		ONE HOUR	✓	22	100.000
C		ONE HOUR	✓	124	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	13	81
	B	9	0	13
	C	106	18	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 LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.04	5.63	0.0	A	20	30
C-AB	0.03	4.92	0.0	A	19	29
C-A					95	142
A-B					12	18
A-C					74	111

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	677	0.024	16	0.0	0.0	5.449	A
C-AB	15	4	748	0.020	15	0.0	0.0	4.913	A
C-A	78	20			78				
A-B	10	2			10				
A-C	61	15			61				

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	671	0.029	20	0.0	0.0	5.525	A
C-AB	19	5	754	0.025	19	0.0	0.0	4.896	A
C-A	93	23			93				
A-B	12	3			12				
A-C	73	18			73				

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	663	0.037	24	0.0	0.0	5.635	A
C-AB	23	6	762	0.031	23	0.0	0.0	4.874	A
C-A	113	28			113				
A-B	14	4			14				
A-C	89	22			89				

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	663	0.037	24	0.0	0.0	5.635	A
C-AB	23	6	762	0.031	23	0.0	0.0	4.876	A
C-A	113	28			113				
A-B	14	4			14				
A-C	89	22			89				



01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	671	0.029	20	0.0	0.0	5.528	A
C-AB	19	5	754	0.025	19	0.0	0.0	4.897	A
C-A	93	23			93				
A-B	12	3			12				
A-C	73	18			73				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	677	0.024	17	0.0	0.0	5.449	A
C-AB	15	4	748	0.020	15	0.0	0.0	4.915	A
C-A	78	20			78				
A-B	10	2			10				
A-C	61	15			61				

# Junction 5 - DO NOTHING 2031, 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.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.02	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	DO NOTHING 2031	AM	ONE HOUR	00:00	01:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	142	100.000
B		ONE HOUR	✓	42	100.000
C		ONE HOUR	✓	138	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	7	135
	B	24	0	18
	C	127	11	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 LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.08	6.33	0.1	A	39	58
C-AB	0.02	4.87	0.0	A	12	18
C-A					115	172
A-B					6	10
A-C					124	186

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	636	0.050	31	0.0	0.1	5.951	A
C-AB	9	2	748	0.013	9	0.0	0.0	4.874	A
C-A	94	24			94				
A-B	5	1			5				
A-C	102	25			102				

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	38	9	627	0.060	38	0.1	0.1	6.104	A
C-AB	12	3	754	0.015	12	0.0	0.0	4.848	A
C-A	112	28			112				
A-B	6	2			6				
A-C	121	30			121				

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	46	12	615	0.075	46	0.1	0.1	6.326	A
C-AB	15	4	763	0.019	15	0.0	0.0	4.814	A
C-A	137	34			137				
A-B	8	2			8				
A-C	149	37			149				

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	46	12	615	0.075	46	0.1	0.1	6.326	A
C-AB	15	4	763	0.019	15	0.0	0.0	4.814	A
C-A	137	34			137				
A-B	8	2			8				
A-C	149	37			149				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	38	9	627	0.060	38	0.1	0.1	6.105	A
C-AB	12	3	754	0.015	12	0.0	0.0	4.849	A
C-A	112	28			112				
A-B	6	2			6				
A-C	121	30			121				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	636	0.050	32	0.1	0.1	5.956	A
C-AB	10	2	748	0.013	10	0.0	0.0	4.874	A
C-A	94	24			94				
A-B	5	1			5				
A-C	102	25			102				

# Junction 5 - DO NOTHING 2031, 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.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.91	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	DO NOTHING 2031	PM	ONE HOUR	00:00	01:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	102	100.000
B		ONE HOUR	✓	22	100.000
C		ONE HOUR	✓	134	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	14	88
	B	9	0	13
	C	115	19	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 LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.04	5.67	0.0	A	20	30
C-AB	0.03	4.90	0.0	A	20	31
C-A					103	154
A-B					13	19
A-C					81	121

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	675	0.025	16	0.0	0.0	5.469	A
C-AB	16	4	750	0.022	16	0.0	0.0	4.902	A
C-A	85	21			85				
A-B	11	3			11				
A-C	66	17			66				

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	668	0.030	20	0.0	0.0	5.551	A
C-AB	20	5	757	0.026	20	0.0	0.0	4.884	A
C-A	101	25			101				
A-B	13	3			13				
A-C	79	20			79				

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	659	0.037	24	0.0	0.0	5.667	A
C-AB	25	6	766	0.033	25	0.0	0.0	4.860	A
C-A	122	31			122				
A-B	15	4			15				
A-C	97	24			97				

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	659	0.037	24	0.0	0.0	5.668	A
C-AB	25	6	766	0.033	25	0.0	0.0	4.860	A
C-A	122	31			122				
A-B	15	4			15				
A-C	97	24			97				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	668	0.030	20	0.0	0.0	5.554	A
C-AB	20	5	757	0.026	20	0.0	0.0	4.885	A
C-A	101	25			101				
A-B	13	3			13				
A-C	79	20			79				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	675	0.025	17	0.0	0.0	5.470	A
C-AB	16	4	750	0.022	16	0.0	0.0	4.905	A
C-A	85	21			85				
A-B	11	3			11				
A-C	66	17			66				

# Junction 5 - DO NOTHING 2041, 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.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.01	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	DO NOTHING 2041	AM	ONE HOUR	00:00	01:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	147	100.000
B		ONE HOUR	✓	43	100.000
C		ONE HOUR	✓	143	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	7	140
	B	24	0	19
	C	132	11	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 LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.08	6.34	0.1	A	39	59
C-AB	0.02	4.87	0.0	A	12	18
C-A					119	179
A-B					6	10
A-C					128	193

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	637	0.051	32	0.0	0.1	5.951	A
C-AB	10	2	749	0.013	9	0.0	0.0	4.865	A
C-A	98	25			98				
A-B	5	1			5				
A-C	105	26			105				

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	10	628	0.062	39	0.1	0.1	6.109	A
C-AB	12	3	756	0.016	12	0.0	0.0	4.838	A
C-A	117	29			117				
A-B	6	2			6				
A-C	126	31			126				

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	47	12	615	0.077	47	0.1	0.1	6.338	A
C-AB	15	4	765	0.020	15	0.0	0.0	4.801	A
C-A	142	36			142				
A-B	8	2			8				
A-C	154	39			154				

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	47	12	615	0.077	47	0.1	0.1	6.338	A
C-AB	15	4	765	0.020	15	0.0	0.0	4.803	A
C-A	142	36			142				
A-B	8	2			8				
A-C	154	39			154				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	10	628	0.062	39	0.1	0.1	6.111	A
C-AB	12	3	756	0.016	12	0.0	0.0	4.841	A
C-A	117	29			117				
A-B	6	2			6				
A-C	126	31			126				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	637	0.051	32	0.1	0.1	5.957	A
C-AB	10	2	749	0.013	10	0.0	0.0	4.866	A
C-A	98	25			98				
A-B	5	1			5				
A-C	105	26			105				

# Junction 5 - DO NOTHING 2041, 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.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.94	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	DO NOTHING 2041	PM	ONE HOUR	00:00	01:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	106	100.000
B		ONE HOUR	✓	24	100.000
C		ONE HOUR	✓	138	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	15	91
	B	10	0	14
	C	118	20	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 LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.04	5.72	0.0	A	22	33
C-AB	0.03	4.91	0.0	A	22	32
C-A					105	158
A-B					14	21
A-C					84	125

