

BELLWAY HOMES (EAST MIDLANDS) LTD  
PROPOSED RESIDENTIAL DEVELOPMENT  
LAND NORTH OF ASHLAND ROAD WEST,  
SUTTON IN ASHFIELD  
TRANSPORT ASSESSMENT

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## EXECUTIVE SUMMARY

Bellway Homes (East Midlands) Ltd commissioned ADC Infrastructure Limited to produce a Transport Assessment and Travel Plan in support of an outline planning application for a residential development on land north of Ashland Road in Sutton in Ashfield.

The development proposals comprise up to 300 dwellings accessed from two priority controlled simple T-junctions from Ashland Road West.

There would be good opportunities for pedestrian travel to and from the development. The facilities within Sutton in Ashfield will be within walking distance and there would be good pedestrian infrastructure on the desire lines. Similarly, given the areas contained within cycling distance, and that local routes provided in the vicinity of the site, there would be excellent opportunities for cycle travel.

The nearest bus stops are on Ashland Road West, less than 100m from the site access junctions. Bus stops are also located on Huthwaite Road that serve the number 1 service that routes from Mansfield to Alfreton every 10 minutes.

The proposed development would generate 29 pedestrian journeys, 7 by cycle, 13 by bus and three by train during a peak hour. The existing and proposed infrastructure would be able to accommodate that increase in demand. The development would further enable sustainable transport by the implementation of a Travel Plan, which would target a 10% reduction in single occupancy car journeys through a package of measures.

The development would generate up to 233 traffic movements in a peak hour. The impact of that traffic on the surrounding highway network has been examined, within a study area previously agreed with the local highway authority and formed by four off-site junctions. Beyond those junctions the traffic increases would not be material.

The B6026 Huthwaite Road/Ashland Road West junction is a priority-controlled T-junction. The junction would operate adequately in the future with the development in place. It does not need to alter as a result of the proposed development.

To the east of the site, the Ashland Road West/Highfield Road, Westbourne Road/Riley Avenue and B6026 Huthwaite Road Westbourne Road T-junctions all operate with plenty spare capacity and the development traffic would not materially alter the performance of the junctions. Hence, mitigation measures are not necessary.

To conclude, with reference to the NPPF, the development would provide opportunities for travel by sustainable transport modes; safe and suitable access can be achieved for all users; and the impact of the development would be cost effectively mitigated. The development should not be prevented on highways grounds.

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## 1.0 INTRODUCTION

- 1.1 Bellway Homes commissioned ADC Infrastructure Limited to produce a Transport Assessment and Travel Plan in support of an outline planning application for a residential development on land north of Ashland Road West in Sutton in Ashfield. The local planning authority is Ashfield District Council (ADC) and the local highway authority is Nottinghamshire County Council (NCC).
- 1.2 The development proposals comprise up to 300 dwellings accessed from two priority controlled simple T-junctions from Ashland Road West. A development masterplan has been prepared, as shown at Appendix A.
- 1.3 This report presents the Transport Assessment and is structured as follows:
- Section 2 describes the existing conditions in the vicinity of the site. The site location and planning history is detailed. The local highway network is described, including the results of traffic counts and an accident analysis at the study area junctions. The existing opportunities for travel to the site by foot, cycle and bus are also examined.
  - Section 3 describes the development proposals, including the vehicular access proposals, the parking and servicing provision, and the sustainable travel infrastructure that would be provided to encourage the use of sustainable modes.
  - Section 4 presents the forecast vehicle trip generation using trip rates extracted from the TRICS database. The modal split and associated person trip generation of the development are also presented, and it is determined whether any further infrastructure improvements are required to mitigate the increased trips by sustainable travel modes.
  - Section 5 details the distribution pattern and assignment of development traffic on the local highway network.
  - Section 6 presents the 2024 assessment year traffic flows, including growth rates and relevant committed development traffic.
  - Section 7 assesses the impact of the development on the operation and safety of the study area junctions.
  - Section 8 presents the summary and conclusions
- 1.4 This Transport Assessment has been produced in accordance with *Guidance on Transport Assessment<sup>1</sup>*, and *Travel plans, transport assessments and statements in decision taking<sup>2</sup>*. It also examines the transport implications of the proposed development taking into account the following objectives from paragraphs 108 and 109 of the National Planning Policy Framework (NPPF)<sup>3</sup>:

*“108. In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:*

- Appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;
- Safe and suitable access to the site can be achieved for all users; and
- Any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.

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<sup>1</sup> Guidance on Transport Assessment, Department for Transport, March 2007

<sup>2</sup> Travel plans, transport assessments and statements in decision-taking, National Planning Practice Guidance, March 2014

<sup>3</sup> Paragraph 108 and 109 National Planning Policy Framework (Department for Communities and Local Government, February 2019)

*109. Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on the highway safety, or the residual cumulative impacts on the road network would be severe."*

- 1.5 A separate Travel Plan has been produced to support the planning application. The overall objective of the Travel Plan is to minimise the number of single occupancy car trips generated by residents travelling to and from the proposed development, by promoting and supporting the use of alternative modes of travel (walking, cycling, public transport and car sharing). It includes targets as well as measures and incentives to achieve the targets and method for monitoring the travel patterns at the site.





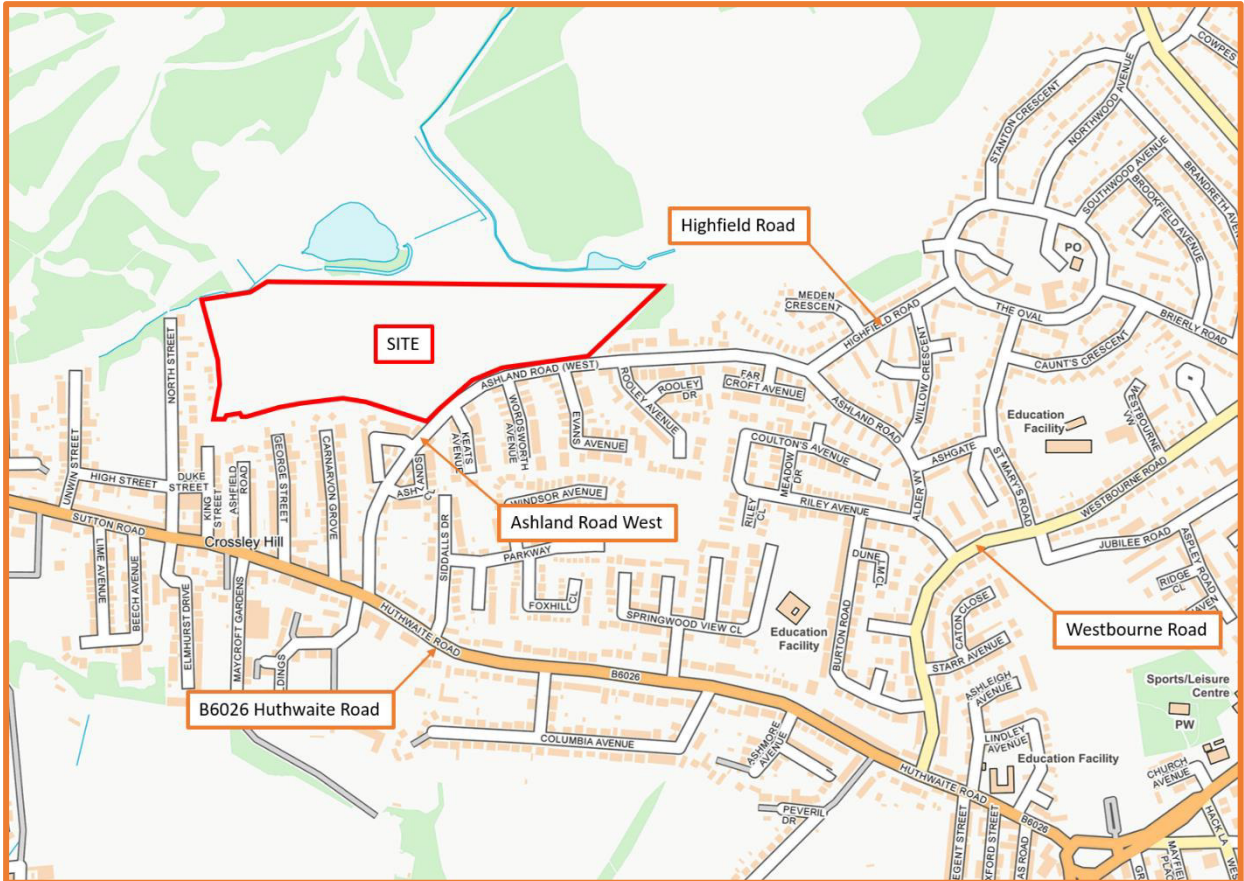


Figure 2: General site location



Figure 3: Aerial view of the site



### Local highway network

- 2.5 To the south, the B6026 Sutton Road becomes the B6026 Huthwaite Road east of its junction with Ashland Road West. Huthwaite Road provides a connection with Sutton in Ashfield town centre to the east, and to the west links with the A61 Chesterfield Road through villages such as Huthwaite, Blackwell and Westhouses.
- 2.6 Further south of the site, the A38 runs east-west along the southern boundary of Sutton in Ashfield.
- 2.7 In the vicinity of the site Ashland Road is a single carriageway road with a width of approximately 8 metres although there are a number of traffic calming features which narrow the carriageway to around 6 metres. Ashland Road West does not provide direct frontage to residential properties along the site frontage, which minimises on-street car parking. Instead, residential dwellings are accessed via a number of cul-de-sacs south of the site on Keats Avenue, Wordsworth Avenue, Evans Avenue and Rooley Avenue. The speed limit at the site frontage is 30mph and changes to 40mph where Ashland Road meets Huthwaite Road.

### Traffic counts

- 2.8 Traffic counts were undertaken at the study area junctions (Figure 4) on Tuesday 21 May 2019. All vehicle movements turning at and travelling through the junctions were recorded in 15-minute intervals between 0730-0930 and 1630-1830 hours. The traffic counts are in Appendix B.
- 2.9 The highway network peak hours at these junctions were found to be 0800 to 0900 hours and 1630 to 1730 hours. The observed morning and evening peak hour traffic flows are shown in Diagrams 1 and 2.

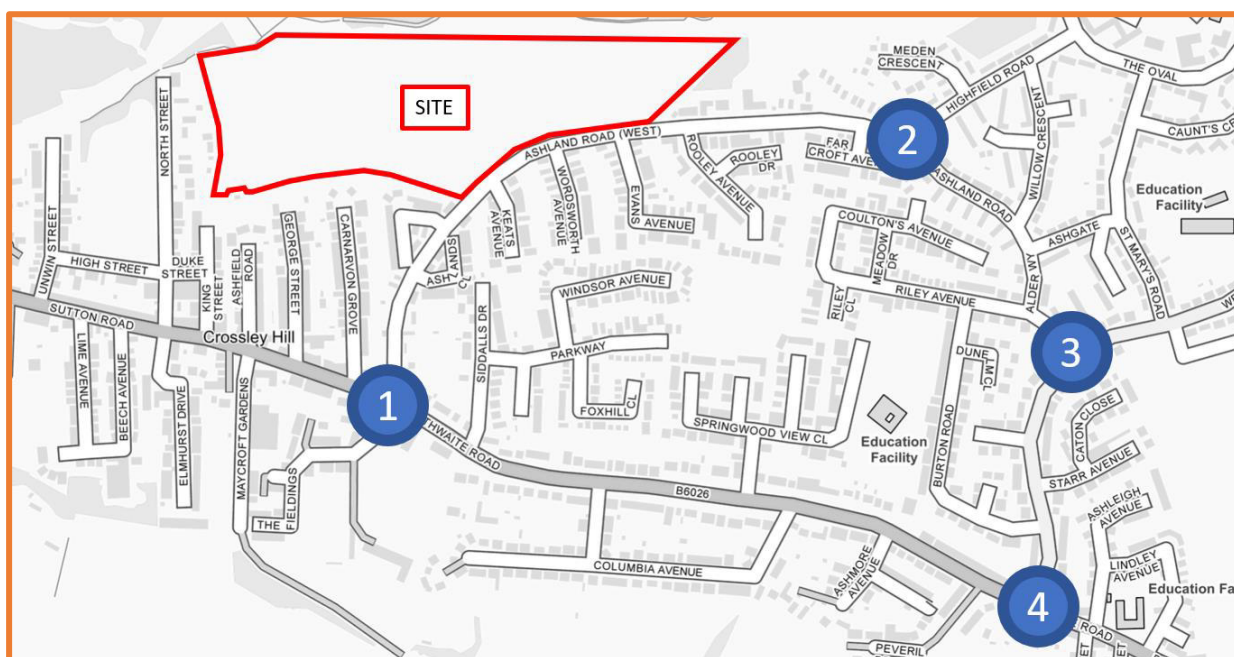


Figure 4: Study area junctions

## Accident record

- 2.10 It is necessary to examine the accident record on the roads in the vicinity of the site, to identify any trends which may be made worse by the additional traffic and person trips generated by the proposed development. It is appropriate to examine the records for the latest consecutive five-year period from 1 January 2014 to 31 January 2019. Personal injury accident (PIA) data for those years was obtained from Nottinghamshire County Council and is provided at Appendix C. An accident location plan is shown in Figure 5.

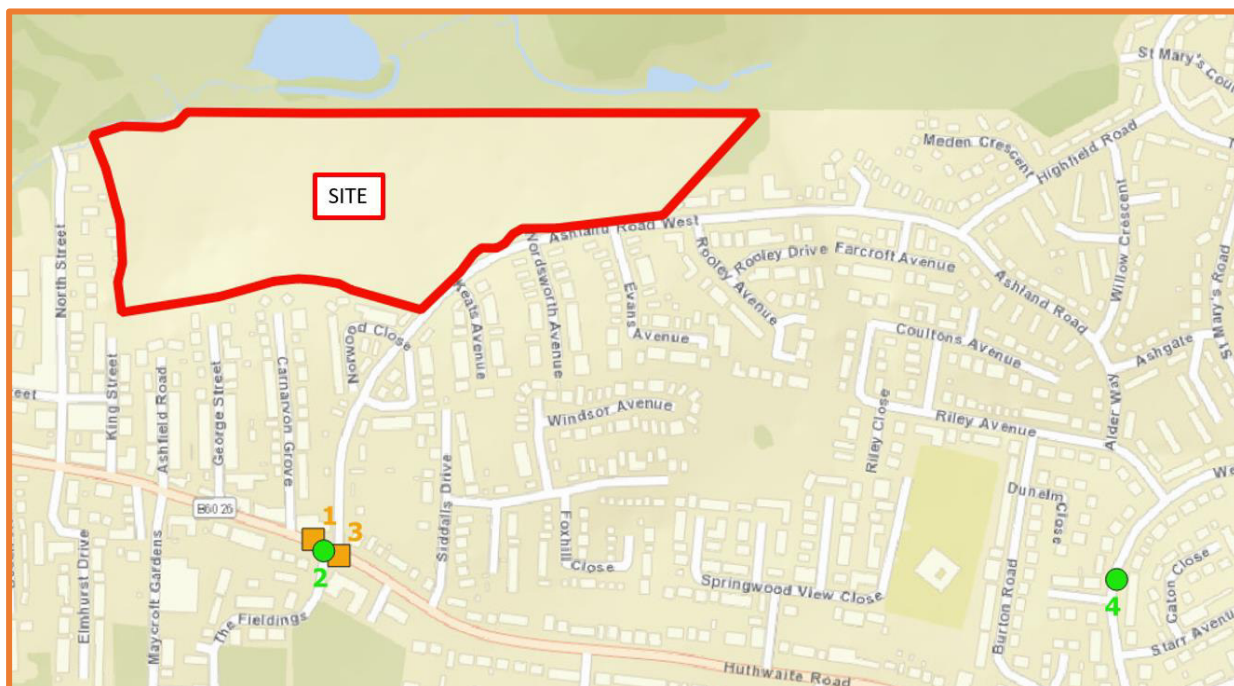


Figure 5: PIA location plan

- 2.11 A total of four accidents were recorded in the study area in the five year period from 1 January 2014 to 31 January 2019, three of which were at the Huthwaite Road/Ashland Road West T-junction and one on Westbourne Road.
- 2.12 Of the three accidents recorded at the Huthwaite Road/Ashland Road West junction, two resulted in serious injuries and one resulted in slight injuries. One of the serious accidents involved a car travelling northwest on Huthwaite Road that lost control, collided with the central reservation and three parked vehicles on the opposite side of the carriageway. The other serious accident involved a car turning right from Huthwaite Road onto Ashland Road West across the path of an oncoming pedal cycle.
- 2.13 Of the remaining accidents, one involved a motorcyclist undertaking two vehicles on the nearside and colliding with a car turning left into The Fieldings; and the other involved a car travelling northeast on Westbourne Road losing control and colliding with parked vehicles on both sides of the carriageway.
- 2.14 Overall, the locations and number of PIAs recorded in the latest five year period do not indicate a significant accident problem. The four accidents to occur in the study area were the result of driver error and misjudgement. Hence, the existing local highway network does not present a highway safety problem.

### Accessibility for pedestrians

- 2.15 For commuters and school pupils without mobility impairment walking to local amenities, up to 500 metres is the desirable walking distance, up to 1,000 metres is an acceptable walking distance, and up to 2,000 metres is the preferred maximum walking distance<sup>4</sup>.
- 2.16 Figure 6 shows a 2km pedestrian catchment area drawn from the centre of the site. In the vicinity of the site there is a wide-spread network of footways, footpaths and other public rights of way surrounding the site that provide access in all directions.

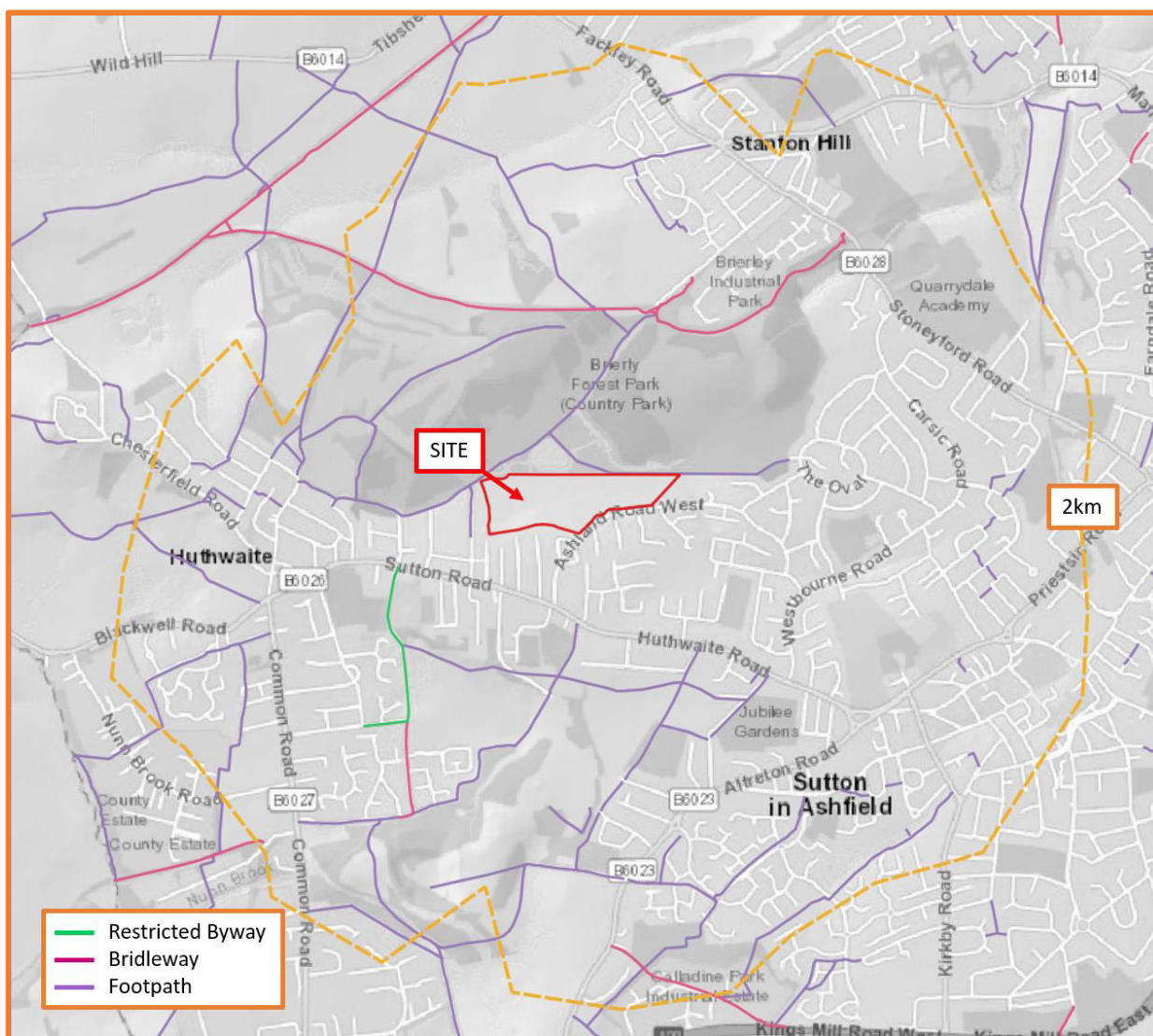


Figure 6: Pedestrian catchment area

- 2.17 The town centre is at the edge of the walking catchment to the southeast of the site. Wide street-lit footways are provided in the vicinity of the site providing pedestrians with safe and convenient routes to the town's amenities.
- 2.18 Dropped kerbs and crossing points are available in the vicinity of the site, across all junctions on Ashland Road West, which aid pedestrian movements to and from the site in all directions.

<sup>4</sup> Guidelines for Providing for Journeys on Foot (Institution of Highways and Transportation, 2000)



## Accessibility for cyclists

2.19 From the National Travel Survey, the average length of a non-leisure cycle journey, such as those to school or work, is 3.5 miles (5.6km). The 5km cycle catchment from the centre of the site includes all of Sutton in Ashfield, Kirkby in Ashfield, South Normanton, and the western outskirts of Mansfield, amongst other places (Figure 7). This catchment covers numerous employment sites, Kings Mill Hospital, carious town centres and railway centres.

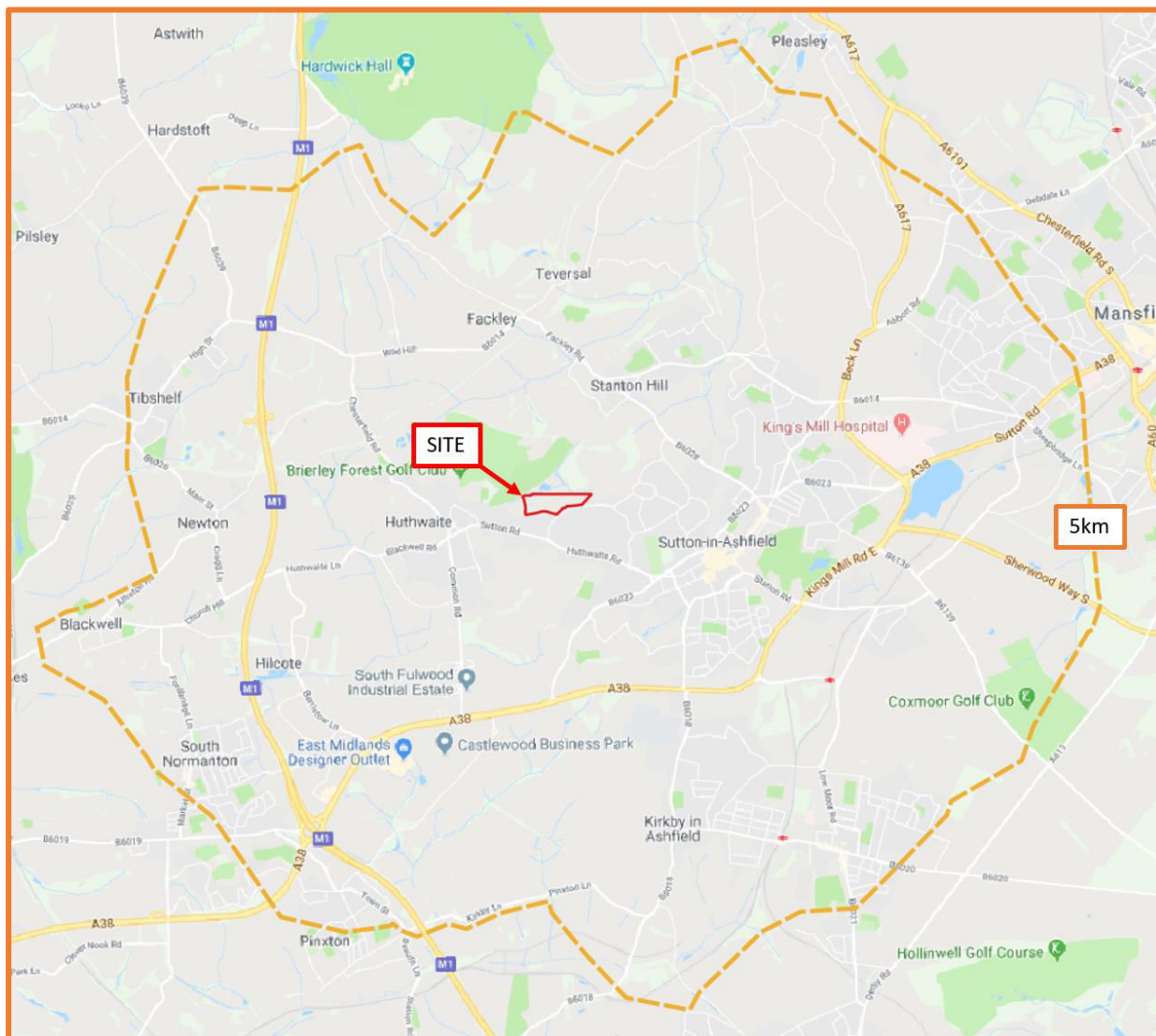


Figure 7: Cyclist catchment area

2.20 The local cycle infrastructure is shown in Figure 8. The nearest dedicated cycle infrastructure is the network of all off-road cycle routes inside Brierley Forest Park located north of the site. There is also a north-south off-road cycle route linking the town with Skegby. All of the roads east of the site, between the site and the town centre, are shown as traffic calmed streets, which means there are low traffic speeds and volumes which make them suitable for cyclists. There are also off-road cycle facilities along the A38 corridor, east of the site, which link Sutton in Ashfield with Mansfield.

2.21 Overall the existing cycle infrastructure provides excellent accessibility for journeys by bicycle.

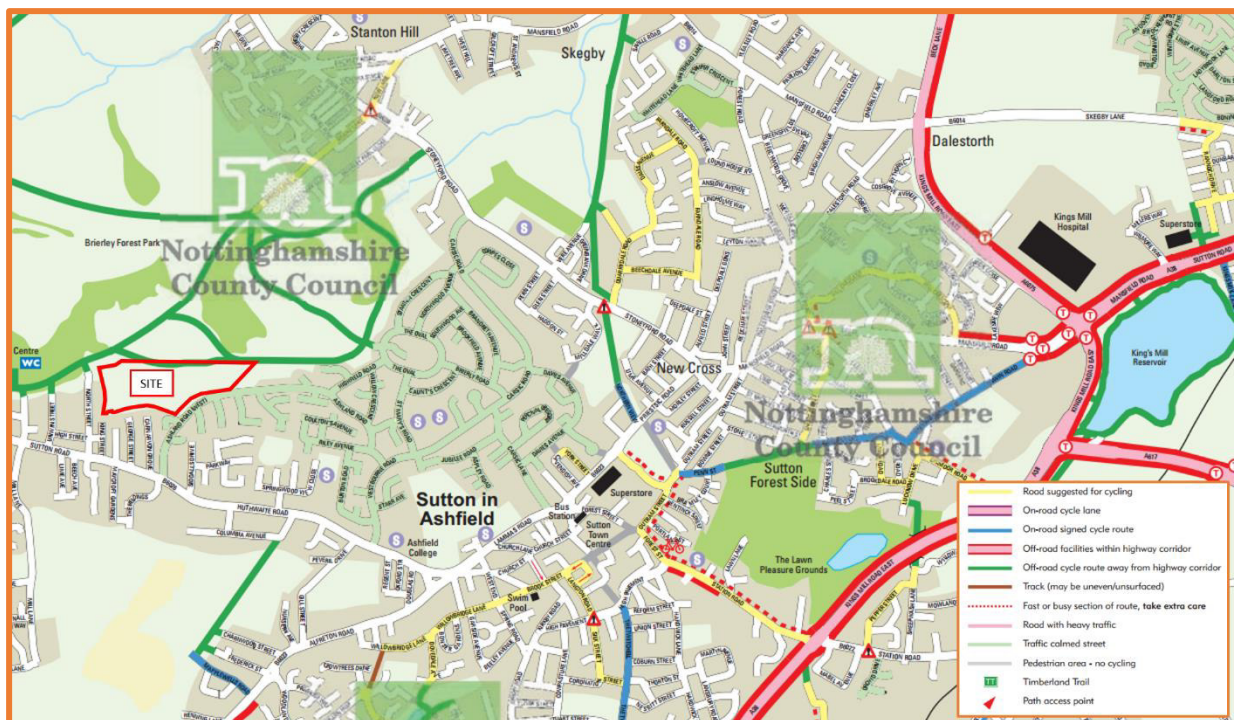


Figure 8: Local cycle routes

### Accessibility by bus

- 2.22 The maximum walking distance to a bus stop should not exceed 400 metres. However, public transport users are prepared to walk further for more direct or more frequent services. The 400 metres walking distance should be “*treated as guidance, to be achieved where possible by services that operate at regular frequencies and along direct routes. It is more important to provide services that are easy for passengers to understand and attractive to use than to achieve adherence to criteria for walking distance.*”<sup>5</sup>
- 2.23 There are bus stops on both sides of Ashland Road West that are less than 100m from the proposed accesses. Bus stops in this area comprise a flag and pole type stop with associated bus timetable information.
- 2.24 Bus service number 417 uses these bus stops. Operated by Nottsbus Connect the Number 417 passes the site on Ashland Road West twice a day and provides a link with Sutton in Ashfield bus station (Figure 9).

<sup>5</sup> Guidelines for Planning for Public Transport in Developments (Institution of Highways and Transportation, March 1999)





Figure 9: Local bus routes

2.25 The more frequent Number 1 is operated by Stagecoach East Midlands and provides a link between Mansfield and Alfreton at a 10-minute frequency. It runs along Huthwaite Road where the bus stops are within 400m of most of the development.

**Accessibility by train**

2.26 There are train stations within cycling distance of the site, the nearest being Sutton Parkway. It is a 4km from the site, which is a 17-minute cycle ride and there are 20 cycle parking spaces or a 7-minute journey in the car. The station has a car park allowing park and ride journeys. Sutton Parkway has a half-hourly service to Nottingham, and a direct link to Sheffield. There is also an hourly service to and from Mansfield and Worksop. From these mainline stations the wider railway network can be reached, providing access to longer distance destinations (Figure 10).



Figure 10: East Midlands train network plan

### Summary

- 2.27 The site is to the northwest of Sutton in Ashfield town centre. The site has a frontage to Ashland Road West. To the south of the site Ashland Road West meets the B6026 Huthwaite Road via a priority-controlled T-junction. Huthwaite Road is a main arterial route running east-west into the centre of Sutton in Ashfield.
- 2.28 The development would be within walking distance of the town's facilities, including schools, the town centre itself and numerous employment, leisure and retail destinations. The local pedestrian infrastructure is excellent with street-lit footways beside all roads on the desire lines to the local amenities. There is also excellent cycle infrastructure surrounding the site with routes in all directions providing easy access to many of the local towns and villages.

- 2.29 Two bus services are within walking distance that provide frequent journeys to the town centre and also route to destinations beyond Sutton in Ashfield. Sutton Parkway is 4km from the site, which places it beyond the preferred maximum walking distance. However, it can be reached by driving, cycling or by bus, and provides direct services to Nottingham and Sheffield.
- 2.30 Overall, therefore, the site is in a sustainable location where residents would have access to all modes of transport.

### 3.0 PROPOSED DEVELOPMENT

#### Development proposal

- 3.1 The development proposals comprise the construction of up to 300 dwellings. A development masterplan is shown in Appendix A.

#### Car parking

- 3.2 The quantum and layout of the residential parking will be determined at detailed design stage and will have regard to the standards and guidance contained in the Ashfield District Council Residential Car Parking Standards Supplementary Planning Document (2014) and the Nottinghamshire Highway Design Guide (NHDG).'

#### Access

- 3.3 The proposed development would be accessed from Ashland Road West via two simple T-junctions located on the northern side of the existing carriageway. The accesses would be located between the existing Wordsworth Avenue T-junction fronting Ashland Road West. Drawing number ADC1032-DR-001-P7 shows the proposed access junctions.
- 3.4 The access roads into the site have been designed with a 6m wide carriageway, which is appropriate to serve the proposed development and the possibility for a bus to loop within the site as requested by NCC. 2m wide footways are included on both sides of the access roads and across the site frontage, linking with the existing pedestrian infrastructure on Ashland Road West.
- 3.5 The existing speed cushions and kerb build outs on Ashland Road West help to restrain vehicle speeds past the site. As a result it is appropriate to provide stopping site distances at the accesses in accordance with the Manual for Streets.
- 3.6 Visibility splays at the accesses should therefore be 2.4 x 43m. From the access designs it can be seen that these splays can be achieved within the public highway without obstruction.
- 3.7 In all respects therefore, the proposed access junctions conform to standards and are an appropriate means of access to the proposed development.

#### Internal layout and accessibility

- 3.8 The masterplan shows how the development will be designed to accommodate an internal network of footways that connect to Brierley Forest Park to the north and the wider highway network to the south. The roads have been designed to restrain traffic speeds and create a sense of place important to encourage walking and cycling in line with good design practice advocated in the Manual for Streets. Sufficient car parking would be provided to minimise on-street parking that would cause obstructions to pedestrians and cyclists.

## 4.0 TRIP GENERATION

### Introduction

4.1 This section presents the forecast traffic generation of the proposed development. The development traffic is distributed and assigned in Section 5, and the highway impact is described in Section 7. This section also presents the forecast modal split and associated person trip generation and identifies whether any further measures are required to accommodate the increased trips by sustainable modes.

### Proposed traffic generation

4.2 Guidance on Transport Assessment notes that the traffic generation of a new development should be calculated based on appropriate trip rates. It states that “these trip rates should be derived on the basis of site specific details of the proposed development”.

4.3 To determine suitable trip rates for the proposed 300 houses, the TRICS database was examined. Sites in the *Residential – Houses privately owned* category were examined. All sites located in England, with the exception of Greater London, were selected. Weekend surveys were also deselected and sites that were in *Edge of Town* and *Suburban* locations were selected. In addition, only sites within a range of 50 to 400 houses were selected.

4.4 This resulted in 37 sites that are broadly comparable to the proposed development. The 37 were ranked by their total peak hour vehicle trip rates in the weekday morning and evening peak hours. In order to ensure that a robust trip rate, selection site WM-03-A-03 Coventry was chosen. The site was ranked 4<sup>th</sup> of 23 in both the morning and evening peak hours. The weekday vehicle trip rates per dwelling were extracted and are as follows. The TRICS outputs are in Appendix D.

Proposed vehicle trip rates and traffic generation		Arrive	Depart	Two-way
Trip rates (per dwelling)	AM peak hour	0.321	0.405	0.726
	PM peak hour	0.405	0.369	0.774
Vehicle trips (300 dwellings)	AM peak hour	96	122	218
	PM peak hour	122	111	233

### Modal split and person trip generation

4.5 The proportion of trips by each mode was calculated using the 2011 National Census ‘Method of travel to Work’ data (dataset QS701EW). The site is in the Ashfield 006 MSOA, and it is appropriate to use this data given that new residents at the development are likely to display similar travel patterns to existing residents in the area. A copy of the dataset is in Appendix E. The resultant modal split (excluding those who work from home or are not in employment) and person trip generation is summarised below.

	on foot	bicycle	bus	train	m/cycle	car driver	passenger
modal split	9.4%	2.2%	4.4%	0.9%	76.2%	5.9%	6.1%
peak hour trips	29	7	13	3	2	233	19

### Impact of additional person trips on the local infrastructure

4.6 The proposed residential development, with 300 dwellings, will generate 29 pedestrian trips, seven cycle trips, 13 bus trips and three train trips in the peak hours.



- 4.7 Section 2 details the existing infrastructure in the vicinity of the site, including a description of the existing pedestrian, cycle and public transport infrastructure. Section 3 details the infrastructure proposed as part of the proposed development including footway links throughout the site. The existing and proposed infrastructure has the capacity to accommodate the additional trips and no further infrastructure is required.

## 5.0 VEHICLE DISTRIBUTION AND ASSIGNMENT

### Distribution and assignment

- 5.1 The distribution pattern of the proposed development traffic was calculated from the observed turning movements from the traffic counts at the following junctions:
- B2026 Huthwaite Road/Ashland Road West
  - Ashland Road West/Highfield Road
  - Westbourne Road/Riley Avenue
  - B2026 Huthwaite Road/Westbourne Road
- 5.2 The results show that most of the development traffic will arrive and depart to the west via the B6026 Huthwaite Road/Ashland Road West T-junction. The distribution patterns for the morning and evening peak hours are shown in Diagrams 3 and 4 respectively.
- 5.3 The development traffic was assigned to the highway network in accordance with the distribution patterns shown in Diagrams 3 and 4 as described above. The morning and evening peak hour vehicle traffic assignment is shown in Diagrams 5 and 6 respectively.

## 6.0 ASSESSMENT TRAFFIC FLOWS

### Study area

6.1 As shown in Figure 4, the study area for assessment includes the following junctions

- 1) B6026 Huthwaite Road/Ashland Road West T-junction
- 2) Ashland Road West/Highfield Road T-junction
- 3) Westbourne Road/Riley Avenue T-junction
- 4) B6026 Huthwaite Road/Westbourne Road T-junction

### Observed traffic flows

6.2 As detailed in Section 2, traffic count data for each study area junction listed above was obtained from traffic counts undertaken in 2019. The observed traffic flows are shown in Diagrams 1 and 2.

### Assessment year traffic flows

6.3 *Guidance on Transport Assessment* suggests the use of an assessment year of five years after the date of registration of the planning application. As the planning application will be made in 2019, this would mean an assessment year of 2024.

6.4 The observed traffic flows were therefore growthed to 2024 levels using TEMPRO (version 7.2, dataset 72), which includes links to the National Traffic Model. The TEMPRO outputs are contained in Appendix F and shows the growth rates for 'principal roads' in the Ashfield 006 MSOA as follows:

- 2019 to 2024 (AM) 1.0715
- 2019 to 2024 (PM) 1.0690

The resultant 2024 base traffic flows are shown in Diagrams 7 and 8.

### Committed development

6.5 In addition to the background traffic growth, it is necessary to include traffic flows associated with any committed developments within the 2024 assessment year traffic flows. The NPPG states that "*it is important to give appropriate consideration to the cumulative impacts arising from other committed developments (i.e. development that is consented or allocated where there is a reasonable degree of certainty will proceed within the next three years)*".

6.6 An examination of the Ashfield District Council planning website confirmed that there are no developments in the locality that would significantly alter the background traffic flows by 2024.

### With development traffic flows

6.7 The development traffic shown in Diagrams 5 and 6 for the morning and evening peak hours respectively was added to the 2024 base traffic shown in Diagrams 7 and 8. Hence, the 2024 with development traffic is shown in Diagrams 9 and 10 for the morning and evening peak hours respectively.

## 7.0 HIGHWAY IMPACT

### Proposed Ashland Road West/Site Accesses

7.1 As described above, the proposed development will provide two points of access onto Ashland Road West, as shown on Drawing ADC1032-DR-001-P7. The development traffic would likely split at the two access junctions depending on what direction the residents were travelling to/from. However, to provide a robust assessment, a model of one site access junction with all development traffic was built using Junctions 8 PICADY software and was tested using the 2024 with development traffic flows on Diagrams 9 and 10. The junction geometry was measured using OS mapping. The results are summarised in the table below, and the PICADY geometries and outputs are in Appendix G.

Scenario	Peak		Site Access Left Turn	Site Access Right Turn	Ashland Road Right Turn
2024 with development	AM	RFC	7%	19%	6%
		max queue (vehs)	0.07	0.23	0.09
		delay (secs)	5.50	9.42	5.73
		junction delay (secs)	7.51		
	PM	RFC	6%	17%	8%
		max queue (vehs)	0.07	0.21	0.10
		delay (secs)	5.57	9.44	6.25
		junction delay (secs)	7.55		

7.2 As shown, the junction is forecast to operate at 19% of capacity in the worst case morning peak hour with minimal queuing and delay. The design of the access junctions is to standard with adequate visibility. The design would therefore provide a safe and suitable means of accessing the site from Ashland Road West.

### Off-site traffic increases

7.3 *Guidance on Transport Assessment* suggests that 30 or more two-way traffic movements in a peak hour is an appropriate threshold for beginning to consider whether a development will have an adverse impact on the local highway network. That is because traffic flows less than this threshold are unlikely to materially change conditions.

7.4 Based on the development traffic assignment shown at Diagrams 5 and 6, the additional traffic generated by the proposed development on the approach arms (i.e. one-way entry flow) at the study area junctions is summarised in the table below.