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	5	672	0.027	18	0.0	0.0	5.504	A
C-AB	17	4	751	0.023	17	0.0	0.0	4.904	A
C-A	87	22			87				
A-B	11	3			11				
A-C	69	17			69				

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	5	665	0.032	22	0.0	0.0	5.591	A
C-AB	21	5	757	0.028	21	0.0	0.0	4.887	A
C-A	103	26			103				
A-B	13	3			13				
A-C	82	20			82				

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	7	656	0.040	26	0.0	0.0	5.716	A
C-AB	27	7	767	0.035	26	0.0	0.0	4.863	A
C-A	125	31			125				
A-B	17	4			17				
A-C	100	25			100				

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	7	656	0.040	26	0.0	0.0	5.716	A
C-AB	27	7	767	0.035	27	0.0	0.0	4.866	A
C-A	125	31			125				
A-B	17	4			17				
A-C	100	25			100				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	5	665	0.032	22	0.0	0.0	5.594	A
C-AB	21	5	758	0.028	21	0.0	0.0	4.887	A
C-A	103	26			103				
A-B	13	3			13				
A-C	82	20			82				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	5	672	0.027	18	0.0	0.0	5.504	A
C-AB	17	4	751	0.023	17	0.0	0.0	4.905	A
C-A	87	22			87				
A-B	11	3			11				
A-C	69	17			69				

# Junction 5 - DO SOMETHING 2026, 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.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.73	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	DO SOMETHING 2026	AM	ONE HOUR	00:00	01:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	152	100.000
B		ONE HOUR	✓	79	100.000
C		ONE HOUR	✓	137	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	16	136
	B	46	0	33
	C	121	16	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 LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.14	6.87	0.2	A	72	109
C-AB	0.03	4.93	0.0	A	17	26
C-A					108	163
A-B					15	22
A-C					125	187

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	59	15	633	0.094	59	0.0	0.1	6.270	A
C-AB	14	3	743	0.018	14	0.0	0.0	4.934	A
C-A	89	22			89				
A-B	12	3			12				
A-C	102	26			102				

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	71	18	624	0.114	71	0.1	0.1	6.512	A
C-AB	17	4	748	0.023	17	0.0	0.0	4.920	A
C-A	106	27			106				
A-B	14	4			14				
A-C	122	31			122				

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	87	22	611	0.142	87	0.1	0.2	6.866	A
C-AB	21	5	756	0.028	21	0.0	0.0	4.902	A
C-A	129	32			129				
A-B	18	4			18				
A-C	150	37			150				

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	87	22	611	0.142	87	0.2	0.2	6.869	A
C-AB	21	5	756	0.028	21	0.0	0.0	4.905	A
C-A	129	32			129				
A-B	18	4			18				
A-C	150	37			150				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	71	18	624	0.114	71	0.2	0.1	6.516	A
C-AB	17	4	748	0.023	17	0.0	0.0	4.923	A
C-A	106	27			106				
A-B	14	4			14				
A-C	122	31			122				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	59	15	633	0.094	60	0.1	0.1	6.282	A
C-AB	14	3	743	0.018	14	0.0	0.0	4.935	A
C-A	89	22			89				
A-B	12	3			12				
A-C	102	26			102				



# Junction 5 - DO SOMETHING 2026, 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.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.45	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	DO SOMETHING 2026	PM	ONE HOUR	00:00	01:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	125	100.000
B		ONE HOUR	✓	43	100.000
C		ONE HOUR	✓	149	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	38	87
	B	22	0	21
	C	116	33	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 LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.07	6.15	0.1	A	39	59
C-AB	0.06	5.03	0.1	A	35	53
C-A					101	152
A-B					35	52
A-C					80	120

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	651	0.050	32	0.0	0.1	5.815	A
C-AB	28	7	746	0.038	28	0.0	0.0	5.010	A
C-A	84	21			84				
A-B	29	7			29				
A-C	65	16			65				

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	10	643	0.060	39	0.1	0.1	5.953	A
C-AB	34	9	752	0.046	34	0.0	0.1	5.017	A
C-A	99	25			99				
A-B	34	9			34				
A-C	78	20			78				

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	47	12	633	0.075	47	0.1	0.1	6.151	A
C-AB	44	11	760	0.058	44	0.1	0.1	5.026	A
C-A	120	30			120				
A-B	42	10			42				
A-C	96	24			96				

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	47	12	632	0.075	47	0.1	0.1	6.151	A
C-AB	44	11	760	0.058	44	0.1	0.1	5.027	A
C-A	120	30			120				
A-B	42	10			42				
A-C	96	24			96				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	10	643	0.060	39	0.1	0.1	5.957	A
C-AB	34	9	752	0.046	35	0.1	0.1	5.018	A
C-A	99	25			99				
A-B	34	9			34				
A-C	78	20			78				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	651	0.050	32	0.1	0.1	5.821	A
C-AB	28	7	746	0.038	28	0.1	0.0	5.013	A
C-A	84	21			84				
A-B	29	7			29				
A-C	65	16			65				

# Junction 5 - DO SOMETHING 2031, 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.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.71	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	DO SOMETHING 2031	AM	ONE HOUR	00:00	01:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	162	100.000
B		ONE HOUR	✓	82	100.000
C		ONE HOUR	✓	147	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	16	146
	B	48	0	34
	C	131	16	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 LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.15	6.98	0.2	A	75	113
C-AB	0.03	4.92	0.0	A	18	26
C-A					117	176
A-B					15	22
A-C					134	201

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	62	15	629	0.098	61	0.0	0.1	6.336	A
C-AB	14	3	746	0.019	14	0.0	0.0	4.917	A
C-A	97	24			97				
A-B	12	3			12				
A-C	110	27			110				

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	74	18	619	0.119	74	0.1	0.1	6.594	A
C-AB	17	4	752	0.023	17	0.0	0.0	4.900	A
C-A	115	29			115				
A-B	14	4			14				
A-C	131	33			131				

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	90	23	606	0.149	90	0.1	0.2	6.980	A
C-AB	22	5	760	0.029	22	0.0	0.0	4.878	A
C-A	140	35			140				
A-B	18	4			18				
A-C	161	40			161				

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	90	23	606	0.149	90	0.2	0.2	6.983	A
C-AB	22	5	760	0.029	22	0.0	0.0	4.880	A
C-A	140	35			140				
A-B	18	4			18				
A-C	161	40			161				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	74	18	619	0.119	74	0.2	0.1	6.603	A
C-AB	17	4	752	0.023	17	0.0	0.0	4.901	A
C-A	115	29			115				
A-B	14	4			14				
A-C	131	33			131				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	62	15	629	0.098	62	0.1	0.1	6.349	A
C-AB	14	3	746	0.019	14	0.0	0.0	4.918	A
C-A	97	24			97				
A-B	12	3			12				
A-C	110	27			110				

# Junction 5 - DO SOMETHING 2031, 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.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.44	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	DO SOMETHING 2031	PM	ONE HOUR	00:00	01:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	133	100.000
B		ONE HOUR	✓	45	100.000
C		ONE HOUR	✓	160	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	39	94
	B	23	0	22
	C	125	35	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 LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.08	6.22	0.1	A	41	62
C-AB	0.06	5.02	0.1	A	38	57
C-A					109	163
A-B					36	54
A-C					86	129

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	8	648	0.052	34	0.0	0.1	5.855	A
C-AB	30	8	749	0.040	30	0.0	0.1	5.006	A
C-A	90	23			90				
A-B	29	7			29				
A-C	71	18			71				

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	640	0.063	40	0.1	0.1	6.004	A
C-AB	37	9	755	0.049	37	0.1	0.1	5.013	A
C-A	107	27			107				
A-B	35	9			35				
A-C	85	21			85				

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	50	12	628	0.079	49	0.1	0.1	6.218	A
C-AB	47	12	764	0.062	47	0.1	0.1	5.022	A
C-A	129	32			129				
A-B	43	11			43				
A-C	103	26			103				

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	50	12	628	0.079	50	0.1	0.1	6.219	A
C-AB	47	12	764	0.062	47	0.1	0.1	5.023	A
C-A	129	32			129				
A-B	43	11			43				
A-C	103	26			103				



01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	640	0.063	41	0.1	0.1	6.008	A
C-AB	37	9	755	0.049	37	0.1	0.1	5.014	A
C-A	107	27			107				
A-B	35	9			35				
A-C	85	21			85				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	8	648	0.052	34	0.1	0.1	5.859	A
C-AB	30	8	749	0.040	30	0.1	0.1	5.011	A
C-A	90	23			90				
A-B	29	7			29				
A-C	71	18			71				

# Junction 5 - DO SOMETHING 2041, 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.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.71	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	DO SOMETHING 2041	AM	ONE HOUR	00:00	01:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	167	100.000
B		ONE HOUR	✓	84	100.000
C		ONE HOUR	✓	153	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	16	151
	B	49	0	35
	C	136	17	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 LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.15	7.05	0.2	A	77	116
C-AB	0.03	4.92	0.0	A	19	28
C-A					122	182
A-B					15	22
A-C					139	208

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	63	16	628	0.101	63	0.0	0.1	6.373	A
C-AB	15	4	747	0.020	15	0.0	0.0	4.914	A
C-A	100	25			100				
A-B	12	3			12				
A-C	114	28			114				

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	76	19	617	0.122	75	0.1	0.1	6.639	A
C-AB	18	5	753	0.024	18	0.0	0.0	4.897	A
C-A	119	30			119				
A-B	14	4			14				
A-C	136	34			136				

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	92	23	603	0.153	92	0.1	0.2	7.042	A
C-AB	23	6	762	0.031	23	0.0	0.0	4.874	A
C-A	145	36			145				
A-B	18	4			18				
A-C	166	42			166				

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	92	23	603	0.153	92	0.2	0.2	7.045	A
C-AB	23	6	762	0.031	23	0.0	0.0	4.877	A
C-A	145	36			145				
A-B	18	4			18				
A-C	166	42			166				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	76	19	617	0.122	76	0.2	0.1	6.645	A
C-AB	18	5	753	0.024	18	0.0	0.0	4.900	A
C-A	119	30			119				
A-B	14	4			14				
A-C	136	34			136				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	63	16	628	0.101	63	0.1	0.1	6.382	A
C-AB	15	4	747	0.020	15	0.0	0.0	4.917	A
C-A	100	25			100				
A-B	12	3			12				
A-C	114	28			114				

# Junction 5 - DO SOMETHING 2041, 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.

## Junction Network

### Junctions

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

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	DO SOMETHING 2041	PM	ONE HOUR	00:00	01:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	135	100.000
B		ONE HOUR	✓	45	100.000
C		ONE HOUR	✓	164	100.000

## Origin-Destination Data

#### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	39	96
	B	23	0	22
	C	129	35	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 LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.08	6.23	0.1	A	41	62
C-AB	0.06	5.01	0.1	A	38	57
C-A					112	168
A-B					36	54
A-C					88	132

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	8	648	0.052	34	0.0	0.1	5.863	A
C-AB	30	8	750	0.040	30	0.0	0.1	4.997	A
C-A	93	23			93				
A-B	29	7			29				
A-C	72	18			72				

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	639	0.063	40	0.1	0.1	6.013	A
C-AB	37	9	757	0.049	37	0.1	0.1	5.004	A
C-A	110	28			110				
A-B	35	9			35				
A-C	86	22			86				

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	50	12	627	0.079	49	0.1	0.1	6.231	A
C-AB	47	12	766	0.062	47	0.1	0.1	5.009	A
C-A	133	33			133				
A-B	43	11			43				
A-C	106	26			106				

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	50	12	627	0.079	50	0.1	0.1	6.232	A
C-AB	47	12	766	0.062	47	0.1	0.1	5.012	A
C-A	133	33			133				
A-B	43	11			43				
A-C	106	26			106				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	639	0.063	41	0.1	0.1	6.015	A
C-AB	37	9	757	0.049	37	0.1	0.1	5.004	A
C-A	110	28			110				
A-B	35	9			35				
A-C	86	22			86				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	8	647	0.052	34	0.1	0.1	5.867	A
C-AB	30	8	750	0.040	30	0.1	0.1	5.002	A
C-A	93	23			93				
A-B	29	7			29				
A-C	72	18			72				

# Junction 5 - SENSITIVITY ANALYSIS 2026, 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.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.73	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	SENSITIVITY ANALYSIS 2026	AM	ONE HOUR	00:00	01:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	152	100.000
B		ONE HOUR	✓	79	100.000
C		ONE HOUR	✓	137	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	16	136
	B	46	0	33
	C	121	16	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 LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.14	6.87	0.2	A	72	109
C-AB	0.03	4.93	0.0	A	17	26
C-A					108	163
A-B					15	22
A-C					125	187

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	59	15	633	0.094	59	0.0	0.1	6.270	A
C-AB	14	3	743	0.018	14	0.0	0.0	4.934	A
C-A	89	22			89				
A-B	12	3			12				
A-C	102	26			102				

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	71	18	624	0.114	71	0.1	0.1	6.512	A
C-AB	17	4	748	0.023	17	0.0	0.0	4.920	A
C-A	106	27			106				
A-B	14	4			14				
A-C	122	31			122				

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	87	22	611	0.142	87	0.1	0.2	6.866	A
C-AB	21	5	756	0.028	21	0.0	0.0	4.902	A
C-A	129	32			129				
A-B	18	4			18				
A-C	150	37			150				

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	87	22	611	0.142	87	0.2	0.2	6.869	A
C-AB	21	5	756	0.028	21	0.0	0.0	4.905	A
C-A	129	32			129				
A-B	18	4			18				
A-C	150	37			150				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	71	18	624	0.114	71	0.2	0.1	6.516	A
C-AB	17	4	748	0.023	17	0.0	0.0	4.923	A
C-A	106	27			106				
A-B	14	4			14				
A-C	122	31			122				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	59	15	633	0.094	60	0.1	0.1	6.282	A
C-AB	14	3	743	0.018	14	0.0	0.0	4.935	A
C-A	89	22			89				
A-B	12	3			12				
A-C	102	26			102				