			AM	PM
1	B6026 Huthwaite Road/Ashland Road West	B6026 Huthwaite Road (E)	41	56
		Ashland Road West	80	72
		B6026 Huthwaite Road (W)	24	26
		Total	145	155
2	Ashland Road West/Highfield Road	Ashland Road West (W)	42	39
		Highfield Road	24	24
		Ashland Road	9	19
		Total	75	82
3	Westbourne Road/Riley Avenue	Westbourne Road (N)	3	4
		Riley Avenue	17	17
		Westbourne Road (S)	7	15
		Total	27	36
4	B6026 Huthwaite Road/Westbourne Road	B6026 Huthwaite Road (E)	27	38
		Westbourne Road	11	10
		B6026 Huthwaite Road (W)	33	26
		Total	71	74

**Junction1: B6026 Huthwaite Road/Ashland Road West**

7.5 The layout of the B6026 Huthwaite Road/Ashland Road West T-junction is shown in Figure 11. A model of the junction was created using Junctions 8 PICADY software and tested using the 2024 background and 2024 with development traffic flows. The results are summarised in the table below. The PICADY geometries and outputs are in Appendix H.



Figure 11: B6026 Huthwaite Road/Ashland Road West junction layout



Scenario	Peak		Ashland Rd West Left Turn	Ashland Rd West Right Turn	Huthwaite Rd Right Turn
2024 Background	AM	RFC	9%	20%	4%
		max queue (vehs)	0.10	0.25	0.04
		delay (secs)	8.58	14.03	6.85
		junction delay (secs)	11.01		
	PM	RFC	4%	13%	6%
		max queue (vehs)	0.05	0.15	0.07
		delay (secs)	8.04	13.69	7.01
		junction delay (secs)	10.03		
2024 With Development	AM	RFC	18%	38%	8%
		max queue (vehs)	0.22	0.60	0.09
		delay (secs)	10.32	18.72	7.11
		junction delay (secs)	13.81		
	PM	RFC	11%	32%	12%
		max queue (vehs)	0.13	0.47	0.13
		delay (secs)	9.52	18.52	7.65
		junction delay (secs)	13.06		

7.6 The junction is forecast to operate with spare capacity in the 2024 background scenario, with minimal queuing and delay on all arms of the junction. With the development in place, the junction would continue to operate with spare capacity in both the morning and evening peak hours. The arm with the least spare capacity would be Ashland Road West, which would operate at 20% of capacity in the 2024 background morning peak scenario and 38% of capacity with the development in place.

7.7 As a result, the proposed development does not have an impact on the operation of the existing layout and the junction can accommodate the additional development traffic.

### Junction 2: Ashland Road West/Highfield Road

7.8 The Ashland Road West/Highfield Road junction is a simple priority-controlled T-junction, with Highfield Road as the minor arm (Figure 12). The traffic surveys indicate a higher than expected flow of traffic passing between Ashland Road West and Highfield Road, which indicates that the route is used by some to avoid busier roads elsewhere, perhaps to get between the B6028 Stoneyford Road and the B6026 Sutton Road. The traffic calming along Ashland Road West, in the form of speed cushions and build outs, aims to discourage the rat running. Observations on site reveal that the junction operates satisfactorily.



Figure 12: Ashland Road West/Highfield Road junction layout

- 7.9 A model of the junction was created using Junctions 8 PICADY software and tested using the 2024 background and 2024 with development traffic flows. The junction geometries were measured from OS Mapping. The results are summarised in the table below, and the PICADY geometries and outputs are contained in Appendix I.

Scenario	Peak		Highfield Rd Left Turn	Highfield Rd Right Turn	Ashland Road Right Turn
2024 Background	AM	RFC	7%	3%	9%
		max queue (vehs)	0.07	0.03	0.10
		delay (secs)	5.82	7.63	6.61
		junction delay (secs)	6.43		
	PM	RFC	8%	3%	7%
		max queue (vehs)	0.09	0.03	0.08
		delay (secs)	5.70	7.68	6.46
		junction delay (secs)	6.19		
2024 With Development	AM	RFC	7%	8%	9%
		max queue (vehs)	0.07	0.09	0.10
		delay (secs)	6.00	7.72	6.66
		junction delay (secs)	6.75		
	PM	RFC	9%	7%	7%
		max queue (vehs)	0.09	0.08	0.08
		delay (secs)	5.78	7.78	6.43
		junction delay (secs)	6.52		

7.10 The junction would operate with plenty of spare capacity in both peak periods with the development in place. The arm with the least spare capacity would be Ashland Road which would operate at 9% of capacity in the 2024 background and 2024 with development morning peak scenario. Therefore, the existing junction can accommodate the additional traffic resulting from the development and no changes are required.

### Junction 3: Westbourne Road/Riley Avenue

7.11 The Westbourne Road/Riley Avenue junction is a simple priority-controlled T-junction with Riley Avenue as the minor arm (Figure 13). A model of the junction was created using Junctions 8 PICADY software and tested using the 2024 background and 2024 with development traffic flows. Junction geometries were taken from OS Mapping. The results are summarised in the table below and the PICADY outputs are shown in Appendix J.



Figure 13: Westbourne Road/Riley Avenue junction layout



Scenario	Peak		Riley Avenue Left Turn	Riley Avenue Right Turn	Westbourne Rd Right Turn
2024 Background	AM	RFC	3%	9%	2%
		max queue (vehs)	0.03	0.10	0.02
		delay (secs)	5.43	8.35	5.60
		junction delay (secs)	7.13		
	PM	RFC	2%	5%	2%
		max queue (vehs)	0.02	0.05	0.02
		delay (secs)	5.39	7.97	5.87
		junction delay (secs)	6.73		
2024 With Development	AM	RFC	4%	11%	2%
		max queue (vehs)	0.04	0.13	0.03
		delay (secs)	5.52	8.62	5.63
		junction delay (secs)	7.33		
	PM	RFC	6%	4%	3%
		max queue (vehs)	0.06	0.05	0.03
		delay (secs)	6.15	7.24	5.95
		junction delay (secs)	6.45		

7.12 The junction is forecast to operate with spare capacity in the 2024 background scenario. The arm with the least spare capacity is the Riley Avenue arm that would operate at 9% of capacity with an 8 seconds per vehicle delay. With the development in place, the junction is forecast to operate at 11% of capacity, an increase of 2% with a 9 seconds per vehicle delay. The existing junction therefore has the capacity to accommodate the increase vehicle movements without the need for changes.

**Junction 4: B6026 Huthwaite Road/Westbourne Road**

7.13 The B6026 Huthwaite Road/Westbourne Road junction is a priority-controlled simple T-junction with Westbourne Road as the minor arm (Figure 14). There is no designated right turn facility, but the Huthwaite Road carriageway is wide enough for a vehicle to be waiting to turn right and vehicles to pass it.



Figure 14: B6026 Huthwaite Road/Westbourne Road junction layout



7.14 A model of the junction was created using Junctions 8 PICADY software and was tested using the 2024 background and 2024 with development traffic flows. Junction geometries were taken from OS mapping. The results are summarised in the table below and the PICADY outputs are contained in Appendix K.

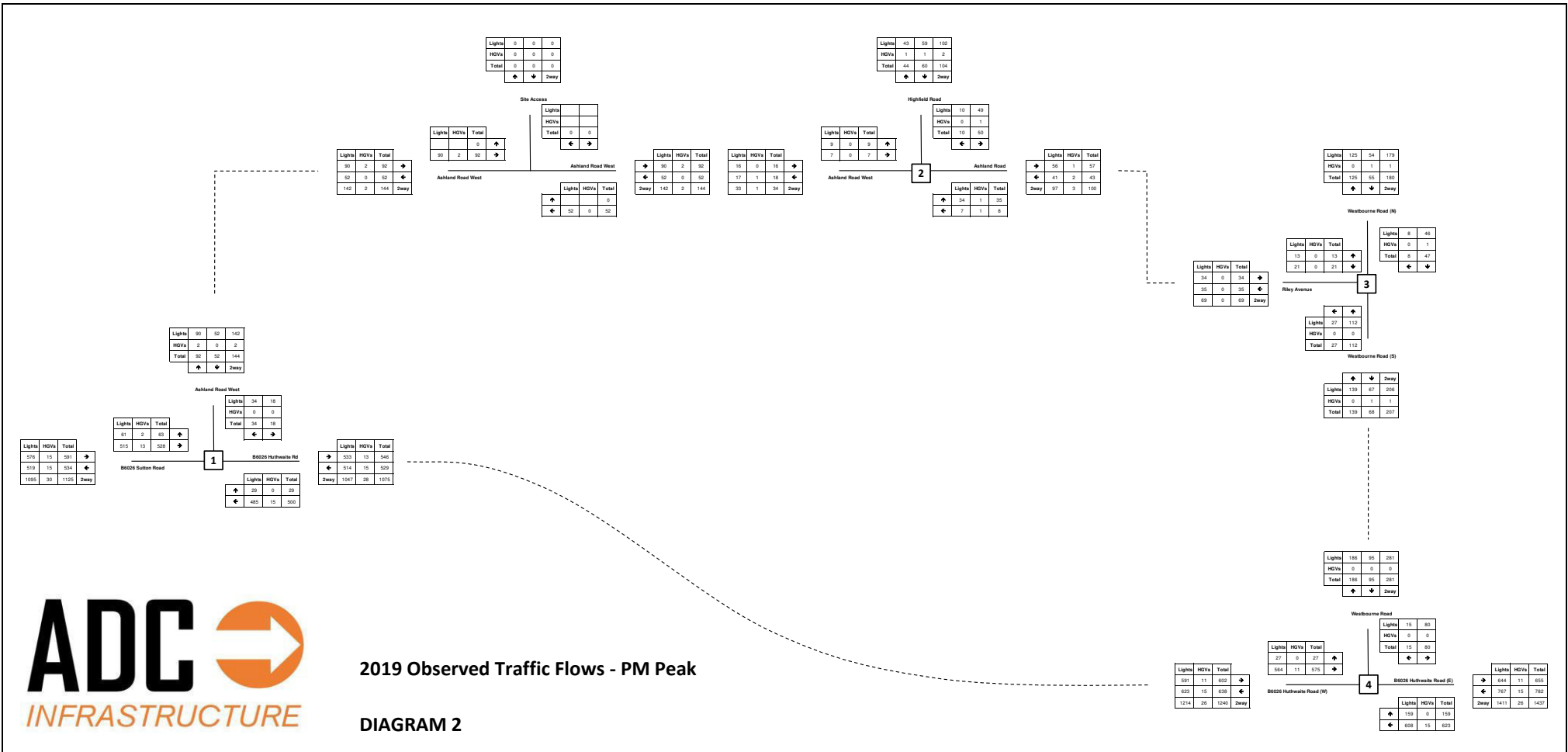
Scenario	Peak		Westbourne Rd Left Turn	Westbourne Rd Right Turn	Huthwaite Rd Right Turn
2024 Background	AM	RFC	30%	11%	38%
		max queue (vehs)	0.43	0.13	1.25
		delay (secs)	10.25	15.04	6.26
		junction delay (secs)	8.05		
	PM	RFC	19%	8%	67%
		max queue (vehs)	0.23	0.08	3.85
		delay (secs)	8.76	16.68	10.98
		junction delay (secs)	10.82		
2024 With Development	AM	RFC	33%	13%	41%
		max queue (vehs)	0.49	0.15	1.45
		delay (secs)	10.92	16.24	6.53
		junction delay (secs)	8.47		
	PM	RFC	20%	8%	72%
		max queue (vehs)	0.25	0.09	4.82
		delay (secs)	8.73	16.65	12.86
		junction delay (secs)	12.38		

7.15 The junction is forecast to operate at 72% of capacity in the worst case evening peak hour with minimal queueing and delay with the development in place and a maximum total junction delay of 12 seconds in the worst case evening peak hour. The existing junction therefore has the capacity to accommodate the increase in vehicle movements as a result of the proposed development.

## 8.0 SUMMARY AND CONCLUSIONS

- 8.1 Bellway Homes commissioned ADC Infrastructure Limited to produce a Transport Assessment and Travel Plan in support of an outline planning application for a residential development on land north of Ashland Road West in Sutton in Ashfield.
- 8.2 The proposed development would be accessed from Ashland Road via two simple T-junctions located on the northern side of the existing carriageway. The accesses would be located between the existing Wordsworth Avenue cul-de-sac T-junction fronting Ashland Road West. Both access junctions can be built without any relaxations from standard and would have adequate visibility. Both would support the potential for a bus to loop within the site and would operate with spare capacity. They would provide a safe and suitable means of accessing the development.
- 8.3 There would be good opportunities for pedestrian travel to and from the development. The facilities within Sutton in Ashfield will be within walking distance and there would be good pedestrian infrastructure on the desire lines. Similarly, given the areas contained within cycling distance, and that local routes provided in the vicinity of the site, there would be excellent opportunities for cycle travel.
- 8.4 The nearest bus stops are on Ashland Road West, less than 100m from the site access junctions. Bus stops are also located on Huthwaite Road that serve the number 1 service that routes from Mansfield to Alfreton every 10 minutes.
- 8.5 The proposed development would generate 29 pedestrian journeys, 7 by cycle, 13 by bus and three by train during a peak hour. The existing and proposed infrastructure would be able to accommodate that increase in demand. The development would further enable sustainable transport by the implementation of a Travel Plan, which would target a 10% reduction in single occupancy car journeys through a package of measures.
- 8.6 The development would generate up to 233 traffic movements in a peak hour. The impact of that traffic on the surrounding highway network has been examined, within a study area previously agreed with the local highway authority and formed by four off-site junctions. Beyond those junctions the traffic increases would not be material.
- 8.7 The B6026 Huthwaite Road/Ashland Road West junction is a priority-controlled T-junction. The junction would operate adequately in the future with the development in place. It does not need to alter as a result of the proposed development.
- 8.8 To the east of the site, the Ashland Road West/Highfield Road, Westbourne Road/Riley Avenue and B6026 Huthwaite Road Westbourne Road T-junctions all operate with plenty spare capacity and the development traffic would not materially alter the performance of the junctions. Hence, mitigation measures are not necessary.
- 8.9 To conclude, with reference to the NPPF, the development would provide opportunities for travel by sustainable transport modes; safe and suitable access can be achieved for all users; and the impact of the development would be cost effectively mitigated. The development should not be prevented on highways grounds.

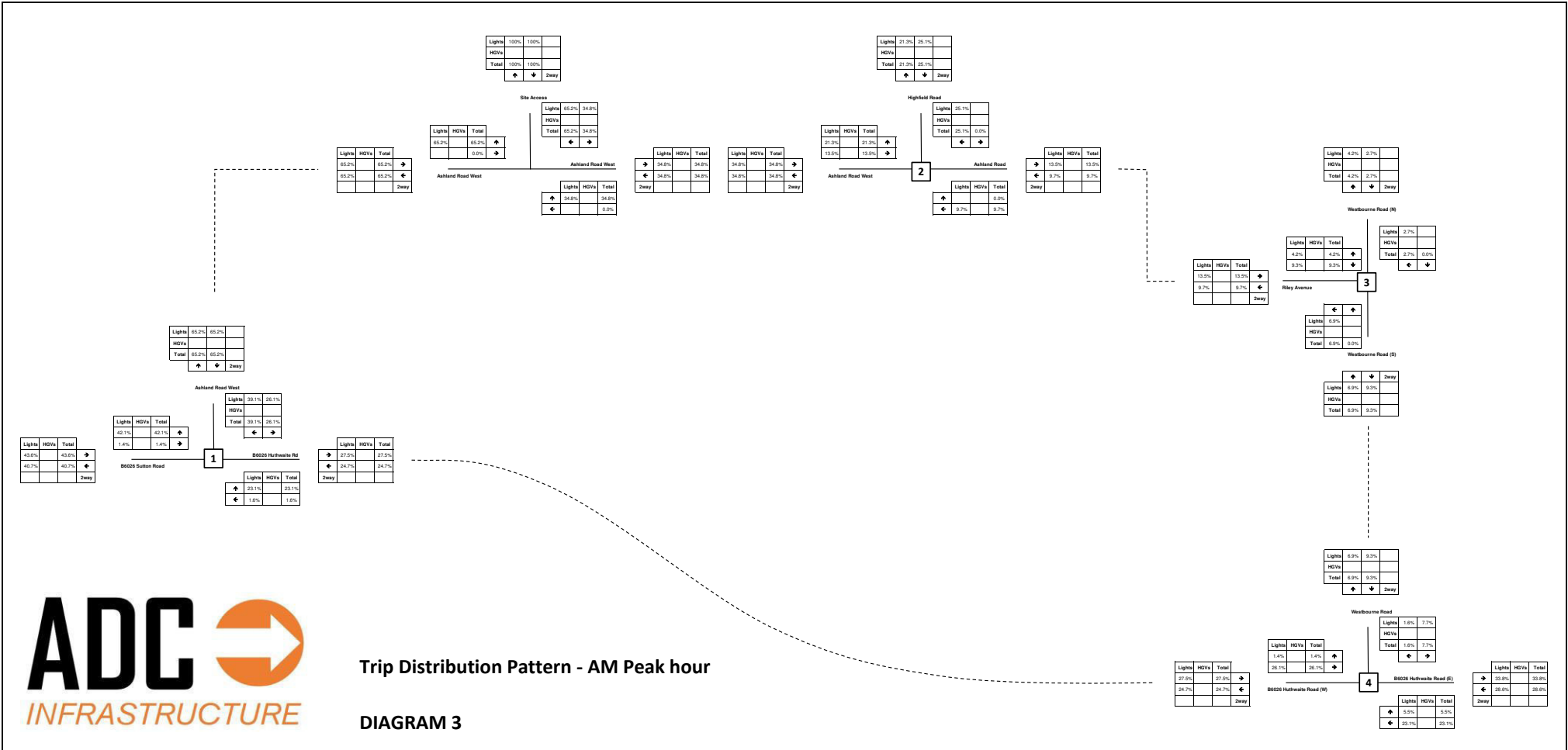






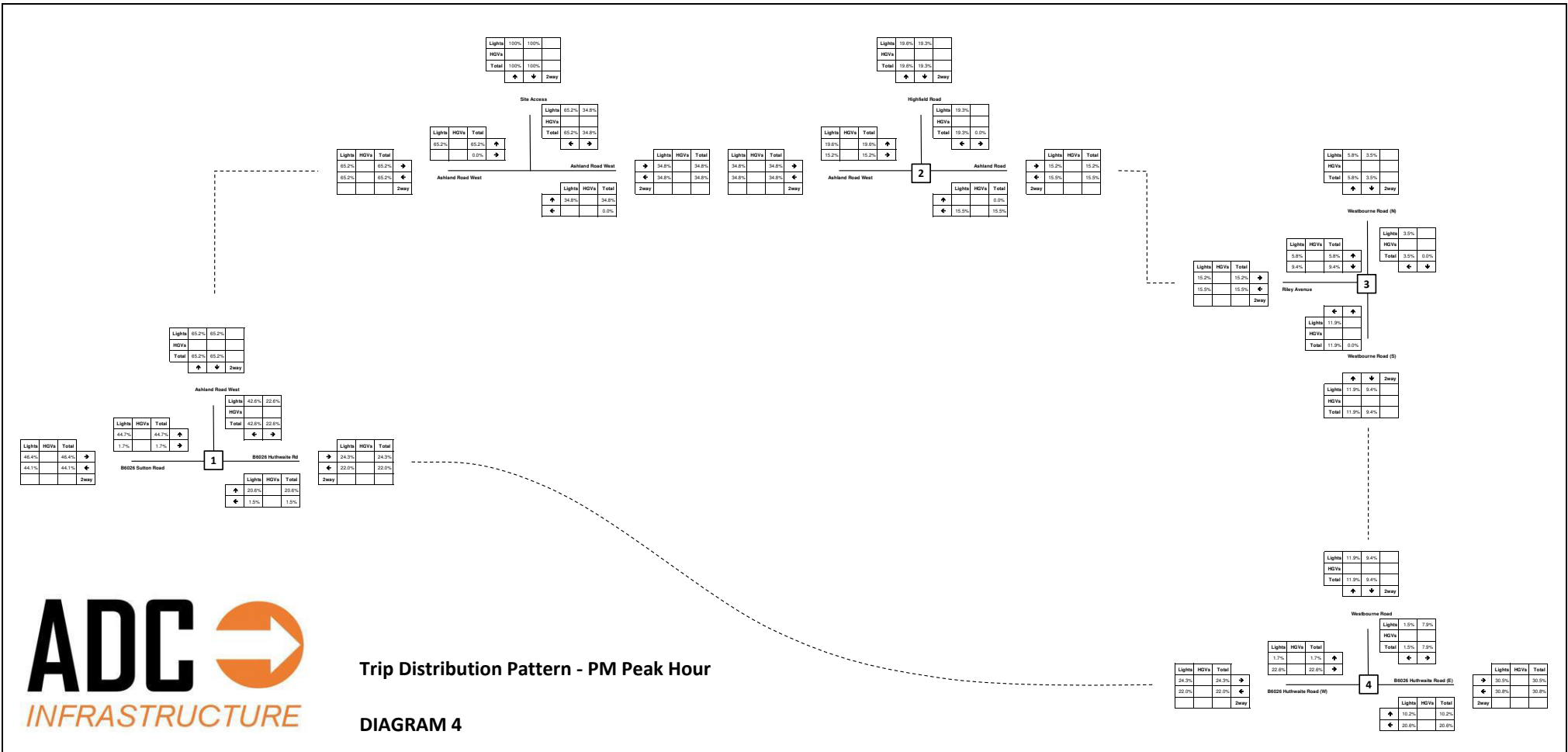
**Trip Distribution Pattern - AM Peak hour**

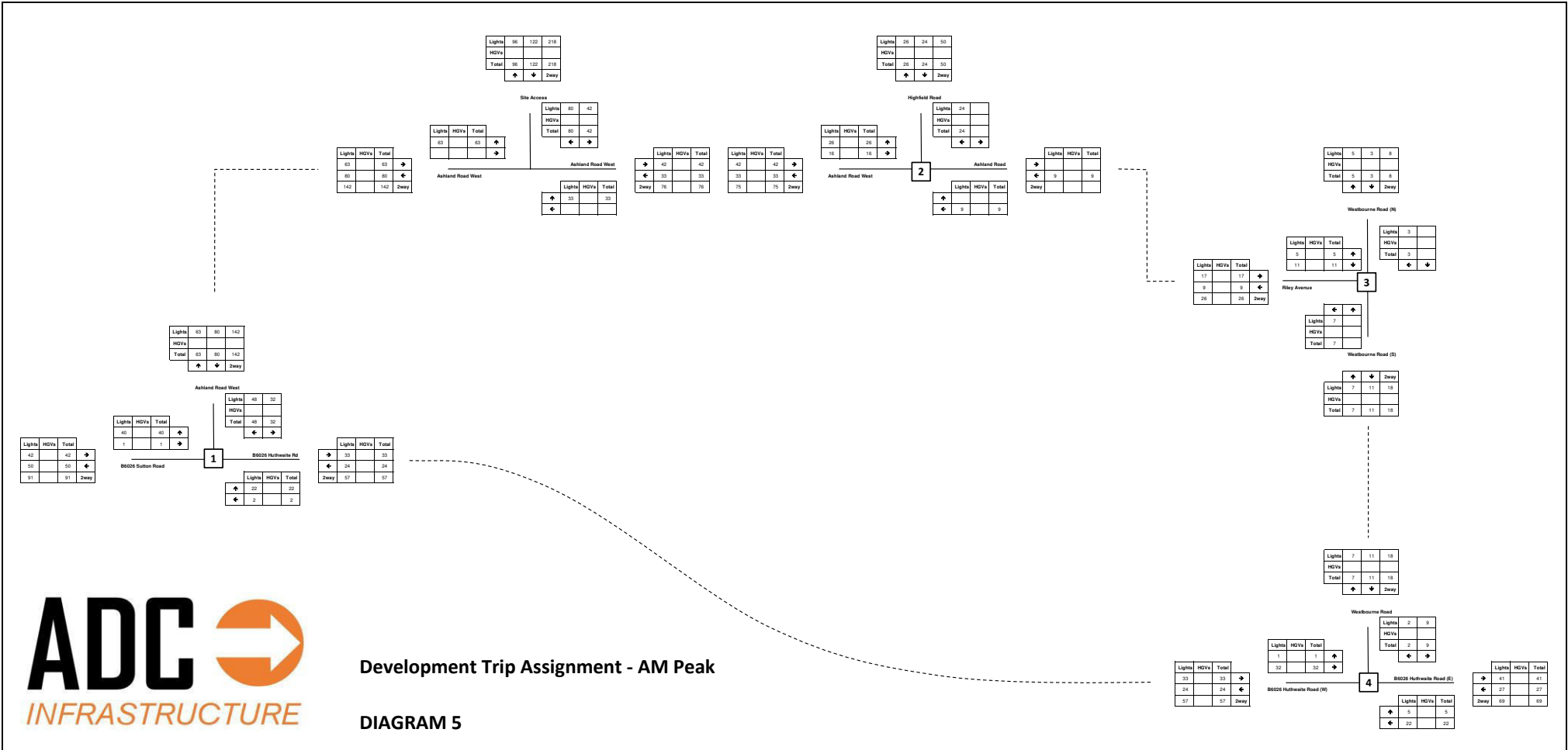
**DIAGRAM 3**

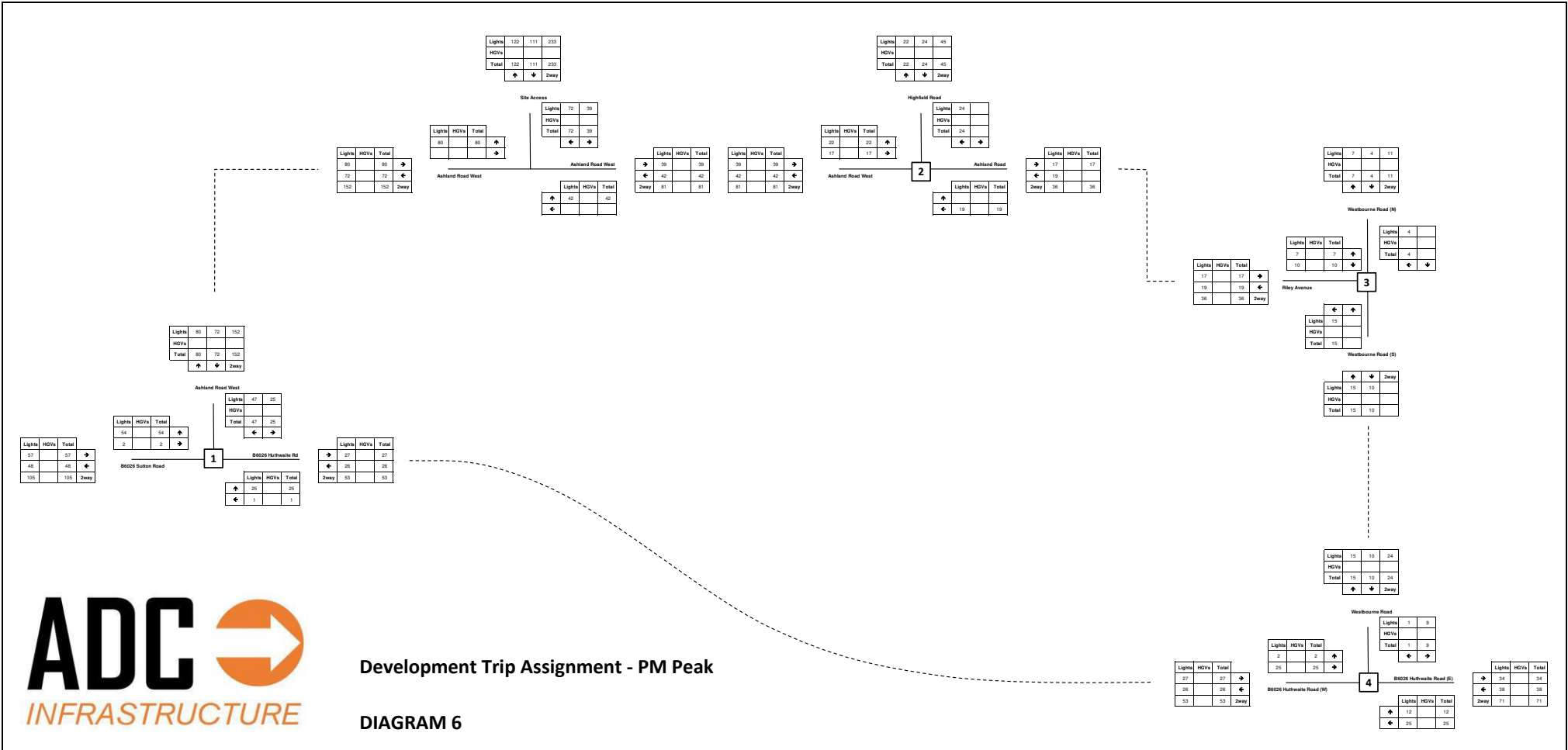


**Trip Distribution Pattern - PM Peak Hour**

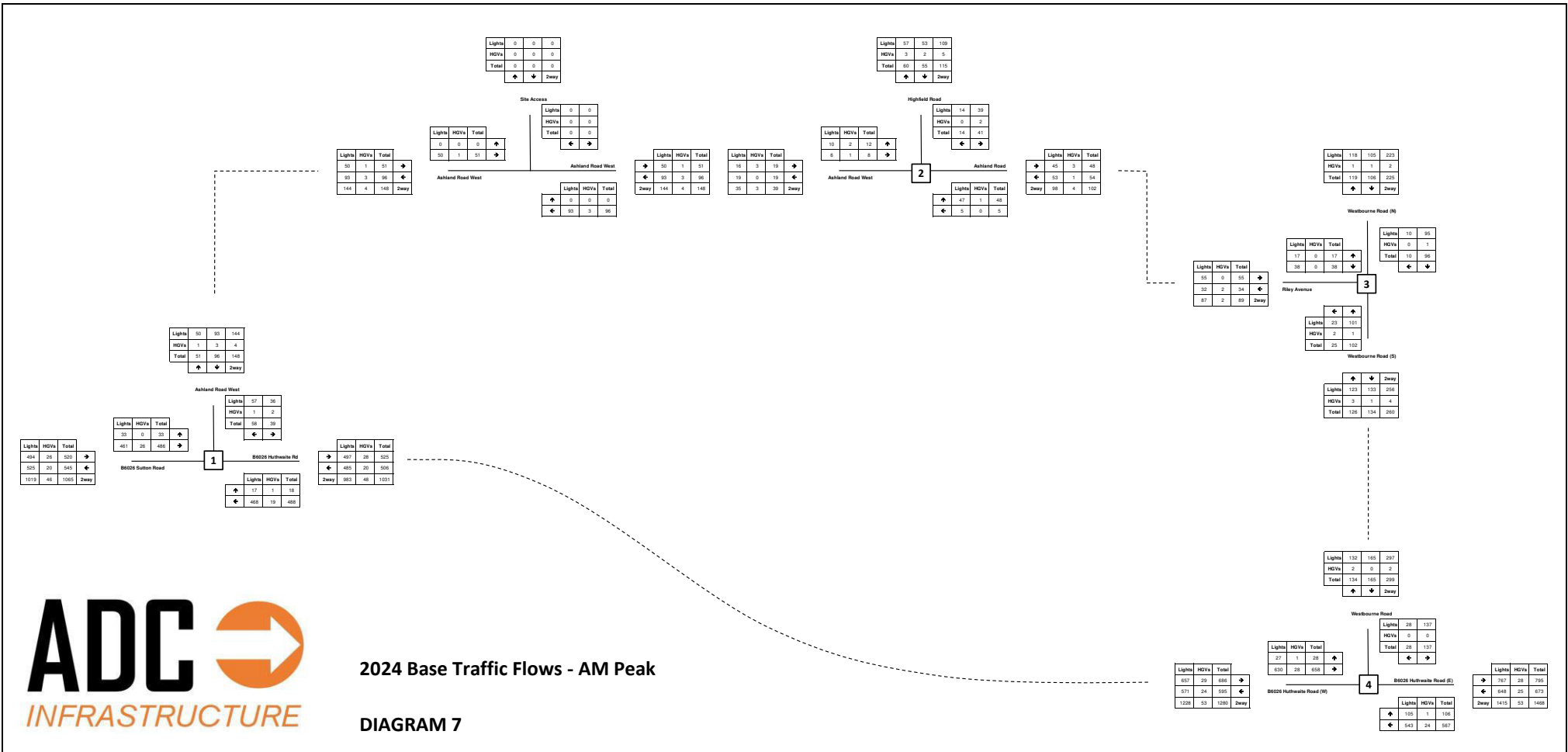
**DIAGRAM 4**

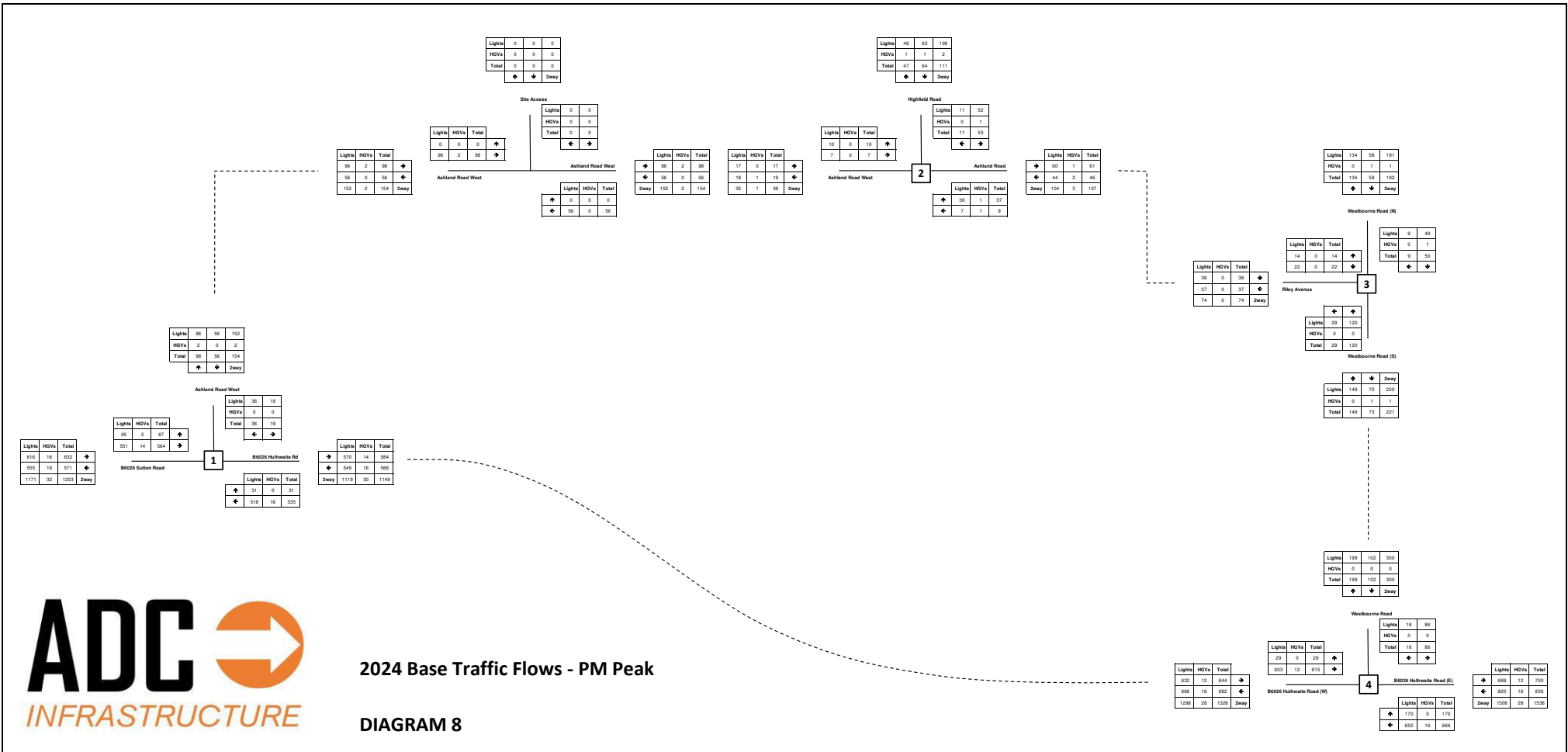


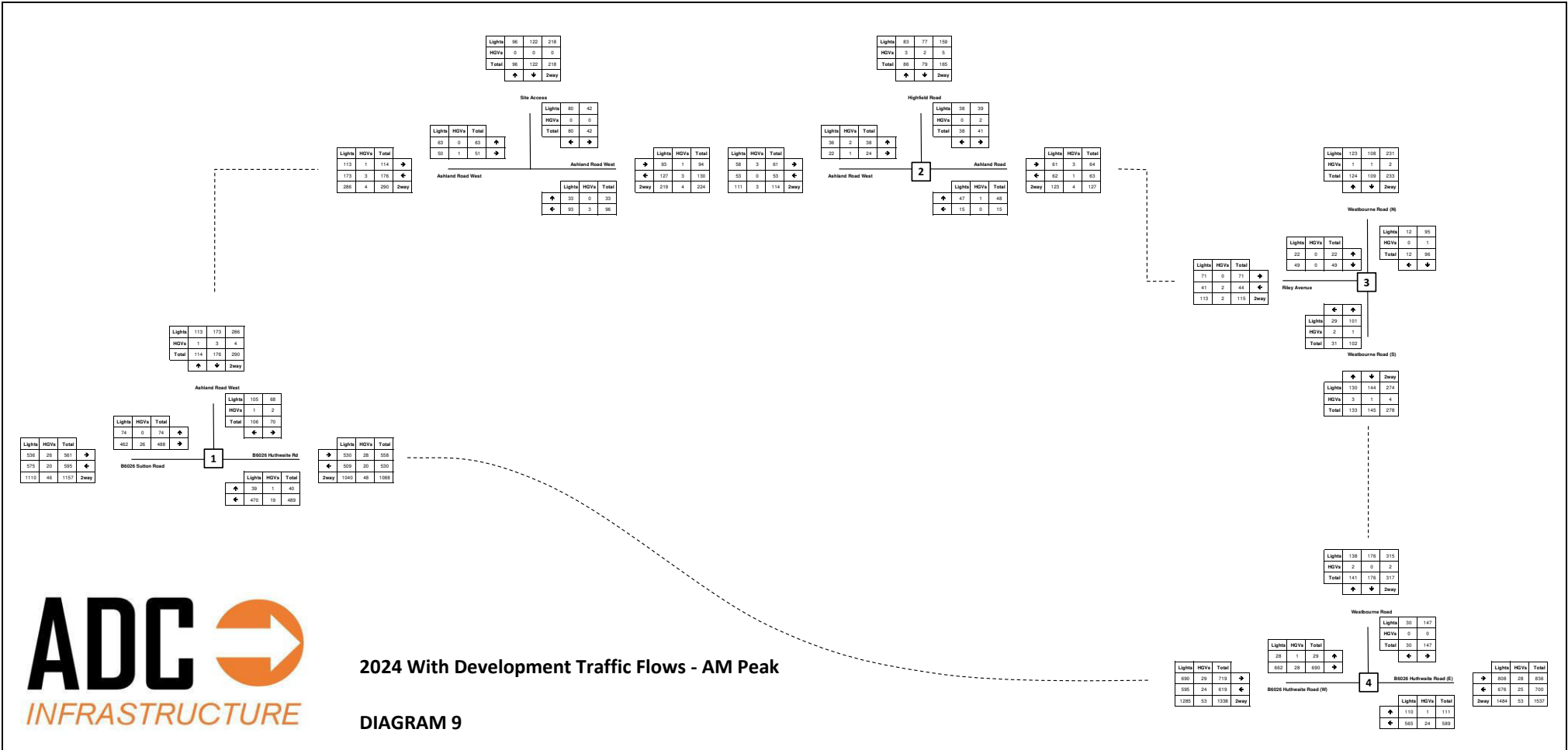


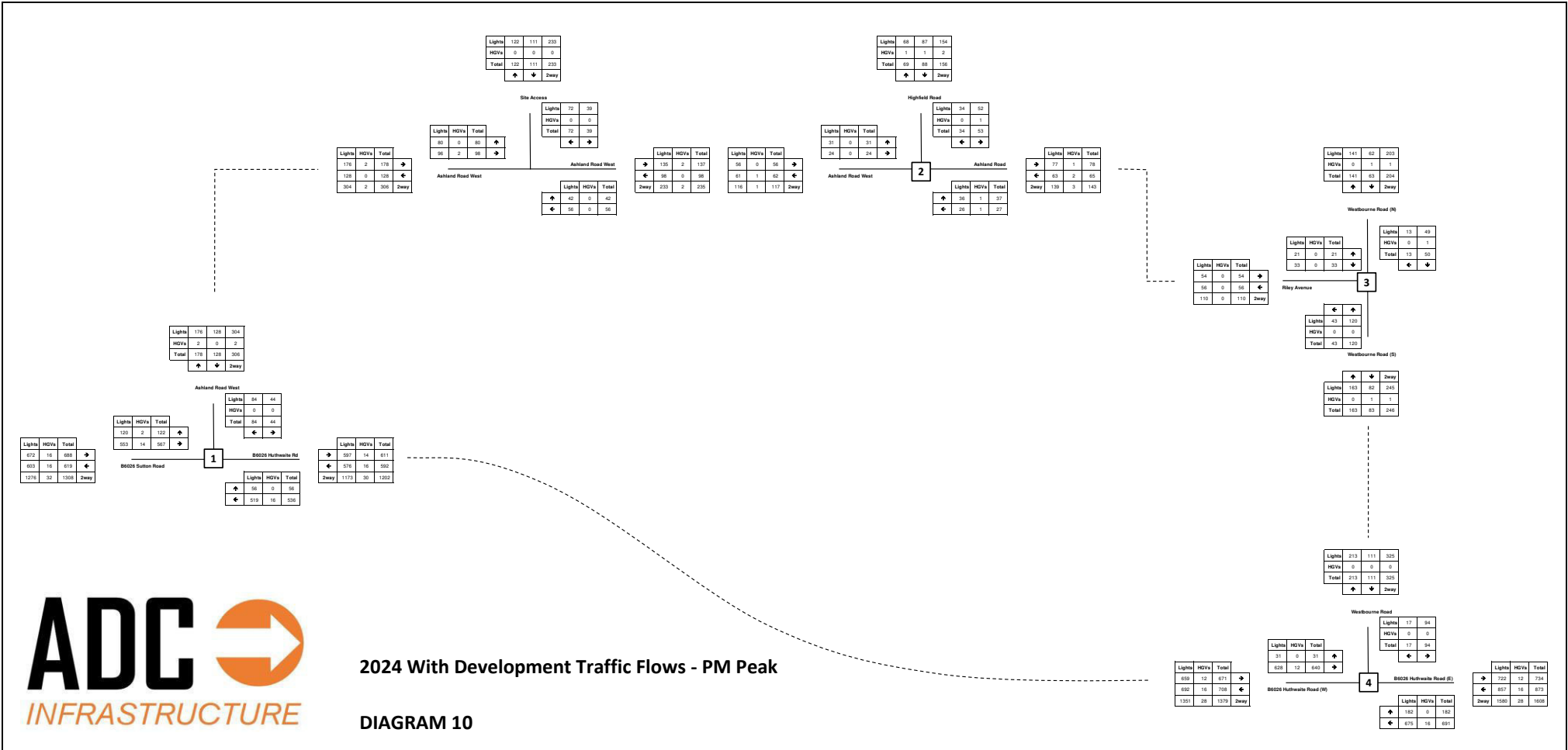


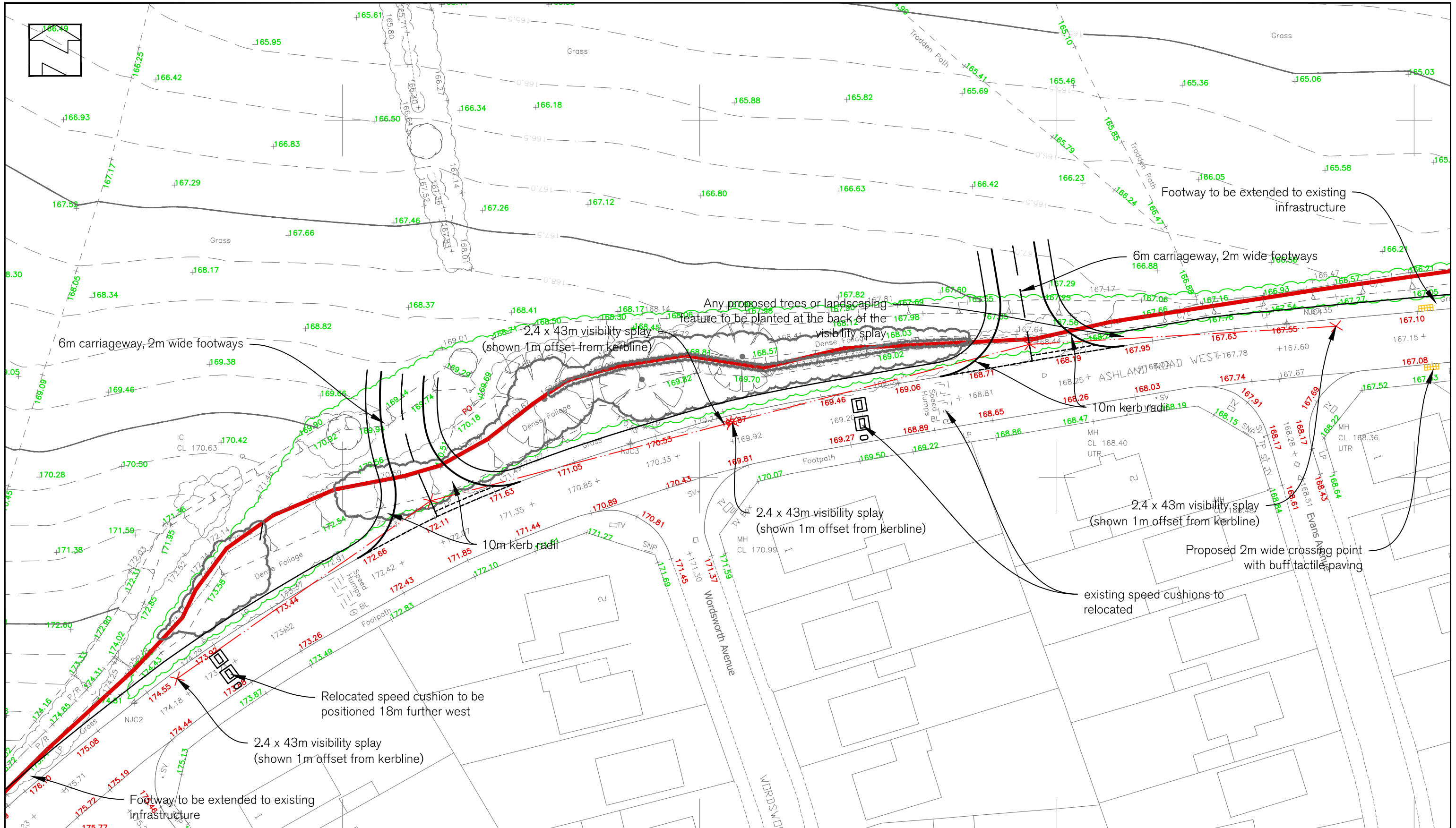













P7	Access re-aligned	06/03/20
P6	Labels updated	05/03/20
P5	Access moved to align with masterplan	21/02/20
P4	Revised following comments	11/02/20
P3	Amendments following NCC comments	05/03/15
P2	Amendments following NCC comments	27/02/15
Rev	Description	Date

Project:  
**Proposed Residential Development  
 Ashland Road, Sutton in Ashfield**

Title:  
**Proposed Access Junction Layout**

Client:  
**Bellway Homes  
 (East Midlands) Ltd**



Drg Size: <b>A3</b>	Scale: <b>1:500</b>	Date: <b>31/07/2014</b>
Drawing No: <b>ADC1032-DR-001</b>		Rev: <b>P7</b>

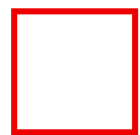

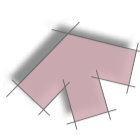
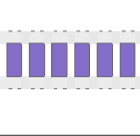
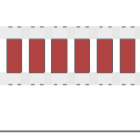
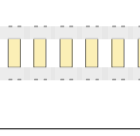
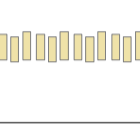
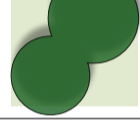
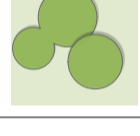
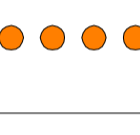
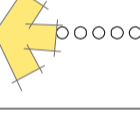
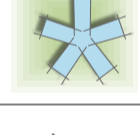
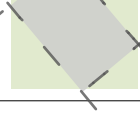


# APPENDIX A

## DEVELOPMENT MASTERPLAN



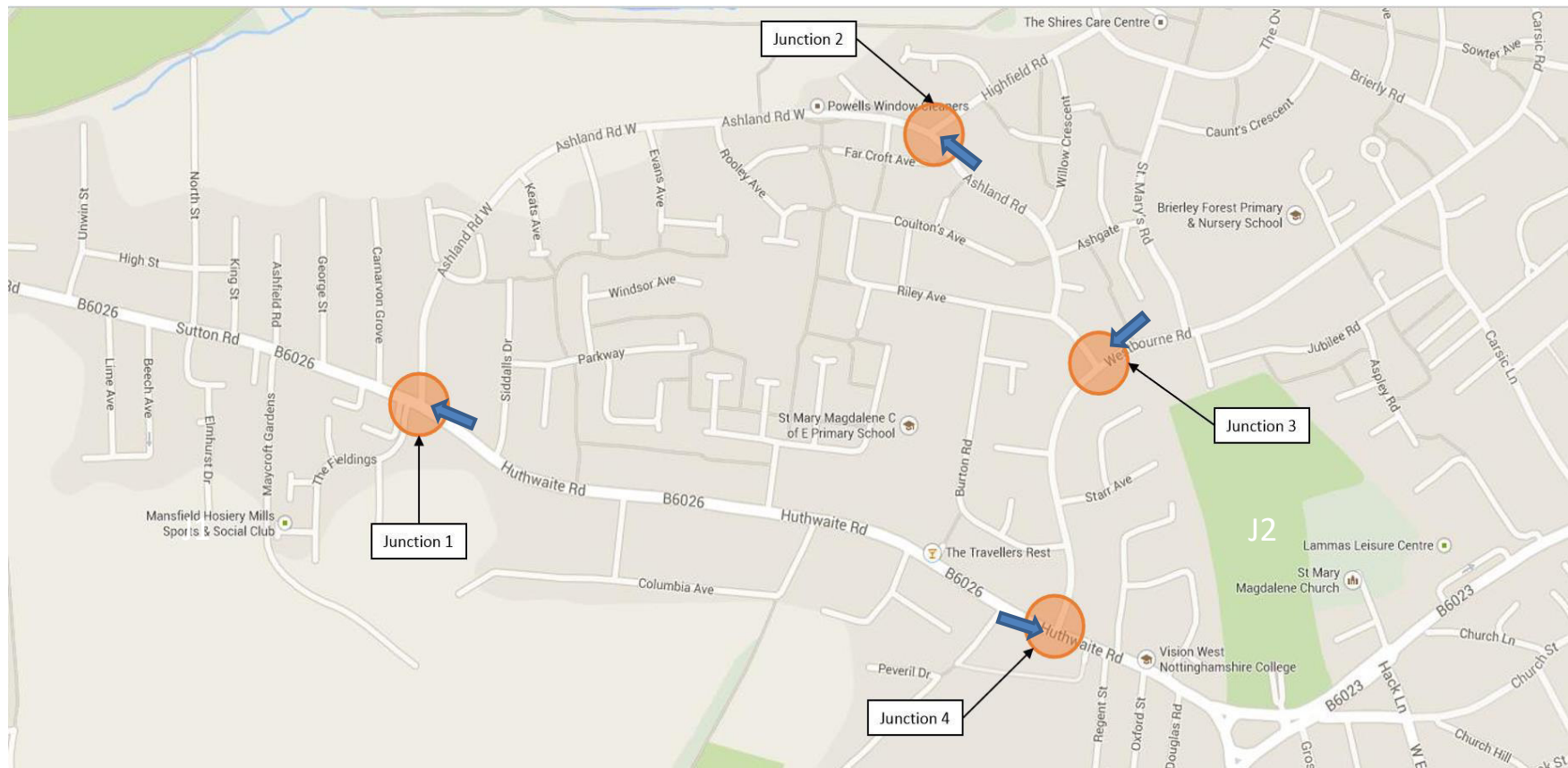


- KEY**
-  Site Boundary  
10.31 Ha
  -  Indicative Development Parcels  
8.49Ha = circa 300 dwellings @ 34dph
  -  Site Access  
to be detailed by transport consultants
  -  Primary Route Accomodating a Bus Route
  -  Primary Route
  -  Secondary Route
  -  Shared Private Drives
  -  Existing Vegetation  
Shown Indicatively
  -  Proposed Vegetation  
Shown Indicatively
  -  Public Rights of Way
  -  Indicative Footpath Connections
  -  Attenuation Basin
  -  Fowl Water Pumping Station



# APPENDIX B

## TRAFFIC SURVEY RESULTS





Place: **Sutton-in-Ashfield**  
Date: **21.05.2019**

Weather: **Fine**  
Junction: **J1**

Client: **ADC Infrastructure Ltd**  
Order no: **ADC**

Page: **1**  
of: **1**

Time Begin	Entering on: Huthwaite Road Eastbound												Entering on: Ashland Road Southbound												Entering on: Huthwaite Road Westbound												Grand Totals						
	Left turn to: Ashland Rd W NB			Straight on to: Huthwaite Rd EB			Right turn to: NA			U-Turn to: Huthwaite Rd WB			Total Vehs	PCUs	Left turn to: Huthwaite Rd EB			Straight over to: NA			Right Turn to: Huthwaite Rd WB			U-turn to: Ashland Rd W NB			Total Vehs	PCUs	Left turn to: NA			Straight on to: Huthwaite Rd WB			Right turn to: Ashland Rd W NB			U-turn to: Huthwaite Rd EB			Total Vehs	PCUs	
	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total			Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total			Light	Heavy	Total	Light	Heavy	Total	Light	Heavy		Total	Light	Heavy			Total
0700	4	0	4	47	5	52	0	0	0	1	0	1	57	1	0	1	0	0	0	4	0	4	0	0	0	5	0	0	0	77	2	79	1	0	1	0	0	80	0				
0715	4	0	4	53	7	60	0	0	0	0	0	0	64	9	0	9	0	0	0	12	0	12	0	0	0	21	0	0	0	83	2	85	1	0	1	0	0	86	0				
0730	5	1	6	110	2	112	0	0	0	0	0	0	118	4	0	4	0	0	0	12	0	12	0	0	0	16	0	0	0	88	2	100	3	0	3	0	0	103	0				
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0815	8	0	8	114	7	121	0	0	0	0	0	0	129	8	0	8	0	0	0	17	1	18	0	0	0	26	0	0	0	115	4	119	1	1	2	0	0	121	0				
0830	8	0	8	110	5	115	0	0	0	0	0	0	123	5	1	6	0	0	0	15	0	15	0	0	0	21	0	0	0	102	2	104	5	0	5	0	0	109	0				
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Total	70	1	71	929	51	980	0	0	0	2	0	2	1053	72	3	75	0	0	0	114	2	116	0	0	0	191	0	0	0	1000	37	1037	29	1	30	0	0	1067	0				
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1800	16	0	16	129	4	133	0	0	0	0	0	0	149	5	1	6	0	0	0	6	0	6	0	0	0	12	0	0	0	114	1	115	6	0	6	0	0	121	0				
1815	14	0	14	86	1	87	0	0	0	0	0	0	101	8	0	8	0	0	0	6	0	6	0	0	0	14	0	0	0	113	3	116	2	0	2	0	0	118	0				
Total	156	2	158	1206	26	1232	0	0	0	0	0	0	1390	47	1	48	0	0	0	87	0	87	0	0	0	135	0	0	0	1170	28	1198	62	0	62	1	0	1261	0				

135	7	142
172	9	181
232	5	237
246	15	261
256	16	272
263	13	276
245	8	253
237	9	246
233	7	240
197	6	203
281	7	288
260	2	262
284	5	289
268	10	278
290	6	296
301	9	310
257	5	262
283	3	286
276	6	282
229	4	233
785	36	821
906	45	951
997	49	1046
1010	52	1062
1001	46	1047
978	37	1015
912	30	942
1093	24	1117
1102	23	1125
1143	30	1173
1116	30	1146
1131	30	1154
1117	23	1140
1045	18	1063

Left turn to: Ashland Rd W NB			Straight on to: Huthwaite Rd EB			Right turn to: NA			U-Turn to: Huthwaite Rd WB		
Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total
30	0	30	436	26	462						
61	2	63	515	13	528						

Left turn to: Huthwaite Rd EB			Straight over to: NA			Right Turn to: Huthwaite Rd WB			U-turn to: Ashland Rd W NB		
Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total
37	2	39				57	1	58			
18	0	18				34	0	34			

Left turn to: NA			Straight on to: Huthwaite Rd WB			Right turn to: Ashland Rd W NB			U-turn to: Huthwaite Rd EB		
Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total
			438	22	460	12	1	13			
			485	15	500	29	0	29			





Place: Sutton-in-Ashfield  
Date: 21.05.2019

Weather: Fine  
Junction: J2

Client: ADC Infrastructure Ltd  
Order no: ADC

Page: 1  
of: 1

Time Begin	Entering on: Ashland Road W Eastbound												Entering on: Highfield Road Southbound												Entering on: Ashland Road Westbound												Grand Totals							
	Left turn to: Highfield Rd NB			Straight on to: Ashland Rd EB			Right turn to: NA			U-Turn to: Ashland Rd W WB			Total Vehs	PCUs	Left turn to: Ashland Rd EB			Straight over to: NA			Right Turn to: Ashland Rd W WB			U-turn to: Highfield Rd NB			Total Vehs	PCUs	Left turn to: NA			Straight on to: Ashland Rd W WB			Right turn to: Highfield Rd NB			U-turn to: Ashland Rd EB			Total Vehs	PCUs		
	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total			Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total			Light	Heavy	Total	Light	Heavy	Total	Light	Heavy		Total	Light	Heavy			Total	Light
0700	5	0	5	1	0	1	0	0	0	0	0	0	6		1	0	1	0	0	0	3	0	3	0	0	0	4		0	0	0	1	0	1	0	1	1	0	0	0	2		12	
0715	5	0	5	0	0	0	0	0	0	0	0	0	5		1	0	1	0	0	0	9	0	9	0	0	0	10		0	0	0	2	0	2	1	0	1	0	0	0	3		18	
0730	7	1	8	0	0	0	0	0	0	0	0	0	8		8	1	9	0	0	0	12	0	12	0	0	0	21		0	0	0	0	0	0	12	1	13	0	0	0	13		42	
0745	3	0	3	2	0	2	0	0	0	0	0	0	5		4	0	4	0	0	0	4	0	4	0	0	0	8		0	0	0	2	0	2	12	0	12	0	0	0	14		27	
0800	2	0	2	2	0	2	0	0	0	0	0	0	4		8	0	8	0	0	0	2	0	2	0	0	0	10		0	0	0	3	0	3	11	0	11	0	0	0	14		28	
0815	2	1	3	2	0	2	0	0	0	0	0	0	5		11	1	12	0	0	0	2	0	2	0	0	0	14		0	0	0	0	0	0	12	1	13	0	0	0	13		32	
0830	4	1	5	0	1	1	0	0	0	0	0	0	6		9	1	10	0	0	0	6	0	6	0	0	0	16		0	0	0	1	0	1	13	0	13	0	0	0	14		36	
0845	1	0	1	2	0	2	0	0	0	0	0	0	3		8	0	8	0	0	0	3	0	3	0	0	0	11		0	0	0	1	0	1	8	0	8	0	0	0	9		23	
0900	2	0	2	2	0	2	0	0	0	0	0	0	4		7	0	7	0	0	0	1	0	1	0	0	0	8		0	0	0	1	0	1	10	0	10	0	0	0	11		23	
0915	1	0	1	1	0	1	0	0	0	0	0	0	2		6	0	6	0	0	0	5	0	5	0	0	0	11		0	0	0	1	0	1	5	1	6	1	0	1	8		21	
Total	32	3	35	12	1	13	0	0	0	0	0	0	48		63	3	66	0	0	0	47	0	47	0	0	0	113		0	0	0	12	0	12	84	4	88	1	0	1	101		262	
1600	2	0	2	3	0	3	0	0	0	0	0	0	5		13	0	13	0	0	0	0	0	0	0	0	0	13		0	0	0	1	0	1	10	0	10	0	0	0	11		29	
1615	2	0	2	1	0	1	0	0	0	0	0	0	3		16	0	16	0	0	0	3	0	3	0	0	0	19		0	0	0	1	0	1	5	0	5	0	0	0	6		28	
1630	2	0	2	0	0	0	0	0	0	0	0	0	2		11	0	11	0	0	0	1	0	1	0	0	0	12		0	0	0	2	0	2	4	0	4	0	0	0	6		20	
1645	2	0	2	3	0	3	0	0	0	0	0	0	5		11	1	12	0	0	0	2	0	2	0	0	0	14		0	0	0	0	0	0	8	1	9	0	0	0	9		28	
1700	2	0	2	3	0	3	0	0	0	0	0	0	5		19	0	19	0	0	0	6	0	6	0	0	0	25		0	0	0	3	0	3	6	0	6	1	0	1	10		40	
1715	3	0	3	1	0	1	0	0	0	0	0	0	4		8	0	8	0	0	0	1	0	1	0	0	0	9		0	0	0	2	1	3	16	0	16	0	0	0	19		32	
1730	4	0	4	2	0	2	0	0	0	0	0	0	6		15	0	15	0	0	0	4	0	4	0	0	0	19		0	0	0	0	0	0	14	0	14	0	0	0	14		39	
1745	5	0	5	2	0	2	0	0	0	0	0	0	7		12	0	12	0	0	0	2	0	2	0	0	0	14		0	0	0	3	0	3	10	0	10	0	0	0	13		34	
1800	1	0	1	1	0	1	0	0	0	0	0	0	2		9	0	9	0	0	0	1	0	1	0	0	0	10		0	0	0	3	0	3	4	0	4	0	0	0	7		19	
1815	1	0	1	1	0	1	0	0	0	0	0	0	2		15	1	16	0	0	0	4	0	4	0	0	0	20		0	0	0	2	0	2	5	0	5	0	0	0	7		29	
Total	24	0	24	17	0	17	0	0	0	0	0	0	41		129	2	131	0	0	0	24	0	24	0	0	0	155		0	0	0	17	1	18	82	1	83	1	0	1	102		298	

11	1	12			
18	0	18			
39	3	42			
27	0	27	95	4	99
28	0	28	112	3	115
29	3	32	123	6	129
33	3	36	117	6	123
23	0	23	113	6	119
23	0	23	108	6	114
20	1	21	99	4	103
29	0	29			
28	0	28			
20	0	20			
26	2	28	103	2	105
40	0	40	114	2	116
31	1	32	117	3	120
39	0	39	136	3	139
34	0	34	144	1	145
19	0	19	123	1	124
28	1	29	120	1	121

Left turn to: Highfield Rd NB			Straight on to: Ashland Rd EB			Right turn to: NA			U-Turn to: Ashland Rd W WB		
Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total
14	2	16	6	0	6						
14	0	14	8	0	8						

Left turn to: Ashland Rd EB			Straight over to: NA			Right Turn to: Ashland Rd W WB			U-turn to: Highfield Rd NB		
Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total
31	2	33				20	0	20			
54	0	54				13	0	13			

Left turn to: NA			Straight on to: Ashland Rd W WB			Right turn to: Highfield Rd NB			U-turn to: Ashland Rd EB		
Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total
5	0	5	47	2	49						
8	1	9	46	0	46						



Place: **Sutton-in-Ashfield**  
Date: **21.05.2019**

Weather: **Fine**  
Junction: **J3**

Client: **ADC Infrastructure Ltd**  
Order no: **ADC**

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of: **1**

Time	Entering on: Westbourne Road Eastbound												Entering on: Riley Avenue Southbound												Entering on: Westbourne Road Westbound												Grand Totals								
	Left turn to: Riley Ave NB			Straight on to: Westbourne Rd EB			Right turn to: NA			U-Turn to: Westbourne Rd WB			Left turn to: Westbourne Rd EB			Straight over to: NA			Right Turn to: Westbourne Rd WB			U-turn to: Riley Ave NB			Left turn to: NA			Straight on to: Westbourne Rd WB			Right turn to: Riley Ave NB			U-turn to: Westbourne Rd EB											
	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total		Vehs	PCUs						
0700	5	0	5	7	1	8	0	0	0	0	0	0	2	0	2	0	0	0	9	0	9	0	0	0	0	0	0	0	0	0	3	1	4	0	0	0	0	0	0	4	0	4	26	2	28
0715	1	0	1	1	0	1	0	0	0	0	0	0	1	0	1	0	0	0	7	0	7	0	0	0	0	0	0	0	0	0	10	0	10	1	0	1	0	0	0	11	0	11	21	0	21
0730	2	0	2	11	0	11	0	0	0	0	0	0	1	0	1	0	0	0	8	0	8	0	0	0	0	0	0	0	0	0	16	2	18	0	0	0	0	0	0	18	0	18	38	2	40
0745	3	0	3	11	0	11	0	0	0	0	0	0	1	0	1	0	0	0	7	0	7	0	0	0	0	0	0	0	0	0	13	0	13	2	0	2	0	0	0	15	0	15	37	0	37
0800	5	0	5	17	0	17	0	0	0	0	0	0	4	0	4	0	0	0	6	0	6	0	0	0	0	0	0	0	0	0	19	0	19	2	0	2	0	0	0	21	0	21	53	0	53
0815	5	1	6	26	1	27	0	0	0	0	0	0	4	0	4	0	0	0	5	0	5	0	0	0	0	0	0	0	0	0	22	0	22	3	0	3	0	0	0	25	0	25	65	2	67
0830	2	1	3	22	0	22	0	0	0	0	0	0	4	0	4	0	0	0	8	0	8	0	0	0	0	0	0	0	0	0	19	1	20	1	0	1	0	0	0	21	0	21	56	2	58
0845	9	0	9	29	0	29	0	0	0	0	0	0	4	0	4	0	0	0	16	0	16	0	0	0	0	0	0	0	0	0	29	0	29	3	0	3	0	0	0	32	0	32	90	0	90
0900	7	1	8	14	0	14	0	0	0	0	0	0	3	0	3	0	0	0	14	0	14	0	0	0	0	0	0	0	0	0	14	0	14	4	0	4	0	0	0	18	0	18	57	1	58
0915	2	0	2	14	1	15	0	0	0	1	0	1	2	0	2	0	0	0	11	2	13	0	0	0	0	0	0	0	0	0	13	0	13	5	0	5	0	0	0	18	0	18	51	3	54
<b>Total</b>	<b>41</b>	<b>3</b>	<b>44</b>	<b>152</b>	<b>3</b>	<b>155</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>26</b>	<b>0</b>	<b>26</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>91</b>	<b>2</b>	<b>93</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>158</b>	<b>4</b>	<b>162</b>	<b>21</b>	<b>0</b>	<b>21</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>183</b>	<b>0</b>	<b>183</b>	<b>502</b>		
1600	10	0	10	26	0	26	0	0	0	0	0	0	1	0	1	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0	19	1	20	3	0	3	0	0	0	23	0	23	64	1	65
1615	9	0	9	20	1	21	0	0	0	0	0	0	1	0	1	0	0	0	6	0	6	0	0	0	0	0	0	0	0	0	14	0	14	1	0	1	0	0	0	15	0	15	52	1	53
1630	4	0	4	19	0	19	0	0	0	0	0	0	3	0	3	0	0	0	5	0	5	0	0	0	0	0	0	0	0	0	10	0	10	3	0	3	0	0	0	13	0	13	44	0	44
1645	10	0	10	24	0	24	0	0	0	0	0	0	3	0	3	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	11	0	11	0	0	0	0	0	0	11	0	11	50	0	50
1700	8	0	8	29	0	29	0	0	0	0	0	0	3	0	3	0	0	0	9	0	9	0	0	0	0	0	0	0	0	0	16	1	17	4	0	4	0	0	0	21	0	21	70	1	71
1715	5	0	5	40	0	40	0	0	0	0	0	0	4	0	4	0	0	0	5	0	5	0	0	0	0	0	0	0	0	0	9	0	9	1	0	1	0	0	0	10	0	10	64	0	64
1730	9	0	9	24	0	24	0	0	0	0	0	0	3	0	3	0	0	0	6	0	6	0	0	0	0	0	0	0	0	0	15	0	15	1	0	1	0	0	0	16	0	16	58	0	58
1745	7	0	7	18	0	18	0	0	0	0	0	0	3	0	3	0	0	0	7	0	7	0	0	0	0	0	0	0	0	0	16	1	17	3	0	3	1	0	1	21	0	21	56	0	56
1800	6	0	6	19	1	20	0	0	0	0	0	0	3	0	3	0	0	0	7	0	7	0	0	0	0	0	0	0	0	0	15	0	15	0	0	0	0	0	0	15	0	15	51	0	51
1815	6	0	6	17	0	17	0	0	0	0	0	0	2	0	2	0	0	0	6	0	6	0	0	0	0	0	0	0	0	0	10	0	10	0	0	0	0	0	0	10	0	10	41	0	41
<b>Total</b>	<b>74</b>	<b>0</b>	<b>74</b>	<b>236</b>	<b>2</b>	<b>238</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>26</b>	<b>0</b>	<b>26</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>57</b>	<b>0</b>	<b>57</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>135</b>	<b>3</b>	<b>138</b>	<b>16</b>	<b>0</b>	<b>16</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>155</b>	<b>0</b>	<b>155</b>	<b>550</b>		

26	2	28
21	0	21
38	2	40
37	0	37
53	0	53
65	2	67
56	2	58
90	0	90
56	1	57
48	3	51
63	1	64
51	1	52
44	0	44
50	0	50
69	1	70
64	0	64
58	0	58
55	1	56
50	1	51
41	0	41

Left turn to: Riley Ave NB			Straight on to: Westbourne Rd EB			Right turn to: NA			U-Turn to: Westbourne Rd WB		
Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total
23	3	26	91	1	92						
29	0	29	111	0	111						

Left turn to: Westbourne Rd EB			Straight over to: NA			Right Turn to: Westbourne Rd WB			U-turn to: Riley Ave NB		
Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total
15	0	15				43	0	43			
13	0	13				27	0	27			

Left turn to: NA			Straight on to: Westbourne Rd WB			Right turn to: Riley Ave NB			U-turn to: Westbourne Rd EB		
Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total
84	1	85	11	0	11						
56	2	58	9	0	9						



Place: Sutton-in-Ashfield  
Date: 21.05.2019

Weather: Fine  
Junction: 14

Client: ADC Infrastructure Ltd  
Order no: ADC

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ATC Traffic & Construction Ltd

Time Bin	Entering on: Huthwaite Road Eastbound											Entering on: Westbourne Road Southbound								Entering on: Huthwaite Road Westbound								Grand																			
	Left turn to: Westbourne Rd NB			Straight on to: Huthwaite Rd EB				Right turn to: NA				U-Turn to: Huthwaite Rd WB				Total	PCUs	Left turn to: Huthwaite Rd EB			Straight over to: NA			Right Turn to: Huthwaite Rd WB			U-turn to: Westbourne Rd NB			Total	PCUs	Left turn to: NA			Straight on to: Huthwaite Rd WB			Right turn to: Westbourne Rd NB			U-turn to: Huthwaite Rd EB			Total	PCUs	Grand	
	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total			Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light		Heavy			Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy				Total
0700	2	0	2	51	5	56	0	0	0	0	0	0	58	18	0	18	0	0	0	4	0	4	0	0	0	22	0	0	0	61	2	63	10	1	11	0	0	0	74	154							
0715	2	0	2	79	5	84	0	0	0	0	0	0	86	27	0	27	0	0	0	2	0	2	0	0	0	29	0	0	0	84	2	86	1	0	1	0	0	0	87	202							
0730	6	0	6	128	4	132	0	0	0	0	0	0	138	25	1	26	0	0	0	8	0	8	0	0	0	34	0	0	0	90	3	93	11	0	11	0	0	0	104	276							
0745	2	0	2	135	7	142	0	0	0	0	0	0	144	32	0	32	0	0	0	1	0	1	0	0	0	33	0	0	0	119	6	125	12	0	12	0	0	0	137	314							
0800	4	0	4	146	7	153	0	0	0	0	0	0	157	26	0	26	0	0	0	10	0	10	0	0	0	36	0	0	0	101	7	108	19	0	19	0	0	0	127	320							
0815	3	1	4	148	7	155	0	0	0	0	0	0	159	29	0	29	0	0	0	5	0	5	0	0	0	34	0	0	0	137	6	143	29	1	30	0	0	0	173	366							
0830	9	0	9	127	5	132	0	0	0	0	0	0	141	33	0	33	0	0	0	2	0	2	0	0	0	35	0	0	0	147	5	152	21	0	21	0	0	0	173	349							
0845	9	0	9	167	7	174	0	0	0	0	0	0	183	40	0	40	0	0	0	9	0	9	0	0	0	49	0	0	0	122	4	126	29	0	29	0	0	0	155	387							
0900	1	0	1	114	4	118	0	0	0	0	0	0	119	32	0	32	0	0	0	8	0	8	0	0	0	40	0	0	0	106	3	109	25	2	27	0	0	0	136	295							
0915	3	0	3	107	2	109	0	0	0	0	0	0	112	25	2	27	0	0	0	11	0	11	0	0	0	38	0	0	0	113	1	114	27	1	28	0	0	0	142	292							
Total	41	1	42	1202	53	1255	0	0	0	0	0	0	1297	287	3	290	0	0	0	60	0	60	0	0	0	350	0	0	0	1080	38	1119	184	5	189	0	0	0	1308	2955							
1600	9	0	9	145	3	148	0	0	0	0	0	0	157	25	0	25	0	0	0	5	1	6	0	0	0	31	0	0	0	139	1	140	45	0	45	0	0	0	185	373							
1615	8	0	8	119	2	121	0	0	0	0	0	0	129	27	0	27	0	0	0	4	0	4	0	0	0	31	0	0	0	137	0	137	35	0	35	0	0	0	172	332							
1630	8	0	8	153	1	154	0	0	0	0	0	0	167	20	0	20	0	0	0	4	0	4	0	0	0	24	0	0	0	141	4	145	26	0	26	0	0	0	171	357							
1645	5	0	5	127	4	131	0	0	0	0	0	0	136	16	0	16	0	0	0	4	0	4	0	0	0	20	0	0	0	134	5	139	43	0	43	0	0	0	182	338							
1700	6	0	6	162	3	165	0	0	0	0	0	0	171	26	0	26	0	0	0	3	0	3	0	0	0	29	0	0	0	150	3	153	45	0	45	0	0	0	198	398							
1715	8	0	8	122	3	125	0	0	0	0	0	0	133	18	0	18	0	0	0	4	0	4	0	0	0	27	0	0	0	183	3	186	45	0	45	0	0	0	231	386							
1730	12	0	12	101	2	103	0	0	0	0	0	0	115	15	0	15	0	0	0	5	0	5	0	0	0	20	0	0	0	140	3	143	27	0	27	0	0	0	170	305							
1745	7	0	7	118	1	119	0	0	0	0	0	0	126	22	1	23	0	0	0	7	0	7	0	0	0	30	0	0	0	149	2	151	26	0	26	0	0	0	177	333							
1800	5	0	5	153	4	157	0	0	0	0	0	0	167	26	0	26	0	0	0	5	0	5	0	0	0	31	0	0	0	141	1	142	27	1	28	0	0	0	170	363							
1815	5	0	5	104	1	105	0	0	0	0	0	0	110	23	0	23	0	0	0	3	0	3	0	0	0	26	0	0	0	136	5	141	24	0	24	0	0	0	165	301							
Total	73	0	73	1304	24	1328	0	0	0	0	0	0	1401	218	1	219	0	0	0	44	1	45	0	0	0	264	0	0	0	1450	27	1477	343	1	344	0	0	0	1821	3486							

146	8	154
195	7	202
268	8	276
301	13	314
306	14	320
306	14	320
351	15	366
339	10	349
376	11	387
286	9	295
286	6	292

368	5	373
330	2	332
352	5	357
329	9	338
392	6	398
380	6	386
300	5	305
329	4	333
357	6	363
295	6	301

Left turn to: Westbourne Rd NB			Straight on to: Huthwaite Rd EB				Right turn to: NA				U-Turn to: Huthwaite Rd WB			
Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total
25	1	26	588	26	614									
27	0	27	564	11	575									

Left turn to: Huthwaite Rd EB			Straight over to: NA				Right Turn to: Huthwaite Rd WB				U-turn to: Westbourne Rd NB			
Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total
128	0	128	588	26	614	26	0	26						
80	0	80				15	0	15						

Left turn to: NA			Straight on to: Huthwaite Rd WB				Right turn to: Westbourne Rd NB				U-turn to: Huthwaite Rd EB			
Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total
			507	22	529	98	1	99						
			608	15	623	159	0	159						

## APPENDIX C

# PERSONAL INJURY ACCIDENT DATA

**ACCIDENT ANALYSIS**

SITE ..... Ashland Road, Sutton in Ashfield

Job No. ....ADC1092

PERIOD .....01/01/2014 to 31/01/2019

DATA OBTAINED FROM .....Nottinghamshire County Council



ACCIDENT PLOT NO.	1	2	3	4	5	6	7	8	9	10
ACCIDENT REF	2A277216	2A257718	2A210017	2A204918						
DATE	26/10/2016	08/04/2018	20/10/2017	30/06/2018						
TIME	0014	1413	0829	0502						
SEVERITY	Serious	Slight	Serious	Slight						
DARK / LIGHT	Dark	Light	Light	Light						
WET / DRY	Wet	Dry	Wet	Dry						
NO. OF VEHICLES	4	3	2	6						
VEHICLE 1	Car	M/C >500cc	Car	Car						
VEHICLE 2	Car	Car	Pedal Cycle	Car						
VEHICLE 3	Car	Car		Car						
VEHICLE 4	Car			Car						
VEHICLE 5				Car						
VEHICLE 6				Car						
NO. OF CASUALTIES	2	3	1	2						
CASUALTY 1	Passenger of V1	Driver of V2	Rider of V2	Driver of V1						
CASUALTY 2	Driver of V1	Passenger of V2		Passenger of V1						
CASUALTY 3		Driver of V3								
CASUALTY 4										
CASUALTY 5										
CONFLICT DRAWING										
DESCRIPTION	V1 travelling NW on Huthwaite Rd collides with central reservation, crosses carriageway and collides with front of V2 causing V2 to collide with V3 and V3 to collide with V4	V1, V2 and V3 travelling NW on Huthwaite Rd towards junction with The Fieldings. V1 attempted to overtake V2 and V3 on nearside and collided with V2 as V2 turned left into The Fieldings. V3 then collided with V2.	V1 travelling NW on Huthwaite Road turned right across the path of V2 travelling in opposite direction causing collision	V1 travelling NE on Westbourne Rd, V2-V6 parked on either side of carriageway. V1 loses control and collides with all other vehicles.						





## Full Accident Details Report - PUBLISH COPY

May be included within a report or assessment if required

Ashland Road Sutton in Ashfield 01.01.2014 - 31.01.2019

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Total number of reports = 4  
Total number of pages (including this page) = 9

*Note: Where the age of a person is listed as "U/K yrs", this signifies that the age is unknown*

### **ROAD TRAFFIC INJURY ACCIDENT RECORDS - DISCLAIMER**

These details are a record of the personal injury accidents reported to the Police. Every endeavour is made to ensure the accuracy and completeness of these records, which have been transcribed from the original Police Reports. The data is then entered and held on computer.

Occasions may arise when information from the Police, relevant to a particular accident, may not be available for several months and will therefore not be included.