# Junction 5 - SENSITIVITY ANALYSIS 2026, 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.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.45	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D16	SENSITIVITY ANALYSIS 2026	PM	ONE HOUR	00:00	01:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	125	100.000
B		ONE HOUR	✓	43	100.000
C		ONE HOUR	✓	149	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	38	87
	B	22	0	21
	C	116	33	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 LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.07	6.15	0.1	A	39	59
C-AB	0.06	5.03	0.1	A	35	53
C-A					101	152
A-B					35	52
A-C					80	120

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	651	0.050	32	0.0	0.1	5.815	A
C-AB	28	7	746	0.038	28	0.0	0.0	5.010	A
C-A	84	21			84				
A-B	29	7			29				
A-C	65	16			65				

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	10	643	0.060	39	0.1	0.1	5.953	A
C-AB	34	9	752	0.046	34	0.0	0.1	5.017	A
C-A	99	25			99				
A-B	34	9			34				
A-C	78	20			78				

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	47	12	633	0.075	47	0.1	0.1	6.151	A
C-AB	44	11	760	0.058	44	0.1	0.1	5.026	A
C-A	120	30			120				
A-B	42	10			42				
A-C	96	24			96				

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	47	12	632	0.075	47	0.1	0.1	6.151	A
C-AB	44	11	760	0.058	44	0.1	0.1	5.027	A
C-A	120	30			120				
A-B	42	10			42				
A-C	96	24			96				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	10	643	0.060	39	0.1	0.1	5.957	A
C-AB	34	9	752	0.046	35	0.1	0.1	5.018	A
C-A	99	25			99				
A-B	34	9			34				
A-C	78	20			78				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	651	0.050	32	0.1	0.1	5.821	A
C-AB	28	7	746	0.038	28	0.1	0.0	5.013	A
C-A	84	21			84				
A-B	29	7			29				
A-C	65	16			65				

# Junction 5 - SENSITIVITY ANALYSIS 2031, 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.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.68	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	SENSITIVITY ANALYSIS 2031	AM	ONE HOUR	00:00	01:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	167	100.000
B		ONE HOUR	✓	82	100.000
C		ONE HOUR	✓	149	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	16	151
	B	48	0	34
	C	133	16	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 LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.15	7.01	0.2	A	75	113
C-AB	0.03	4.92	0.0	A	18	26
C-A					119	179
A-B					15	22
A-C					139	208

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	62	15	628	0.098	61	0.0	0.1	6.351	A
C-AB	14	3	746	0.019	14	0.0	0.0	4.918	A
C-A	98	25			98				
A-B	12	3			12				
A-C	114	28			114				

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	74	18	618	0.119	74	0.1	0.1	6.613	A
C-AB	17	4	752	0.023	17	0.0	0.0	4.901	A
C-A	117	29			117				
A-B	14	4			14				
A-C	136	34			136				

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	90	23	604	0.150	90	0.1	0.2	7.006	A
C-AB	22	5	760	0.029	22	0.0	0.0	4.878	A
C-A	142	36			142				
A-B	18	4			18				
A-C	166	42			166				

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	90	23	604	0.150	90	0.2	0.2	7.009	A
C-AB	22	5	760	0.029	22	0.0	0.0	4.879	A
C-A	142	36			142				
A-B	18	4			18				
A-C	166	42			166				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	74	18	618	0.119	74	0.2	0.1	6.620	A
C-AB	17	4	752	0.023	17	0.0	0.0	4.902	A
C-A	117	29			117				
A-B	14	4			14				
A-C	136	34			136				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	62	15	628	0.098	62	0.1	0.1	6.361	A
C-AB	14	3	746	0.019	14	0.0	0.0	4.918	A
C-A	98	25			98				
A-B	12	3			12				
A-C	114	28			114				



# Junction 5 - SENSITIVITY ANALYSIS 2031, 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.

## Junction Network

### Junctions

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

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	SENSITIVITY ANALYSIS 2031	PM	ONE HOUR	00:00	01:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	135	100.000
B		ONE HOUR	✓	45	100.000
C		ONE HOUR	✓	165	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	39	96
	B	23	0	22
	C	130	35	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 LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.08	6.23	0.1	A	41	62
C-AB	0.06	5.01	0.1	A	38	58
C-A					113	170
A-B					36	54
A-C					88	132

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	8	647	0.052	34	0.0	0.1	5.864	A
C-AB	30	8	751	0.040	30	0.0	0.1	4.994	A
C-A	94	23			94				
A-B	29	7			29				
A-C	72	18			72				

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	639	0.063	40	0.1	0.1	6.015	A
C-AB	37	9	757	0.049	37	0.1	0.1	4.998	A
C-A	111	28			111				
A-B	35	9			35				
A-C	86	22			86				

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	50	12	627	0.079	49	0.1	0.1	6.233	A
C-AB	47	12	767	0.062	47	0.1	0.1	5.005	A
C-A	134	34			134				
A-B	43	11			43				
A-C	106	26			106				

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	50	12	627	0.079	50	0.1	0.1	6.233	A
C-AB	47	12	767	0.062	47	0.1	0.1	5.006	A
C-A	134	34			134				
A-B	43	11			43				
A-C	106	26			106				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	639	0.063	41	0.1	0.1	6.016	A
C-AB	37	9	757	0.049	37	0.1	0.1	5.000	A
C-A	111	28			111				
A-B	35	9			35				
A-C	86	22			86				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	8	647	0.052	34	0.1	0.1	5.868	A
C-AB	30	8	751	0.040	30	0.1	0.1	4.999	A
C-A	94	23			94				
A-B	29	7			29				
A-C	72	18			72				

# Junction 5 - SENSITIVITY ANALYSIS 2041, 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.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.69	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D19	SENSITIVITY ANALYSIS 2041	AM	ONE HOUR	00:00	01:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	172	100.000
B		ONE HOUR	✓	84	100.000
C		ONE HOUR	✓	154	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	16	156
	B	49	0	35
	C	137	17	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 LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.15	7.07	0.2	A	77	116
C-AB	0.03	4.92	0.0	A	19	28
C-A					122	184
A-B					15	22
A-C					143	215

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	63	16	626	0.101	63	0.0	0.1	6.377	A
C-AB	15	4	747	0.020	15	0.0	0.0	4.918	A
C-A	101	25			101				
A-B	12	3			12				
A-C	117	29			117				

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	76	19	616	0.123	75	0.1	0.1	6.656	A
C-AB	18	5	753	0.024	18	0.0	0.0	4.901	A
C-A	120	30			120				
A-B	14	4			14				
A-C	140	35			140				

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	92	23	602	0.154	92	0.1	0.2	7.067	A
C-AB	23	6	761	0.031	23	0.0	0.0	4.879	A
C-A	146	37			146				
A-B	18	4			18				
A-C	172	43			172				

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	92	23	602	0.154	92	0.2	0.2	7.070	A
C-AB	23	6	761	0.031	23	0.0	0.0	4.882	A
C-A	146	37			146				
A-B	18	4			18				
A-C	172	43			172				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	76	19	616	0.123	76	0.2	0.1	6.663	A
C-AB	18	5	753	0.024	18	0.0	0.0	4.904	A
C-A	120	30			120				
A-B	14	4			14				
A-C	140	35			140				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	63	16	626	0.101	63	0.1	0.1	6.394	A
C-AB	15	4	747	0.020	15	0.0	0.0	4.919	A
C-A	101	25			101				
A-B	12	3			12				
A-C	117	29			117				