No. 1	District Ashfield	<h1>Full Accident Details</h1>	VRUs	Grid Reference 447714 / 359143
SEVERITY <b>SERIOUS</b>	Ref.No 2A277216		Police Officer Attend: Yes	
Date 26/10/2016 Day Wednesday	ROAD B6026	LOCATION B6026 HUTHWAITE ROAD at House Number 230, 13 metres southeast of Unclassified Road CARNARVON GROVE, SUTTON IN ASHFIELD		
Time 00:14				
Weather Fine				
Road Surface Wet				
Street Lighting Dark/lights lit				
Speed Limit 30 MPH	SITE DETAILS	SPECIAL SITE CONDITIONS		
Carriageway Single c'way		None		
Lane markings Centre/hazard line				
Junction Detail T or Staggered junction				
Junction Control Give way sign or uncontrolled		CARRIAGEWAY HAZARDS		
2nd Road Number U		None		
Pedestrian Facilities No Human control within 50m				
No crossing facility within 50m				
VEHICLES INVOLVED 4		CASUALTIES INVOLVED 2		
Veh.No. 1	Vehicle type Car	Cas No 1	Cas Class Passenger	Veh ref No 1
Manoeuvre Going ahead other		Severity <b>SERIOUS</b>	Age 20 yrs	Sex Male
Direction from South east to North west	Towing? No	Car Passenger? Front	PSV Passenger? No	
Skidded Yes		Ped Movement Not a pedestrian		
Veh location at impact (restricted lane) On main carriageway		Ped location Not a pedestrian		
Junct. location of veh. at 1st impact Approaching or parked on approach to junction		Ped Direction to Not a pedestrian		
Veh left carriageway? Did not leave c'way		School Pupil Other		
Hit object in c'way? Bollard/refuge		Roadworker injured No		
Hit object off c'way? None				
First point of impact Front		Cas No 2	Cas Class Driver or Rider	Veh ref No 1
Drivers age 24 yrs Sex Male	Other veh.hit (ref.) 2	Severity <b>SLIGHT</b>	Age 24 yrs	Sex Male
Foreign vehicle Not foreign	Hit and run No	Car Passenger? No	PSV Passenger? No	
Journey purpose Other/Not known	Breath test Positive	Ped Movement Not a pedestrian		
		Ped location Not a pedestrian		
		Ped Direction to Not a pedestrian		
		School Pupil Other		
		Roadworker injured No		
Veh.No. 2	Vehicle type Car			
Manoeuvre Parked				
Direction from North west	Towing? No			
Skidded No				
Veh location at impact (restricted lane) On main carriageway				
Junct. location of veh. at 1st impact Approaching or parked on approach to junction				
Veh left carriageway? Did not leave c'way				
Hit object in c'way? Parked vehicle unlit				
Hit object off c'way? None				
First point of impact Front				
Drivers age U/K yrs Sex Not traced	Other veh.hit (ref.) 1			
Foreign vehicle Not foreign	Hit and run No			
Journey purpose	Breath test Not contacted			

Veh.No.	3	Vehicle type	Car				
Manoeuvre		Parked					
Direction from	North west			Towing?	No		
Skidded	No						
Veh location at impact (restricted lane)				On main carriageway			
Junct. location of veh. at 1st impact				Approaching or parked on approach to junction			
Veh left carriageway?		Did not leave c'way					
Hit object in c'way?		Parked vehicle unlit					
Hit object off c'way?		None					
First point of impact		Front					
Drivers age	U/K yrs	Sex	Not traced	Other veh.hit (ref.)	2	Hit and run	No
Foreign vehicle		Not foreign				Breath test	Not contacted
Journey purpose							
Veh.No.	4	Vehicle type	Car				
Manoeuvre		Parked					
Direction from	North west			Towing?	No		
Skidded	No						
Veh location at impact (restricted lane)				On main carriageway			
Junct. location of veh. at 1st impact				Approaching or parked on approach to junction			
Veh left carriageway?		Did not leave c'way					
Hit object in c'way?		None					
Hit object off c'way?		None					
First point of impact		Back					
Drivers age	U/K yrs	Sex	Not traced	Other veh.hit (ref.)	3	Hit and run	No
Foreign vehicle		Not foreign				Breath test	Not contacted
Journey purpose							

<b>No. 2</b>	District Ashfield	<h1>Full Accident Details</h1>	VRUs Motorcycle	Grid Reference 447725 / 359131
SEVERITY <b>SLIGHT</b>	Ref.No 2A257718		Police Officer Attend: Yes	
Date 08/04/2018 Day Sunday	ROAD B6026	LOCATION B6026 HUTHWAITE ROAD, at its Junction with U/C THE FIELDINGS, SUTTON IN ASHFIELD		
Time 14:13				
Weather Fine				
Road Surface Dry				
Street Lighting Daylight				
Speed Limit 30 MPH	SITE DETAILS	SPECIAL SITE CONDITIONS		
Carriageway Single c'way		None		
Lane markings Centre/hazard line				
Junction Detail T or Staggered junction				
Junction Control Give way sign or uncontrolled		CARRIAGEWAY HAZARDS		
2nd Road Number U		None		
Pedestrian Facilities No Human control within 50m				
No crossing facility within 50m				
<b>VEHICLES INVOLVED 3</b>		<b>CASUALTIES INVOLVED 3</b>		
Veh.No. 1 Vehicle type M/cycle > 500cc	Manoeuvre Overtaking on nearside	Direction from South east to North west	Towing? No	Skidded No
Veh location at impact (restricted lane)	On main carriageway	Junct. location of veh. at 1st impact	Mid junction	Veh left carriageway? Did not leave c'way
Hit object in c'way? None		Hit object off c'way? None		First point of impact Front
Drivers age U/K yrs Sex Male	Other veh.hit (ref.) 2	Hit and run Yes		Foreign vehicle Not foreign
Journey purpose Other/Not known		Breath test Not contacted		
Veh.No. 2 Vehicle type Car	Manoeuvre Turning left	Direction from South east to South	Towing? No	Skidded No
Veh location at impact (restricted lane)	On main carriageway	Junct. location of veh. at 1st impact	Leaving main road	Veh left carriageway? Did not leave c'way
Hit object in c'way? None		Hit object off c'way? None		First point of impact Nearside
Drivers age 42 yrs Sex Female	Other veh.hit (ref.) 1	Hit and run No		Foreign vehicle Not foreign
Journey purpose		Breath test Negative		
Cas No 1 Cas Class Driver or Rider	Veh ref No 2	Severity <b>SLIGHT</b>	Age 42 yrs Sex Female	Car Passenger? No
PSV Passenger? No		Ped Movement Not a pedestrian		Ped location Not a pedestrian
Ped Direction to Not a pedestrian		School Pupil Other		Roadworker injured No
Cas No 2 Cas Class Passenger	Veh ref No 2	Severity <b>SLIGHT</b>	Age 5 yrs Sex Male	Car Passenger? Front
PSV Passenger? No		Ped Movement Not a pedestrian		Ped location Not a pedestrian
Ped Direction to Not a pedestrian		School Pupil		Roadworker injured No
Cas No 3 Cas Class Driver or Rider	Veh ref No 3	Severity <b>SLIGHT</b>	Age 34 yrs Sex Male	Car Passenger? No
PSV Passenger? No		Ped Movement Not a pedestrian		Ped location Not a pedestrian
Ped Direction to Not a pedestrian		School Pupil Other		Roadworker injured No

Veh.No.	3	Vehicle type	Car
Manoeuvre	Going ahead other		
Direction from	South east to North west	Towing?	No
Skidded	No		
Veh location at impact (restricted lane)	On main carriageway		
Junct. location of veh. at 1st impact	Approaching or parked on approach to junction		
Veh left carriageway?	Did not leave c'way		
Hit object in c'way?	None		
Hit object off c'way?	None		
First point of impact	Front		
Drivers age	34 yrs	Sex	Male
		Other veh.hit (ref.)	2
		Hit and run	No
Foreign vehicle	Not foreign		Breath test
Journey purpose	Negative		



No. <b>3</b>	District Ashfield	<h1>Full Accident Details</h1>	VRUs	Grid Reference 447741 / 359126
SEVERITY <b>SERIOUS</b>	Ref.No 2A210017		Pedal Cycle	Police Officer Attend: Yes

Date 20/10/2017 Day Friday	ROAD B6026
Time 08:29	LOCATION B6026 HUTHWAITE ROAD, at its Junction with U/C ASHLAND ROAD WEST, SUTTON IN ASHFIELD
Weather Fine	
Road Surface Wet	
Street Lighting Daylight	

Speed Limit 30 MPH	SITE DETAILS	SPECIAL SITE CONDITIONS None
Carriageway Single c'way		
Lane markings Centre/hazard line	CARRIAGEWAY HAZARDS None	
Junction Detail T or Staggered junction		
Junction Control Give way sign or uncontrolled		
2nd Road Number U		
Pedestrian Facilities No Human control within 50m Central Refuge only		

VEHICLES INVOLVED <b>2</b>	CASUALTIES INVOLVED <b>1</b>
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<p>Veh.No. 1 Vehicle type Car</p> <p>Manoeuvre Turning right</p> <p>Direction from South east to North Towing? No</p> <p>Skidded No</p> <p>Veh location at impact (restricted lane) On main carriageway</p> <p>Junct. location of veh. at 1st impact Leaving main road</p> <p>Veh left carriageway? Did not leave c'way</p> <p>Hit object in c'way? None</p> <p>Hit object off c'way? None</p> <p>First point of impact Nearside</p> <p>Drivers age 31 yrs Sex Female Other veh.hit (ref.) 2 Hit and run No</p> <p>Foreign vehicle Not foreign Breath test Negative</p> <p>Journey purpose Taking pupil to/from school</p>	<p>Cas No 1 Cas Class Driver or Rider Veh ref No 2</p> <p>Severity <b>SERIOUS</b> Age 69 yrs Sex Female</p> <p>Car Passenger? No PSV Passenger? No</p> <p>Ped Movement Not a pedestrian</p> <p>Ped location Not a pedestrian</p> <p>Ped Direction to Not a pedestrian</p> <p>School Pupil Other</p> <p>Roadworker injured No</p>
--	--

<p>Veh.No. 2 Vehicle type Pedal Cycle</p> <p>Manoeuvre Going ahead other</p> <p>Direction from North west to South east Towing? No</p> <p>Skidded No</p> <p>Veh location at impact (restricted lane) On main carriageway</p> <p>Junct. location of veh. at 1st impact Mid junction</p> <p>Veh left carriageway? Did not leave c'way</p> <p>Hit object in c'way? None</p> <p>Hit object off c'way? None</p> <p>First point of impact Front</p> <p>Drivers age 69 yrs Sex Female Other veh.hit (ref.) 1 Hit and run No</p> <p>Foreign vehicle Not foreign Breath test Not applicable</p> <p>Journey purpose</p>
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No. 4	District Ashfield	<h1>Full Accident Details</h1>	VRUs	Grid Reference 448558 / 359101
SEVERITY <b>SLIGHT</b>	Ref.No 2A204918		Police Officer Attend: Yes	

Date 30/06/2018 Day Saturday	ROAD U
Time 05:02	LOCATION U/C WESTBOURNE ROAD BEND, at its Junction with U/C WESTBOURNE CLOSE, SUTTON IN ASHFIELD (EXACT LOCATION UNKNOWN)
Weather Fine	
Road Surface Dry	
Street Lighting Daylight	

Speed Limit 30 MPH	SITE DETAILS	SPECIAL SITE CONDITIONS None
Carriageway Single c'way		
Lane markings None	CARRIAGEWAY HAZARDS None	
Junction Detail T or Staggered junction		
Junction Control Authorised person		
2nd Road Number U		
Pedestrian Facilities No Human control within 50m No crossing facility within 50m		

VEHICLES INVOLVED 6	CASUALTIES INVOLVED 2
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<p>Veh.No. 1 Vehicle type Car</p> <p>Manoeuvre Going ahead right hand bend</p> <p>Direction from South west to North east Towing? No</p> <p>Skidded Yes &amp; Overturned</p> <p>Veh location at impact (restricted lane) On main carriageway</p> <p>Junct. location of veh. at 1st impact Approaching or parked on approach to junction</p> <p>Veh left carriageway? Did not leave c'way</p> <p>Hit object in c'way? Parked vehicle unlit</p> <p>Hit object off c'way? None</p> <p>First point of impact Front</p> <p>Drivers age 41 yrs Sex Male Other veh.hit (ref.) 2 Hit and run No</p> <p>Foreign vehicle Not foreign Breath test Positive</p> <p>Journey purpose Other/Not known</p>	<p>Cas No 1 Cas Class Driver or Rider Veh ref No 1</p> <p>Severity <b>SLIGHT</b> Age 41 yrs Sex Male</p> <p>Car Passenger? No PSV Passenger? No</p> <p>Ped Movement Not a pedestrian</p> <p>Ped location Not a pedestrian</p> <p>Ped Direction to Not a pedestrian</p> <p>School Pupil Other</p> <p>Roadworker injured No</p>
<p>Veh.No. 2 Vehicle type Car</p> <p>Manoeuvre Parked</p> <p>Direction from North east Towing? No</p> <p>Skidded No</p> <p>Veh location at impact (restricted lane) On main carriageway</p> <p>Junct. location of veh. at 1st impact Approaching or parked on approach to junction</p> <p>Veh left carriageway? Did not leave c'way</p> <p>Hit object in c'way? None</p> <p>Hit object off c'way? None</p> <p>First point of impact Offside</p> <p>Drivers age U/K yrs Sex Not traced Other veh.hit (ref.) 1 Hit and run No</p> <p>Foreign vehicle Not foreign Breath test Not requested</p> <p>Journey purpose</p>	<p>Cas No 2 Cas Class Passenger Veh ref No 1</p> <p>Severity <b>SLIGHT</b> Age 20 yrs Sex Female</p> <p>Car Passenger? Front PSV Passenger? No</p> <p>Ped Movement Not a pedestrian</p> <p>Ped location Not a pedestrian</p> <p>Ped Direction to Not a pedestrian</p> <p>School Pupil Other</p> <p>Roadworker injured No</p>

Veh.No. 3	Vehicle type	Car						
Manoeuvre	Parked							
Direction from North east			Towing?	No				
Skidded	No							
Veh location at impact (restricted lane)		On main carriageway						
Junct. location of veh. at 1st impact		Approaching or parked on approach to junction						
Veh left carriageway?	Did not leave c'way							
Hit object in c'way?	None							
Hit object off c'way?	None							
First point of impact	Offside							
Drivers age U/K yrs	Sex	Not traced	Other veh.hit (ref.)	1	Hit and run	No		
Foreign vehicle	Not foreign				Breath test	Not requested		
Journey purpose								
Veh.No. 4	Vehicle type	Car						
Manoeuvre	Parked							
Direction from North east			Towing?	No				
Skidded	No							
Veh location at impact (restricted lane)		On main carriageway						
Junct. location of veh. at 1st impact		Approaching or parked on approach to junction						
Veh left carriageway?	Did not leave c'way							
Hit object in c'way?	None							
Hit object off c'way?	None							
First point of impact	Offside							
Drivers age U/K yrs	Sex	Not traced	Other veh.hit (ref.)	1	Hit and run	No		
Foreign vehicle	Not foreign				Breath test	Not requested		
Journey purpose								
Veh.No. 5	Vehicle type	Car						
Manoeuvre	Parked							
Direction from North east			Towing?	No				
Skidded	No							
Veh location at impact (restricted lane)		On main carriageway						
Junct. location of veh. at 1st impact		Approaching or parked on approach to junction						
Veh left carriageway?	Did not leave c'way							
Hit object in c'way?	None							
Hit object off c'way?	None							
First point of impact	Nearside							
Drivers age U/K yrs	Sex	Not traced	Other veh.hit (ref.)	1	Hit and run	No		
Foreign vehicle	Not foreign				Breath test	Not requested		
Journey purpose								

Veh.No.	6	Vehicle type	Car
Manoeuvre	Parked		
Direction from	North east	Towing?	No
Skidded	No		
Veh location at impact (restricted lane)		On main carriageway	
Junct. location of veh. at 1st impact		Approaching or parked on approach to junction	
Veh left carriageway?	Did not leave c'way		
Hit object in c'way?	None		
Hit object off c'way?	None		
First point of impact	Nearside		
Drivers age	U/K yrs	Sex	Not traced
		Other veh.hit (ref.)	1
		Hit and run	No
Foreign vehicle	Not foreign	Breath test	Not requested
Journey purpose			

## APPENDIX D

# PROPOSED USE TRICS OUTPUT

**TRIP RATE CALCULATION SELECTION PARAMETERS:**

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

**VEHICLES**Selected regions and areas:

<b>02</b>	<b>SOUTH EAST</b>	
	ES EAST SUSSEX	2 days
	EX ESSEX	2 days
	HC HAMPSHIRE	1 days
	KC KENT	4 days
	SC SURREY	1 days
	WS WEST SUSSEX	4 days
<b>03</b>	<b>SOUTH WEST</b>	
	CW CORNWALL	1 days
	DC DORSET	1 days
	DV DEVON	2 days
<b>04</b>	<b>EAST ANGLIA</b>	
	NF NORFOLK	1 days
	SF SUFFOLK	2 days
<b>05</b>	<b>EAST MIDLANDS</b>	
	DS DERBYSHIRE	1 days
	LN LINCOLNSHIRE	2 days
<b>06</b>	<b>WEST MIDLANDS</b>	
	SH SHROPSHIRE	2 days
	ST STAFFORDSHIRE	1 days
	WM WEST MIDLANDS	1 days
	WO WORCESTERSHIRE	1 days
<b>07</b>	<b>YORKSHIRE &amp; NORTH LINCOLNSHIRE</b>	
	NY NORTH YORKSHIRE	3 days
	SY SOUTH YORKSHIRE	1 days
<b>08</b>	<b>NORTH WEST</b>	
	CH CHESHIRE	2 days
<b>09</b>	<b>NORTH</b>	
	CB CUMBRIA	1 days
	DH DURHAM	1 days

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

**Secondary 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: Number of dwellings  
 Actual Range: 50 to 371 (units: )  
 Range Selected by User: 50 to 400 (units: )

Parking Spaces Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/07 to 20/11/18

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

Selected survey days:

Monday	7 days
Tuesday	10 days
Wednesday	7 days
Thursday	8 days
Friday	5 days

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

Selected survey types:

Manual count	37 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)	17
Edge of Town	20



*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	33
No Sub Category	4

*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	37 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 1 mile:

1,000 or Less	1 days
1,001 to 5,000	3 days
5,001 to 10,000	9 days
10,001 to 15,000	9 days
15,001 to 20,000	9 days
20,001 to 25,000	5 days
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:

5,001 to 25,000	4 days
25,001 to 50,000	4 days
50,001 to 75,000	2 days
75,001 to 100,000	8 days
100,001 to 125,000	5 days
125,001 to 250,000	10 days
250,001 to 500,000	4 days

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

Car ownership within 5 miles:

0.6 to 1.0	7 days
1.1 to 1.5	30 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:

Yes	5 days
No	32 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	36 days
2 Poor	1 days

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

LIST OF SITES relevant to selection parameters

<b>1</b>	<b>CB-03-A-04</b>	<b>SEMI DETACHED</b>	<b>CUMBRIA</b>
	MOORCLOSE ROAD		
	WORKINGTON		
	SALTERBACK		
	Edge of Town		
	No Sub Category		
	Total Number of dwellings:	82	
	Survey date: FRIDAY	24/04/09	Survey Type: MANUAL
<b>2</b>	<b>CH-03-A-02</b>	<b>HOUSES/FLATS</b>	<b>CHESHIRE</b>
	SYDNEY ROAD		
	CREWE		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	174	
	Survey date: TUESDAY	14/10/08	Survey Type: MANUAL
<b>3</b>	<b>CH-03-A-06</b>	<b>SEMI-DET./BUNGALOWS</b>	<b>CHESHIRE</b>
	CREWE ROAD		
	CREWE		
	Suburban Area (PPS6 Out of Centre)		
	No Sub Category		
	Total Number of dwellings:	129	
	Survey date: TUESDAY	14/10/08	Survey Type: MANUAL
<b>4</b>	<b>CW-03-A-02</b>	<b>SEMI D./DETACHED</b>	<b>CORNWALL</b>
	BOSVEAN GARDENS		
	TRURO		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	73	
	Survey date: TUESDAY	18/09/07	Survey Type: MANUAL
<b>5</b>	<b>DC-03-A-01</b>	<b>DETACHED</b>	<b>DORSET</b>
	ISAACS CLOSE		
	POOLE		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	51	
	Survey date: WEDNESDAY	16/07/08	Survey Type: MANUAL
<b>6</b>	<b>DH-03-A-01</b>	<b>SEMI DETACHED</b>	<b>DURHAM</b>
	GREENFIELDS ROAD		
	BISHOP AUCKLAND		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	50	
	Survey date: TUESDAY	28/03/17	Survey Type: MANUAL
<b>7</b>	<b>DS-03-A-02</b>	<b>MIXED HOUSES</b>	<b>DERBYSHIRE</b>
	RADBOURNE LANE		
	DERBY		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	371	
	Survey date: TUESDAY	10/07/18	Survey Type: MANUAL
<b>8</b>	<b>DV-03-A-02</b>	<b>HOUSES &amp; BUNGALOWS</b>	<b>DEVON</b>
	MILLHEAD ROAD		
	HONITON		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	116	
	Survey date: FRIDAY	25/09/15	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

<b>9</b>	<b>DV-03-A-03</b>	<b>TERRACED &amp; SEMI DETACHED</b>	<b>DEVON</b>
	LOWER BRAND LANE		
	HONITON		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	70	
	Survey date: MONDAY	28/09/15	Survey Type: MANUAL
<b>10</b>	<b>ES-03-A-03</b>	<b>MIXED HOUSES &amp; FLATS</b>	<b>EAST SUSSEX</b>
	SHEPHAM LANE		
	POLEGATE		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	212	
	Survey date: MONDAY	11/07/16	Survey Type: MANUAL
<b>11</b>	<b>ES-03-A-04</b>	<b>MIXED HOUSES &amp; FLATS</b>	<b>EAST SUSSEX</b>
	NEW LYDD ROAD		
	CAMBER		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	134	
	Survey date: FRIDAY	15/07/16	Survey Type: MANUAL
<b>12</b>	<b>EX-03-A-01</b>	<b>SEMI-DET.</b>	<b>ESSEX</b>
	MILTON ROAD		
	STANFORD-LE-HOPE		
	CORRINGHAM		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	237	
	Survey date: TUESDAY	13/05/08	Survey Type: MANUAL
<b>13</b>	<b>EX-03-A-02</b>	<b>DETACHED &amp; SEMI-DETACHED</b>	<b>ESSEX</b>
	MANOR ROAD		
	CHIGWELL		
	GRANGE HILL		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	97	
	Survey date: MONDAY	27/11/17	Survey Type: MANUAL
<b>14</b>	<b>HC-03-A-20</b>	<b>HOUSES &amp; FLATS</b>	<b>HAMPSHIRE</b>
	CANADA WAY		
	LIPHOOK		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	62	
	Survey date: TUESDAY	20/11/18	Survey Type: MANUAL
<b>15</b>	<b>KC-03-A-03</b>	<b>MIXED HOUSES &amp; FLATS</b>	<b>KENT</b>
	HYPHE ROAD		
	ASHFORD		
	WILLESBOROUGH		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	51	
	Survey date: THURSDAY	14/07/16	Survey Type: MANUAL
<b>16</b>	<b>KC-03-A-04</b>	<b>SEMI-DETACHED &amp; TERRACED</b>	<b>KENT</b>
	KILN BARN ROAD		
	AYLESFORD		
	DITTON		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	110	
	Survey date: FRIDAY	22/09/17	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

<b>17</b>	<b>KC-03-A-06</b>	<b>MIXED HOUSES &amp; FLATS</b>	<b>KENT</b>
	MARGATE ROAD HERNE BAY		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings:	363	
	Survey date: WEDNESDAY	27/09/17	Survey Type: MANUAL
<b>18</b>	<b>KC-03-A-07</b>	<b>MIXED HOUSES</b>	<b>KENT</b>
	RECVLVER ROAD HERNE BAY		
	Edge of Town Residential Zone		
	Total Number of dwellings:	288	
	Survey date: WEDNESDAY	27/09/17	Survey Type: MANUAL
<b>19</b>	<b>LN-03-A-01</b>	<b>MIXED HOUSES</b>	<b>LINCOLNSHIRE</b>
	BRANT ROAD LINCOLN BRACEBRIDGE		
	Edge of Town Residential Zone		
	Total Number of dwellings:	150	
	Survey date: TUESDAY	15/05/07	Survey Type: MANUAL
<b>20</b>	<b>LN-03-A-02</b>	<b>MIXED HOUSES</b>	<b>LINCOLNSHIRE</b>
	HYKEHAM ROAD LINCOLN		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings:	186	
	Survey date: MONDAY	14/05/07	Survey Type: MANUAL
<b>21</b>	<b>NF-03-A-02</b>	<b>HOUSES &amp; FLATS</b>	<b>NORFOLK</b>
	DEREHAM ROAD NORWICH		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings:	98	
	Survey date: MONDAY	22/10/12	Survey Type: MANUAL
<b>22</b>	<b>NY-03-A-06</b>	<b>BUNGALOWS &amp; SEMI DET.</b>	<b>NORTH YORKSHIRE</b>
	HORSEFAIR BOROUGHBRIDGE		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings:	115	
	Survey date: FRIDAY	14/10/11	Survey Type: MANUAL
<b>23</b>	<b>NY-03-A-09</b>	<b>MIXED HOUSING</b>	<b>NORTH YORKSHIRE</b>
	GRAMMAR SCHOOL LANE NORTHALLERTON		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings:	52	
	Survey date: MONDAY	16/09/13	Survey Type: MANUAL
<b>24</b>	<b>NY-03-A-10</b>	<b>HOUSES AND FLATS</b>	<b>NORTH YORKSHIRE</b>
	BOROUGHBRIDGE ROAD RIPON		
	Edge of Town No Sub Category		
	Total Number of dwellings:	71	
	Survey date: TUESDAY	17/09/13	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

<b>25</b>	<b>SC-03-A-04</b>	<b>DETACHED &amp; TERRACED</b>	<b>SURREY</b>
	HIGH ROAD BYFLEET		
	Edge of Town Residential Zone		
	Total Number of dwellings:	71	
	Survey date: THURSDAY	23/01/14	Survey Type: MANUAL
<b>26</b>	<b>SF-03-A-01</b>	<b>SEMI DETACHED</b>	<b>SUFFOLK</b>
	A1156 FELIXSTOWE ROAD IPSWICH RACECOURSE		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings:	77	
	Survey date: WEDNESDAY	23/05/07	Survey Type: MANUAL
<b>27</b>	<b>SF-03-A-02</b>	<b>SEMI DET./TERRACED</b>	<b>SUFFOLK</b>
	STOKE PARK DRIVE IPSWICH MAIDENHALL		
	Edge of Town Residential Zone		
	Total Number of dwellings:	230	
	Survey date: THURSDAY	24/05/07	Survey Type: MANUAL
<b>28</b>	<b>SH-03-A-04</b>	<b>TERRACED</b>	<b>SHROPSHIRE</b>
	ST MICHAEL'S STREET SHREWSBURY		
	Suburban Area (PPS6 Out of Centre) No Sub Category		
	Total Number of dwellings:	108	
	Survey date: THURSDAY	11/06/09	Survey Type: MANUAL
<b>29</b>	<b>SH-03-A-05</b>	<b>SEMI-DETACHED/TERRACED</b>	<b>SHROPSHIRE</b>
	SANDCROFT TELFORD SUTTON HILL		
	Edge of Town Residential Zone		
	Total Number of dwellings:	54	
	Survey date: THURSDAY	24/10/13	Survey Type: MANUAL
<b>30</b>	<b>ST-03-A-07</b>	<b>DETACHED &amp; SEMI-DETACHED</b>	<b>STAFFORDSHIRE</b>
	BEACONSIDE STAFFORD MARSTON GATE		
	Edge of Town Residential Zone		
	Total Number of dwellings:	248	
	Survey date: WEDNESDAY	22/11/17	Survey Type: MANUAL
<b>31</b>	<b>SY-03-A-01</b>	<b>SEMI DETACHED HOUSES</b>	<b>SOUTH YORKSHIRE</b>
	A19 BENTLEY ROAD DONCASTER BENTLEY RISE		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings:	54	
	Survey date: WEDNESDAY	18/09/13	Survey Type: MANUAL
<b>32</b>	<b>WM-03-A-03</b>	<b>MIXED HOUSING</b>	<b>WEST MIDLANDS</b>
	BASELEY WAY COVENTRY ROWLEYS GREEN		
	Edge of Town Residential Zone		
	Total Number of dwellings:	84	
	Survey date: MONDAY	24/09/07	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

<b>33</b>	<b>WO-03-A-07</b>	<b>MIXED HOUSES</b>	<b>WORCESTERSHIRE</b>
	TEASEL WAY		
	WORCESTER		
	CLAINES		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	146	
	Survey date: <i>TUESDAY</i>	26/06/18	Survey Type: <i>MANUAL</i>
<b>34</b>	<b>WS-03-A-04</b>	<b>MIXED HOUSES</b>	<b>WEST SUSSEX</b>
	HILLS FARM LANE		
	HORSHAM		
	BROADBRIDGE HEATH		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	151	
	Survey date: <i>THURSDAY</i>	11/12/14	Survey Type: <i>MANUAL</i>
<b>35</b>	<b>WS-03-A-08</b>	<b>MIXED HOUSES</b>	<b>WEST SUSSEX</b>
	ROUNDSTONE LANE		
	ANGMERING		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	180	
	Survey date: <i>THURSDAY</i>	19/04/18	Survey Type: <i>MANUAL</i>
<b>36</b>	<b>WS-03-A-09</b>	<b>MIXED HOUSES &amp; FLATS</b>	<b>WEST SUSSEX</b>
	LITTLEHAMPTON ROAD		
	WORTHING		
	WEST DURRINGTON		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	197	
	Survey date: <i>THURSDAY</i>	05/07/18	Survey Type: <i>MANUAL</i>
<b>37</b>	<b>WS-03-A-10</b>	<b>MIXED HOUSES</b>	<b>WEST SUSSEX</b>
	TODDINGTON LANE		
	LITTLEHAMPTON		
	WICK		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	79	
	Survey date: <i>WEDNESDAY</i>	07/11/18	Survey Type: <i>MANUAL</i>

*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.*



ADC Infrastructure Limited The Lace Market Nottingham

Licence No: 855401

RANK ORDER for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

**VEHICLES**

Ranking Type: **TOTALS** Time Range: 08:00-09:00

15th Percentile = No. **31** NY-03-A-09 Tot: 0.385

85th Percentile = No. **7** LN-03-A-01 Tot: 0.627

Median Values

Arrivals: 0.105  
Departures: 0.383  
Totals: 0.488

Mean Values

Arrivals: 0.134  
Departures: 0.361  
Totals: 0.495

Rank	Site-Ref	Description	Town/City	Area	DWELLS	Day	Date	Trip Rate (Sorted by Totals)			Park Spaces Per Dwelling
								Arrivals	Departures	Totals	
1	KC-03-A-03	MIXED HOUSES &	ASHFORD	KENT	51	Thu	14/07/16	0.157	0.588	0.745	2.16
2	SH-03-A-04	TERRACED	SHREWSBURY	SHROPSHIRE	108	Thu	11/06/09	0.287	0.454	0.741	1.86
3	SF-03-A-02	SEMI DET./TERR	IPSWICH	SUFFOLK	230	Thu	24/05/07	0.243	0.491	0.734	2.48
4	WM-03-A-03	MIXED HOUSING	COVENTRY	WEST MIDLANDS	84	Mon	24/09/07	0.321	0.405	0.726	2.60
5	NY-03-A-10	HOUSES AND FLA	RIPON	NORTH YORKSHIRE	71	Tue	17/09/13	0.183	0.521	0.704	0.83
6	EX-03-A-01	SEMI-DET.	STANFORD-LE-HOPE	ESSEX	237	Tue	13/05/08	0.177	0.523	0.700	2.53
<b>7</b>	<b>LN-03-A-01</b>	<b>MIXED HOUSES</b>	<b>LINCOLN</b>	<b>LINCOLNSHIRE</b>	<b>150</b>	<b>Tue</b>	<b>15/05/07</b>	<b>0.187</b>	<b>0.440</b>	<b>0.627</b>	<b>4.91</b>
8	ES-03-A-03	MIXED HOUSES &	POLEGATE	EAST SUSSEX	212	Mon	11/07/16	0.165	0.462	0.627	1.68
9	KC-03-A-07	MIXED HOUSES	HERNE BAY	KENT	288	Wed	27/09/17	0.240	0.385	0.625	3.09
10	DV-03-A-03	TERRACED & SEM	HONITON	DEVON	70	Mon	28/09/15	0.086	0.529	0.615	1.66
11	LN-03-A-02	MIXED HOUSES	LINCOLN	LINCOLNSHIRE	186	Mon	14/05/07	0.183	0.425	0.608	4.13
12	KC-03-A-04	SEMI-DETACHED	AYLESFORD	KENT	110	Fri	22/09/17	0.127	0.473	0.600	1.77
13	CB-03-A-04	SEMI DETACHED	WORKINGTON	CUMBRIA	82	Fri	24/04/09	0.183	0.366	0.549	1.74
14	SF-03-A-01	SEMI DETACHED	IPSWICH	SUFFOLK	77	Wed	23/05/07	0.104	0.416	0.520	2.22
15	SH-03-A-05	SEMI-DETACHED/	TELFORD	SHROPSHIRE	54	Thu	24/10/13	0.130	0.370	0.500	1.17
16	NY-03-A-06	BUNGALOWS & SE	BOROUGHBRIDGE	NORTH YORKSHIRE	115	Fri	14/10/11	0.096	0.400	0.496	3.50
17	SC-03-A-04	DETACHED & TER	BYFLEET	SURREY	71	Thu	23/01/14	0.141	0.352	0.493	2.49
18	DS-03-A-02	MIXED HOUSES	DERBY	DERBYSHIRE	371	Tue	10/07/18	0.089	0.402	0.491	2.92
19	ST-03-A-07	DETACHED & SEM	STAFFORD	STAFFORDSHIRE	248	Wed	22/11/17	0.105	0.383	0.488	3.55
20	CH-03-A-02	HOUSES/FLATS	CREWE	CHESHIRE	174	Tue	14/10/08	0.103	0.374	0.477	2.81
21	KC-03-A-06	MIXED HOUSES &	HERNE BAY	KENT	363	Wed	27/09/17	0.091	0.386	0.477	2.17
22	WS-03-A-08	MIXED HOUSES	ANGMERING	WEST SUSSEX	180	Thu	19/04/18	0.106	0.367	0.473	2.93
23	DC-03-A-01	DETACHED	POOLE	DORSET	51	Wed	16/07/08	0.098	0.373	0.471	3.00
24	NF-03-A-02	HOUSES & FLATS	NORWICH	NORFOLK	98	Mon	22/10/12	0.122	0.347	0.469	2.24
25	HC-03-A-20	HOUSES & FLATS	LIPHOOK	HAMPSHIRE	62	Tue	20/11/18	0.081	0.371	0.452	2.19
26	SY-03-A-01	SEMI DETACHED	DONCASTER	SOUTH YORKSHIRE	54	Wed	18/09/13	0.056	0.389	0.445	1.13
27	WS-03-A-09	MIXED HOUSES &	WORTHING	WEST SUSSEX	197	Thu	05/07/18	0.102	0.325	0.427	1.93
28	CW-03-A-02	SEMI D./DETATC	TRURO	CORNWALL	73	Tue	18/09/07	0.096	0.329	0.425	3.73
29	WS-03-A-04	MIXED HOUSES	HORSHAM	WEST SUSSEX	151	Thu	11/12/14	0.139	0.278	0.417	2.28
30	CH-03-A-06	SEMI-DET./BUNG	CREWE	CHESHIRE	129	Tue	14/10/08	0.163	0.240	0.403	2.59
<b>31</b>	<b>NY-03-A-09</b>	<b>MIXED HOUSING</b>	<b>NORTHALLERTON</b>	<b>NORTH YORKSHIRE</b>	<b>52</b>	<b>Mon</b>	<b>16/09/13</b>	<b>0.173</b>	<b>0.212</b>	<b>0.385</b>	<b>2.60</b>
32	DV-03-A-02	HOUSES & BUNGA	HONITON	DEVON	116	Fri	25/09/15	0.103	0.241	0.344	2.25
33	WS-03-A-10	MIXED HOUSES	LITTLEHAMPTON	WEST SUSSEX	79	Wed	07/11/18	0.089	0.241	0.330	2.41
34	EX-03-A-02	DETACHED & SEM	CHIGWELL	ESSEX	97	Mon	27/11/17	0.103	0.155	0.258	0.87
35	ES-03-A-04	MIXED HOUSES &	CAMBER	EAST SUSSEX	134	Fri	15/07/16	0.052	0.134	0.186	1.91
36	DH-03-A-01	SEMI DETACHED	BISHOP AUCKLAND	DURHAM	50	Tue	28/03/17	0.020	0.140	0.160	1.74
37	WO-03-A-07	MIXED HOUSES	WORCESTER	WORCESTERSHIRE	146	Tue	26/06/18	0.062	0.075	0.137	4.32

This section displays actual (not average) trip rates for each of the survey days in the selected set, and ranks them in order of relative trip rate intensity, for a given time period (or peak period irrespective of time) selected by the user. The count type and direction are both displayed just above the table, along with the rows within the table representing the 85th and 15th percentile trip rate figures (highlighted in bold within the table itself).

*The table itself displays details of each individual survey, alongside arrivals, departures and totals trip rates, sorted by whichever of the three directional options has been chosen by the user. As with the preceding trip rate calculation results table, the trip rates shown are per the calculation factor (e.g. per 100m<sup>2</sup> GFA, per employee, per hectare, etc). Note that if the peak period option has been selected (as opposed to a specific chosen time period), the peak period for each individual survey day in the table is also displayed.*

**TRIP RATE CALCULATION SELECTION PARAMETERS:**

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

**VEHICLES**Selected regions and areas:

<b>02</b>	<b>SOUTH EAST</b>	
	ES	EAST SUSSEX 2 days
	EX	ESSEX 2 days
	HC	HAMPSHIRE 1 days
	KC	KENT 4 days
	SC	SURREY 1 days
	WS	WEST SUSSEX 4 days
<b>03</b>	<b>SOUTH WEST</b>	
	CW	CORNWALL 1 days
	DC	DORSET 1 days
	DV	DEVON 2 days
<b>04</b>	<b>EAST ANGLIA</b>	
	NF	NORFOLK 1 days
	SF	SUFFOLK 2 days
<b>05</b>	<b>EAST MIDLANDS</b>	
	DS	DERBYSHIRE 1 days
	LN	LINCOLNSHIRE 2 days
<b>06</b>	<b>WEST MIDLANDS</b>	
	SH	SHROPSHIRE 2 days
	ST	STAFFORDSHIRE 1 days
	WM	WEST MIDLANDS 1 days
	WO	WORCESTERSHIRE 1 days
<b>07</b>	<b>YORKSHIRE &amp; NORTH LINCOLNSHIRE</b>	
	NY	NORTH YORKSHIRE 3 days
	SY	SOUTH YORKSHIRE 1 days
<b>08</b>	<b>NORTH WEST</b>	
	CH	CHESHIRE 2 days
<b>09</b>	<b>NORTH</b>	
	CB	CUMBRIA 1 days
	DH	DURHAM 1 days

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

**Secondary 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: Number of dwellings  
 Actual Range: 50 to 371 (units: )  
 Range Selected by User: 50 to 400 (units: )

Parking Spaces Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/07 to 20/11/18

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

Selected survey days:

Monday	7 days
Tuesday	10 days
Wednesday	7 days
Thursday	8 days
Friday	5 days

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

Selected survey types:

Manual count	37 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)	17
Edge of Town	20

*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	33
No Sub Category	4

*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	37 days
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*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 1 mile:

1,000 or Less	1 days
1,001 to 5,000	3 days
5,001 to 10,000	9 days
10,001 to 15,000	9 days
15,001 to 20,000	9 days
20,001 to 25,000	5 days
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:

5,001 to 25,000	4 days
25,001 to 50,000	4 days
50,001 to 75,000	2 days
75,001 to 100,000	8 days
100,001 to 125,000	5 days
125,001 to 250,000	10 days
250,001 to 500,000	4 days

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

Car ownership within 5 miles:

0.6 to 1.0	7 days
1.1 to 1.5	30 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:

Yes	5 days
No	32 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	36 days
2 Poor	1 days

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

LIST OF SITES relevant to selection parameters

<b>1</b>	<b>CB-03-A-04</b>	<b>SEMI DETACHED</b>	<b>CUMBRIA</b>
	MOORCLOSE ROAD		
	WORKINGTON		
	SALTERBACK		
	Edge of Town		
	No Sub Category		
	Total Number of dwellings:	82	
	Survey date: FRIDAY	24/04/09	Survey Type: MANUAL
<b>2</b>	<b>CH-03-A-02</b>	<b>HOUSES/FLATS</b>	<b>CHESHIRE</b>
	SYDNEY ROAD		
	CREWE		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	174	
	Survey date: TUESDAY	14/10/08	Survey Type: MANUAL
<b>3</b>	<b>CH-03-A-06</b>	<b>SEMI-DET./BUNGALOWS</b>	<b>CHESHIRE</b>
	CREWE ROAD		
	CREWE		
	Suburban Area (PPS6 Out of Centre)		
	No Sub Category		
	Total Number of dwellings:	129	
	Survey date: TUESDAY	14/10/08	Survey Type: MANUAL
<b>4</b>	<b>CW-03-A-02</b>	<b>SEMI D./DETACHED</b>	<b>CORNWALL</b>
	BOSVEAN GARDENS		
	TRURO		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	73	
	Survey date: TUESDAY	18/09/07	Survey Type: MANUAL
<b>5</b>	<b>DC-03-A-01</b>	<b>DETACHED</b>	<b>DORSET</b>
	ISAACS CLOSE		
	POOLE		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	51	
	Survey date: WEDNESDAY	16/07/08	Survey Type: MANUAL
<b>6</b>	<b>DH-03-A-01</b>	<b>SEMI DETACHED</b>	<b>DURHAM</b>
	GREENFIELDS ROAD		
	BISHOP AUCKLAND		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	50	
	Survey date: TUESDAY	28/03/17	Survey Type: MANUAL
<b>7</b>	<b>DS-03-A-02</b>	<b>MIXED HOUSES</b>	<b>DERBYSHIRE</b>
	RADBOURNE LANE		
	DERBY		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	371	
	Survey date: TUESDAY	10/07/18	Survey Type: MANUAL
<b>8</b>	<b>DV-03-A-02</b>	<b>HOUSES &amp; BUNGALOWS</b>	<b>DEVON</b>
	MILLHEAD ROAD		
	HONITON		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	116	
	Survey date: FRIDAY	25/09/15	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

<b>9</b>	<b>DV-03-A-03</b>	<b>TERRACED &amp; SEMI DETACHED</b>	<b>DEVON</b>
	LOWER BRAND LANE HONITON		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings: 70		
	Survey date: MONDAY 28/09/15		Survey Type: MANUAL
<b>10</b>	<b>ES-03-A-03</b>	<b>MIXED HOUSES &amp; FLATS</b>	<b>EAST SUSSEX</b>
	SHEPHAM LANE POLEGATE		
	Edge of Town Residential Zone		
	Total Number of dwellings: 212		
	Survey date: MONDAY 11/07/16		Survey Type: MANUAL
<b>11</b>	<b>ES-03-A-04</b>	<b>MIXED HOUSES &amp; FLATS</b>	<b>EAST SUSSEX</b>
	NEW LYDD ROAD CAMBER		
	Edge of Town Residential Zone		
	Total Number of dwellings: 134		
	Survey date: FRIDAY 15/07/16		Survey Type: MANUAL
<b>12</b>	<b>EX-03-A-01</b>	<b>SEMI-DET.</b>	<b>ESSEX</b>
	MILTON ROAD STANFORD-LE-HOPE CORRINGHAM		
	Edge of Town Residential Zone		
	Total Number of dwellings: 237		
	Survey date: TUESDAY 13/05/08		Survey Type: MANUAL
<b>13</b>	<b>EX-03-A-02</b>	<b>DETACHED &amp; SEMI-DETACHED</b>	<b>ESSEX</b>
	MANOR ROAD CHIGWELL GRANGE HILL		
	Edge of Town Residential Zone		
	Total Number of dwellings: 97		
	Survey date: MONDAY 27/11/17		Survey Type: MANUAL
<b>14</b>	<b>HC-03-A-20</b>	<b>HOUSES &amp; FLATS</b>	<b>HAMPSHIRE</b>
	CANADA WAY LIPHOOK		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings: 62		
	Survey date: TUESDAY 20/11/18		Survey Type: MANUAL
<b>15</b>	<b>KC-03-A-03</b>	<b>MIXED HOUSES &amp; FLATS</b>	<b>KENT</b>
	HYPHE ROAD ASHFORD WILLESBOROUGH		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings: 51		
	Survey date: THURSDAY 14/07/16		Survey Type: MANUAL
<b>16</b>	<b>KC-03-A-04</b>	<b>SEMI-DETACHED &amp; TERRACED</b>	<b>KENT</b>
	KILN BARN ROAD AYLESFORD DITTON		
	Edge of Town Residential Zone		
	Total Number of dwellings: 110		
	Survey date: FRIDAY 22/09/17		Survey Type: MANUAL



LIST OF SITES relevant to selection parameters (Cont.)