# Junction 5 - SENSITIVITY ANALYSIS 2041, 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.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.40	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D20	SENSITIVITY ANALYSIS 2041	PM	ONE HOUR	00:00	01:30	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	139	100.000
B		ONE HOUR	✓	45	100.000
C		ONE HOUR	✓	167	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	39	100
	B	23	0	22
	C	132	35	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 LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.08	6.25	0.1	A	41	62
C-AB	0.06	5.01	0.1	A	38	58
C-A					115	172
A-B					36	54
A-C					92	138

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	8	646	0.052	34	0.0	0.1	5.874	A
C-AB	30	8	751	0.040	30	0.0	0.1	4.993	A
C-A	95	24			95				
A-B	29	7			29				
A-C	75	19			75				

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	638	0.063	40	0.1	0.1	6.028	A
C-AB	37	9	758	0.049	37	0.1	0.1	4.998	A
C-A	113	28			113				
A-B	35	9			35				
A-C	90	22			90				

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	50	12	625	0.079	49	0.1	0.1	6.250	A
C-AB	48	12	767	0.062	48	0.1	0.1	5.004	A
C-A	136	34			136				
A-B	43	11			43				
A-C	110	28			110				

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	50	12	625	0.079	50	0.1	0.1	6.250	A
C-AB	48	12	767	0.062	48	0.1	0.1	5.005	A
C-A	136	34			136				
A-B	43	11			43				
A-C	110	28			110				



01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	638	0.063	41	0.1	0.1	6.032	A
C-AB	37	9	758	0.049	37	0.1	0.1	5.000	A
C-A	113	28			113				
A-B	35	9			35				
A-C	90	22			90				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	8	646	0.052	34	0.1	0.1	5.878	A
C-AB	30	8	751	0.040	30	0.1	0.1	4.997	A
C-A	95	24			95				
A-B	29	7			29				
A-C	75	19			75				

**D. Appendix D – Site Access Options**



## Site Access Options

Strategic Housing Development at Broomfield Lands, Malahide

March 2022

**Waterman Moylan Consulting Engineers Limited**

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**Waterman Moylan**  
Engineering Consultants

**Client Name:** Birchwell Developments  
**Document Reference:** 18-091r.010 Site Access Options  
**Project Number:** 18-091

## Disclaimer

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We disclaim any responsibility to the Client and others in respect of any matters outside the scope of the above.

This report is confidential to the Client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at its own risk.

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# 1. Introduction

## 1.1 Context

This report was prepared by Waterman-Moylan to accompany the Traffic and Transport Assessment (TTA) in relation to three potential site access to the proposed development.

The proposed development consists of two sites. The northern site consists of 328 residential units and a creche approximately 400 sqm. The southern site will consist of 87 residential units. The combined total of proposed development is 415 residential units, comprising of 252 houses, 28 duplex units and 135 apartments.

## 1.2 Methodology

The methodology for the preparation of this reports included –

- Descriptions of each proposed site access design
- Determination of the connectivity of the site and the benefits of each design
- Determination of the travel times to nearby locations using a vehicle
- Calculation of the trip generation and distribution
- Determination of queue lengths/delay at site access junction due to the design layout

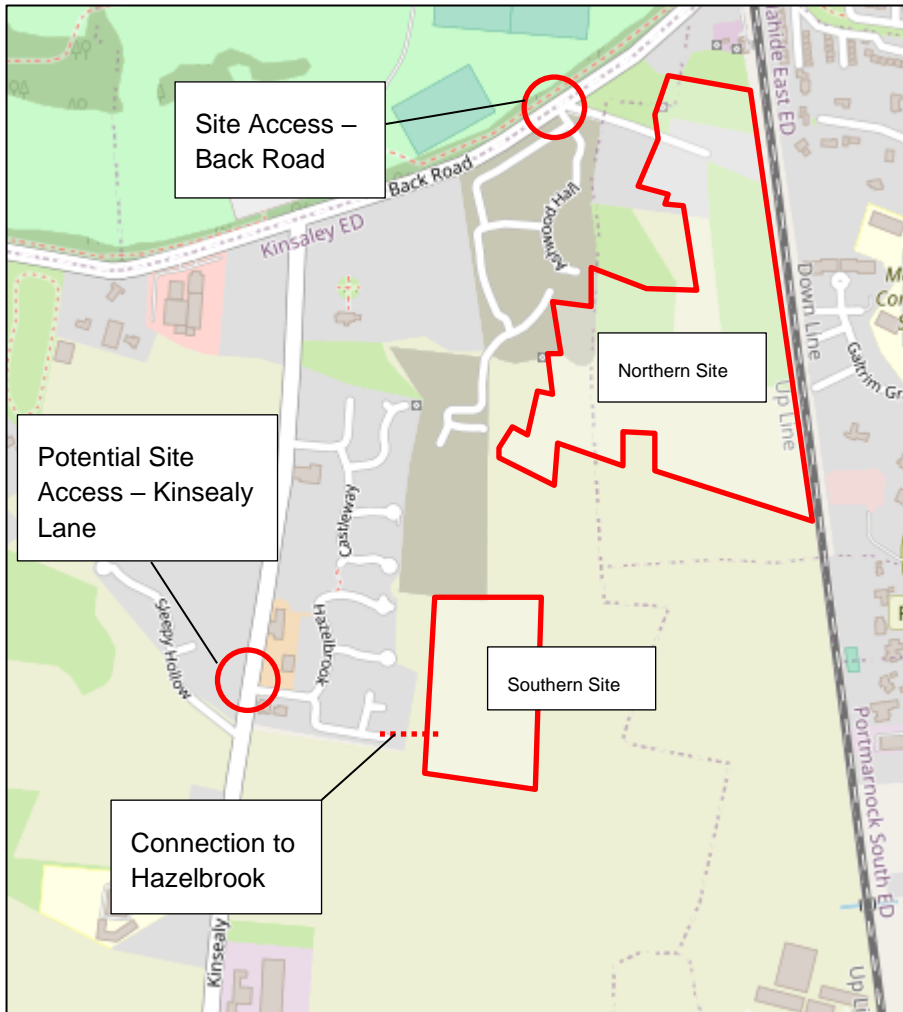
## 1.3 Proposed Development – Potential Site Access Points

The subject site is located in Broomfield, Malahide, Co. Dublin. The development entrance is from Back Road, 0.55km east of the junction between Back Road and Kinsealy Lane. The proposed development is split between the northern and southern site with two potential entrances.

The first potential site access point is on Back Road to the north of the proposed development. This entrance is part of the Ashwood Hall Development (Ref. Reg. F13A/0459) which will also be used by the proposed development. This site access junction is currently a priority T-Junction with Back Road.

The second potential site access point is on Kinsealy Lane, connected to the site via Hazelbrook Road. This is located to the south-west of proposed development, adjacent to the southern site. Figure 1 below shows the location of each potential entrance.