<b>17</b>	<b>KC-03-A-06</b>	<b>MIXED HOUSES &amp; FLATS</b>	<b>KENT</b>
	MARGATE ROAD HERNE BAY		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings:	363	
	Survey date: WEDNESDAY	27/09/17	Survey Type: MANUAL
<b>18</b>	<b>KC-03-A-07</b>	<b>MIXED HOUSES</b>	<b>KENT</b>
	RECVLVER ROAD HERNE BAY		
	Edge of Town Residential Zone		
	Total Number of dwellings:	288	
	Survey date: WEDNESDAY	27/09/17	Survey Type: MANUAL
<b>19</b>	<b>LN-03-A-01</b>	<b>MIXED HOUSES</b>	<b>LINCOLNSHIRE</b>
	BRANT ROAD LINCOLN BRACEBRIDGE		
	Edge of Town Residential Zone		
	Total Number of dwellings:	150	
	Survey date: TUESDAY	15/05/07	Survey Type: MANUAL
<b>20</b>	<b>LN-03-A-02</b>	<b>MIXED HOUSES</b>	<b>LINCOLNSHIRE</b>
	HYKEHAM ROAD LINCOLN		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings:	186	
	Survey date: MONDAY	14/05/07	Survey Type: MANUAL
<b>21</b>	<b>NF-03-A-02</b>	<b>HOUSES &amp; FLATS</b>	<b>NORFOLK</b>
	DEREHAM ROAD NORWICH		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings:	98	
	Survey date: MONDAY	22/10/12	Survey Type: MANUAL
<b>22</b>	<b>NY-03-A-06</b>	<b>BUNGALOWS &amp; SEMI DET.</b>	<b>NORTH YORKSHIRE</b>
	HORSEFAIR BOROUGHBRIDGE		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings:	115	
	Survey date: FRIDAY	14/10/11	Survey Type: MANUAL
<b>23</b>	<b>NY-03-A-09</b>	<b>MIXED HOUSING</b>	<b>NORTH YORKSHIRE</b>
	GRAMMAR SCHOOL LANE NORTHALLERTON		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings:	52	
	Survey date: MONDAY	16/09/13	Survey Type: MANUAL
<b>24</b>	<b>NY-03-A-10</b>	<b>HOUSES AND FLATS</b>	<b>NORTH YORKSHIRE</b>
	BOROUGHBRIDGE ROAD RIPON		
	Edge of Town No Sub Category		
	Total Number of dwellings:	71	
	Survey date: TUESDAY	17/09/13	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

<b>25</b>	<b>SC-03-A-04</b>	<b>DETACHED &amp; TERRACED</b>	<b>SURREY</b>
	HIGH ROAD BYFLEET		
	Edge of Town Residential Zone		
	Total Number of dwellings:	71	
	Survey date: THURSDAY	23/01/14	Survey Type: MANUAL
<b>26</b>	<b>SF-03-A-01</b>	<b>SEMI DETACHED</b>	<b>SUFFOLK</b>
	A1156 FELIXSTOWE ROAD IPSWICH RACECOURSE		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings:	77	
	Survey date: WEDNESDAY	23/05/07	Survey Type: MANUAL
<b>27</b>	<b>SF-03-A-02</b>	<b>SEMI DET./TERRACED</b>	<b>SUFFOLK</b>
	STOKE PARK DRIVE IPSWICH MAIDENHALL		
	Edge of Town Residential Zone		
	Total Number of dwellings:	230	
	Survey date: THURSDAY	24/05/07	Survey Type: MANUAL
<b>28</b>	<b>SH-03-A-04</b>	<b>TERRACED</b>	<b>SHROPSHIRE</b>
	ST MICHAEL'S STREET SHREWSBURY		
	Suburban Area (PPS6 Out of Centre) No Sub Category		
	Total Number of dwellings:	108	
	Survey date: THURSDAY	11/06/09	Survey Type: MANUAL
<b>29</b>	<b>SH-03-A-05</b>	<b>SEMI-DETACHED/TERRACED</b>	<b>SHROPSHIRE</b>
	SANDCROFT TELFORD SUTTON HILL		
	Edge of Town Residential Zone		
	Total Number of dwellings:	54	
	Survey date: THURSDAY	24/10/13	Survey Type: MANUAL
<b>30</b>	<b>ST-03-A-07</b>	<b>DETACHED &amp; SEMI-DETACHED</b>	<b>STAFFORDSHIRE</b>
	BEACONSIDE STAFFORD MARSTON GATE		
	Edge of Town Residential Zone		
	Total Number of dwellings:	248	
	Survey date: WEDNESDAY	22/11/17	Survey Type: MANUAL
<b>31</b>	<b>SY-03-A-01</b>	<b>SEMI DETACHED HOUSES</b>	<b>SOUTH YORKSHIRE</b>
	A19 BENTLEY ROAD DONCASTER BENTLEY RISE		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings:	54	
	Survey date: WEDNESDAY	18/09/13	Survey Type: MANUAL
<b>32</b>	<b>WM-03-A-03</b>	<b>MIXED HOUSING</b>	<b>WEST MIDLANDS</b>
	BASELEY WAY COVENTRY ROWLEYS GREEN		
	Edge of Town Residential Zone		
	Total Number of dwellings:	84	
	Survey date: MONDAY	24/09/07	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

<b>33</b>	<b>WO-03-A-07</b>	<b>MIXED HOUSES</b>	<b>WORCESTERSHIRE</b>
	TEASEL WAY WORCESTER CLAINES Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 146 Survey date: <i>TUESDAY</i> 26/06/18		<i>Survey Type: MANUAL</i>
<b>34</b>	<b>WS-03-A-04</b>	<b>MIXED HOUSES</b>	<b>WEST SUSSEX</b>
	HILLS FARM LANE HORSHAM BROADBRIDGE HEATH Edge of Town Residential Zone Total Number of dwellings: 151 Survey date: <i>THURSDAY</i> 11/12/14		<i>Survey Type: MANUAL</i>
<b>35</b>	<b>WS-03-A-08</b>	<b>MIXED HOUSES</b>	<b>WEST SUSSEX</b>
	ROUNDSTONE LANE ANGMERING  Edge of Town Residential Zone Total Number of dwellings: 180 Survey date: <i>THURSDAY</i> 19/04/18		<i>Survey Type: MANUAL</i>
<b>36</b>	<b>WS-03-A-09</b>	<b>MIXED HOUSES &amp; FLATS</b>	<b>WEST SUSSEX</b>
	LITTLEHAMPTON ROAD WORTHING WEST DURRINGTON Edge of Town Residential Zone Total Number of dwellings: 197 Survey date: <i>THURSDAY</i> 05/07/18		<i>Survey Type: MANUAL</i>
<b>37</b>	<b>WS-03-A-10</b>	<b>MIXED HOUSES</b>	<b>WEST SUSSEX</b>
	TODDINGTON LANE LITTLEHAMPTON WICK Edge of Town Residential Zone Total Number of dwellings: 79 Survey date: <i>WEDNESDAY</i> 07/11/18		<i>Survey Type: MANUAL</i>

*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.*

ADC Infrastructure Limited The Lace Market Nottingham

Licence No: 855401

RANK ORDER for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

**VEHICLES**

Ranking Type: **TOTALS** Time Range: 17:00-18:00

15th Percentile = No. **31** KC-03-A-04 Tot: 0.337

85th Percentile = No. **7** EX-03-A-01 Tot: 0.713

Median Values

Arrivals: 0.371  
Departures: 0.100  
Totals: 0.471

Mean Values

Arrivals: 0.338  
Departures: 0.170  
Totals: 0.508

Rank	Site-Ref	Description	Town/City	Area	DWELLS	Day	Date	Trip Rate (Sorted by Totals)			Park Spaces Per Dwelling
								Arrivals	Departures	Totals	
1	KC-03-A-03	MIXED HOUSES &	ASHFORD	KENT	51	Thu	14/07/16	0.569	0.314	0.883	2.16
2	LN-03-A-02	MIXED HOUSES	LINCOLN	LINCOLNSHIRE	186	Mon	14/05/07	0.495	0.355	0.850	4.13
3	DC-03-A-01	DETACHED	POOLE	DORSET	51	Wed	16/07/08	0.510	0.333	0.843	3.00
4	WM-03-A-03	MIXED HOUSING	COVENTRY	WEST MIDLANDS	84	Mon	24/09/07	0.405	0.369	0.774	2.60
5	SH-03-A-04	TERRACED	SHREWSBURY	SHROPSHIRE	108	Thu	11/06/09	0.463	0.296	0.759	1.86
6	SF-03-A-02	SEMI DET./TERR	IPSWICH	SUFFOLK	230	Thu	24/05/07	0.478	0.248	0.726	2.48
<b>7</b>	<b>EX-03-A-01</b>	<b>SEMI-DET.</b>	<b>STANFORD-LE-HOPE</b>	<b>ESSEX</b>	<b>237</b>	<b>Tue</b>	<b>13/05/08</b>	<b>0.439</b>	<b>0.274</b>	<b>0.713</b>	<b>2.53</b>
8	ES-03-A-03	MIXED HOUSES &	POLEGATE	EAST SUSSEX	212	Mon	11/07/16	0.434	0.217	0.651	1.68
9	CW-03-A-02	SEMI D./DETATC	TRURO	CORNWALL	73	Tue	18/09/07	0.425	0.219	0.644	3.73
10	LN-03-A-01	MIXED HOUSES	LINCOLN	LINCOLNSHIRE	150	Tue	15/05/07	0.413	0.213	0.626	4.91
11	DV-03-A-02	HOUSES & BUNGA	HONITON	DEVON	116	Fri	25/09/15	0.388	0.233	0.621	2.25
12	KC-03-A-07	MIXED HOUSES	HERNE BAY	KENT	288	Wed	27/09/17	0.444	0.149	0.593	3.09
13	NY-03-A-10	HOUSES AND FLA	RIPON	NORTH YORKSHIRE	71	Tue	17/09/13	0.479	0.099	0.578	0.83
14	KC-03-A-06	MIXED HOUSES &	HERNE BAY	KENT	363	Wed	27/09/17	0.380	0.198	0.578	2.17
15	CB-03-A-04	SEMI DETACHED	WORKINGTON	CUMBRIA	82	Fri	24/04/09	0.354	0.207	0.561	1.74
16	CH-03-A-02	HOUSES/FLATS	CREWE	CHESHIRE	174	Tue	14/10/08	0.322	0.236	0.558	2.81
17	DS-03-A-02	MIXED HOUSES	DERBY	DERBYSHIRE	371	Tue	10/07/18	0.407	0.084	0.491	2.92
18	WS-03-A-08	MIXED HOUSES	ANGMERING	WEST SUSSEX	180	Thu	19/04/18	0.278	0.206	0.484	2.93
19	DV-03-A-03	TERRACED & SEM	HONITON	DEVON	70	Mon	28/09/15	0.371	0.100	0.471	1.66
20	NY-03-A-06	BUNGALOWS & SE	BOROUGHBRIDGE	NORTH YORKSHIRE	115	Fri	14/10/11	0.296	0.174	0.470	3.50
21	SC-03-A-04	DETACHED & TER	BYFLEET	SURREY	71	Thu	23/01/14	0.366	0.099	0.465	2.49
22	NY-03-A-09	MIXED HOUSING	NORTHALLERTON	NORTH YORKSHIRE	52	Mon	16/09/13	0.269	0.192	0.461	2.60
23	ST-03-A-07	DETACHED & SEM	STAFFORD	STAFFORDSHIRE	248	Wed	22/11/17	0.319	0.125	0.444	3.55
24	HC-03-A-20	HOUSES & FLATS	LIPHOOK	HAMPSHIRE	62	Tue	20/11/18	0.387	0.048	0.435	2.19
25	WS-03-A-10	MIXED HOUSES	LITTLEHAMPTON	WEST SUSSEX	79	Wed	07/11/18	0.266	0.152	0.418	2.41
26	SF-03-A-01	SEMI DETACHED	IPSWICH	SUFFOLK	77	Wed	23/05/07	0.247	0.169	0.416	2.22
27	WS-03-A-09	MIXED HOUSES &	WORTHING	WEST SUSSEX	197	Thu	05/07/18	0.305	0.096	0.401	1.93
28	NF-03-A-02	HOUSES & FLATS	NORWICH	NORFOLK	98	Mon	22/10/12	0.235	0.143	0.378	2.24
29	WS-03-A-04	MIXED HOUSES	HORSHAM	WEST SUSSEX	151	Thu	11/12/14	0.252	0.119	0.371	2.28
30	SH-03-A-05	SEMI-DETACHED/	TELFORD	SHROPSHIRE	54	Thu	24/10/13	0.241	0.130	0.371	1.17
<b>31</b>	<b>KC-03-A-04</b>	<b>SEMI-DETACHED</b>	<b>AYLESFORD</b>	<b>KENT</b>	<b>110</b>	<b>Fri</b>	<b>22/09/17</b>	<b>0.273</b>	<b>0.064</b>	<b>0.337</b>	<b>1.77</b>
32	SY-03-A-01	SEMI DETACHED	DONCASTER	SOUTH YORKSHIRE	54	Wed	18/09/13	0.278	0.056	0.334	1.13
33	CH-03-A-06	SEMI-DET./BUNG	CREWE	CHESHIRE	129	Tue	14/10/08	0.132	0.140	0.272	2.59
34	ES-03-A-04	MIXED HOUSES &	CAMBER	EAST SUSSEX	134	Fri	15/07/16	0.157	0.112	0.269	1.91
35	DH-03-A-01	SEMI DETACHED	BISHOP AUCKLAND	DURHAM	50	Tue	28/03/17	0.220	0.020	0.240	1.74
36	EX-03-A-02	DETACHED & SEM	CHIGWELL	ESSEX	97	Mon	27/11/17	0.103	0.062	0.165	0.87
37	WO-03-A-07	MIXED HOUSES	WORCESTER	WORCESTERSHIRE	146	Tue	26/06/18	0.089	0.048	0.137	4.32

This section displays actual (not average) trip rates for each of the survey days in the selected set, and ranks them in order of relative trip rate intensity, for a given time period (or peak period irrespective of time) selected by the user. The count type and direction are both displayed just above the table, along with the rows within the table representing the 85th and 15th percentile trip rate figures (highlighted in bold within the table itself).

*The table itself displays details of each individual survey, alongside arrivals, departures and totals trip rates, sorted by whichever of the three directional options has been chosen by the user. As with the preceding trip rate calculation results table, the trip rates shown are per the calculation factor (e.g. per 100m<sup>2</sup> GFA, per employee, per hectare, etc). Note that if the peak period option has been selected (as opposed to a specific chosen time period), the peak period for each individual survey day in the table is also displayed.*

## APPENDIX E

# 2011 CENSUS MODAL SPLIT

## QS701EW - Method of travel to work

[Edit query](#)

[View data](#) [Change format](#)

### QS701EW - Method of travel to work [i](#)

ONS Crown Copyright Reserved [from Nomis on 30 May 2019] [i](#)

Population	All usual residents aged 16 to 74
Units	Persons
Area Type	2011 super output areas - middle layer
Area Name	E02005824 : Ashfield 006
Rural Urban <a href="#">i</a>	Total

#### Method of Travel to Work [i](#)

**2011**

All categories: Method of travel to work	7,299
Work mainly at or from home	158
Underground, metro, light rail, tram	8
Train	36
Bus, minibus or coach	206
Taxi	10
Motorcycle, scooter or moped	37
Driving a car or van	3,569
Passenger in a car or van	278
Bicycle	102
On foot	439
Other method of travel to work	21
Not in employment	2,435

#### Warnings and notes:

In order to protect against disclosure of personal information, records have been swapped between different geographic areas. Some counts will be affected, particularly small counts at the lowest geographies



# APPENDIX F

## TEMPRO OUTPUT

**Dataset Version:** 72  
**Result Type:** Trip ends by time period  
**Base Year:** 2019  
**Future Year:** 2024  
**Trip Purpose Group:** All purposes  
**Time Period:** Weekday AM peak period (0700 - 0959)  
**Trip End Type:** Origin/Destination  
**Alternative Assumptions Applied:** No  
**NTM:** Urban/Principal

**Growth Factor**

Area Description		All purposes	
Level	Name	Origin	Destination
E02005824	Ashfield 006	1.0383	1.0397

**Future Year - Base Year**

Area Description		All purposes	
Level	Name	Origin	Destination
E02005824	Ashfield 006	93	69

**Base Year**

Area Description		All purposes	
Level	Name	Origin	Destination
E02005824	Ashfield 006	2,439	1,741

**Future Year**

Area Description		All purposes	
Level	Name	Origin	Destination
E02005824	Ashfield 006	2,532	1,810

Level Area Local Growth Figure  
 E02005824 Ashfield 006 1.071500681

**Dataset Version:** 72  
**Result Type:** Trip ends by time period  
**Base Year:** 2019  
**Future Year:** 2024  
**Trip Purpose Group:** All purposes  
**Time Period:** Weekday PM peak period (1600 - 1859)  
**Trip End Type:** Origin/Destination  
**Alternative Assumptions Applied:** No

**Growth Factor**

Area Description		All purposes	
Level	Name	Origin	Destination
E02005824	Ashfield 006	1.0369	1.0363

**Future Year - Base Year**

Area Description		All purposes	
Level	Name	Origin	Destination
E02005824	Ashfield 006	75	89

**Base Year**

Area Description		All purposes	
Level	Name	Origin	Destination
E02005824	Ashfield 006	2,029	2,441

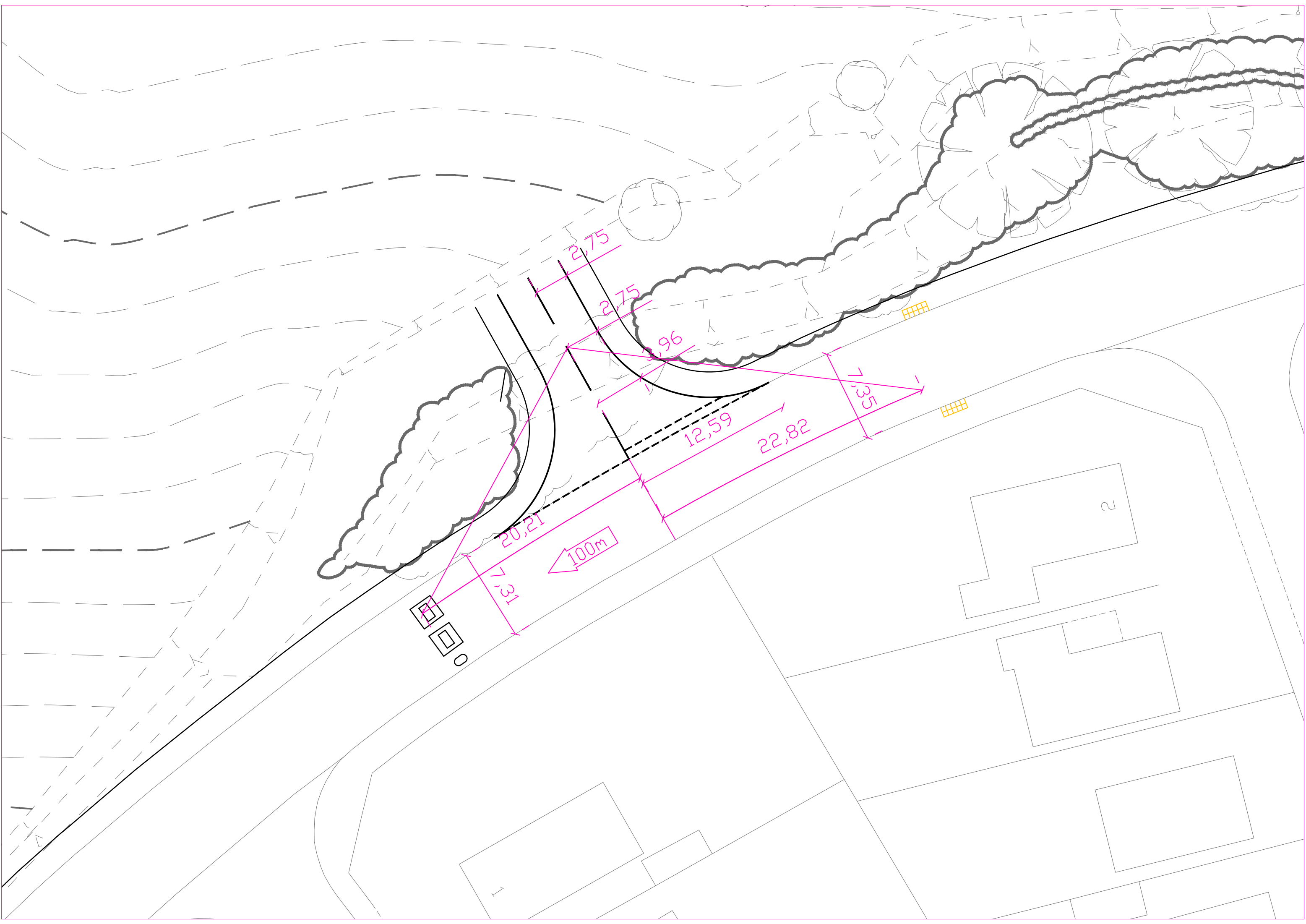
**Future Year**

Area Description		All purposes	
Level	Name	Origin	Destination
E02005824	Ashfield 006	2,104	2,529

Level Area Local Growth Figure  
 E02005824 Ashfield 006 1.069025607

## APPENDIX G

# ASHLAND ROAD WEST/SITE ACCESS PICADY OUTPUT



Junctions 8
PICADY 8 - Priority Intersection Module
Version: 8.0.4.487 [15039,24/03/2014] © Copyright TRL Limited, 2019
For sales and distribution information, program advice and maintenance, contact TRL: Tel: +44 (0)1344 770758 email: software@trl.co.uk Web: http://www.trlsoftware.co.uk
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**Filename:** Ashland Road West-Site Access PICADY Model.arc8  
**Path:** C:\Users\ADCteam\Dropbox\~ JN8 TEMP\ADC1032 Ashland Road  
**Report generation date:** 08/08/2019 10:23:47

- » 2024 Traffic Flows - With Development, AM
- » 2024 Traffic Flows - With Development, PM

### Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	Junction Delay (s)	Queue (Veh)	Delay (s)	RFC	Junction Delay (s)
2024 Traffic Flows - With Development								
Stream B-C	0.07	5.50	0.07	7.51	0.07	5.57	0.06	7.55
Stream B-A	0.23	9.42	0.19		0.21	9.44	0.17	
Stream C-AB	0.09	5.73	0.06		0.10	6.25	0.08	
Stream C-A	-	-	-		-	-	-	
Stream A-B	-	-	-		-	-	-	
Stream A-C	-	-	-		-	-	-	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

"D1 - With Development, AM " model duration: 08:00 - 09:30  
 "D2 - With Development, PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.4.487 at 08/08/2019 10:23:46

### File summary

<b>Title</b>	Ashland Road West-Site Access
<b>Location</b>	Sutton-in-Ashfield
<b>Site Number</b>	
<b>Date</b>	08/08/2019
<b>Version</b>	v1
<b>Status</b>	Preliminary
<b>Identifier</b>	M Tatler
<b>Client</b>	Bellway Homes
<b>Jobnumber</b>	ADC1032
<b>Enumerator</b>	M Tatler
<b>Description</b>	

## Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

## 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

# 2024 Traffic Flows - With Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor Arm Geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
2024 Traffic Flows	N/A		✓				100.000	100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship
With Development, AM	With Development	AM		ONE HOUR	08:00	09:30	90	15				✓	

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Ashland Road West-Site Access	T-Junction	Two-way	A,B,C		7.51	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Ashland Road West (W)		Major
B	B	Site Access		Minor
C	C	Ashland Road West (E)		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.33		0.00		2.20	100.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane plus flare				10.00	3.96	2.75	2.75	2.75	✓	1.00	23	20

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	516.787	0.089	0.224	0.141	0.320
1	B-C	763.982	0.110	0.279	-	-
1	C-B	631.874	0.231	0.231	-	-

*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 Flows

## Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓



# Entry Flows

## General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	114.00	100.000
B	ONE HOUR	✓	122.00	100.000
C	ONE HOUR	✓	129.00	100.000

# Turning Proportions

## Turning Counts / Proportions (Veh/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	63.000	51.000
	B	80.000	0.000	42.000
	C	96.000	33.000	0.000

## Turning Proportions (Veh) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.55	0.45
	B	0.66	0.00	0.34
	C	0.74	0.26	0.00

# Vehicle Mix

## Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.020
	B	1.000	1.000	1.000
	C	1.031	1.000	1.000

## Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	2.0
	B	0.0	0.0	0.0
	C	3.1	0.0	0.0

# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-C	0.07	5.50	0.07	A	38.54	57.81	5.13	5.32	0.06	5.13	5.33
B-A	0.19	9.42	0.23	A	73.41	110.11	16.28	8.87	0.18	16.28	8.87
C-AB	0.06	5.73	0.09	A	34.97	52.45	6.17	7.05	0.07	6.17	7.06
C-A	-	-	-	-	83.40	125.11	-	-	-	-	-
A-B	-	-	-	-	57.81	86.71	-	-	-	-	-
A-C	-	-	-	-	46.80	70.20	-	-	-	-	-

## Main Results for each time segment

### Main results: (08:00-08:15)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	31.62	7.90	31.44	0.00	723.41	0.044	0.00	0.05	5.201	A
B-A	60.23	15.06	59.67	0.00	485.24	0.124	0.00	0.14	8.448	A
C-AB	27.86	6.96	27.64	0.00	658.79	0.042	0.00	0.05	5.702	A
C-A	69.26	17.32	69.26	0.00	-	-	-	-	-	-
A-B	47.43	11.86	47.43	0.00	-	-	-	-	-	-
A-C	38.40	9.60	38.40	0.00	-	-	-	-	-	-

### Main results: (08:15-08:30)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	37.76	9.44	37.72	0.00	714.35	0.053	0.05	0.06	5.320	A
B-A	71.92	17.98	71.78	0.00	478.99	0.150	0.14	0.17	8.838	A
C-AB	34.04	8.51	33.98	0.00	664.18	0.051	0.05	0.07	5.710	A
C-A	81.93	20.48	81.93	0.00	-	-	-	-	-	-
A-B	56.64	14.16	56.64	0.00	-	-	-	-	-	-
A-C	45.85	11.46	45.85	0.00	-	-	-	-	-	-

### Main results: (08:30-08:45)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	46.24	11.56	46.18	0.00	701.28	0.066	0.06	0.07	5.495	A
B-A	88.08	22.02	87.87	0.00	470.38	0.187	0.17	0.23	9.407	A
C-AB	42.99	10.75	42.91	0.00	671.70	0.064	0.07	0.09	5.723	A
C-A	99.04	24.76	99.04	0.00	-	-	-	-	-	-
A-B	69.36	17.34	69.36	0.00	-	-	-	-	-	-
A-C	56.15	14.04	56.15	0.00	-	-	-	-	-	-

**Main results: (08:45-09:00)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	46.24	11.56	46.24	0.00	701.17	0.066	0.07	0.07	5.496	A
B-A	88.08	22.02	88.08	0.00	470.36	0.187	0.23	0.23	9.416	A
C-AB	43.00	10.75	43.00	0.00	671.71	0.064	0.09	0.09	5.728	A
C-A	99.03	24.76	99.03	0.00	-	-	-	-	-	-
A-B	69.36	17.34	69.36	0.00	-	-	-	-	-	-
A-C	56.15	14.04	56.15	0.00	-	-	-	-	-	-

**Main results: (09:00-09:15)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	37.76	9.44	37.81	0.00	714.18	0.053	0.07	0.06	5.322	A
B-A	71.92	17.98	72.12	0.00	478.96	0.150	0.23	0.18	8.854	A
C-AB	34.05	8.51	34.13	0.00	664.19	0.051	0.09	0.07	5.719	A
C-A	81.92	20.48	81.92	0.00	-	-	-	-	-	-
A-B	56.64	14.16	56.64	0.00	-	-	-	-	-	-
A-C	45.85	11.46	45.85	0.00	-	-	-	-	-	-

**Main results: (09:15-09:30)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	31.62	7.90	31.66	0.00	723.09	0.044	0.06	0.05	5.206	A
B-A	60.23	15.06	60.37	0.00	485.16	0.124	0.18	0.14	8.479	A
C-AB	27.88	6.97	27.94	0.00	658.80	0.042	0.07	0.05	5.709	A
C-A	69.23	17.31	69.23	0.00	-	-	-	-	-	-
A-B	47.43	11.86	47.43	0.00	-	-	-	-	-	-
A-C	38.40	9.60	38.40	0.00	-	-	-	-	-	-

**Queueing Delay Results for each time segment**
**Queueing Delay results: (08:00-08:15)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.66	0.04	5.201	A	A
B-A	2.02	0.13	8.448	A	A
C-AB	0.78	0.05	5.702	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:15-08:30)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.82	0.05	5.320	A	A
B-A	2.56	0.17	8.838	A	A
C-AB	0.99	0.07	5.710	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:30-08:45)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.03	0.07	5.495	A	A
B-A	3.32	0.22	9.407	A	A
C-AB	1.29	0.09	5.723	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:45-09:00)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.05	0.07	5.496	A	A
B-A	3.43	0.23	9.416	A	A
C-AB	1.30	0.09	5.728	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (09:00-09:15)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.86	0.06	5.322	A	A
B-A	2.75	0.18	8.854	A	A
C-AB	1.00	0.07	5.719	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (09:15-09:30)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.70	0.05	5.206	A	A
B-A	2.20	0.15	8.479	A	A
C-AB	0.80	0.05	5.709	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## 2024 Traffic Flows - With Development, PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor Arm Geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
2024 Traffic Flows	N/A		✓				100.000	100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship
With Development, FM	With Development	FM		ONE HOUR	16:45	18:15	90	15				✓	

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Ashland Road West-Site Access	T-Junction	Two-way	A,B,C		7.55	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Ashland Road West (W)		Major
B	B	Site Access		Minor
C	C	Ashland Road West (E)		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.33		0.00		2.20	100.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane plus flare				10.00	3.96	2.75	2.75	2.75	✓	1.00	23	20

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	516.787	0.089	0.224	0.141	0.320
1	B-C	763.982	0.110	0.279	-	-
1	C-B	631.874	0.231	0.231	-	-

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 Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	178.00	100.000
B	ONE HOUR	✓	111.00	100.000
C	ONE HOUR	✓	98.00	100.000

## Turning Proportions

### Turning Counts / Proportions (Veh/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	80.000	98.000
	B	72.000	0.000	39.000
	C	56.000	42.000	0.000

### Turning Proportions (Veh) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.45	0.55
	B	0.65	0.00	0.35
	C	0.57	0.43	0.00

# Vehicle Mix

## Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
From		A	B	C
	A	1.000	1.000	1.020
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

## Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
From		A	B	C
	A	0.0	0.0	2.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-C	0.06	5.57	0.07	A	35.79	53.68	4.82	5.39	0.05	4.82	5.39
B-A	0.17	9.44	0.21	A	66.07	99.10	14.69	8.90	0.16	14.69	8.90
C-AB	0.08	6.25	0.10	A	42.06	63.09	7.24	6.88	0.08	7.24	6.88
C-A	-	-	-	-	47.87	71.80	-	-	-	-	-
A-B	-	-	-	-	73.41	110.11	-	-	-	-	-
A-C	-	-	-	-	89.93	134.89	-	-	-	-	-

## Main Results for each time segment

### Main results: (16:45-17:00)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	29.36	7.34	29.19	0.00	714.57	0.041	0.00	0.04	5.251	A
B-A	54.21	13.55	53.70	0.00	478.42	0.113	0.00	0.13	8.463	A
C-AB	33.87	8.47	33.62	0.00	628.69	0.054	0.00	0.06	6.049	A
C-A	39.91	9.98	39.91	0.00	-	-	-	-	-	-
A-B	60.23	15.06	60.23	0.00	-	-	-	-	-	-
A-C	73.78	18.44	73.78	0.00	-	-	-	-	-	-



**Main results: (17:00-17:15)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	35.06	8.77	35.02	0.00	704.01	0.050	0.04	0.05	5.380	A
B-A	64.73	16.18	64.60	0.00	470.85	0.137	0.13	0.16	8.858	A
C-AB	41.03	10.26	40.97	0.00	628.25	0.065	0.06	0.08	6.129	A
C-A	47.07	11.77	47.07	0.00	-	-	-	-	-	-
A-B	71.92	17.98	71.92	0.00	-	-	-	-	-	-
A-C	88.10	22.03	88.10	0.00	-	-	-	-	-	-

**Main results: (17:15-17:30)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	42.94	10.73	42.88	0.00	689.00	0.062	0.05	0.07	5.571	A
B-A	79.27	19.82	79.08	0.00	460.43	0.172	0.16	0.21	9.435	A
C-AB	51.25	12.81	51.16	0.00	627.71	0.082	0.08	0.10	6.244	A
C-A	56.65	14.16	56.65	0.00	-	-	-	-	-	-
A-B	88.08	22.02	88.08	0.00	-	-	-	-	-	-
A-C	107.90	26.98	107.90	0.00	-	-	-	-	-	-

**Main results: (17:30-17:45)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	42.94	10.73	42.94	0.00	688.90	0.062	0.07	0.07	5.572	A
B-A	79.27	19.82	79.27	0.00	460.40	0.172	0.21	0.21	9.445	A
C-AB	51.25	12.81	51.25	0.00	627.72	0.082	0.10	0.10	6.247	A
C-A	56.65	14.16	56.65	0.00	-	-	-	-	-	-
A-B	88.08	22.02	88.08	0.00	-	-	-	-	-	-
A-C	107.90	26.98	107.90	0.00	-	-	-	-	-	-

**Main results: (17:45-18:00)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	35.06	8.77	35.11	0.00	703.86	0.050	0.07	0.05	5.383	A
B-A	64.73	16.18	64.91	0.00	470.80	0.137	0.21	0.16	8.873	A
C-AB	41.04	10.26	41.13	0.00	628.27	0.065	0.10	0.08	6.132	A
C-A	47.06	11.76	47.06	0.00	-	-	-	-	-	-
A-B	71.92	17.98	71.92	0.00	-	-	-	-	-	-
A-C	88.10	22.03	88.10	0.00	-	-	-	-	-	-

**Main results: (18:00-18:15)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	29.36	7.34	29.40	0.00	714.29	0.041	0.05	0.04	5.256	A
B-A	54.21	13.55	54.33	0.00	478.32	0.113	0.16	0.13	8.494	A
C-AB	33.89	8.47	33.96	0.00	628.71	0.054	0.08	0.06	6.055	A
C-A	39.89	9.97	39.89	0.00	-	-	-	-	-	-
A-B	60.23	15.06	60.23	0.00	-	-	-	-	-	-
A-C	73.78	18.44	73.78	0.00	-	-	-	-	-	-

## Queueing Delay Results for each time segment

### Queueing Delay results: (16:45-17:00)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.62	0.04	5.251	A	A
B-A	1.82	0.12	8.463	A	A
C-AB	0.93	0.06	6.049	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

### Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.77	0.05	5.380	A	A
B-A	2.31	0.15	8.858	A	A
C-AB	1.17	0.08	6.129	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

### Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.97	0.06	5.571	A	A
B-A	3.00	0.20	9.435	A	A
C-AB	1.51	0.10	6.244	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

### Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.99	0.07	5.572	A	A
B-A	3.09	0.21	9.445	A	A
C-AB	1.51	0.10	6.247	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

### Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.80	0.05	5.383	A	A
B-A	2.48	0.17	8.873	A	A
C-AB	1.18	0.08	6.132	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

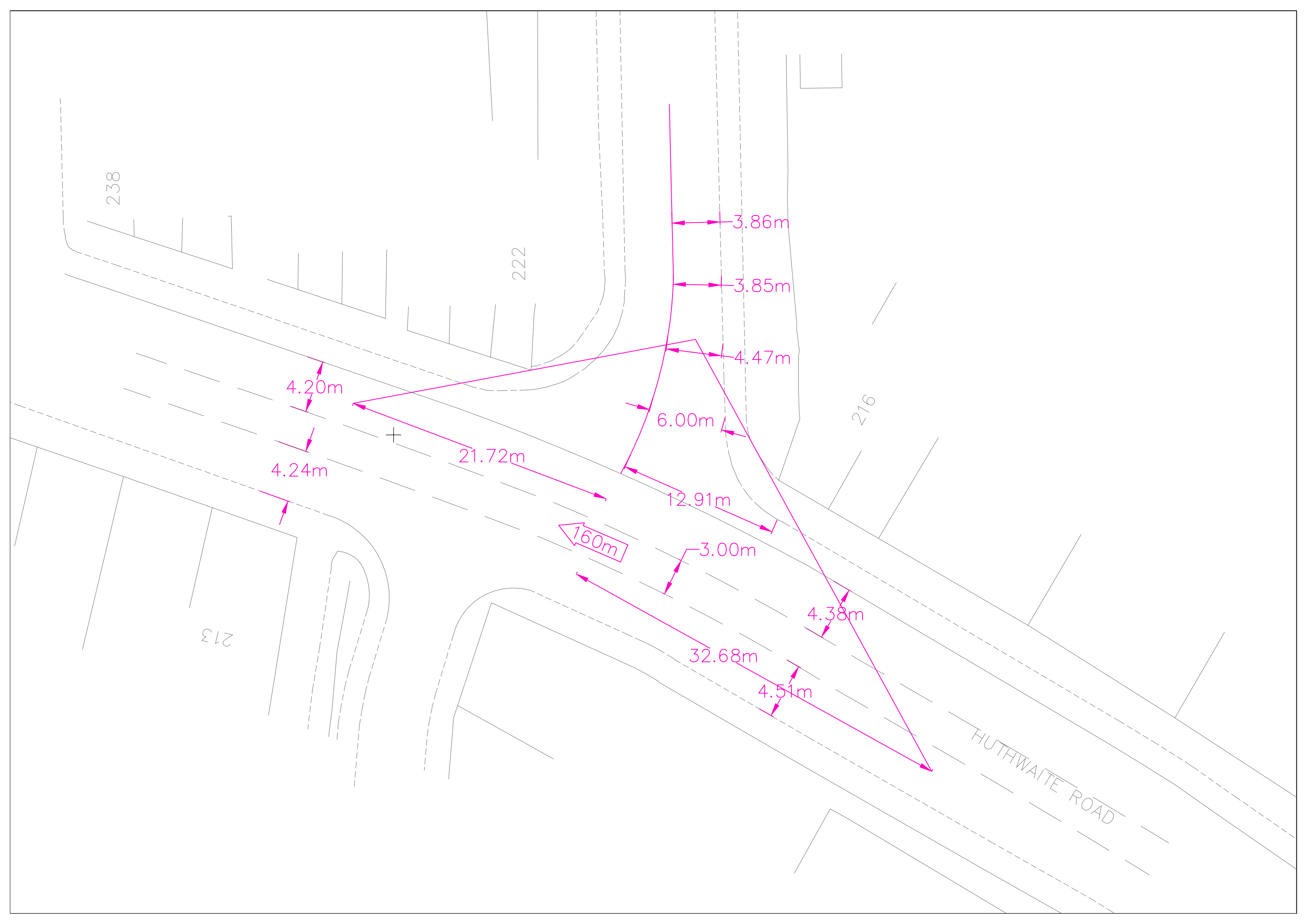
**Queueing Delay results: (18:00-18:15)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.66	0.04	5.256	A	A
B-A	1.98	0.13	8.494	A	A
C-AB	0.95	0.06	6.055	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-



## APPENDIX H

# B6026 HUTHWAITE ROAD/ASHALND ROAD WEST PICADY OUTPUT



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HUTHWAITE ROAD

Junctions 8
PICADY 8 - Priority Intersection Module
Version: 8.0.4.487 [15039,24/03/2014] © Copyright TRL Limited, 2019
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**Filename:** J1 Huthwaite Road-Ashland Road West PICADY Model.arc8  
**Path:** C:\Users\ADCteam\Dropbox\~ JN8 TEMP\ADC1032 Ashland Road\J1 Huthwaite Road-Ashland Road West  
**Report generation date:** 08/08/2019 10:39:25

- » 2024 Traffic Flows - Background, AM
- » 2024 Traffic Flows - Background, PM
- » 2024 Traffic Flows - With Development, AM
- » 2024 Traffic Flows - With Development, PM

### Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	Junction Delay (s)	Queue (Veh)	Delay (s)	RFC	Junction Delay (s)
2024 Traffic Flows - Background								
<b>Stream B-C</b>	0.10	8.58	0.09	11.01	0.05	8.04	0.04	10.03
<b>Stream B-A</b>	0.25	14.03	0.20		0.15	13.69	0.13	
<b>Stream C-A</b>	-	-	-		-	-	-	
<b>Stream C-B</b>	0.04	6.85	0.04		0.07	7.01	0.06	
<b>Stream A-B</b>	-	-	-		-	-	-	
<b>Stream A-C</b>	-	-	-		-	-	-	
2024 Traffic Flows - With Development								
<b>Stream B-C</b>	0.22	10.32	0.18	13.81	0.13	9.52	0.11	13.06
<b>Stream B-A</b>	0.60	18.72	0.38		0.47	18.52	0.32	
<b>Stream C-A</b>	-	-	-		-	-	-	
<b>Stream C-B</b>	0.09	7.11	0.08		0.13	7.65	0.12	
<b>Stream A-B</b>	-	-	-		-	-	-	
<b>Stream A-C</b>	-	-	-		-	-	-	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

"D1 - Background, AM " model duration: 08:00 - 09:30  
 "D2 - Background, PM" model duration: 16:45 - 18:15  
 "D3 - With Development, AM" model duration: 08:00 - 09:30  
 "D4 - With Development, PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.4.487 at 08/08/2019 10:39:23

## File summary

<b>Title</b>	B6026 Huthwaite Road-Ashland Road West
<b>Location</b>	Sutton-in-Ashfield
<b>Site Number</b>	
<b>Date</b>	08/08/2019
<b>Version</b>	V1
<b>Status</b>	Preliminary
<b>Identifier</b>	M Tatler
<b>Client</b>	Bellway Homes
<b>Jobnumber</b>	ADC1032
<b>Enumerator</b>	M Tatler
<b>Description</b>	

## Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

## 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

# 2024 Traffic Flows - Background, AM

## Data Errors and Warnings

*No errors or warnings*

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
2024 Traffic Flows	N/A		✓				100.000	100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Re
Background, AM	Background	AM		ONE HOUR	08:00	09:30	90	15				✓		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	B6026 Huthwaite Road-Ashland Road West	T-Junction	Two-way	A,B,C		11.01	B



## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Arm	Name	Description	Arm Type
A	A	B6026 Huthwaite Road (W)		Major
B	B	Ashland Road West		Minor
C	C	B6026 Huthwaite Road (E)		Major

### Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	8.67		0.00	✓	3.00	160.00		

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

### Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	6.00	4.47	3.86	3.86	✓	1.00	33	22

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	535.351	0.086	0.218	0.137	0.311
1	B-C	644.016	0.087	0.221	-	-
1	C-B	724.662	0.248	0.248	-	-

*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 Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

# Entry Flows

## General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	519.00	100.000
B	ONE HOUR	✓	97.00	100.000
C	ONE HOUR	✓	506.00	100.000

# Turning Proportions

## Turning Counts / Proportions (Veh/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	33.000	486.000
	B	58.000	0.000	39.000
	C	488.000	18.000	0.000

## Turning Proportions (Veh) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.06	0.94
	B	0.60	0.00	0.40
	C	0.96	0.04	0.00

# Vehicle Mix

## Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.053
	B	1.017	1.000	1.051
	C	1.039	1.056	1.000

## Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	5.3
	B	1.7	0.0	5.1
	C	3.9	5.6	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)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-C	0.09	8.58	0.10	A	35.79	53.68	7.12	7.95	0.08	7.12	7.95
B-A	0.20	14.03	0.25	B	53.22	79.83	16.15	12.13	0.18	16.15	12.14
C-A	-	-	-	-	447.80	671.70	-	-	-	-	-
C-B	0.04	6.85	0.04	A	16.52	24.78	2.69	6.51	0.03	2.69	6.51
A-B	-	-	-	-	30.28	45.42	-	-	-	-	-
A-C	-	-	-	-	445.96	668.94	-	-	-	-	-

## Main Results for each time segment

### Main results: (08:00-08:15)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	29.36	7.34	29.12	0.00	513.91	0.057	0.00	0.06	7.422	A
B-A	43.67	10.92	43.16	0.00	385.66	0.113	0.00	0.13	10.497	B
C-A	367.39	91.85	367.39	0.00	-	-	-	-	-	-
C-B	13.55	3.39	13.46	0.00	590.05	0.023	0.00	0.02	6.243	A
A-B	24.84	6.21	24.84	0.00	-	-	-	-	-	-
A-C	365.89	91.47	365.89	0.00	-	-	-	-	-	-

### Main results: (08:15-08:30)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	35.06	8.77	35.00	0.00	493.02	0.071	0.06	0.08	7.859	A
B-A	52.14	13.04	51.97	0.00	358.31	0.146	0.13	0.17	11.746	B
C-A	438.70	109.68	438.70	0.00	-	-	-	-	-	-
C-B	16.18	4.05	16.16	0.00	571.32	0.028	0.02	0.03	6.484	A
A-B	29.67	7.42	29.67	0.00	-	-	-	-	-	-
A-C	436.90	109.23	436.90	0.00	-	-	-	-	-	-

### Main results: (08:30-08:45)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	42.94	10.73	42.84	0.00	462.73	0.093	0.08	0.10	8.572	A
B-A	63.86	15.96	63.55	0.00	320.32	0.199	0.17	0.24	14.003	B
C-A	537.30	134.32	537.30	0.00	-	-	-	-	-	-
C-B	19.82	4.95	19.78	0.00	545.43	0.036	0.03	0.04	6.848	A
A-B	36.33	9.08	36.33	0.00	-	-	-	-	-	-
A-C	535.10	133.77	535.10	0.00	-	-	-	-	-	-

**Main results: (08:45-09:00)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	42.94	10.73	42.94	0.00	462.48	0.093	0.10	0.10	8.580	A
B-A	63.86	15.96	63.85	0.00	320.37	0.199	0.24	0.25	14.033	B
C-A	537.30	134.32	537.30	0.00	-	-	-	-	-	-
C-B	19.82	4.95	19.82	0.00	545.43	0.036	0.04	0.04	6.848	A
A-B	36.33	9.08	36.33	0.00	-	-	-	-	-	-
A-C	535.10	133.77	535.10	0.00	-	-	-	-	-	-

**Main results: (09:00-09:15)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	35.06	8.77	35.16	0.00	492.63	0.071	0.10	0.08	7.872	A
B-A	52.14	13.04	52.44	0.00	358.41	0.145	0.25	0.17	11.776	B
C-A	438.70	109.68	438.70	0.00	-	-	-	-	-	-
C-B	16.18	4.05	16.21	0.00	571.32	0.028	0.04	0.03	6.487	A
A-B	29.67	7.42	29.67	0.00	-	-	-	-	-	-
A-C	436.90	109.23	436.90	0.00	-	-	-	-	-	-

**Main results: (09:15-09:30)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	29.36	7.34	29.43	0.00	513.42	0.057	0.08	0.06	7.441	A
B-A	43.67	10.92	43.84	0.00	385.77	0.113	0.17	0.13	10.533	B
C-A	367.39	91.85	367.39	0.00	-	-	-	-	-	-
C-B	13.55	3.39	13.57	0.00	590.05	0.023	0.03	0.02	6.244	A
A-B	24.84	6.21	24.84	0.00	-	-	-	-	-	-
A-C	365.89	91.47	365.89	0.00	-	-	-	-	-	-

**Queueing Delay Results for each time segment**
**Queueing Delay results: (08:00-08:15)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.87	0.06	7.422	A	A
B-A	1.81	0.12	10.497	B	B
C-A	-	-	-	-	-
C-B	0.34	0.02	6.243	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:15-08:30)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.11	0.07	7.859	A	A
B-A	2.44	0.16	11.746	B	B
C-A	-	-	-	-	-
C-B	0.43	0.03	6.484	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:30-08:45)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.48	0.10	8.572	A	A
B-A	3.53	0.24	14.003	B	B
C-A	-	-	-	-	-
C-B	0.55	0.04	6.848	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:45-09:00)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.52	0.10	8.580	A	A
B-A	3.69	0.25	14.033	B	B
C-A	-	-	-	-	-
C-B	0.56	0.04	6.848	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (09:00-09:15)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.19	0.08	7.872	A	A
B-A	2.69	0.18	11.776	B	B
C-A	-	-	-	-	-
C-B	0.45	0.03	6.487	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (09:15-09:30)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.94	0.06	7.441	A	A
B-A	2.00	0.13	10.533	B	B
C-A	-	-	-	-	-
C-B	0.36	0.02	6.244	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## 2024 Traffic Flows - Background, PM

### Data Errors and Warnings

*No errors or warnings*

### Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
2024 Traffic Flows	N/A		✓				100.000	100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Re
Background, FM	Background	FM		ONE HOUR	16:45	18:15	90	15				✓		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	B6026 Huthwaite Road-Ashland Road West	T-Junction	Two-way	A,B,C		10.03	B

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	B6026 Huthwaite Road (W)		Major
B	B	Ashland Road West		Minor
C	C	B6026 Huthwaite Road (E)		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	8.67		0.00	✓	3.00	160.00		

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

## Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	6.00	4.47	3.86	3.86	✓	1.00	33	22

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	546.607	0.088	0.222	0.140	0.318
1	B-C	629.632	0.085	0.216	-	-
1	C-B	724.662	0.248	0.248	-	-

*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 Flows

## Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

# Entry Flows

## General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	631.00	100.000
B	ONE HOUR	✓	55.00	100.000
C	ONE HOUR	✓	566.00	100.000

# Turning Proportions

## Turning Counts / Proportions (Veh/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	67.000	564.000
	B	36.000	0.000	19.000
	C	535.000	31.000	0.000

## Turning Proportions (Veh) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.11	0.89
	B	0.65	0.00	0.35
	C	0.95	0.05	0.00

# Vehicle Mix

## Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.030	1.025
	B	1.000	1.000	1.000
	C	1.030	1.000	1.000

### Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
From		A	B	C
	A	0.0	3.0	2.5
	B	0.0	0.0	0.0
	C	3.0	0.0	0.0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-C	0.04	8.04	0.05	A	17.43	26.15	3.28	7.53	0.04	3.28	7.53
B-A	0.13	13.69	0.15	B	33.03	49.55	9.76	11.82	0.11	9.76	11.82
C-A	-	-	-	-	490.93	736.39	-	-	-	-	-
C-B	0.06	7.01	0.07	A	28.45	42.67	4.68	6.57	0.05	4.68	6.57
A-B	-	-	-	-	61.48	92.22	-	-	-	-	-
A-C	-	-	-	-	517.54	776.30	-	-	-	-	-

### Main Results for each time segment

#### Main results: (16:45-17:00)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	14.30	3.58	14.19	0.00	521.71	0.027	0.00	0.03	7.091	A
B-A	27.10	6.78	26.80	0.00	379.74	0.071	0.00	0.08	10.192	B
C-A	402.78	100.69	402.78	0.00	-	-	-	-	-	-
C-B	23.34	5.83	23.18	0.00	603.76	0.039	0.00	0.04	6.199	A
A-B	50.44	12.61	50.44	0.00	-	-	-	-	-	-
A-C	424.61	106.15	424.61	0.00	-	-	-	-	-	-

#### Main results: (17:00-17:15)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	17.08	4.27	17.05	0.00	499.76	0.034	0.03	0.04	7.457	A
B-A	32.36	8.09	32.26	0.00	347.36	0.093	0.08	0.10	11.421	B
C-A	480.95	120.24	480.95	0.00	-	-	-	-	-	-
C-B	27.87	6.97	27.83	0.00	580.29	0.048	0.04	0.05	6.515	A
A-B	60.23	15.06	60.23	0.00	-	-	-	-	-	-
A-C	507.02	126.76	507.02	0.00	-	-	-	-	-	-



**Main results: (17:15-17:30)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	20.92	5.23	20.87	0.00	468.74	0.045	0.04	0.05	8.037	A
B-A	39.64	9.91	39.45	0.00	302.54	0.131	0.10	0.15	13.673	B
C-A	589.05	147.26	589.05	0.00	-	-	-	-	-	-
C-B	34.13	8.53	34.07	0.00	547.85	0.062	0.05	0.07	7.006	A
A-B	73.77	18.44	73.77	0.00	-	-	-	-	-	-
A-C	620.98	155.24	620.98	0.00	-	-	-	-	-	-

**Main results: (17:30-17:45)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	20.92	5.23	20.92	0.00	468.56	0.045	0.05	0.05	8.041	A
B-A	39.64	9.91	39.63	0.00	302.57	0.131	0.15	0.15	13.690	B
C-A	589.05	147.26	589.05	0.00	-	-	-	-	-	-
C-B	34.13	8.53	34.13	0.00	547.85	0.062	0.07	0.07	7.006	A
A-B	73.77	18.44	73.77	0.00	-	-	-	-	-	-
A-C	620.98	155.24	620.98	0.00	-	-	-	-	-	-

**Main results: (17:45-18:00)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	17.08	4.27	17.12	0.00	499.46	0.034	0.05	0.04	7.463	A
B-A	32.36	8.09	32.54	0.00	347.44	0.093	0.15	0.10	11.438	B
C-A	480.95	120.24	480.95	0.00	-	-	-	-	-	-
C-B	27.87	6.97	27.93	0.00	580.29	0.048	0.07	0.05	6.519	A
A-B	60.23	15.06	60.23	0.00	-	-	-	-	-	-
A-C	507.02	126.76	507.02	0.00	-	-	-	-	-	-

**Main results: (18:00-18:15)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	14.30	3.58	14.33	0.00	521.33	0.027	0.04	0.03	7.100	A
B-A	27.10	6.78	27.21	0.00	379.82	0.071	0.10	0.08	10.212	B
C-A	402.78	100.69	402.78	0.00	-	-	-	-	-	-
C-B	23.34	5.83	23.38	0.00	603.76	0.039	0.05	0.04	6.205	A
A-B	50.44	12.61	50.44	0.00	-	-	-	-	-	-
A-C	424.61	106.15	424.61	0.00	-	-	-	-	-	-

**Queueing Delay Results for each time segment**
**Queueing Delay results: (16:45-17:00)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.41	0.03	7.091	A	A
B-A	1.09	0.07	10.192	B	B
C-A	-	-	-	-	-
C-B	0.58	0.04	6.199	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:00-17:15)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.52	0.03	7.457	A	A
B-A	1.48	0.10	11.421	B	B
C-A	-	-	-	-	-
C-B	0.74	0.05	6.515	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:15-17:30)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.68	0.05	8.037	A	A
B-A	2.14	0.14	13.673	B	B
C-A	-	-	-	-	-
C-B	0.97	0.06	7.006	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:30-17:45)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.70	0.05	8.041	A	A
B-A	2.23	0.15	13.690	B	B
C-A	-	-	-	-	-
C-B	0.99	0.07	7.006	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:45-18:00)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.55	0.04	7.463	A	A
B-A	1.62	0.11	11.438	B	B
C-A	-	-	-	-	-
C-B	0.78	0.05	6.519	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (18:00-18:15)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.44	0.03	7.100	A	A
B-A	1.20	0.08	10.212	B	B
C-A	-	-	-	-	-
C-B	0.62	0.04	6.205	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

# 2024 Traffic Flows - With Development, AM

## Data Errors and Warnings

No errors or warnings

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
2024 Traffic Flows	N/A		✓				100.000	100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship
With Development, AM	With Development	AM		ONE HOUR	08:00	09:30	90	15				✓	

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	B6026 Huthwaite Road-Ashland Road West	T-Junction	Two-way	A,B,C		13.81	B

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	B6026 Huthwaite Road (W)		Major
B	B	Ashland Road West		Minor
C	C	B6026 Huthwaite Road (E)		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	8.67		0.00	✓	3.00	160.00		

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

## Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	6.00	4.47	3.86	3.86	✓	1.00	33	22

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	536.704	0.086	0.218	0.137	0.312
1	B-C	642.288	0.087	0.220	-	-
1	C-B	724.662	0.248	0.248	-	-

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 Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	562.00	100.000
B	ONE HOUR	✓	176.00	100.000
C	ONE HOUR	✓	529.00	100.000

## Turning Proportions

### Turning Counts / Proportions (Veh/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	74.000	488.000
	B	106.000	0.000	70.000
	C	489.000	40.000	0.000

### Turning Proportions (Veh) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.13	0.87
	B	0.60	0.00	0.40
	C	0.92	0.08	0.00

## Vehicle Mix

### Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.053
	B	1.009	1.000	1.029
	C	1.039	1.025	1.000

### Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	5.3
	B	0.9	0.0	2.9
	C	3.9	2.5	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)	Total Queuing Delay (Veh-min)	Average Queuing Delay (s)	Rate Of Queuing Delay (Veh-min/min)	Inclusive Total Queuing Delay (Veh-min)	Inclusive Average Queuing Delay (s)
B-C	0.18	10.32	0.22	B	64.23	96.35	14.53	9.05	0.16	14.53	9.05
B-A	0.38	18.72	0.60	C	97.27	145.90	36.41	14.97	0.40	36.42	14.98
C-A	-	-	-	-	448.71	673.07	-	-	-	-	-
C-B	0.08	7.11	0.09	A	36.70	55.06	6.13	6.68	0.07	6.13	6.68
A-B	-	-	-	-	67.90	101.86	-	-	-	-	-
A-C	-	-	-	-	447.80	671.70	-	-	-	-	-

## Main Results for each time segment

### Main results: (08:00-08:15)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	52.70	13.17	52.24	0.00	504.45	0.104	0.00	0.12	7.953	A
B-A	79.80	19.95	78.76	0.00	380.76	0.210	0.00	0.26	11.881	B
C-A	368.14	92.04	368.14	0.00	-	-	-	-	-	-
C-B	30.11	7.53	29.90	0.00	599.79	0.050	0.00	0.05	6.316	A
A-B	55.71	13.93	55.71	0.00	-	-	-	-	-	-
A-C	367.39	91.85	367.39	0.00	-	-	-	-	-	-

### Main results: (08:15-08:30)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	62.93	15.73	62.79	0.00	474.99	0.132	0.12	0.15	8.731	A
B-A	95.29	23.82	94.87	0.00	350.90	0.272	0.26	0.37	14.036	B
C-A	439.60	109.90	439.60	0.00	-	-	-	-	-	-
C-B	35.96	8.99	35.91	0.00	578.99	0.062	0.05	0.07	6.628	A
A-B	66.52	16.63	66.52	0.00	-	-	-	-	-	-
A-C	438.70	109.68	438.70	0.00	-	-	-	-	-	-

### Main results: (08:30-08:45)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	77.07	19.27	76.81	0.00	426.70	0.181	0.15	0.22	10.282	B
B-A	116.71	29.18	115.81	0.00	308.85	0.378	0.37	0.59	18.590	C
C-A	538.40	134.60	538.40	0.00	-	-	-	-	-	-
C-B	44.04	11.01	43.96	0.00	550.22	0.080	0.07	0.09	7.111	A
A-B	81.48	20.37	81.48	0.00	-	-	-	-	-	-
A-C	537.30	134.32	537.30	0.00	-	-	-	-	-	-

### Main results: (08:45-09:00)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	77.07	19.27	77.06	0.00	425.73	0.181	0.22	0.22	10.324	B
B-A	116.71	29.18	116.67	0.00	308.86	0.378	0.59	0.60	18.721	C
C-A	538.40	134.60	538.40	0.00	-	-	-	-	-	-
C-B	44.04	11.01	44.04	0.00	550.22	0.080	0.09	0.09	7.111	A
A-B	81.48	20.37	81.48	0.00	-	-	-	-	-	-
A-C	537.30	134.32	537.30	0.00	-	-	-	-	-	-

### Main results: (09:00-09:15)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	62.93	15.73	63.19	0.00	473.85	0.133	0.22	0.15	8.771	A
B-A	95.29	23.82	96.16	0.00	351.01	0.271	0.60	0.38	14.172	B
C-A	439.60	109.90	439.60	0.00	-	-	-	-	-	-
C-B	35.96	8.99	36.04	0.00	578.99	0.062	0.09	0.07	6.630	A
A-B	66.52	16.63	66.52	0.00	-	-	-	-	-	-
A-C	438.70	109.68	438.70	0.00	-	-	-	-	-	-

**Main results: (09:15-09:30)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	52.70	13.17	52.85	0.00	503.38	0.105	0.15	0.12	7.992	A
B-A	79.80	19.95	80.25	0.00	380.85	0.210	0.38	0.27	11.993	B
C-A	368.14	92.04	368.14	0.00	-	-	-	-	-	-
C-B	30.11	7.53	30.17	0.00	599.79	0.050	0.07	0.05	6.322	A
A-B	55.71	13.93	55.71	0.00	-	-	-	-	-	-
A-C	367.39	91.85	367.39	0.00	-	-	-	-	-	-

**Queueing Delay Results for each time segment**
**Queueing Delay results: (08:00-08:15)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.67	0.11	7.953	A	A
B-A	3.71	0.25	11.881	B	B
C-A	-	-	-	-	-
C-B	0.76	0.05	6.316	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:15-08:30)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	2.21	0.15	8.731	A	A
B-A	5.27	0.35	14.036	B	B
C-A	-	-	-	-	-
C-B	0.97	0.06	6.628	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:30-08:45)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	3.16	0.21	10.282	B	B
B-A	8.34	0.56	18.590	C	B
C-A	-	-	-	-	-
C-B	1.27	0.08	7.111	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:45-09:00)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	3.28	0.22	10.324	B	B
B-A	8.91	0.59	18.721	C	B
C-A	-	-	-	-	-
C-B	1.30	0.09	7.111	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (09:00-09:15)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	2.39	0.16	8.771	A	A
B-A	5.99	0.40	14.172	B	B
C-A	-	-	-	-	-
C-B	1.02	0.07	6.630	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (09:15-09:30)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.82	0.12	7.992	A	A
B-A	4.19	0.28	11.993	B	B
C-A	-	-	-	-	-
C-B	0.81	0.05	6.322	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## 2024 Traffic Flows - With Development, PM

### Data Errors and Warnings

No errors or warnings

### Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
2024 Traffic Flows	N/A		✓				100.000	100.000	

### Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship
With Development, PM	With Development	PM		ONE HOUR	16:45	18:15	90	15				✓	

## Junction Network

### Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	B6026 Huthwaite Road-Ashland Road West	T-Junction	Two-way	A,B,C		13.06	B



## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Arm	Name	Description	Arm Type
A	A	B6026 Huthwaite Road (W)		Major
B	B	Ashland Road West		Minor
C	C	B6026 Huthwaite Road (E)		Major

### Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	8.67		0.00	✓	3.00	160.00		

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

### Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	6.00	4.47	3.86	3.86	✓	1.00	33	22

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	546.904	0.088	0.223	0.140	0.318
1	B-C	629.253	0.085	0.216	-	-
1	C-B	724.662	0.248	0.248	-	-

*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 Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

# Entry Flows

## General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	689.00	100.000
B	ONE HOUR	✓	128.00	100.000
C	ONE HOUR	✓	592.00	100.000

# Turning Proportions

## Turning Counts / Proportions (Veh/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	122.000	567.000
	B	84.000	0.000	44.000
	C	536.000	56.000	0.000

## Turning Proportions (Veh) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.18	0.82
	B	0.66	0.00	0.34
	C	0.91	0.09	0.00

# Vehicle Mix

## Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.016	1.025
	B	1.000	1.000	1.000
	C	1.030	1.000	1.000

## Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	1.6	2.5
	B	0.0	0.0	0.0
	C	3.0	0.0	0.0

# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-C	0.11	9.52	0.13	A	40.38	60.56	8.61	8.53	0.10	8.61	8.53
B-A	0.32	18.52	0.47	C	77.08	115.62	28.52	14.80	0.32	28.52	14.80
C-A	-	-	-	-	491.84	737.76	-	-	-	-	-
C-B	0.12	7.65	0.13	A	51.39	77.08	9.07	7.06	0.10	9.07	7.06
A-B	-	-	-	-	111.95	167.92	-	-	-	-	-
A-C	-	-	-	-	520.29	780.43	-	-	-	-	-

## Main Results for each time segment

### Main results: (16:45-17:00)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	33.13	8.28	32.85	0.00	502.25	0.066	0.00	0.07	7.663	A
B-A	63.24	15.81	62.43	0.00	369.48	0.171	0.00	0.20	11.695	B
C-A	403.53	100.88	403.53	0.00	-	-	-	-	-	-
C-B	42.16	10.54	41.86	0.00	592.92	0.071	0.00	0.08	6.530	A
A-B	91.85	22.96	91.85	0.00	-	-	-	-	-	-
A-C	426.87	106.72	426.87	0.00	-	-	-	-	-	-

### Main results: (17:00-17:15)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	39.56	9.89	39.47	0.00	473.19	0.084	0.07	0.09	8.300	A
B-A	75.51	18.88	75.18	0.00	334.86	0.226	0.20	0.29	13.845	B
C-A	481.85	120.46	481.85	0.00	-	-	-	-	-	-
C-B	50.34	12.59	50.26	0.00	567.35	0.089	0.08	0.10	6.962	A
A-B	109.68	27.42	109.68	0.00	-	-	-	-	-	-
A-C	509.72	127.43	509.72	0.00	-	-	-	-	-	-

### Main results: (17:15-17:30)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	48.44	12.11	48.30	0.00	427.18	0.113	0.09	0.13	9.502	A
B-A	92.49	23.12	91.78	0.00	286.75	0.323	0.29	0.46	18.395	C
C-A	590.15	147.54	590.15	0.00	-	-	-	-	-	-
C-B	61.66	15.41	61.52	0.00	531.99	0.116	0.10	0.13	7.650	A
A-B	134.32	33.58	134.32	0.00	-	-	-	-	-	-
A-C	624.28	156.07	624.28	0.00	-	-	-	-	-	-

**Main results: (17:30-17:45)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	48.44	12.11	48.44	0.00	426.45	0.114	0.13	0.13	9.523	A
B-A	92.49	23.12	92.46	0.00	286.78	0.322	0.46	0.47	18.518	C
C-A	590.15	147.54	590.15	0.00	-	-	-	-	-	-
C-B	61.66	15.41	61.65	0.00	531.99	0.116	0.13	0.13	7.653	A
A-B	134.32	33.58	134.32	0.00	-	-	-	-	-	-
A-C	624.28	156.07	624.28	0.00	-	-	-	-	-	-

**Main results: (17:45-18:00)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	39.56	9.89	39.70	0.00	472.30	0.084	0.13	0.09	8.324	A
B-A	75.51	18.88	76.20	0.00	334.97	0.225	0.47	0.30	13.948	B
C-A	481.85	120.46	481.85	0.00	-	-	-	-	-	-
C-B	50.34	12.59	50.47	0.00	567.35	0.089	0.13	0.10	6.965	A
A-B	109.68	27.42	109.68	0.00	-	-	-	-	-	-
A-C	509.72	127.43	509.72	0.00	-	-	-	-	-	-

**Main results: (18:00-18:15)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	33.13	8.28	33.21	0.00	501.40	0.066	0.09	0.07	7.691	A
B-A	63.24	15.81	63.59	0.00	369.55	0.171	0.30	0.21	11.781	B
C-A	403.53	100.88	403.53	0.00	-	-	-	-	-	-
C-B	42.16	10.54	42.24	0.00	592.92	0.071	0.10	0.08	6.537	A
A-B	91.85	22.96	91.85	0.00	-	-	-	-	-	-
A-C	426.87	106.72	426.87	0.00	-	-	-	-	-	-

**Queueing Delay Results for each time segment**
**Queueing Delay results: (16:45-17:00)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.01	0.07	7.663	A	A
B-A	2.90	0.19	11.695	B	B
C-A	-	-	-	-	-
C-B	1.10	0.07	6.530	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:00-17:15)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.32	0.09	8.300	A	A
B-A	4.13	0.28	13.845	B	B
C-A	-	-	-	-	-
C-B	1.42	0.09	6.962	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:15-17:30)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.84	0.12	9.502	A	A
B-A	6.57	0.44	18.395	C	B
C-A	-	-	-	-	-
C-B	1.90	0.13	7.650	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:30-17:45)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.91	0.13	9.523	A	A
B-A	7.00	0.47	18.518	C	B
C-A	-	-	-	-	-
C-B	1.95	0.13	7.653	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:45-18:00)**

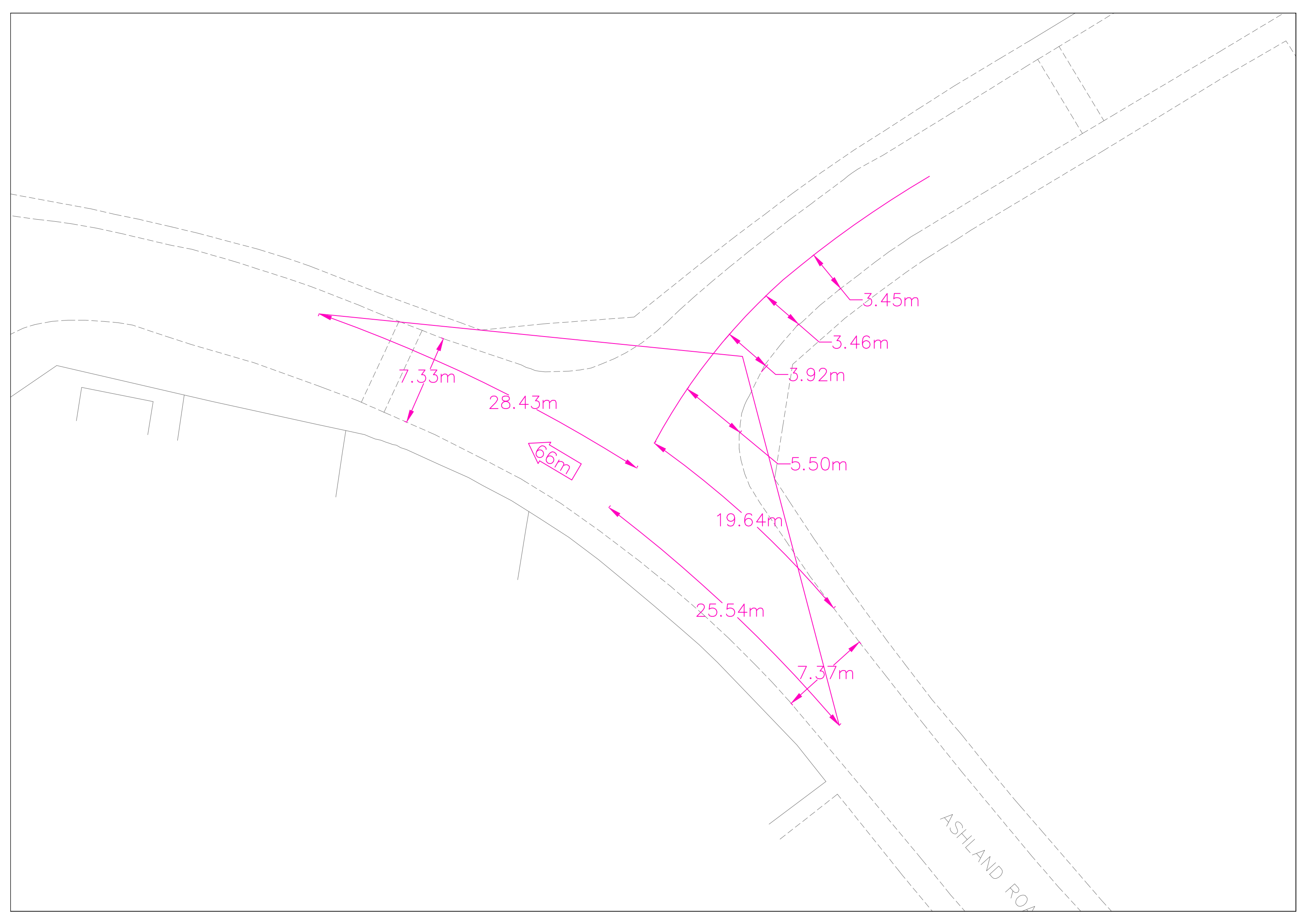
Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.42	0.09	8.324	A	A
B-A	4.66	0.31	13.948	B	B
C-A	-	-	-	-	-
C-B	1.51	0.10	6.965	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (18:00-18:15)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.10	0.07	7.691	A	A
B-A	3.26	0.22	11.781	B	B
C-A	-	-	-	-	-
C-B	1.18	0.08	6.537	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## APPENDIX I

# ASHLAND ROAD WEST/HIGHFIELD ROAD PICADY OUTPUT



<b>Junctions 8</b>
<b>PICADY 8 - Priority Intersection Module</b>
Version: 8.0.4.487 [15039,24/03/2014] © Copyright TRL Limited, 2019
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**Filename:** Ashland Road West-Highfields Road PICADY Model.arc8  
**Path:** C:\Users\ADCteam\Dropbox\~ JN8 TEMP\ADC1032 Ashland Road\J2 Ashland Road West-Highfields Road  
**Report generation date:** 08/08/2019 10:58:42

- » 2024 Traffic Flows - Background, AM
- » 2024 Traffic Flows - Background, PM
- » 2024 Traffic Flows - With Development, AM
- » 2024 Traffic Flows - With Development, PM

**Summary of junction performance**

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	Junction Delay (s)	Queue (Veh)	Delay (s)	RFC	Junction Delay (s)
<b>2024 Traffic Flows - Background</b>								
<b>Stream B-C</b>	0.07	5.82	0.07	6.43	0.09	5.70	0.08	6.19
<b>Stream B-A</b>	0.03	7.63	0.03		0.03	7.68	0.03	
<b>Stream C-AB</b>	0.10	6.61	0.09		0.08	6.46	0.07	
<b>Stream C-A</b>	-	-	-		-	-	-	
<b>Stream A-B</b>	-	-	-		-	-	-	
<b>Stream A-C</b>	-	-	-		-	-	-	
<b>2024 Traffic Flows - With Development</b>								
<b>Stream B-C</b>	0.07	6.00	0.07	6.75	0.09	5.78	0.09	6.52
<b>Stream B-A</b>	0.09	7.72	0.08		0.08	7.78	0.07	
<b>Stream C-AB</b>	0.10	6.66	0.09		0.08	6.43	0.07	
<b>Stream C-A</b>	-	-	-		-	-	-	
<b>Stream A-B</b>	-	-	-		-	-	-	
<b>Stream A-C</b>	-	-	-		-	-	-	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

"D1 - Background, AM " model duration: 08:00 - 09:30  
 "D2 - Background, PM" model duration: 16:45 - 18:15  
 "D3 - With Development, AM" model duration: 08:00 - 09:30  
 "D4 - With Development, PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.4.487 at 08/08/2019 10:58:39



## File summary

<b>Title</b>	Ashland Road-Highfield Road
<b>Location</b>	Sutton-in-Ashfield
<b>Site Number</b>	
<b>Date</b>	08/08/2019
<b>Version</b>	V1
<b>Status</b>	Preliminary
<b>Identifier</b>	M Tatler
<b>Client</b>	Bellway Homes
<b>Jobnumber</b>	ADC1032
<b>Enumerator</b>	M Tatler
<b>Description</b>	

## Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

## 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

# 2024 Traffic Flows - Background, AM

## Data Errors and Warnings

*No errors or warnings*

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
2024 Traffic Flows	N/A		✓				100.000	100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Re
Background, AM	Background	AM		ONE HOUR	08:00	09:30	90	15				✓		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Ashland Road-Highfield Road	T-Junction	Two-way	A,B,C		6.43	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Arm	Name	Description	Arm Type
A	A	Ashland Road West		Major
B	B	Highfield Road		Minor
C	C	Ashland Road		Major

### Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.35		0.00		2.20	66.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane plus flare				10.00	5.50	3.92	3.46	3.45	✓	1.00	26	28

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	508.555	0.087	0.220	0.139	0.315
1	B-C	705.526	0.102	0.257	-	-
1	C-B	612.185	0.223	0.223	-	-

*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 Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

# Entry Flows

## General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	20.00	100.000
B	ONE HOUR	✓	55.00	100.000
C	ONE HOUR	✓	53.00	100.000

# Turning Proportions

## Turning Counts / Proportions (Veh/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	12.000	8.000
	B	14.000	0.000	41.000
	C	5.000	48.000	0.000

## Turning Proportions (Veh) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.60	0.40
	B	0.25	0.00	0.75
	C	0.09	0.91	0.00

# Vehicle Mix

## Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.167	1.125
	B	1.000	1.000	1.049
	C	1.000	1.021	1.000

## Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	16.7	12.5
	B	0.0	0.0	4.9
	C	0.0	2.1	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)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-C	0.07	5.82	0.07	A	37.62	56.43	5.37	5.71	0.06	5.37	5.71
B-A	0.03	7.63	0.03	A	12.85	19.27	2.40	7.49	0.03	2.40	7.49
C-AB	0.09	6.61	0.10	A	44.40	66.59	7.28	6.56	0.08	7.28	6.56
C-A	-	-	-	-	4.24	6.36	-	-	-	-	-
A-B	-	-	-	-	11.01	16.52	-	-	-	-	-
A-C	-	-	-	-	7.34	11.01	-	-	-	-	-

## Main Results for each time segment

### Main results: (08:00-08:15)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	30.87	7.72	30.67	0.00	666.49	0.046	0.00	0.05	5.660	A
B-A	10.54	2.63	10.45	0.00	493.96	0.021	0.00	0.02	7.446	A
C-AB	36.37	9.09	36.11	0.00	598.44	0.061	0.00	0.06	6.399	A
C-A	3.54	0.88	3.54	0.00	-	-	-	-	-	-
A-B	9.03	2.26	9.03	0.00	-	-	-	-	-	-
A-C	6.02	1.51	6.02	0.00	-	-	-	-	-	-

### Main results: (08:15-08:30)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	36.86	9.21	36.82	0.00	665.19	0.055	0.05	0.06	5.728	A
B-A	12.59	3.15	12.57	0.00	491.05	0.026	0.02	0.03	7.523	A
C-AB	43.48	10.87	43.42	0.00	598.20	0.073	0.06	0.08	6.489	A
C-A	4.17	1.04	4.17	0.00	-	-	-	-	-	-
A-B	10.79	2.70	10.79	0.00	-	-	-	-	-	-
A-C	7.19	1.80	7.19	0.00	-	-	-	-	-	-

### Main results: (08:30-08:45)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	45.14	11.29	45.08	0.00	663.44	0.068	0.06	0.07	5.821	A
B-A	15.41	3.85	15.39	0.00	487.06	0.032	0.03	0.03	7.631	A
C-AB	53.34	13.34	53.26	0.00	597.86	0.089	0.08	0.10	6.610	A
C-A	5.01	1.25	5.01	0.00	-	-	-	-	-	-
A-B	13.21	3.30	13.21	0.00	-	-	-	-	-	-
A-C	8.81	2.20	8.81	0.00	-	-	-	-	-	-

**Main results: (08:45-09:00)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	45.14	11.29	45.14	0.00	663.43	0.068	0.07	0.07	5.821	A
B-A	15.41	3.85	15.41	0.00	487.04	0.032	0.03	0.03	7.632	A
C-AB	53.34	13.34	53.34	0.00	597.86	0.089	0.10	0.10	6.613	A
C-A	5.01	1.25	5.01	0.00	-	-	-	-	-	-
A-B	13.21	3.30	13.21	0.00	-	-	-	-	-	-
A-C	8.81	2.20	8.81	0.00	-	-	-	-	-	-

**Main results: (09:00-09:15)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	36.86	9.21	36.91	0.00	665.16	0.055	0.07	0.06	5.730	A
B-A	12.59	3.15	12.61	0.00	491.03	0.026	0.03	0.03	7.524	A
C-AB	43.48	10.87	43.56	0.00	598.20	0.073	0.10	0.08	6.493	A
C-A	4.17	1.04	4.17	0.00	-	-	-	-	-	-
A-B	10.79	2.70	10.79	0.00	-	-	-	-	-	-
A-C	7.19	1.80	7.19	0.00	-	-	-	-	-	-

**Main results: (09:15-09:30)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	30.87	7.72	30.91	0.00	666.42	0.046	0.06	0.05	5.666	A
B-A	10.54	2.63	10.56	0.00	493.91	0.021	0.03	0.02	7.450	A
C-AB	36.37	9.09	36.42	0.00	598.44	0.061	0.08	0.07	6.407	A
C-A	3.53	0.88	3.53	0.00	-	-	-	-	-	-
A-B	9.03	2.26	9.03	0.00	-	-	-	-	-	-
A-C	6.02	1.51	6.02	0.00	-	-	-	-	-	-

**Queueing Delay Results for each time segment**
**Queueing Delay results: (08:00-08:15)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.70	0.05	5.660	A	A
B-A	0.31	0.02	7.446	A	A
C-AB	0.96	0.06	6.399	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:15-08:30)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.86	0.06	5.728	A	A
B-A	0.38	0.03	7.523	A	A
C-AB	1.18	0.08	6.489	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:30-08:45)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.07	0.07	5.821	A	A
B-A	0.48	0.03	7.631	A	A
C-AB	1.48	0.10	6.610	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:45-09:00)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.09	0.07	5.821	A	A
B-A	0.49	0.03	7.632	A	A
C-AB	1.48	0.10	6.613	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (09:00-09:15)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.90	0.06	5.730	A	A
B-A	0.41	0.03	7.524	A	A
C-AB	1.19	0.08	6.493	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (09:15-09:30)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.75	0.05	5.666	A	A
B-A	0.34	0.02	7.450	A	A
C-AB	0.98	0.07	6.407	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## 2024 Traffic Flows - Background, PM