**Figure 1 | Proposed Development – Potential Site Access Points**

## 2. Site Access Option 1

### 2.1 Proposed Site Access – Option 1

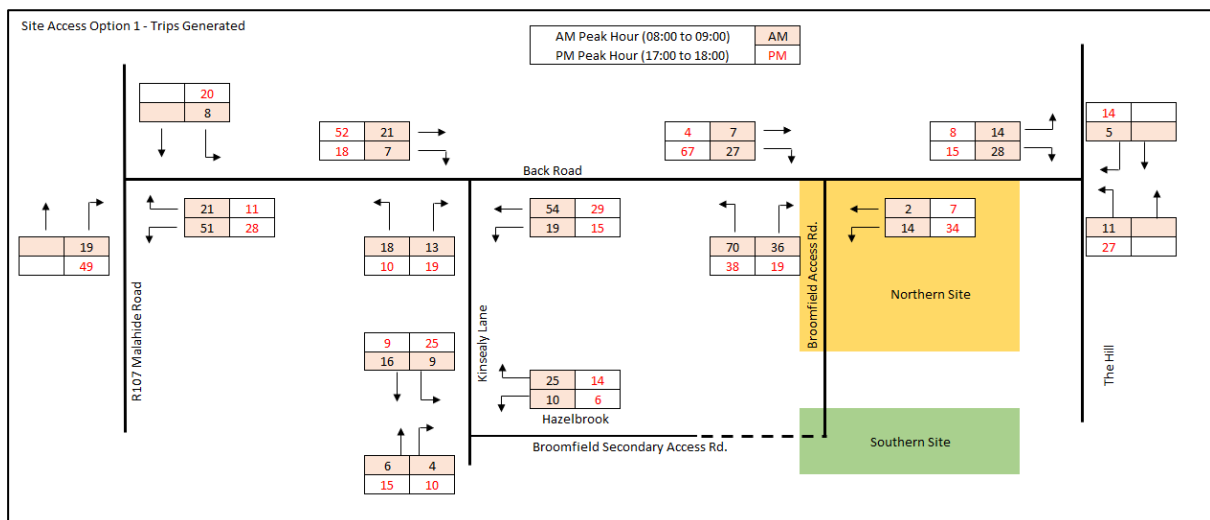
The proposed site access for option 1 includes two site access roads on Back Road and Kinsealy Lane. Included in this design is an internal road connecting the northern and southern sites internally. This road is approximately 1,083m in length and would include a meandering route, raised tables, pedestrian crossings, low radii corners and a speed limit of 30 Kmph in order to reduce the risk of ‘rat-running’.

Option 1 has site access points at both Back Road and Kinsealy Lane with a road connecting the north and southern site internally.

### 2.2 Site Connectivity

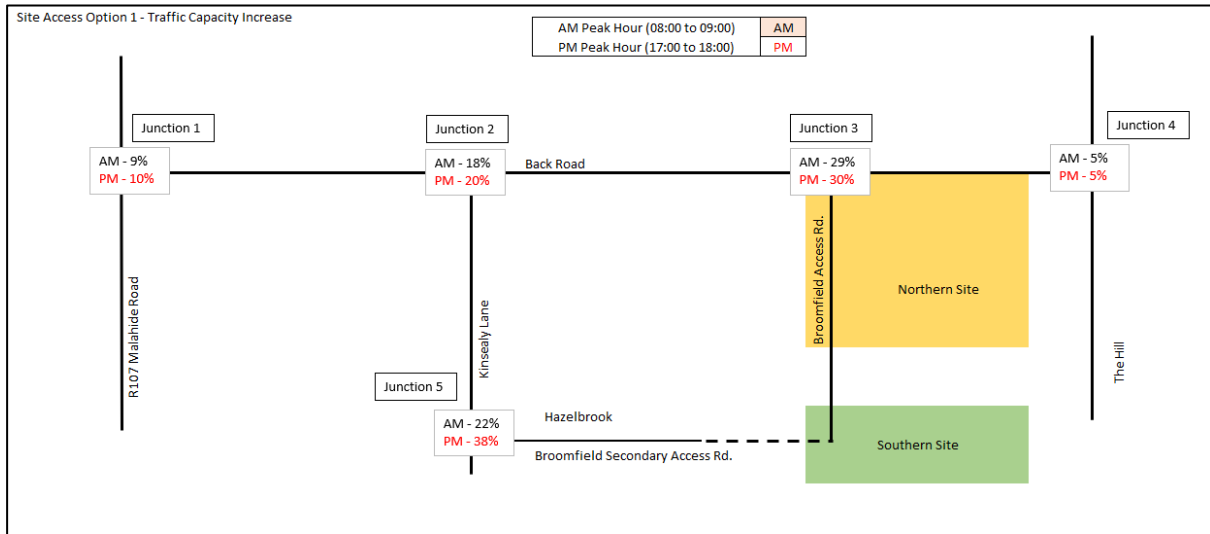
The road is approximately 1,083m in length and would include a meandering route, raised tables, pedestrian crossings, low radii corners and a speed limit of 30 Kmph in order to reduce the risk of ‘rat-running’. Figure 2 below shows the layout trips generated by Site Access Option 1.

The benefits of this option are that the Broomfield site would increase permeability in the area and also allow easier access to the northern and southern site. During our pre-planning meetings with Fingal County Council they sought for us to increase permeability by including a through link from Back Road to Kinsealy Lane.



**Figure 2 | Option 1 – Trip Assignment**

Figure 12 below shows the capacity increase of traffic for each of the surveyed junctions based on the Option 1 layout and the traffic survey taken in Section 8 below. The highest percentage increases are at Junction 5, Junction 3, and Junction 2.



**Figure 3 | Option 1 – Junction Capacity Increase**

### 2.3 Travel Times

When considering the site access junctions, travel times to the nearby popular/essential destinations were carefully considered. It is estimated it will take 1-minute to travel from the centre point of the northern site to Back Road access point and 1-minute to travel from the southern point to Kinsealy Lane. It is estimated to take approximately 5-minute to travel from the southern site to the northern site via the link road in between. Table 1 below shows the travel times to the nearby junctions using each entrance.

Junctions	Time to Locations	
	Northern Site (Via Back Road)	Southern Site (Via Kinsealy Lane)
<b>Junction 1</b>	2 – minute	3 – minute
<b>Junction 2</b>	1 – minutes	1 – minutes
<b>Junction 4</b>	1 – minutes	4 – minutes

**Table 1 | Option 1 – Travel Times**

### 3. Site Access Option 2

#### 3.1 Proposed Site Access – Option 2

Site Access Option 2 includes a site access point on Back Road for the Northern Site and another access point on Kinsealy Lane for the Southern Site. In this option there is no through link road between the northern and southern site for vehicular traffic, however pedestrian and cycle linkage is maintained. Figure 4 below shows the trip generation for Option 2.

#### 3.2 Site Connectivity

The primary benefit of this option is that there will be no ‘rat-running’ capable through the Broomfield site and both the Northern and Southern sites do not have long travel times out of the development due to separate site access points. There is however a lack of permeability and connection through the total Broomfield site.