### Data Errors and Warnings

*No errors or warnings*

### Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
2024 Traffic Flows	N/A		✓				100.000	100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Re
Background, FM	Background	FM		ONE HOUR	16:45	18:15	90	15				✓		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Ashland Road-Highfield Road	T-Junction	Two-way	A,B,C		6.19	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Ashland Road West		Major
B	B	Highfield Road		Minor
C	C	Ashland Road		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.35		0.00		2.20	66.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane plus flare				10.00	5.50	3.92	3.46	3.45	✓	1.00	26	28

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	498.043	0.085	0.216	0.136	0.308
1	B-C	710.924	0.103	0.259	-	-
1	C-B	612.185	0.223	0.223	-	-

*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 Flows

## Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

# Entry Flows

## General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	17.00	100.000
B	ONE HOUR	✓	64.00	100.000
C	ONE HOUR	✓	46.00	100.000

# Turning Proportions

## Turning Counts / Proportions (Veh/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	10.000	7.000
	B	11.000	0.000	53.000
	C	9.000	37.000	0.000

## Turning Proportions (Veh) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.59	0.41
	B	0.17	0.00	0.83
	C	0.20	0.80	0.00

# Vehicle Mix

## Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.019
	C	1.111	1.027	1.000



### Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
From		A	B	C
	A	0.0	0.0	0.0
	B	0.0	0.0	1.9
	C	11.1	2.7	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)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-C	0.08	5.70	0.09	A	48.63	72.95	6.78	5.57	0.08	6.78	5.57
B-A	0.03	7.68	0.03	A	10.09	15.14	1.91	7.55	0.02	1.91	7.55
C-AB	0.07	6.46	0.08	A	34.44	51.66	5.61	6.51	0.06	5.61	6.51
C-A	-	-	-	-	7.77	11.65	-	-	-	-	-
A-B	-	-	-	-	9.18	13.76	-	-	-	-	-
A-C	-	-	-	-	6.42	9.64	-	-	-	-	-

### Main Results for each time segment

#### Main results: (16:45-17:00)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	39.90	9.98	39.66	0.00	692.69	0.058	0.00	0.06	5.512	A
B-A	8.28	2.07	8.21	0.00	486.33	0.017	0.00	0.02	7.529	A
C-AB	28.17	7.04	27.97	0.00	597.59	0.047	0.00	0.05	6.319	A
C-A	6.46	1.61	6.46	0.00	-	-	-	-	-	-
A-B	7.53	1.88	7.53	0.00	-	-	-	-	-	-
A-C	5.27	1.32	5.27	0.00	-	-	-	-	-	-

#### Main results: (17:00-17:15)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	47.65	11.91	47.59	0.00	691.65	0.069	0.06	0.07	5.589	A
B-A	9.89	2.47	9.87	0.00	483.99	0.020	0.02	0.02	7.592	A
C-AB	33.72	8.43	33.68	0.00	597.89	0.056	0.05	0.06	6.379	A
C-A	7.63	1.91	7.63	0.00	-	-	-	-	-	-
A-B	8.99	2.25	8.99	0.00	-	-	-	-	-	-
A-C	6.29	1.57	6.29	0.00	-	-	-	-	-	-

**Main results: (17:15-17:30)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	58.35	14.59	58.28	0.00	690.24	0.085	0.07	0.09	5.696	A
B-A	12.11	3.03	12.09	0.00	480.73	0.025	0.02	0.03	7.681	A
C-AB	41.43	10.36	41.37	0.00	598.30	0.069	0.06	0.08	6.463	A
C-A	9.22	2.31	9.22	0.00	-	-	-	-	-	-
A-B	11.01	2.75	11.01	0.00	-	-	-	-	-	-
A-C	7.71	1.93	7.71	0.00	-	-	-	-	-	-

**Main results: (17:30-17:45)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	58.35	14.59	58.35	0.00	690.23	0.085	0.09	0.09	5.696	A
B-A	12.11	3.03	12.11	0.00	480.72	0.025	0.03	0.03	7.682	A
C-AB	41.43	10.36	41.43	0.00	598.30	0.069	0.08	0.08	6.464	A
C-A	9.22	2.30	9.22	0.00	-	-	-	-	-	-
A-B	11.01	2.75	11.01	0.00	-	-	-	-	-	-
A-C	7.71	1.93	7.71	0.00	-	-	-	-	-	-

**Main results: (17:45-18:00)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	47.65	11.91	47.72	0.00	691.62	0.069	0.09	0.07	5.590	A
B-A	9.89	2.47	9.91	0.00	483.97	0.020	0.03	0.02	7.593	A
C-AB	33.72	8.43	33.78	0.00	597.88	0.056	0.08	0.06	6.382	A
C-A	7.63	1.91	7.63	0.00	-	-	-	-	-	-
A-B	8.99	2.25	8.99	0.00	-	-	-	-	-	-
A-C	6.29	1.57	6.29	0.00	-	-	-	-	-	-

**Main results: (18:00-18:15)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	39.90	9.98	39.95	0.00	692.64	0.058	0.07	0.06	5.517	A
B-A	8.28	2.07	8.30	0.00	486.31	0.017	0.02	0.02	7.530	A
C-AB	28.18	7.04	28.22	0.00	597.59	0.047	0.06	0.05	6.323	A
C-A	6.45	1.61	6.45	0.00	-	-	-	-	-	-
A-B	7.53	1.88	7.53	0.00	-	-	-	-	-	-
A-C	5.27	1.32	5.27	0.00	-	-	-	-	-	-

**Queueing Delay Results for each time segment**
**Queueing Delay results: (16:45-17:00)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.89	0.06	5.512	A	A
B-A	0.25	0.02	7.529	A	A
C-AB	0.74	0.05	6.319	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:00-17:15)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.09	0.07	5.589	A	A
B-A	0.30	0.02	7.592	A	A
C-AB	0.91	0.06	6.379	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:15-17:30)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.35	0.09	5.696	A	A
B-A	0.38	0.03	7.681	A	A
C-AB	1.14	0.08	6.463	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:30-17:45)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.38	0.09	5.696	A	A
B-A	0.39	0.03	7.682	A	A
C-AB	1.14	0.08	6.464	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:45-18:00)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.14	0.08	5.590	A	A
B-A	0.32	0.02	7.593	A	A
C-AB	0.92	0.06	6.382	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (18:00-18:15)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.94	0.06	5.517	A	A
B-A	0.27	0.02	7.530	A	A
C-AB	0.76	0.05	6.323	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

# 2024 Traffic Flows - With Development, AM

## Data Errors and Warnings

No errors or warnings

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
2024 Traffic Flows	N/A		✓				100.000	100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship
With Development, AM	With Development	AM		ONE HOUR	08:00	09:30	90	15				✓	

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Ashland Road-Highfield Road	T-Junction	Two-way	A,B,C		6.75	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Ashland Road West		Major
B	B	Highfield Road		Minor
C	C	Ashland Road		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.35		0.00		2.20	66.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane plus flare				10.00	5.50	3.92	3.46	3.45	✓	1.00	26	28

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	539.309	0.092	0.234	0.147	0.334
1	B-C	703.218	0.101	0.256	-	-
1	C-B	612.185	0.223	0.223	-	-

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 Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	62.00	100.000
B	ONE HOUR	✓	79.00	100.000
C	ONE HOUR	✓	63.00	100.000

## Turning Proportions

### Turning Counts / Proportions (Veh/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	38.000	24.000
	B	38.000	0.000	41.000
	C	15.000	48.000	0.000

### Turning Proportions (Veh) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.61	0.39
	B	0.48	0.00	0.52
	C	0.24	0.76	0.00

## Vehicle Mix

### Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.053	1.042
	B	1.000	1.000	1.049
	C	1.000	1.021	1.000

### Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	5.3	4.2
	B	0.0	0.0	4.9
	C	0.0	2.1	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)	Total Queuing Delay (Veh-min)	Average Queuing Delay (s)	Rate Of Queuing Delay (Veh-min/min)	Inclusive Total Queuing Delay (Veh-min)	Inclusive Average Queuing Delay (s)
B-C	0.07	6.00	0.07	A	37.62	56.43	5.51	5.86	0.06	5.51	5.86
B-A	0.08	7.72	0.09	A	34.87	52.30	6.53	7.49	0.07	6.53	7.49
C-AB	0.09	6.66	0.10	A	45.12	67.68	7.58	6.72	0.08	7.58	6.72
C-A	-	-	-	-	12.69	19.04	-	-	-	-	-
A-B	-	-	-	-	34.87	52.30	-	-	-	-	-
A-C	-	-	-	-	22.02	33.03	-	-	-	-	-

## Main Results for each time segment

### Main results: (08:00-08:15)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	30.87	7.72	30.67	0.00	653.71	0.047	0.00	0.05	5.777	A
B-A	28.61	7.15	28.38	0.00	518.07	0.055	0.00	0.06	7.348	A
C-AB	36.83	9.21	36.57	0.00	596.59	0.062	0.00	0.07	6.425	A
C-A	10.60	2.65	10.60	0.00	-	-	-	-	-	-
A-B	28.61	7.15	28.61	0.00	-	-	-	-	-	-
A-C	18.07	4.52	18.07	0.00	-	-	-	-	-	-

### Main results: (08:15-08:30)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	36.86	9.21	36.82	0.00	650.18	0.057	0.05	0.06	5.869	A
B-A	34.16	8.54	34.11	0.00	513.86	0.066	0.06	0.07	7.503	A
C-AB	44.15	11.04	44.09	0.00	596.00	0.074	0.07	0.08	6.522	A
C-A	12.48	3.12	12.48	0.00	-	-	-	-	-	-
A-B	34.16	8.54	34.16	0.00	-	-	-	-	-	-
A-C	21.58	5.39	21.58	0.00	-	-	-	-	-	-

### Main results: (08:30-08:45)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	45.14	11.29	45.08	0.00	645.36	0.070	0.06	0.07	5.997	A
B-A	41.84	10.46	41.77	0.00	508.05	0.082	0.07	0.09	7.720	A
C-AB	54.36	13.59	54.28	0.00	595.20	0.091	0.08	0.10	6.655	A
C-A	15.00	3.75	15.00	0.00	-	-	-	-	-	-
A-B	41.84	10.46	41.84	0.00	-	-	-	-	-	-
A-C	26.42	6.61	26.42	0.00	-	-	-	-	-	-

### Main results: (08:45-09:00)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	45.14	11.29	45.14	0.00	645.31	0.070	0.07	0.07	5.997	A
B-A	41.84	10.46	41.84	0.00	508.04	0.082	0.09	0.09	7.721	A
C-AB	54.36	13.59	54.36	0.00	595.21	0.091	0.10	0.10	6.655	A
C-A	15.00	3.75	15.00	0.00	-	-	-	-	-	-
A-B	41.84	10.46	41.84	0.00	-	-	-	-	-	-
A-C	26.42	6.61	26.42	0.00	-	-	-	-	-	-

### Main results: (09:00-09:15)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	36.86	9.21	36.92	0.00	650.10	0.057	0.07	0.06	5.873	A
B-A	34.16	8.54	34.23	0.00	513.84	0.066	0.09	0.07	7.506	A
C-AB	44.16	11.04	44.24	0.00	596.01	0.074	0.10	0.08	6.527	A
C-A	12.48	3.12	12.48	0.00	-	-	-	-	-	-
A-B	34.16	8.54	34.16	0.00	-	-	-	-	-	-
A-C	21.58	5.39	21.58	0.00	-	-	-	-	-	-

**Main results: (09:15-09:30)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	30.87	7.72	30.91	0.00	653.52	0.047	0.06	0.05	5.784	A
B-A	28.61	7.15	28.66	0.00	518.03	0.055	0.07	0.06	7.356	A
C-AB	36.84	9.21	36.90	0.00	596.60	0.062	0.08	0.07	6.434	A
C-A	10.59	2.65	10.59	0.00	-	-	-	-	-	-
A-B	28.61	7.15	28.61	0.00	-	-	-	-	-	-
A-C	18.07	4.52	18.07	0.00	-	-	-	-	-	-

**Queueing Delay Results for each time segment**
**Queueing Delay results: (08:00-08:15)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.72	0.05	5.777	A	A
B-A	0.84	0.06	7.348	A	A
C-AB	1.00	0.07	6.425	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:15-08:30)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.88	0.06	5.869	A	A
B-A	1.04	0.07	7.503	A	A
C-AB	1.23	0.08	6.522	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:30-08:45)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.10	0.07	5.997	A	A
B-A	1.31	0.09	7.720	A	A
C-AB	1.55	0.10	6.655	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:45-09:00)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.12	0.07	5.997	A	A
B-A	1.34	0.09	7.721	A	A
C-AB	1.55	0.10	6.655	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-



**Queueing Delay results: (09:00-09:15)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.92	0.06	5.873	A	A
B-A	1.10	0.07	7.506	A	A
C-AB	1.24	0.08	6.527	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (09:15-09:30)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.76	0.05	5.784	A	A
B-A	0.90	0.06	7.356	A	A
C-AB	1.01	0.07	6.434	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## 2024 Traffic Flows - With Development, PM

### Data Errors and Warnings

No errors or warnings

### Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
2024 Traffic Flows	N/A		✓				100.000	100.000	

### Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship
With Development, PM	With Development	PM		ONE HOUR	16:45	18:15	90	15				✓	

## Junction Network

### Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Ashland Road-Highfield Road	T-Junction	Two-way	A,B,C		6.52	A

### Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Ashland Road West		Major
B	B	Highfield Road		Minor
C	C	Ashland Road		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.35		0.00		2.20	66.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane plus flare				10.00	5.50	3.92	3.46	3.45	✓	1.00	26	28

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	527.922	0.091	0.229	0.144	0.327
1	B-C	717.836	0.104	0.262	-	-
1	C-B	612.185	0.223	0.223	-	-

*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 Flows

## Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

# Entry Flows

## General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	55.00	100.000
B	ONE HOUR	✓	87.00	100.000
C	ONE HOUR	✓	64.00	100.000

# Turning Proportions

## Turning Counts / Proportions (Veh/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	31.000	24.000
	B	34.000	0.000	53.000
	C	27.000	37.000	0.000

## Turning Proportions (Veh) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.56	0.44
	B	0.39	0.00	0.61
	C	0.42	0.58	0.00

# Vehicle Mix

## Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.019
	C	1.037	1.027	1.000

## Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	1.9
	C	3.7	2.7	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)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-C	0.09	5.78	0.09	A	48.63	72.95	6.85	5.64	0.08	6.85	5.64
B-A	0.07	7.78	0.08	A	31.20	46.80	5.89	7.56	0.07	5.89	7.56
C-AB	0.07	6.43	0.08	A	35.45	53.18	5.97	6.74	0.07	5.97	6.74
C-A	-	-	-	-	23.28	34.92	-	-	-	-	-
A-B	-	-	-	-	28.45	42.67	-	-	-	-	-
A-C	-	-	-	-	22.02	33.03	-	-	-	-	-

## Main Results for each time segment

### Main results: (16:45-17:00)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	39.90	9.98	39.66	0.00	688.70	0.058	0.00	0.06	5.546	A
B-A	25.60	6.40	25.39	0.00	509.18	0.050	0.00	0.05	7.437	A
C-AB	28.83	7.21	28.62	0.00	600.43	0.048	0.00	0.05	6.294	A
C-A	19.35	4.84	19.35	0.00	-	-	-	-	-	-
A-B	23.34	5.83	23.34	0.00	-	-	-	-	-	-
A-C	18.07	4.52	18.07	0.00	-	-	-	-	-	-

### Main results: (17:00-17:15)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	47.65	11.91	47.59	0.00	685.35	0.070	0.06	0.07	5.644	A
B-A	30.57	7.64	30.52	0.00	505.47	0.060	0.05	0.06	7.579	A
C-AB	34.66	8.67	34.62	0.00	601.32	0.058	0.05	0.06	6.352	A
C-A	22.87	5.72	22.87	0.00	-	-	-	-	-	-
A-B	27.87	6.97	27.87	0.00	-	-	-	-	-	-
A-C	21.58	5.39	21.58	0.00	-	-	-	-	-	-

### Main results: (17:15-17:30)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	58.35	14.59	58.28	0.00	680.82	0.086	0.07	0.09	5.782	A
B-A	37.43	9.36	37.37	0.00	500.29	0.075	0.06	0.08	7.776	A
C-AB	42.85	10.71	42.78	0.00	602.56	0.071	0.06	0.08	6.430	A
C-A	27.61	6.90	27.61	0.00	-	-	-	-	-	-
A-B	34.13	8.53	34.13	0.00	-	-	-	-	-	-
A-C	26.42	6.61	26.42	0.00	-	-	-	-	-	-

**Main results: (17:30-17:45)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	58.35	14.59	58.35	0.00	680.78	0.086	0.09	0.09	5.783	A
B-A	37.43	9.36	37.43	0.00	500.28	0.075	0.08	0.08	7.777	A
C-AB	42.85	10.71	42.85	0.00	602.56	0.071	0.08	0.08	6.431	A
C-A	27.61	6.90	27.61	0.00	-	-	-	-	-	-
A-B	34.13	8.53	34.13	0.00	-	-	-	-	-	-
A-C	26.42	6.61	26.42	0.00	-	-	-	-	-	-

**Main results: (17:45-18:00)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	47.65	11.91	47.72	0.00	685.27	0.070	0.09	0.08	5.648	A
B-A	30.57	7.64	30.63	0.00	505.46	0.060	0.08	0.06	7.581	A
C-AB	34.67	8.67	34.73	0.00	601.32	0.058	0.08	0.07	6.354	A
C-A	22.87	5.72	22.87	0.00	-	-	-	-	-	-
A-B	27.87	6.97	27.87	0.00	-	-	-	-	-	-
A-C	21.58	5.39	21.58	0.00	-	-	-	-	-	-

**Main results: (18:00-18:15)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	39.90	9.98	39.95	0.00	688.50	0.058	0.08	0.06	5.550	A
B-A	25.60	6.40	25.64	0.00	509.17	0.050	0.06	0.05	7.445	A
C-AB	28.84	7.21	28.88	0.00	600.43	0.048	0.07	0.05	6.301	A
C-A	19.35	4.84	19.35	0.00	-	-	-	-	-	-
A-B	23.34	5.83	23.34	0.00	-	-	-	-	-	-
A-C	18.07	4.52	18.07	0.00	-	-	-	-	-	-

**Queueing Delay Results for each time segment**
**Queueing Delay results: (16:45-17:00)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.89	0.06	5.546	A	A
B-A	0.76	0.05	7.437	A	A
C-AB	0.78	0.05	6.294	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:00-17:15)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.10	0.07	5.644	A	A
B-A	0.94	0.06	7.579	A	A
C-AB	0.97	0.06	6.352	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:15-17:30)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.37	0.09	5.782	A	A
B-A	1.18	0.08	7.776	A	A
C-AB	1.22	0.08	6.430	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:30-17:45)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.40	0.09	5.783	A	A
B-A	1.21	0.08	7.777	A	A
C-AB	1.22	0.08	6.431	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:45-18:00)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.15	0.08	5.648	A	A
B-A	0.99	0.07	7.581	A	A
C-AB	0.98	0.07	6.354	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

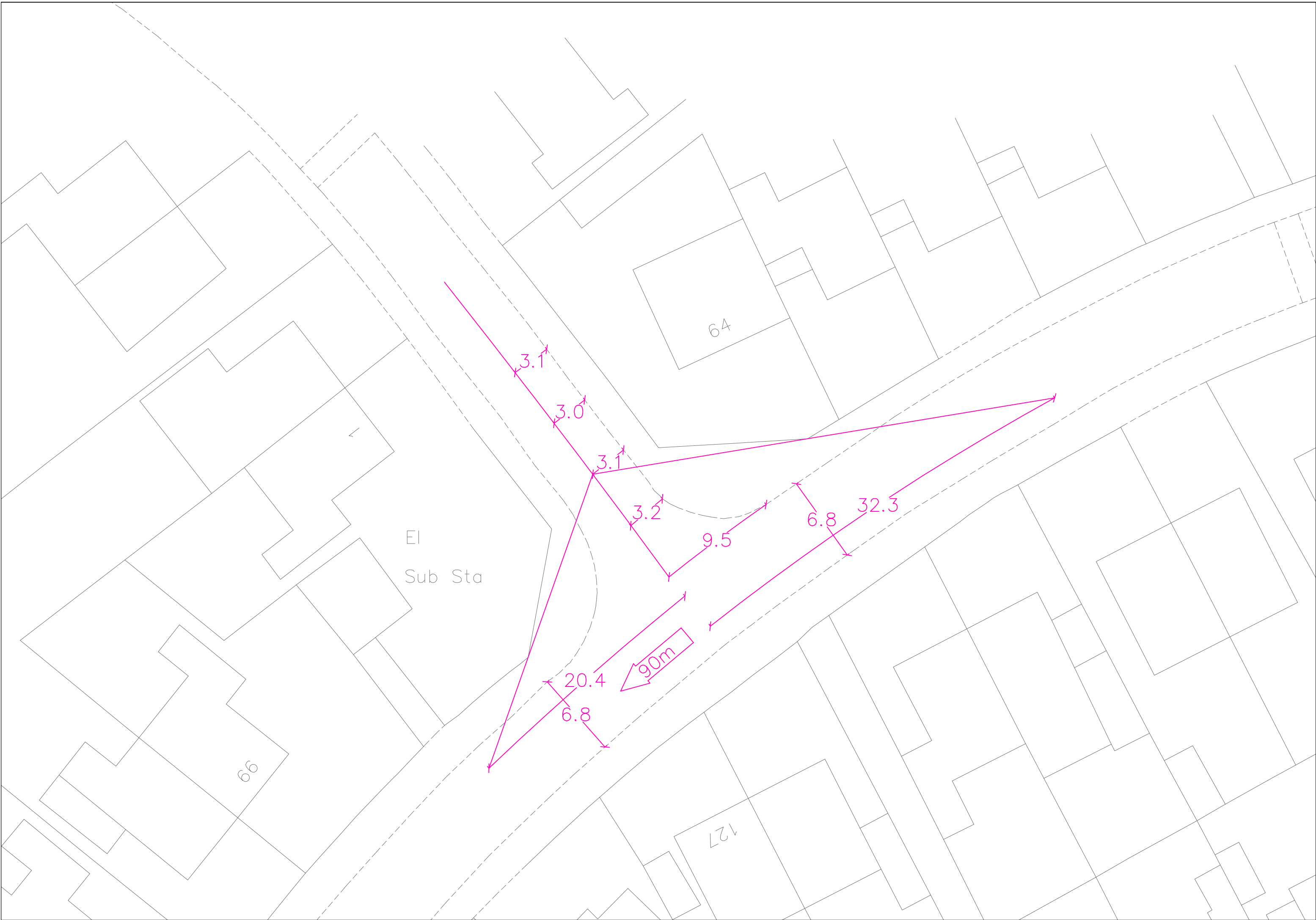
**Queueing Delay results: (18:00-18:15)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.94	0.06	5.550	A	A
B-A	0.82	0.05	7.445	A	A
C-AB	0.80	0.05	6.301	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-



## APPENDIX J

# WESTBOURNE ROAD/RILEY AVENUE PICADY OUTPUT





<b>Junctions 8</b>
<b>PICADY 8 - Priority Intersection Module</b>
Version: 8.0.4.487 [15039,24/03/2014] © Copyright TRL Limited, 2019
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**Filename:** Westbourne Road-Riley Avenue PICADY Model.arc8  
**Path:** C:\Users\ADCteam\Dropbox\~ JN8 TEMPIADC1032 Ashland Road\J3 Westbourne Road-Riley Avenue  
**Report generation date:** 08/08/2019 11:12:33

- » 2024 Traffic Flows - Background, AM
- » 2024 Traffic Flows - Background, PM
- » 2024 Traffic Flows - With Development, AM
- » 2024 Traffic Flows - With Development, PM

**Summary of junction performance**

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	Junction Delay (s)	Queue (Veh)	Delay (s)	RFC	Junction Delay (s)
<b>2024 Traffic Flows - Background</b>								
<b>Stream B-C</b>	0.03	5.43	0.03	7.13	0.02	5.39	0.02	6.73
<b>Stream B-A</b>	0.10	8.35	0.09		0.05	7.97	0.05	
<b>Stream C-AB</b>	0.02	5.60	0.02		0.02	5.87	0.02	
<b>Stream C-A</b>	-	-	-		-	-	-	
<b>Stream A-B</b>	-	-	-		-	-	-	
<b>Stream A-C</b>	-	-	-		-	-	-	
<b>2024 Traffic Flows - With Development</b>								
<b>Stream B-C</b>	0.04	5.52	0.04	7.33	0.06	6.15	0.06	6.45
<b>Stream B-A</b>	0.13	8.62	0.11		0.05	7.24	0.04	
<b>Stream C-AB</b>	0.03	5.63	0.02		0.03	5.95	0.03	
<b>Stream C-A</b>	-	-	-		-	-	-	
<b>Stream A-B</b>	-	-	-		-	-	-	
<b>Stream A-C</b>	-	-	-		-	-	-	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

"D1 - Background, AM " model duration: 08:00 - 09:30  
 "D2 - Background, PM" model duration: 16:45 - 18:15  
 "D3 - With Development, AM" model duration: 08:00 - 09:30  
 "D4 - With Development, PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.4.487 at 08/08/2019 11:12:31

## File summary

<b>Title</b>	Westbourne Road-Riley Avenue
<b>Location</b>	Sutton-in-Ashfield
<b>Site Number</b>	
<b>Date</b>	08/08/2019
<b>Version</b>	V1
<b>Status</b>	Preliminary
<b>Identifier</b>	M Tatler
<b>Client</b>	Bellway Homes
<b>Jobnumber</b>	ADC1032
<b>Enumerator</b>	M Tatler
<b>Description</b>	

## Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

## 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

# 2024 Traffic Flows - Background, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor Arm Geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
2024 Traffic Flows	N/A		✓				100.000	100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Re
Background, AM	Background	AM		ONE HOUR	08:00	09:30	90	15				✓		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Westbourne Road-Riley Avenue	T-Junction	Two-way	A,B,C		7.13	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Arm	Name	Description	Arm Type
A	A	Westbourne Road (W)		Major
B	B	Riley Avenue		Minor
C	C	Westbourne Road (E)		Major

### Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.80		0.00		2.20	90.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane plus flare				9.50	3.20	3.10	3.00	3.00	✓	1.00	32	20

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	521.012	0.092	0.232	0.146	0.331
1	B-C	732.408	0.108	0.274	-	-
1	C-B	626.083	0.234	0.234	-	-

*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 Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

# Entry Flows

## General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	127.00	100.000
B	ONE HOUR	✓	55.00	100.000
C	ONE HOUR	✓	106.00	100.000

# Turning Proportions

## Turning Counts / Proportions (Veh/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	25.000	102.000
	B	38.000	0.000	17.000
	C	96.000	10.000	0.000

## Turning Proportions (Veh) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.20	0.80
	B	0.69	0.00	0.31
	C	0.91	0.09	0.00

# Vehicle Mix

## Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.080	1.010
	B	1.000	1.000	1.000
	C	1.010	1.000	1.000

## Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	8.0	1.0
	B	0.0	0.0	0.0
	C	1.0	0.0	0.0

# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-C	0.03	5.43	0.03	A	15.60	23.40	2.07	5.31	0.02	2.07	5.31
B-A	0.09	8.35	0.10	A	34.87	52.30	7.01	8.04	0.08	7.01	8.04
C-AB	0.02	5.60	0.02	A	10.62	15.93	1.70	6.39	0.02	1.70	6.39
C-A	-	-	-	-	86.65	129.97	-	-	-	-	-
A-B	-	-	-	-	22.94	34.41	-	-	-	-	-
A-C	-	-	-	-	93.60	140.40	-	-	-	-	-

## Main Results for each time segment

### Main results: (08:00-08:15)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	12.80	3.20	12.72	0.00	698.45	0.018	0.00	0.02	5.249	A
B-A	28.61	7.15	28.36	0.00	488.06	0.059	0.00	0.06	7.827	A
C-AB	8.45	2.11	8.40	0.00	650.90	0.013	0.00	0.01	5.602	A
C-A	71.35	17.84	71.35	0.00	-	-	-	-	-	-
A-B	18.82	4.71	18.82	0.00	-	-	-	-	-	-
A-C	76.79	19.20	76.79	0.00	-	-	-	-	-	-

### Main results: (08:15-08:30)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	15.28	3.82	15.27	0.00	691.61	0.022	0.02	0.02	5.322	A
B-A	34.16	8.54	34.11	0.00	481.65	0.071	0.06	0.08	8.043	A
C-AB	10.33	2.58	10.32	0.00	655.90	0.016	0.01	0.02	5.575	A
C-A	84.96	21.24	84.96	0.00	-	-	-	-	-	-
A-B	22.47	5.62	22.47	0.00	-	-	-	-	-	-
A-C	91.70	22.92	91.70	0.00	-	-	-	-	-	-

### Main results: (08:30-08:45)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	18.72	4.68	18.70	0.00	682.14	0.027	0.02	0.03	5.425	A
B-A	41.84	10.46	41.76	0.00	472.79	0.088	0.08	0.10	8.352	A
C-AB	13.06	3.26	13.04	0.00	662.90	0.020	0.02	0.02	5.538	A
C-A	103.65	25.91	103.65	0.00	-	-	-	-	-	-
A-B	27.53	6.88	27.53	0.00	-	-	-	-	-	-
A-C	112.30	28.08	112.30	0.00	-	-	-	-	-	-

**Main results: (08:45-09:00)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	18.72	4.68	18.72	0.00	682.11	0.027	0.03	0.03	5.426	A
B-A	41.84	10.46	41.84	0.00	472.78	0.088	0.10	0.10	8.353	A
C-AB	13.06	3.27	13.06	0.00	662.90	0.020	0.02	0.02	5.539	A
C-A	103.65	25.91	103.65	0.00	-	-	-	-	-	-
A-B	27.53	6.88	27.53	0.00	-	-	-	-	-	-
A-C	112.30	28.08	112.30	0.00	-	-	-	-	-	-

**Main results: (09:00-09:15)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	15.28	3.82	15.30	0.00	691.56	0.022	0.03	0.02	5.325	A
B-A	34.16	8.54	34.24	0.00	481.63	0.071	0.10	0.08	8.047	A
C-AB	10.34	2.58	10.36	0.00	655.90	0.016	0.02	0.02	5.577	A
C-A	84.95	21.24	84.95	0.00	-	-	-	-	-	-
A-B	22.47	5.62	22.47	0.00	-	-	-	-	-	-
A-C	91.70	22.92	91.70	0.00	-	-	-	-	-	-

**Main results: (09:15-09:30)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	12.80	3.20	12.81	0.00	698.34	0.018	0.02	0.02	5.253	A
B-A	28.61	7.15	28.67	0.00	488.04	0.059	0.08	0.06	7.839	A
C-AB	8.46	2.12	8.48	0.00	650.90	0.013	0.02	0.01	5.604	A
C-A	71.34	17.84	71.34	0.00	-	-	-	-	-	-
A-B	18.82	4.71	18.82	0.00	-	-	-	-	-	-
A-C	76.79	19.20	76.79	0.00	-	-	-	-	-	-

**Queueing Delay Results for each time segment**
**Queueing Delay results: (08:00-08:15)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.27	0.02	5.249	A	A
B-A	0.89	0.06	7.827	A	A
C-AB	0.22	0.01	5.602	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:15-08:30)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.33	0.02	5.322	A	A
B-A	1.11	0.07	8.043	A	A
C-AB	0.27	0.02	5.575	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:30-08:45)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.41	0.03	5.425	A	A
B-A	1.41	0.09	8.352	A	A
C-AB	0.35	0.02	5.538	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:45-09:00)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.42	0.03	5.426	A	A
B-A	1.45	0.10	8.353	A	A
C-AB	0.35	0.02	5.539	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (09:00-09:15)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.35	0.02	5.325	A	A
B-A	1.18	0.08	8.047	A	A
C-AB	0.28	0.02	5.577	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (09:15-09:30)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.29	0.02	5.253	A	A
B-A	0.96	0.06	7.839	A	A
C-AB	0.22	0.01	5.604	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## 2024 Traffic Flows - Background, PM

**Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor Arm Geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
2024 Traffic Flows	N/A		✓				100.000	100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Re
Background, FM	Background	FM		ONE HOUR	16:45	18:15	90	15				✓		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Westbourne Road-Riley Avenue	T-Junction	Two-way	A,B,C		6.73	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Westbourne Road (W)		Major
B	B	Riley Avenue		Minor
C	C	Westbourne Road (E)		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.80		0.00		2.20	90.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane plus flare				9.50	3.20	3.10	3.00	3.00	✓	1.00	32	20



## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	521.012	0.092	0.232	0.146	0.331
1	B-C	732.408	0.108	0.274	-	-
1	C-B	626.083	0.234	0.234	-	-

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 Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	149.00	100.000
B	ONE HOUR	✓	36.00	100.000
C	ONE HOUR	✓	59.00	100.000

## Turning Proportions

### Turning Counts / Proportions (Veh/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	29.000	120.000
	B	22.000	0.000	14.000
	C	50.000	9.000	0.000

### Turning Proportions (Veh) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.19	0.81
	B	0.61	0.00	0.39
	C	0.85	0.15	0.00

# Vehicle Mix

## Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
From		A	B	C
	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.020	1.000	1.000

## Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
From		A	B	C
	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	2.0	0.0	0.0

# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-C	0.02	5.39	0.02	A	12.85	19.27	1.70	5.28	0.02	1.70	5.28
B-A	0.05	7.97	0.05	A	20.19	30.28	3.90	7.73	0.04	3.90	7.73
C-AB	0.02	5.87	0.02	A	8.93	13.39	1.48	6.61	0.02	1.48	6.61
C-A	-	-	-	-	45.21	67.81	-	-	-	-	-
A-B	-	-	-	-	26.61	39.92	-	-	-	-	-
A-C	-	-	-	-	110.11	165.17	-	-	-	-	-

## Main Results for each time segment

### Main results: (16:45-17:00)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	10.54	2.63	10.48	0.00	699.32	0.015	0.00	0.02	5.226	A
B-A	16.56	4.14	16.42	0.00	490.26	0.034	0.00	0.03	7.595	A
C-AB	7.21	1.80	7.16	0.00	624.66	0.012	0.00	0.01	5.829	A
C-A	37.21	9.30	37.21	0.00	-	-	-	-	-	-
A-B	21.83	5.46	21.83	0.00	-	-	-	-	-	-
A-C	90.34	22.59	90.34	0.00	-	-	-	-	-	-

**Main results: (17:00-17:15)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	12.59	3.15	12.57	0.00	692.80	0.018	0.02	0.02	5.291	A
B-A	19.78	4.94	19.75	0.00	484.27	0.041	0.03	0.04	7.750	A
C-AB	8.72	2.18	8.70	0.00	624.51	0.014	0.01	0.02	5.844	A
C-A	44.32	11.08	44.32	0.00	-	-	-	-	-	-
A-B	26.07	6.52	26.07	0.00	-	-	-	-	-	-
A-C	107.88	26.97	107.88	0.00	-	-	-	-	-	-

**Main results: (17:15-17:30)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	15.41	3.85	15.40	0.00	683.80	0.023	0.02	0.02	5.385	A
B-A	24.22	6.06	24.18	0.00	476.01	0.051	0.04	0.05	7.966	A
C-AB	10.86	2.72	10.84	0.00	624.37	0.017	0.02	0.02	5.866	A
C-A	54.10	13.52	54.10	0.00	-	-	-	-	-	-
A-B	31.93	7.98	31.93	0.00	-	-	-	-	-	-
A-C	132.12	33.03	132.12	0.00	-	-	-	-	-	-

**Main results: (17:30-17:45)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	15.41	3.85	15.41	0.00	683.79	0.023	0.02	0.02	5.385	A
B-A	24.22	6.06	24.22	0.00	476.01	0.051	0.05	0.05	7.968	A
C-AB	10.86	2.72	10.86	0.00	624.36	0.017	0.02	0.02	5.869	A
C-A	54.10	13.52	54.10	0.00	-	-	-	-	-	-
A-B	31.93	7.98	31.93	0.00	-	-	-	-	-	-
A-C	132.12	33.03	132.12	0.00	-	-	-	-	-	-

**Main results: (17:45-18:00)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	12.59	3.15	12.60	0.00	692.77	0.018	0.02	0.02	5.292	A
B-A	19.78	4.94	19.82	0.00	484.26	0.041	0.05	0.04	7.753	A
C-AB	8.72	2.18	8.74	0.00	624.51	0.014	0.02	0.02	5.849	A
C-A	44.32	11.08	44.32	0.00	-	-	-	-	-	-
A-B	26.07	6.52	26.07	0.00	-	-	-	-	-	-
A-C	107.88	26.97	107.88	0.00	-	-	-	-	-	-

**Main results: (18:00-18:15)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	10.54	2.63	10.55	0.00	699.25	0.015	0.02	0.02	5.228	A
B-A	16.56	4.14	16.59	0.00	490.24	0.034	0.04	0.04	7.603	A
C-AB	7.21	1.80	7.22	0.00	624.66	0.012	0.02	0.01	5.830	A
C-A	37.21	9.30	37.21	0.00	-	-	-	-	-	-
A-B	21.83	5.46	21.83	0.00	-	-	-	-	-	-
A-C	90.34	22.59	90.34	0.00	-	-	-	-	-	-

## Queueing Delay Results for each time segment

### Queueing Delay results: (16:45-17:00)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.22	0.01	5.226	A	A
B-A	0.50	0.03	7.595	A	A
C-AB	0.19	0.01	5.829	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

### Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.27	0.02	5.291	A	A
B-A	0.62	0.04	7.750	A	A
C-AB	0.24	0.02	5.844	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

### Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.34	0.02	5.385	A	A
B-A	0.78	0.05	7.966	A	A
C-AB	0.31	0.02	5.866	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

### Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.34	0.02	5.385	A	A
B-A	0.80	0.05	7.968	A	A
C-AB	0.31	0.02	5.869	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

### Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.28	0.02	5.292	A	A
B-A	0.66	0.04	7.753	A	A
C-AB	0.24	0.02	5.849	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

### Queueing Delay results: (18:00-18:15)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.23	0.02	5.228	A	A
B-A	0.54	0.04	7.603	A	A
C-AB	0.19	0.01	5.830	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## 2024 Traffic Flows - With Development, AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor Arm Geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

### Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
2024 Traffic Flows	N/A		✓				100.000	100.000	

### Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship
With Development, AM	With Development	AM		ONE HOUR	08:00	09:30	90	15				✓	

## Junction Network

### Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Westbourne Road-Riley Avenue	T-Junction	Two-way	A,B,C		7.33	A

### Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Westbourne Road (W)		Major
B	B	Riley Avenue		Minor
C	C	Westbourne Road (E)		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.80		0.00		2.20	90.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane plus flare				9.50	3.20	3.10	3.00	3.00	✓	1.00	32	20

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	521.012	0.092	0.232	0.146	0.331
1	B-C	732.408	0.108	0.274	-	-
1	C-B	626.083	0.234	0.234	-	-

*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 Flows

## Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

# Entry Flows

## General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	133.00	100.000
B	ONE HOUR	✓	71.00	100.000
C	ONE HOUR	✓	108.00	100.000

# Turning Proportions

## Turning Counts / Proportions (Veh/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	31.000	102.000
	B	49.000	0.000	22.000
	C	96.000	12.000	0.000

## Turning Proportions (Veh) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.23	0.77
	B	0.69	0.00	0.31
	C	0.89	0.11	0.00

# Vehicle Mix

## Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.065	1.010
	B	1.000	1.000	1.000
	C	1.010	1.000	1.000

## Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	6.5	1.0
	B	0.0	0.0	0.0
	C	1.0	0.0	0.0

# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-C	0.04	5.52	0.04	A	20.19	30.28	2.72	5.39	0.03	2.72	5.39
B-A	0.11	8.62	0.13	A	44.96	67.44	9.27	8.25	0.10	9.27	8.25
C-AB	0.02	5.63	0.03	A	12.75	19.12	2.10	6.59	0.02	2.10	6.59
C-A	-	-	-	-	86.36	129.54	-	-	-	-	-
A-B	-	-	-	-	28.45	42.67	-	-	-	-	-
A-C	-	-	-	-	93.60	140.40	-	-	-	-	-

## Main Results for each time segment

### Main results: (08:00-08:15)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	16.56	4.14	16.47	0.00	694.80	0.024	0.00	0.02	5.307	A
B-A	36.89	9.22	36.57	0.00	487.14	0.076	0.00	0.08	7.984	A
C-AB	10.15	2.54	10.07	0.00	649.89	0.016	0.00	0.02	5.626	A
C-A	71.16	17.79	71.16	0.00	-	-	-	-	-	-
A-B	23.34	5.83	23.34	0.00	-	-	-	-	-	-
A-C	76.79	19.20	76.79	0.00	-	-	-	-	-	-

### Main results: (08:15-08:30)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	19.78	4.94	19.76	0.00	687.11	0.029	0.02	0.03	5.394	A
B-A	44.05	11.01	43.97	0.00	480.53	0.092	0.08	0.10	8.245	A
C-AB	12.40	3.10	12.39	0.00	654.71	0.019	0.02	0.02	5.603	A
C-A	84.69	21.17	84.69	0.00	-	-	-	-	-	-
A-B	27.87	6.97	27.87	0.00	-	-	-	-	-	-
A-C	91.70	22.92	91.70	0.00	-	-	-	-	-	-