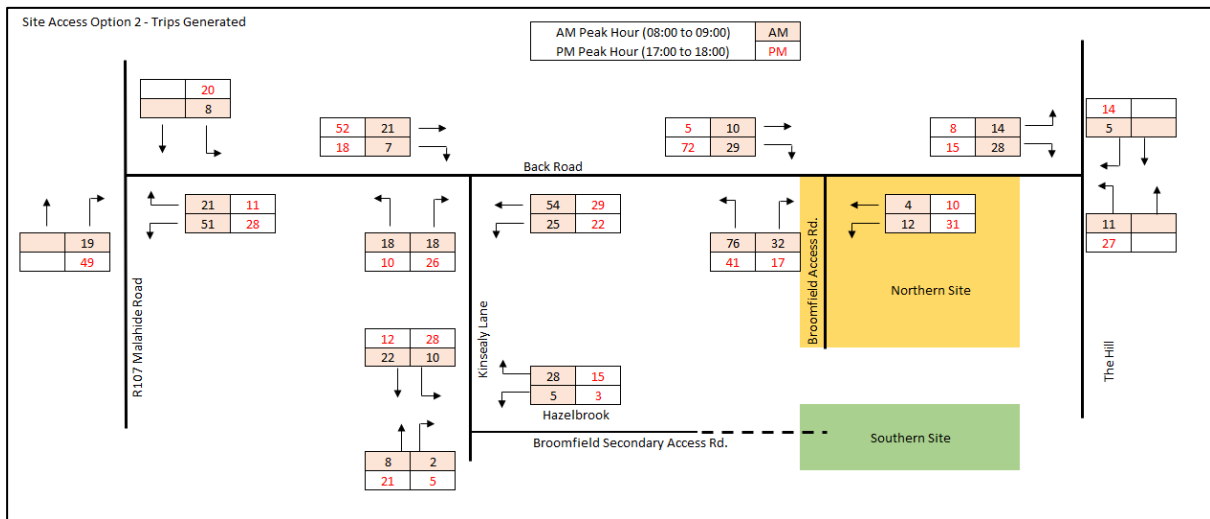


Figure 4 | Option 2 – Trip Assignment

The increase of traffic on each of the junctions for Option 2 is similar to Option 1, however, there is an increase of capacity on both site access junctions. Figure 5 below shows the capacity for each junction.

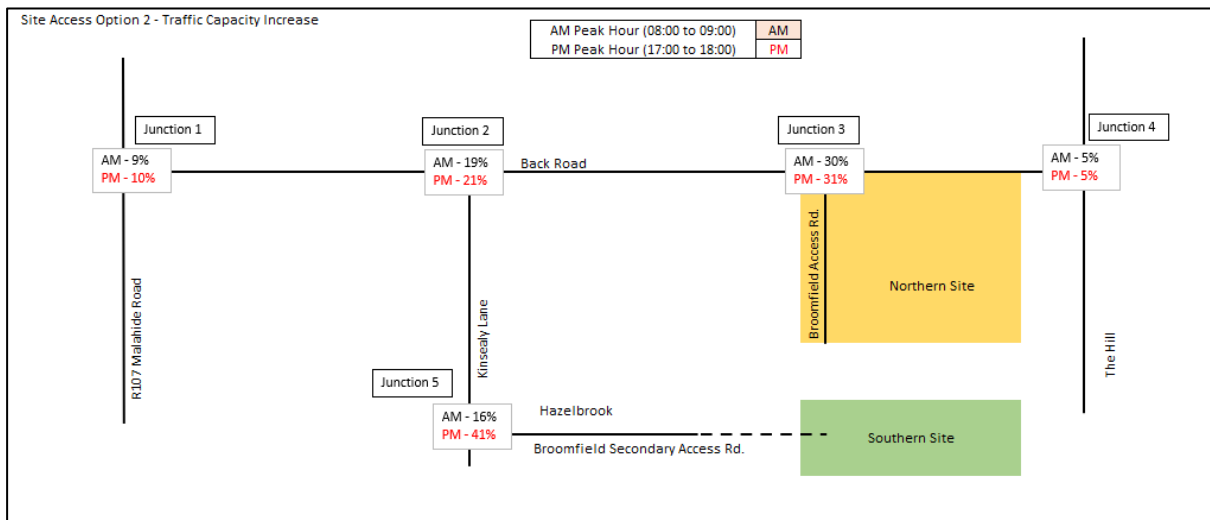


Figure 5 | Option 2 – Junction Capacity Increase

### 3.3 Travel Times

When considering the site access junctions, travel times to the nearby popular/essential destinations were carefully considered. It is estimated it will take 1-minute to travel from the centre point of the northern site to Back Road access point and 1-minute to travel from the southern point to Kinsealy Lane. It is estimated to take approximately 5-minute to travel from the southern site to the northern site via the link road in between. Table 2 below shows the travel times to the nearby junctions using each entrance

Junctions	Time to Locations	
	Northern Site (Via Back Road)	Southern Site (Via Kinsealy Lane)
Junction 1	2 – minute	3 – minute
Junction 2	1 – minutes	1 – minutes
Junction 3	-	2 - minutes
Junction 4	1 – minutes	4 – minutes
Junction 5	2 – minutes	-

**Table 2 | Option 2 – Travel Times**

## 4. Site Access Option 3

### 4.1 Proposed Site Access – Option 3

Option 3 has a single site access point at the existing Broomfield Phase 1 entrance with a road connecting the northern and southern sites. In this option there is no vehicular access to Kinealy Lane, the benefits of this option are no 'rat-running' through the development. However there is a lack of permeability through the site as a result.

### 4.2 Site Connectivity

The road connecting the northern and southern site is approximately 1,083m long and due to meandering and calming measures it would take an estimated 5-minute to drive from the southern site to the Back Road site entrance affecting the travel time of residents and emergency vehicles.

Figure 15 below shows the trips generated and distributed for Option 3 and Figure 16 shows the traffic increase for each junction. There is increase in traffic using the only site access point on Back Road, but the junction would still operate under capacity.

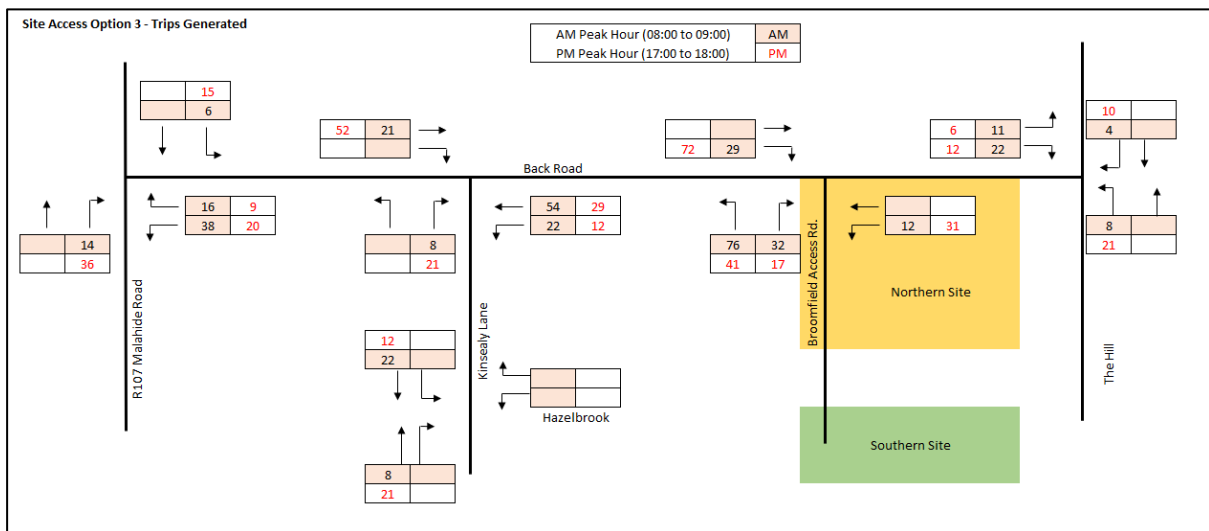


Figure 6 | Option 3 – Trip Assignment

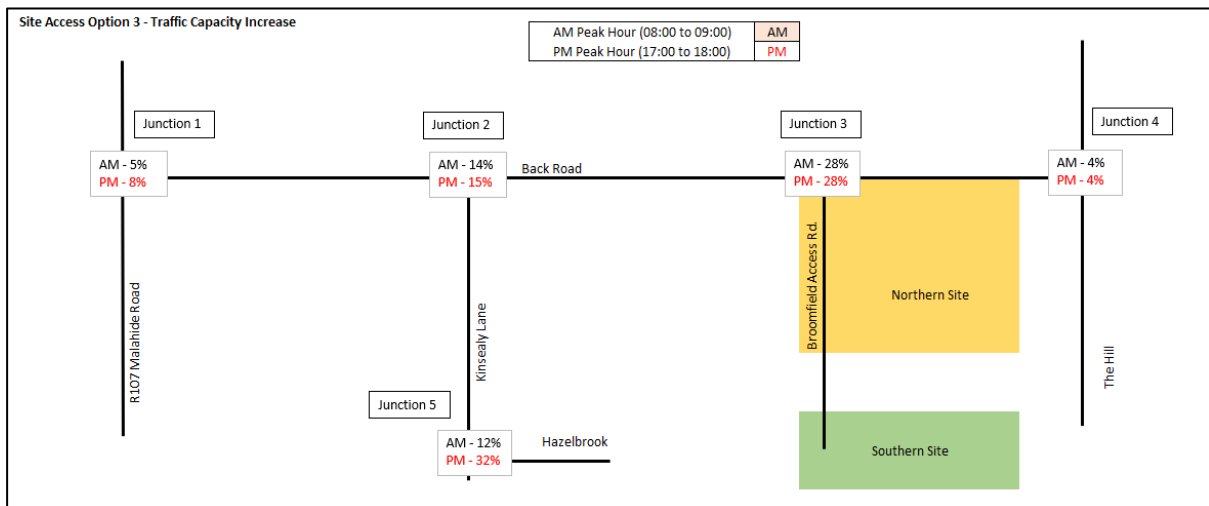


Figure 7 | Option 3 – Junction Capacity Increase

### 4.3 Travel Times

When considering the site access junctions, travel times to the nearby popular/essential destinations were carefully considered. It is estimated it will take 1-minute to travel from the centre point of the northern site to Back Road access point and 1-minute to travel from the southern point to Kinsealy Lane. It is estimated to take approximately 5-minute to travel from the southern site to the northern site via the link road in between. Table 3 below shows the travel times to the nearby junctions using each entrance.

Junctions	Time to Locations	
	Northern Site (Via Back Road)	Southern Site
<b>Junction 1</b>	2 – minute	7 – minutes
<b>Junction 2</b>	1 – minutes	6 - minutes
<b>Junction 3</b>	-	5 - minutes
<b>Junction 4</b>	1 – minutes	6 - minutes
<b>Junction 5</b>	2 – minutes	7 - minutes

**Table 3 | Option 3 – Travel Times**

## Conclusion

Option 1 was chosen as the best solution for the site access junction. Option 1 includes the existing Phase 1 of the Broomfield Development Plan site access point to the north of the overall site connecting to Back Road and creating a priority T-Junction. The proposed development will connect to this site access point and also include another connection to Kinsealy Lane via Hazelbrook. There will be a road connecting the Northern and Southern sites.

During the pre-planning meetings Fingal County Council encouraged the vehicular access to the site via Kinsealy Lane. The provision of access to Kinsealy Lane will benefit the southern site for vehicular, pedestrian and cycle access. Fingal County Council requested that a road connects between the north and south sites for Broomfield to increase the permeability of the area including Broomfield and the existing Hazelbrook residential area.

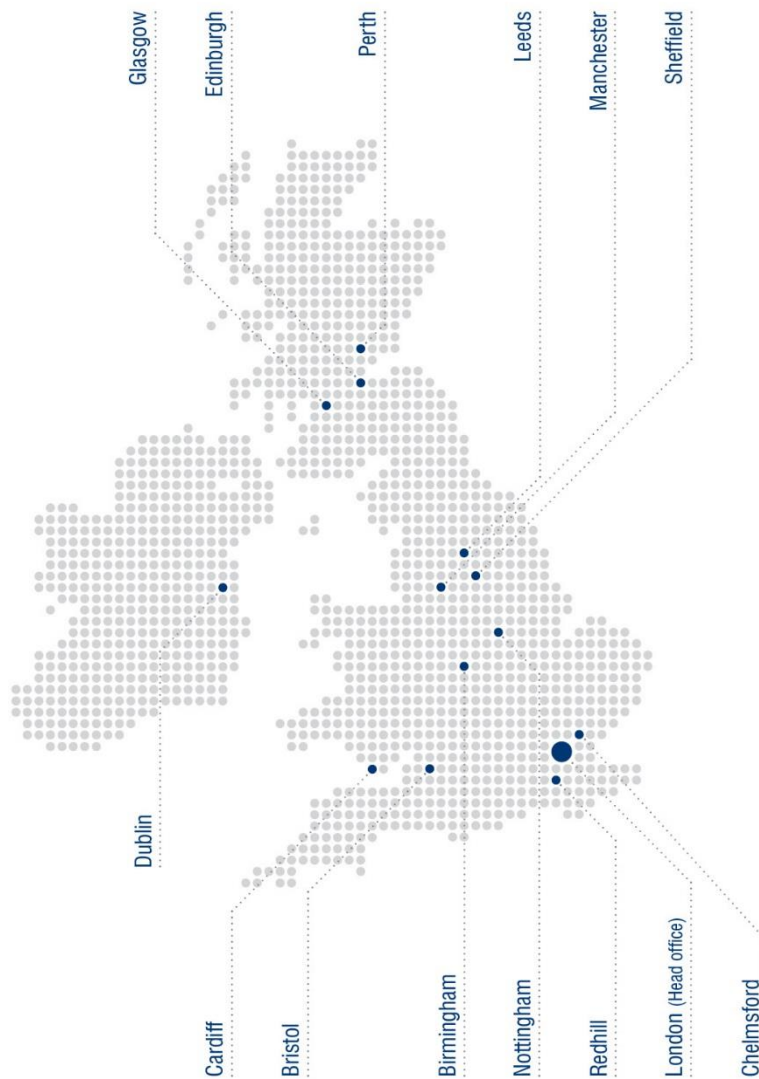
It is noted that local residents may raise concerns about rat running and increased traffic flows due to the addition of the access to Kinsealy Lane. In this regard it is proposed that Fingal County Council, along with the developer, will monitor the road in order to assess if 'rat-running' becomes an issue. Should rat running become an issue then Fingal County Council can introduce bollards to prevent through traffic in order to stop 'rat-running' from occurring.

It is however considered that the route between Back Road and Kinsealy Lane and vice versa through the proposed development, will not create a "rat-run". This is owing to the fact that the layout of the proposed route is meandering, and has frequent interruptions such; as raised tables, pedestrian crossings and low radii corners which will effectively enforce a slower vehicular speed and make it a less attractive vehicular route. This is in accordance with DMURS guidelines which are discussed further in the reports accompanying this planning application.





# UK and Ireland Office Locations





# UK and Ireland Office Locations