### Main results: (08:30-08:45)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	24.22	6.06	24.19	0.00	676.40	0.036	0.03	0.04	5.519	A
B-A	53.95	13.49	53.84	0.00	471.42	0.114	0.10	0.13	8.619	A
C-AB	15.68	3.92	15.65	0.00	661.45	0.024	0.02	0.03	5.573	A
C-A	103.23	25.81	103.23	0.00	-	-	-	-	-	-
A-B	34.13	8.53	34.13	0.00	-	-	-	-	-	-
A-C	112.30	28.08	112.30	0.00	-	-	-	-	-	-



**Main results: (08:45-09:00)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	24.22	6.06	24.22	0.00	676.35	0.036	0.04	0.04	5.519	A
B-A	53.95	13.49	53.95	0.00	471.41	0.114	0.13	0.13	8.623	A
C-AB	15.68	3.92	15.68	0.00	661.45	0.024	0.03	0.03	5.576	A
C-A	103.23	25.81	103.23	0.00	-	-	-	-	-	-
A-B	34.13	8.53	34.13	0.00	-	-	-	-	-	-
A-C	112.30	28.08	112.30	0.00	-	-	-	-	-	-

**Main results: (09:00-09:15)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	19.78	4.94	19.81	0.00	687.03	0.029	0.04	0.03	5.397	A
B-A	44.05	11.01	44.16	0.00	480.52	0.092	0.13	0.10	8.251	A
C-AB	12.41	3.10	12.43	0.00	654.71	0.019	0.03	0.02	5.608	A
C-A	84.68	21.17	84.68	0.00	-	-	-	-	-	-
A-B	27.87	6.97	27.87	0.00	-	-	-	-	-	-
A-C	91.70	22.92	91.70	0.00	-	-	-	-	-	-

**Main results: (09:15-09:30)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	16.56	4.14	16.58	0.00	694.64	0.024	0.03	0.02	5.310	A
B-A	36.89	9.22	36.97	0.00	487.11	0.076	0.10	0.08	7.998	A
C-AB	10.16	2.54	10.17	0.00	649.89	0.016	0.02	0.02	5.630	A
C-A	71.15	17.79	71.15	0.00	-	-	-	-	-	-
A-B	23.34	5.83	23.34	0.00	-	-	-	-	-	-
A-C	76.79	19.20	76.79	0.00	-	-	-	-	-	-

**Queueing Delay Results for each time segment**
**Queueing Delay results: (08:00-08:15)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.36	0.02	5.307	A	A
B-A	1.17	0.08	7.984	A	A
C-AB	0.27	0.02	5.626	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:15-08:30)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.44	0.03	5.394	A	A
B-A	1.47	0.10	8.245	A	A
C-AB	0.34	0.02	5.603	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:30-08:45)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.54	0.04	5.519	A	A
B-A	1.87	0.12	8.619	A	A
C-AB	0.44	0.03	5.573	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:45-09:00)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.55	0.04	5.519	A	A
B-A	1.92	0.13	8.623	A	A
C-AB	0.44	0.03	5.576	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (09:00-09:15)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.45	0.03	5.397	A	A
B-A	1.56	0.10	8.251	A	A
C-AB	0.34	0.02	5.608	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (09:15-09:30)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.37	0.02	5.310	A	A
B-A	1.27	0.08	7.998	A	A
C-AB	0.27	0.02	5.630	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## 2024 Traffic Flows - With Development, PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor Arm Geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
2024 Traffic Flows	N/A		✓				100.000	100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship
With Development, FM	With Development	FM		ONE HOUR	16:45	18:15	90	15				✓	

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Westbourne Road-Riley Avenue	T-Junction	Two-way	A,B,C		6.45	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Westbourne Road (W)		Major
B	B	Riley Avenue		Minor
C	C	Westbourne Road (E)		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.80		0.00		2.20	90.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane plus flare				9.50	3.20	3.10	3.00	3.00	✓	1.00	32	20

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	572.872	0.101	0.255	0.160	0.364
1	B-C	666.105	0.099	0.249	-	-
1	C-B	626.083	0.234	0.234	-	-

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 Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	163.00	100.000
B	ONE HOUR	✓	54.00	100.000
C	ONE HOUR	✓	63.00	100.000

## Turning Proportions

### Turning Counts / Proportions (Veh/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	43.000	120.000
	B	21.000	0.000	33.000
	C	50.000	13.000	0.000

### Turning Proportions (Veh) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.26	0.74
	B	0.39	0.00	0.61
	C	0.79	0.21	0.00

# Vehicle Mix

## Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
From		A	B	C
	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.020	1.000	1.000

## Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
From		A	B	C
	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	2.0	0.0	0.0

# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-C	0.06	6.15	0.06	A	30.28	45.42	4.53	5.99	0.05	4.53	5.99
B-A	0.04	7.24	0.05	A	19.27	28.90	3.39	7.03	0.04	3.39	7.03
C-AB	0.03	5.95	0.03	A	12.90	19.36	2.24	6.95	0.02	2.24	6.95
C-A	-	-	-	-	44.91	67.36	-	-	-	-	-
A-B	-	-	-	-	39.46	59.19	-	-	-	-	-
A-C	-	-	-	-	110.11	165.17	-	-	-	-	-

## Main Results for each time segment

### Main results: (16:45-17:00)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	24.84	6.21	24.68	0.00	635.67	0.039	0.00	0.04	5.890	A
B-A	15.81	3.95	15.69	0.00	536.88	0.029	0.00	0.03	6.905	A
C-AB	10.41	2.60	10.33	0.00	622.25	0.017	0.00	0.02	5.883	A
C-A	37.02	9.25	37.02	0.00	-	-	-	-	-	-
A-B	32.37	8.09	32.37	0.00	-	-	-	-	-	-
A-C	90.34	22.59	90.34	0.00	-	-	-	-	-	-

**Main results: (17:00-17:15)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	29.67	7.42	29.63	0.00	629.69	0.047	0.04	0.05	5.999	A
B-A	18.88	4.72	18.85	0.00	529.84	0.036	0.03	0.04	7.044	A
C-AB	12.59	3.15	12.58	0.00	621.64	0.020	0.02	0.02	5.909	A
C-A	44.04	11.01	44.04	0.00	-	-	-	-	-	-
A-B	38.66	9.66	38.66	0.00	-	-	-	-	-	-
A-C	107.88	26.97	107.88	0.00	-	-	-	-	-	-

**Main results: (17:15-17:30)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	36.33	9.08	36.28	0.00	621.43	0.058	0.05	0.06	6.152	A
B-A	23.12	5.78	23.08	0.00	520.14	0.044	0.04	0.05	7.242	A
C-AB	15.70	3.92	15.67	0.00	620.87	0.025	0.02	0.03	5.947	A
C-A	53.67	13.42	53.67	0.00	-	-	-	-	-	-
A-B	47.34	11.84	47.34	0.00	-	-	-	-	-	-
A-C	132.12	33.03	132.12	0.00	-	-	-	-	-	-

**Main results: (17:30-17:45)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	36.33	9.08	36.33	0.00	621.41	0.058	0.06	0.06	6.152	A
B-A	23.12	5.78	23.12	0.00	520.13	0.044	0.05	0.05	7.242	A
C-AB	15.70	3.93	15.70	0.00	620.87	0.025	0.03	0.03	5.948	A
C-A	53.66	13.42	53.66	0.00	-	-	-	-	-	-
A-B	47.34	11.84	47.34	0.00	-	-	-	-	-	-
A-C	132.12	33.03	132.12	0.00	-	-	-	-	-	-

**Main results: (17:45-18:00)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	29.67	7.42	29.71	0.00	629.67	0.047	0.06	0.05	6.002	A
B-A	18.88	4.72	18.91	0.00	529.83	0.036	0.05	0.04	7.045	A
C-AB	12.60	3.15	12.62	0.00	621.64	0.020	0.03	0.02	5.912	A
C-A	44.04	11.01	44.04	0.00	-	-	-	-	-	-
A-B	38.66	9.66	38.66	0.00	-	-	-	-	-	-
A-C	107.88	26.97	107.88	0.00	-	-	-	-	-	-

**Main results: (18:00-18:15)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	24.84	6.21	24.88	0.00	635.63	0.039	0.05	0.04	5.894	A
B-A	15.81	3.95	15.84	0.00	536.84	0.029	0.04	0.03	6.911	A
C-AB	10.42	2.60	10.44	0.00	622.25	0.017	0.02	0.02	5.884	A
C-A	37.01	9.25	37.01	0.00	-	-	-	-	-	-
A-B	32.37	8.09	32.37	0.00	-	-	-	-	-	-
A-C	90.34	22.59	90.34	0.00	-	-	-	-	-	-

## Queueing Delay Results for each time segment

### Queueing Delay results: (16:45-17:00)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.59	0.04	5.890	A	A
B-A	0.44	0.03	6.905	A	A
C-AB	0.29	0.02	5.883	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

### Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.72	0.05	5.999	A	A
B-A	0.54	0.04	7.044	A	A
C-AB	0.36	0.02	5.909	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

### Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.91	0.06	6.152	A	A
B-A	0.68	0.05	7.242	A	A
C-AB	0.46	0.03	5.947	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

### Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.93	0.06	6.152	A	A
B-A	0.69	0.05	7.242	A	A
C-AB	0.47	0.03	5.948	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

### Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.76	0.05	6.002	A	A
B-A	0.57	0.04	7.045	A	A
C-AB	0.37	0.02	5.912	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (18:00-18:15)**

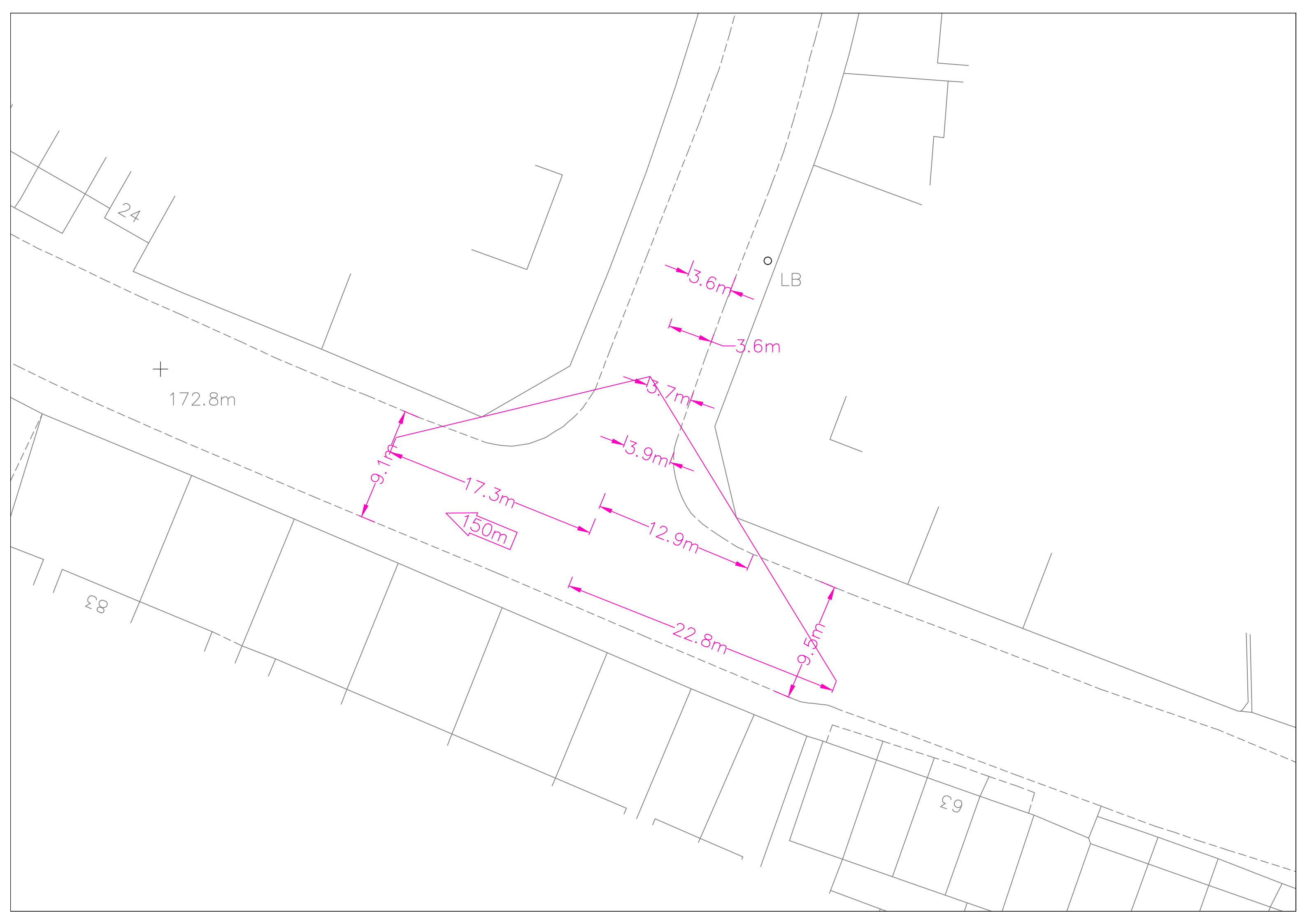
Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.62	0.04	5.894	A	A
B-A	0.47	0.03	6.911	A	A
C-AB	0.30	0.02	5.884	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-





## APPENDIX K

# B6026 HUTHWAITE ROAD/WESTBOURNE ROAD PICADY OUTPUT



24

+  
172.8m

LB

13.6m

3.6m

13.7m

13.9m

150m

17.3m

12.9m

22.8m

9.5m

<b>Junctions 8</b>
<b>PICADY 8 - Priority Intersection Module</b>
Version: 8.0.4.487 [15039,24/03/2014] © Copyright TRL Limited, 2019
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**Filename:** Huthwaite Road-Westbourne Road PICADY Model.arc8  
**Path:** C:\Users\ADCteam\Dropbox\~ JN8 TEMP\ADC1032 Ashland Road\J4 Huthwaite Road-Westbourne Road  
**Report generation date:** 08/08/2019 14:48:33

- » 2024 Traffic Flows - Background, AM
- » 2024 Traffic Flows - Background, PM
- » 2024 Traffic Flows - With Development, AM
- » 2024 Traffic Flows - With Development, PM

**Summary of junction performance**

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	Junction Delay (s)	Queue (Veh)	Delay (s)	RFC	Junction Delay (s)
<b>2024 Traffic Flows - Background</b>								
<b>Stream B-C</b>	0.43	10.25	0.30	8.05	0.23	8.76	0.19	10.82
<b>Stream B-A</b>	0.13	15.04	0.11		0.08	16.68	0.08	
<b>Stream C-AB</b>	1.25	6.26	0.38		3.85	10.98	0.67	
<b>Stream C-A</b>	-	-	-		-	-	-	
<b>Stream A-B</b>	-	-	-		-	-	-	
<b>Stream A-C</b>	-	-	-		-	-	-	
<b>2024 Traffic Flows - With Development</b>								
<b>Stream B-C</b>	0.49	10.92	0.33	8.47	0.25	8.73	0.20	12.38
<b>Stream B-A</b>	0.15	16.24	0.13		0.09	16.65	0.08	
<b>Stream C-AB</b>	1.45	6.53	0.41		4.82	12.86	0.72	
<b>Stream C-A</b>	-	-	-		-	-	-	
<b>Stream A-B</b>	-	-	-		-	-	-	
<b>Stream A-C</b>	-	-	-		-	-	-	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

"D1 - Background, AM " model duration: 08:00 - 09:30  
 "D2 - Background, PM" model duration: 16:45 - 18:15  
 "D3 - With Development, AM" model duration: 08:00 - 09:30  
 "D4 - With Development, PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.4.487 at 08/08/2019 14:48:31

## File summary

<b>Title</b>	Huthwaite Road-Westbourne Road
<b>Location</b>	Sutton-in-Ashfield
<b>Site Number</b>	
<b>Date</b>	08/08/2019
<b>Version</b>	V1
<b>Status</b>	Preliminary
<b>Identifier</b>	M Tatler
<b>Client</b>	Bellway Homes
<b>Jobnumber</b>	ADC1032
<b>Enumerator</b>	M Tatler
<b>Description</b>	

## Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

## 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

# 2024 Traffic Flows - Background, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor Arm Geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
2024 Traffic Flows	N/A		✓				100.000	100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Re
Background, AM	Background	AM		ONE HOUR	08:00	09:30	90	15				✓		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Huthwaite Road-Westbourne Road	T-Junction	Two-way	A,B,C		8.05	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Arm	Name	Description	Arm Type
A	A	Huthwaite Road (W)		Major
B	B	Westbourne Road		Minor
C	C	Huthwaite Road (E)		Major

### Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	9.30		0.00		2.20	150.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane plus flare				10.00	3.90	3.70	3.60	3.60	✓	1.00	23	17

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	592.218	0.092	0.234	0.147	0.334
1	B-C	695.635	0.091	0.231	-	-
1	C-B	660.830	0.219	0.219	-	-

*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 Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

# Entry Flows

## General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	686.00	100.000
B	ONE HOUR	✓	165.00	100.000
C	ONE HOUR	✓	673.00	100.000

# Turning Proportions

## Turning Counts / Proportions (Veh/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	28.000	658.000
	B	28.000	0.000	137.000
	C	567.000	106.000	0.000

## Turning Proportions (Veh) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.04	0.96
	B	0.17	0.00	0.83
	C	0.84	0.16	0.00

# Vehicle Mix

## Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.036	1.043
	B	1.000	1.000	1.000
	C	1.042	1.009	1.000

## Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	3.6	4.3
	B	0.0	0.0	0.0
	C	4.2	0.9	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)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-C	0.30	10.25	0.43	B	125.71	188.57	28.04	8.92	0.31	28.05	8.92
B-A	0.11	15.04	0.13	C	25.69	38.54	7.98	12.42	0.09	7.98	12.42
C-AB	0.38	6.26	1.25	A	247.78	371.66	71.65	11.57	0.80	71.66	11.57
C-A	-	-	-	-	369.78	554.67	-	-	-	-	-
A-B	-	-	-	-	25.69	38.54	-	-	-	-	-
A-C	-	-	-	-	603.79	905.69	-	-	-	-	-

## Main Results for each time segment

### Main results: (08:00-08:15)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	103.14	25.79	102.26	0.00	566.12	0.182	0.00	0.22	7.746	A
B-A	21.08	5.27	20.84	0.00	375.38	0.056	0.00	0.06	10.148	B
C-AB	160.86	40.21	159.11	0.00	828.47	0.194	0.00	0.44	5.377	A
C-A	345.81	86.45	345.81	0.00	-	-	-	-	-	-
A-B	21.08	5.27	21.08	0.00	-	-	-	-	-	-
A-C	495.38	123.84	495.38	0.00	-	-	-	-	-	-

### Main results: (08:15-08:30)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	123.16	30.79	122.87	0.00	539.84	0.228	0.22	0.29	8.627	A
B-A	25.17	6.29	25.08	0.00	331.69	0.076	0.06	0.08	11.737	B
C-AB	228.15	57.04	227.20	0.00	871.45	0.262	0.44	0.67	5.595	A
C-A	376.86	94.22	376.86	0.00	-	-	-	-	-	-
A-B	25.17	6.29	25.17	0.00	-	-	-	-	-	-
A-C	591.53	147.88	591.53	0.00	-	-	-	-	-	-

### Main results: (08:30-08:45)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	150.84	37.71	150.32	0.00	502.13	0.300	0.29	0.42	10.217	B
B-A	30.83	7.71	30.65	0.00	270.68	0.114	0.08	0.13	14.988	B
C-AB	352.36	88.09	350.15	0.00	932.43	0.378	0.67	1.23	6.202	A
C-A	388.62	97.16	388.62	0.00	-	-	-	-	-	-
A-B	30.83	7.71	30.83	0.00	-	-	-	-	-	-
A-C	724.47	181.12	724.47	0.00	-	-	-	-	-	-

**Main results: (08:45-09:00)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	150.84	37.71	150.83	0.00	501.99	0.300	0.42	0.43	10.251	B
B-A	30.83	7.71	30.82	0.00	270.18	0.114	0.13	0.13	15.039	C
C-AB	353.70	88.42	353.61	0.00	933.60	0.379	1.23	1.25	6.259	A
C-A	387.29	96.82	387.29	0.00	-	-	-	-	-	-
A-B	30.83	7.71	30.83	0.00	-	-	-	-	-	-
A-C	724.47	181.12	724.47	0.00	-	-	-	-	-	-

**Main results: (09:00-09:15)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	123.16	30.79	123.67	0.00	539.68	0.228	0.43	0.30	8.665	A
B-A	25.17	6.29	25.35	0.00	330.98	0.076	0.13	0.08	11.787	B
C-AB	229.47	57.37	231.63	0.00	873.05	0.263	1.25	0.71	5.667	A
C-A	375.55	93.89	375.55	0.00	-	-	-	-	-	-
A-B	25.17	6.29	25.17	0.00	-	-	-	-	-	-
A-C	591.53	147.88	591.53	0.00	-	-	-	-	-	-

**Main results: (09:15-09:30)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	103.14	25.79	103.44	0.00	565.97	0.182	0.30	0.23	7.789	A
B-A	21.08	5.27	21.17	0.00	374.66	0.056	0.08	0.06	10.186	B
C-AB	162.13	40.53	163.14	0.00	829.46	0.195	0.71	0.46	5.433	A
C-A	344.54	86.14	344.54	0.00	-	-	-	-	-	-
A-B	21.08	5.27	21.08	0.00	-	-	-	-	-	-
A-C	495.38	123.84	495.38	0.00	-	-	-	-	-	-

**Queueing Delay Results for each time segment**
**Queueing Delay results: (08:00-08:15)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	3.18	0.21	7.746	A	A
B-A	0.85	0.06	10.148	B	B
C-AB	6.43	0.43	5.377	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:15-08:30)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	4.27	0.28	8.627	A	A
B-A	1.18	0.08	11.737	B	B
C-AB	10.16	0.68	5.595	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-



**Queueing Delay results: (08:30-08:45)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	6.12	0.41	10.217	B	B
B-A	1.82	0.12	14.988	B	B
C-AB	18.44	1.23	6.202	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:45-09:00)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	6.37	0.42	10.251	B	B
B-A	1.91	0.13	15.039	C	B
C-AB	19.00	1.27	6.259	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (09:00-09:15)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	4.63	0.31	8.665	A	A
B-A	1.30	0.09	11.787	B	B
C-AB	10.76	0.72	5.667	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (09:15-09:30)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	3.47	0.23	7.789	A	A
B-A	0.93	0.06	10.186	B	B
C-AB	6.85	0.46	5.433	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## 2024 Traffic Flows - Background, PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor Arm Geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
2024 Traffic Flows	N/A		✓				100.000	100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Re
Background, FM	Background	FM		ONE HOUR	16:45	18:15	90	15				✓		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Huthwaite Road-Westbourne Road	T-Junction	Two-way	A,B,C		10.82	B

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Huthwaite Road (W)		Major
B	B	Westbourne Road		Minor
C	C	Huthwaite Road (E)		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	9.30		0.00		2.20	150.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane plus flare				10.00	3.90	3.70	3.60	3.60	✓	1.00	23	17

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	592.218	0.092	0.234	0.147	0.334
1	B-C	695.635	0.091	0.231	-	-
1	C-B	660.830	0.219	0.219	-	-

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 Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	711.00	100.000
B	ONE HOUR	✓	102.00	100.000
C	ONE HOUR	✓	836.00	100.000

## Turning Proportions

### Turning Counts / Proportions (Veh/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	29.000	682.000
	B	16.000	0.000	86.000
	C	666.000	170.000	0.000

### Turning Proportions (Veh) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.04	0.96
	B	0.16	0.00	0.84
	C	0.80	0.20	0.00

# Vehicle Mix

## Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
From		A	B	C
	A	1.000	1.000	1.020
	B	1.000	1.000	1.000
	C	1.024	1.000	1.000

## Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
From		A	B	C
	A	0.0	0.0	2.0
	B	0.0	0.0	0.0
	C	2.4	0.0	0.0

# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-C	0.19	8.76	0.23	A	78.92	118.37	15.59	7.90	0.17	15.59	7.90
B-A	0.08	16.68	0.08	C	14.68	22.02	4.93	13.44	0.05	4.93	13.44
C-AB	0.67	10.98	3.85	B	465.33	697.99	187.83	16.15	2.09	187.85	16.15
C-A	-	-	-	-	301.80	452.70	-	-	-	-	-
A-B	-	-	-	-	26.61	39.92	-	-	-	-	-
A-C	-	-	-	-	625.82	938.72	-	-	-	-	-

## Main Results for each time segment

### Main results: (16:45-17:00)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	64.75	16.19	64.24	0.00	567.81	0.114	0.00	0.13	7.141	A
B-A	12.05	3.01	11.90	0.00	349.40	0.034	0.00	0.04	10.662	B
C-AB	291.39	72.85	287.95	0.00	886.66	0.329	0.00	0.86	6.009	A
C-A	338.00	84.50	338.00	0.00	-	-	-	-	-	-
A-B	21.83	5.46	21.83	0.00	-	-	-	-	-	-
A-C	513.45	128.36	513.45	0.00	-	-	-	-	-	-

**Main results: (17:00-17:15)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	77.31	19.33	77.16	0.00	542.21	0.143	0.13	0.16	7.738	A
B-A	14.38	3.60	14.33	0.00	301.24	0.048	0.04	0.05	12.543	B
C-AB	421.23	105.31	418.74	0.00	940.38	0.448	0.86	1.48	6.932	A
C-A	330.32	82.58	330.32	0.00	-	-	-	-	-	-
A-B	26.07	6.52	26.07	0.00	-	-	-	-	-	-
A-C	613.10	153.28	613.10	0.00	-	-	-	-	-	-

**Main results: (17:15-17:30)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	94.69	23.67	94.44	0.00	505.81	0.187	0.16	0.23	8.745	A
B-A	17.62	4.40	17.50	0.00	235.09	0.075	0.05	0.08	16.535	C
C-AB	674.33	168.58	665.62	0.00	1017.57	0.663	1.48	3.66	10.358	B
C-A	246.13	61.53	246.13	0.00	-	-	-	-	-	-
A-B	31.93	7.98	31.93	0.00	-	-	-	-	-	-
A-C	750.90	187.72	750.90	0.00	-	-	-	-	-	-

**Main results: (17:30-17:45)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	94.69	23.67	94.68	0.00	505.66	0.187	0.23	0.23	8.759	A
B-A	17.62	4.40	17.61	0.00	233.43	0.075	0.08	0.08	16.680	C
C-AB	682.30	170.57	681.56	0.00	1022.36	0.667	3.66	3.84	10.984	B
C-A	238.16	59.54	238.16	0.00	-	-	-	-	-	-
A-B	31.93	7.98	31.93	0.00	-	-	-	-	-	-
A-C	750.90	187.72	750.90	0.00	-	-	-	-	-	-

**Main results: (17:45-18:00)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	77.31	19.33	77.56	0.00	542.07	0.143	0.23	0.17	7.755	A
B-A	14.38	3.60	14.50	0.00	298.94	0.048	0.08	0.05	12.660	B
C-AB	427.95	106.99	436.91	0.00	946.68	0.452	3.84	1.60	7.283	A
C-A	323.60	80.90	323.60	0.00	-	-	-	-	-	-
A-B	26.07	6.52	26.07	0.00	-	-	-	-	-	-
A-C	613.10	153.28	613.10	0.00	-	-	-	-	-	-

**Main results: (18:00-18:15)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	64.75	16.19	64.90	0.00	567.71	0.114	0.17	0.13	7.163	A
B-A	12.05	3.01	12.11	0.00	348.01	0.035	0.05	0.04	10.720	B
C-AB	294.79	73.70	297.57	0.00	889.37	0.331	1.60	0.91	6.155	A
C-A	334.60	83.65	334.60	0.00	-	-	-	-	-	-
A-B	21.83	5.46	21.83	0.00	-	-	-	-	-	-
A-C	513.45	128.36	513.45	0.00	-	-	-	-	-	-

## Queueing Delay Results for each time segment

### Queueing Delay results: (16:45-17:00)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.85	0.12	7.141	A	A
B-A	0.51	0.03	10.662	B	B
C-AB	12.60	0.84	6.009	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

### Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	2.41	0.16	7.738	A	A
B-A	0.72	0.05	12.543	B	B
C-AB	22.29	1.49	6.932	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

### Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	3.32	0.22	8.745	A	A
B-A	1.14	0.08	16.535	C	B
C-AB	54.10	3.61	10.358	B	B
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

### Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	3.43	0.23	8.759	A	A
B-A	1.20	0.08	16.680	C	B
C-AB	59.45	3.96	10.984	B	B
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

### Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	2.59	0.17	7.755	A	A
B-A	0.80	0.05	12.660	B	B
C-AB	25.51	1.70	7.283	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

### Queueing Delay results: (18:00-18:15)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.99	0.13	7.163	A	A
B-A	0.56	0.04	10.720	B	B
C-AB	13.79	0.92	6.155	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## 2024 Traffic Flows - With Development, AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor Arm Geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

### Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
2024 Traffic Flows	N/A		✓				100.000	100.000	

### Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship
With Development, AM	With Development	AM		ONE HOUR	08:00	09:30	90	15				✓	

## Junction Network

### Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Huthwaite Road-Westbourne Road	T-Junction	Two-way	A,B,C		8.47	A

### Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Huthwaite Road (W)		Major
B	B	Westbourne Road		Minor
C	C	Huthwaite Road (E)		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	9.30		0.00		2.20	150.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane plus flare				10.00	3.90	3.70	3.60	3.60	✓	1.00	23	17

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	592.218	0.092	0.234	0.147	0.334
1	B-C	695.635	0.091	0.231	-	-
1	C-B	660.830	0.219	0.219	-	-

*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 Flows

## Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓



# Entry Flows

## General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	719.00	100.000
B	ONE HOUR	✓	177.00	100.000
C	ONE HOUR	✓	700.00	100.000

# Turning Proportions

## Turning Counts / Proportions (Veh/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	29.000	690.000
	B	30.000	0.000	147.000
	C	589.000	111.000	0.000

## Turning Proportions (Veh) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.04	0.96
	B	0.17	0.00	0.83
	C	0.84	0.16	0.00

# Vehicle Mix

## Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.034	1.041
	B	1.000	1.000	1.000
	C	1.041	1.009	1.000

## Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	3.4	4.1
	B	0.0	0.0	0.0
	C	4.1	0.9	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)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-C	0.33	10.92	0.49	B	134.89	202.33	31.55	9.36	0.35	31.56	9.36
B-A	0.13	16.24	0.15	C	27.53	41.29	9.05	13.14	0.10	9.05	13.15
C-AB	0.41	6.53	1.45	A	271.52	407.29	81.62	12.02	0.91	81.63	12.02
C-A	-	-	-	-	370.81	556.21	-	-	-	-	-
A-B	-	-	-	-	26.61	39.92	-	-	-	-	-
A-C	-	-	-	-	633.16	949.73	-	-	-	-	-

## Main Results for each time segment

### Main results: (08:00-08:15)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	110.67	27.67	109.69	0.00	559.71	0.198	0.00	0.24	7.984	A
B-A	22.59	5.65	22.33	0.00	365.50	0.062	0.00	0.07	10.483	B
C-AB	176.18	44.04	174.23	0.00	838.50	0.210	0.00	0.49	5.417	A
C-A	350.82	87.71	350.82	0.00	-	-	-	-	-	-
A-B	21.83	5.46	21.83	0.00	-	-	-	-	-	-
A-C	519.47	129.87	519.47	0.00	-	-	-	-	-	-

### Main results: (08:15-08:30)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	132.15	33.04	131.82	0.00	531.92	0.248	0.24	0.33	8.990	A
B-A	26.97	6.74	26.87	0.00	319.56	0.084	0.07	0.09	12.295	B
C-AB	248.10	62.03	247.03	0.00	880.98	0.282	0.49	0.75	5.689	A
C-A	381.18	95.30	381.18	0.00	-	-	-	-	-	-
A-B	26.07	6.52	26.07	0.00	-	-	-	-	-	-
A-C	620.30	155.07	620.30	0.00	-	-	-	-	-	-

### Main results: (08:30-08:45)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	161.85	40.46	161.23	0.00	491.67	0.329	0.33	0.48	10.873	B
B-A	33.03	8.26	32.81	0.00	255.22	0.129	0.09	0.15	16.170	C
C-AB	387.87	96.97	385.20	0.00	945.10	0.410	0.75	1.42	6.453	A
C-A	382.85	95.71	382.85	0.00	-	-	-	-	-	-
A-B	31.93	7.98	31.93	0.00	-	-	-	-	-	-
A-C	759.70	189.93	759.70	0.00	-	-	-	-	-	-

**Main results: (08:45-09:00)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	161.85	40.46	161.83	0.00	491.48	0.329	0.48	0.49	10.918	B
B-A	33.03	8.26	33.02	0.00	254.62	0.130	0.15	0.15	16.244	C
C-AB	389.58	97.39	389.46	0.00	946.55	0.412	1.42	1.45	6.528	A
C-A	381.14	95.29	381.14	0.00	-	-	-	-	-	-
A-B	31.93	7.98	31.93	0.00	-	-	-	-	-	-
A-C	759.70	189.93	759.70	0.00	-	-	-	-	-	-

**Main results: (09:00-09:15)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	132.15	33.04	132.76	0.00	531.72	0.249	0.49	0.34	9.038	A
B-A	26.97	6.74	27.18	0.00	318.72	0.085	0.15	0.09	12.356	B
C-AB	249.74	62.43	252.35	0.00	882.92	0.283	1.45	0.79	5.775	A
C-A	379.55	94.89	379.55	0.00	-	-	-	-	-	-
A-B	26.07	6.52	26.07	0.00	-	-	-	-	-	-
A-C	620.30	155.07	620.30	0.00	-	-	-	-	-	-

**Main results: (09:15-09:30)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	110.67	27.67	111.01	0.00	559.52	0.198	0.34	0.25	8.034	A
B-A	22.59	5.65	22.69	0.00	364.69	0.062	0.09	0.07	10.531	B
C-AB	177.70	44.43	178.85	0.00	839.70	0.212	0.79	0.51	5.482	A
C-A	349.29	87.32	349.29	0.00	-	-	-	-	-	-
A-B	21.83	5.46	21.83	0.00	-	-	-	-	-	-
A-C	519.47	129.87	519.47	0.00	-	-	-	-	-	-

**Queueing Delay Results for each time segment**
**Queueing Delay results: (08:00-08:15)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	3.52	0.23	7.984	A	A
B-A	0.93	0.06	10.483	B	B
C-AB	7.15	0.48	5.417	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:15-08:30)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	4.76	0.32	8.990	A	A
B-A	1.32	0.09	12.295	B	B
C-AB	11.35	0.76	5.689	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:30-08:45)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	6.97	0.46	10.873	B	B
B-A	2.09	0.14	16.170	C	B
C-AB	21.32	1.42	6.453	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:45-09:00)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	7.27	0.48	10.918	B	B
B-A	2.20	0.15	16.244	C	B
C-AB	22.05	1.47	6.528	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (09:00-09:15)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	5.20	0.35	9.038	A	A
B-A	1.46	0.10	12.356	B	B
C-AB	12.09	0.81	5.775	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (09:15-09:30)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	3.84	0.26	8.034	A	A
B-A	1.03	0.07	10.531	B	B
C-AB	7.63	0.51	5.482	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## 2024 Traffic Flows - With Development, PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor Arm Geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
2024 Traffic Flows	N/A		✓				100.000	100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship
With Development, FM	With Development	FM		ONE HOUR	16:45	18:15	90	15				✓	

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Huthwaite Road-Westbourne Road	T-Junction	Two-way	A,B,C		12.38	B

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Huthwaite Road (W)		Major
B	B	Westbourne Road		Minor
C	C	Huthwaite Road (E)		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	9.30		0.00		2.20	150.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane plus flare				10.00	3.90	3.70	3.60	3.60	✓	1.00	23	17

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	592.218	0.092	0.234	0.147	0.334
1	B-C	695.635	0.091	0.231	-	-
1	C-B	660.830	0.219	0.219	-	-

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 Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	671.00	100.000
B	ONE HOUR	✓	111.00	100.000
C	ONE HOUR	✓	873.00	100.000

## Turning Proportions

### Turning Counts / Proportions (Veh/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	31.000	640.000
	B	17.000	0.000	94.000
	C	691.000	182.000	0.000

### Turning Proportions (Veh) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.05	0.95
	B	0.15	0.00	0.85
	C	0.79	0.21	0.00

# Vehicle Mix

## Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
From		A	B	C
	A	1.000	1.000	1.019
	B	1.000	1.000	1.000
	C	1.023	1.000	1.000

## Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
From		A	B	C
	A	0.0	0.0	1.9
	B	0.0	0.0	0.0
	C	2.3	0.0	0.0

# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-C	0.20	8.73	0.25	A	86.26	129.38	17.00	7.88	0.19	17.00	7.88
B-A	0.08	16.65	0.09	C	15.60	23.40	5.23	13.40	0.06	5.23	13.40
C-AB	0.72	12.86	4.82	B	512.47	768.70	225.47	17.60	2.51	225.50	17.60
C-A	-	-	-	-	288.61	432.92	-	-	-	-	-
A-B	-	-	-	-	28.45	42.67	-	-	-	-	-
A-C	-	-	-	-	587.28	880.91	-	-	-	-	-

## Main Results for each time segment

### Main results: (16:45-17:00)

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	70.77	17.69	70.21	0.00	574.84	0.123	0.00	0.14	7.127	A
B-A	12.80	3.20	12.65	0.00	350.98	0.036	0.00	0.04	10.636	B
C-AB	318.56	79.64	314.75	0.00	904.35	0.352	0.00	0.95	6.101	A
C-A	338.69	84.67	338.69	0.00	-	-	-	-	-	-
A-B	23.34	5.83	23.34	0.00	-	-	-	-	-	-
A-C	481.83	120.46	481.83	0.00	-	-	-	-	-	-

**Main results: (17:00-17:15)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	84.50	21.13	84.34	0.00	550.52	0.154	0.14	0.18	7.720	A
B-A	15.28	3.82	15.22	0.00	302.98	0.050	0.04	0.05	12.507	B
C-AB	462.41	115.60	459.50	0.00	961.54	0.481	0.95	1.68	7.204	A
C-A	322.40	80.60	322.40	0.00	-	-	-	-	-	-
A-B	27.87	6.97	27.87	0.00	-	-	-	-	-	-
A-C	575.35	143.84	575.35	0.00	-	-	-	-	-	-

**Main results: (17:15-17:30)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	103.50	25.87	103.22	0.00	515.80	0.201	0.18	0.25	8.720	A
B-A	18.72	4.68	18.59	0.00	237.07	0.079	0.05	0.08	16.464	C
C-AB	744.27	186.07	732.96	0.00	1043.29	0.713	1.68	4.51	11.778	B
C-A	216.92	54.23	216.92	0.00	-	-	-	-	-	-
A-B	34.13	8.53	34.13	0.00	-	-	-	-	-	-
A-C	704.65	176.16	704.65	0.00	-	-	-	-	-	-

**Main results: (17:30-17:45)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	103.50	25.87	103.49	0.00	515.61	0.201	0.25	0.25	8.735	A
B-A	18.72	4.68	18.71	0.00	234.92	0.080	0.08	0.09	16.650	C
C-AB	755.42	188.85	754.20	0.00	1049.46	0.720	4.51	4.81	12.855	B
C-A	205.77	51.44	205.77	0.00	-	-	-	-	-	-
A-B	34.13	8.53	34.13	0.00	-	-	-	-	-	-
A-C	704.65	176.16	704.65	0.00	-	-	-	-	-	-

**Main results: (17:45-18:00)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	84.50	21.13	84.77	0.00	550.35	0.154	0.25	0.18	7.737	A
B-A	15.28	3.82	15.41	0.00	300.02	0.051	0.09	0.05	12.655	B
C-AB	471.61	117.90	483.51	0.00	969.66	0.486	4.81	1.84	7.706	A
C-A	313.19	78.30	313.19	0.00	-	-	-	-	-	-
A-B	27.87	6.97	27.87	0.00	-	-	-	-	-	-
A-C	575.35	143.84	575.35	0.00	-	-	-	-	-	-

**Main results: (18:00-18:15)**

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-C	70.77	17.69	70.93	0.00	574.72	0.123	0.18	0.14	7.150	A
B-A	12.80	3.20	12.86	0.00	349.39	0.037	0.05	0.04	10.701	B
C-AB	322.54	80.64	325.85	0.00	907.48	0.355	1.84	1.01	6.273	A
C-A	334.70	83.67	334.70	0.00	-	-	-	-	-	-
A-B	23.34	5.83	23.34	0.00	-	-	-	-	-	-
A-C	481.83	120.46	481.83	0.00	-	-	-	-	-	-



## Queueing Delay Results for each time segment

### Queueing Delay results: (16:45-17:00)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	2.02	0.13	7.127	A	A
B-A	0.54	0.04	10.636	B	B
C-AB	13.95	0.93	6.101	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

### Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	2.63	0.18	7.720	A	A
B-A	0.76	0.05	12.507	B	B
C-AB	25.27	1.68	7.204	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

### Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	3.62	0.24	8.720	A	A
B-A	1.21	0.08	16.464	C	B
C-AB	66.10	4.41	11.778	B	B
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

### Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	3.74	0.25	8.735	A	A
B-A	1.28	0.09	16.650	C	B
C-AB	74.86	4.99	12.855	B	B
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

### Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	2.82	0.19	7.737	A	A
B-A	0.85	0.06	12.655	B	B
C-AB	29.83	1.99	7.706	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (18:00-18:15)**

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	2.17	0.14	7.150	A	A
B-A	0.60	0.04	10.701	B	B
C-AB	15.37	1.02	6.273	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

