

# **Transport Assessment**

**Proposed Residential Development  
Woolton Road, Liverpool**

**Redrow Homes**

**April 2016**

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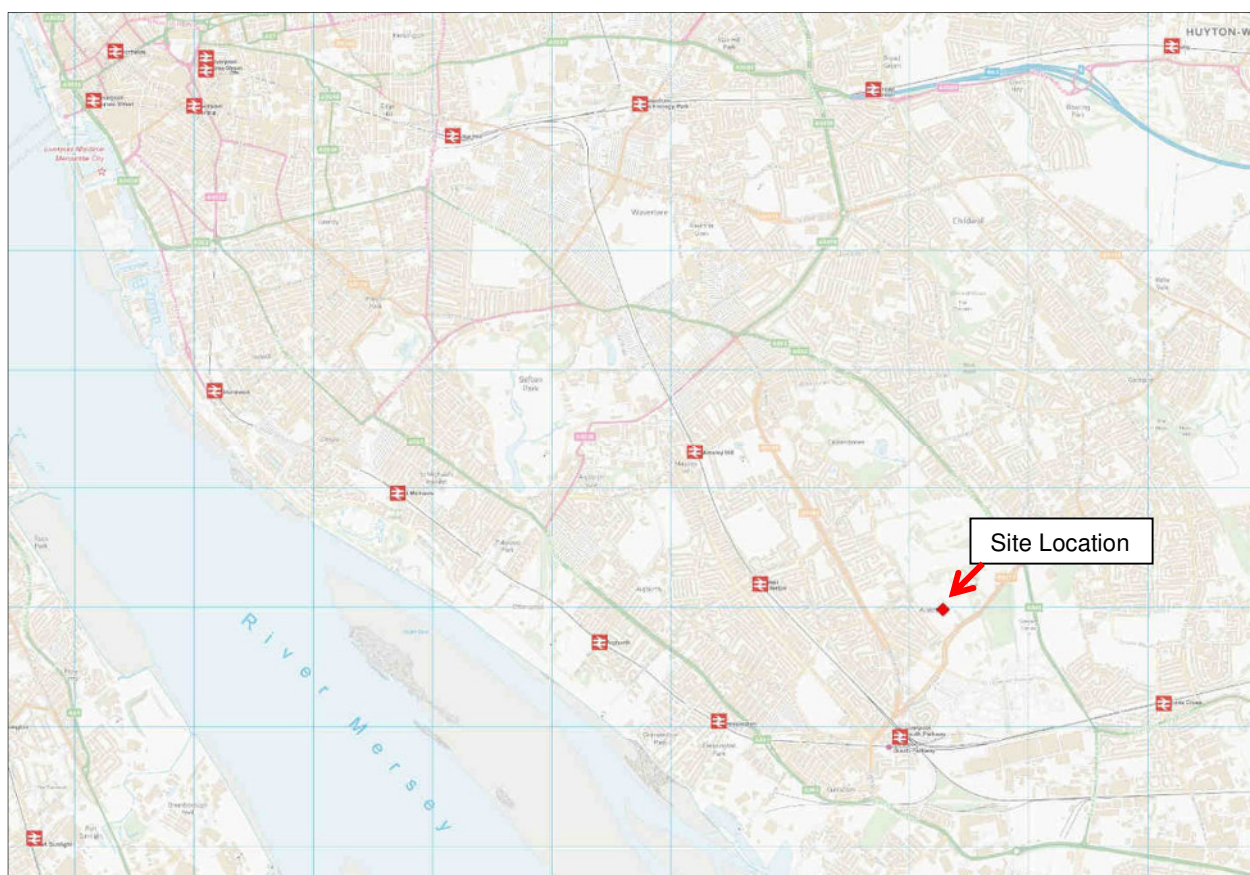
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## 1.0 INTRODUCTION

- 1.1 SCP has been appointed by Redrow Homes to provide traffic and transportation advice in relation to proposals to develop land off Woolton Road, Liverpool, for residential purposes.
- 1.2 This Transport Assessment (TA) supports an outline planning application for the construction of up to 160 dwellings on previously undeveloped land bound by Woolton Road to the south east and Allerton Road to the south west in the Allerton district of Liverpool, some 7km south east of the city centre. The broad location of the site is indicated in **Figure 1** below.

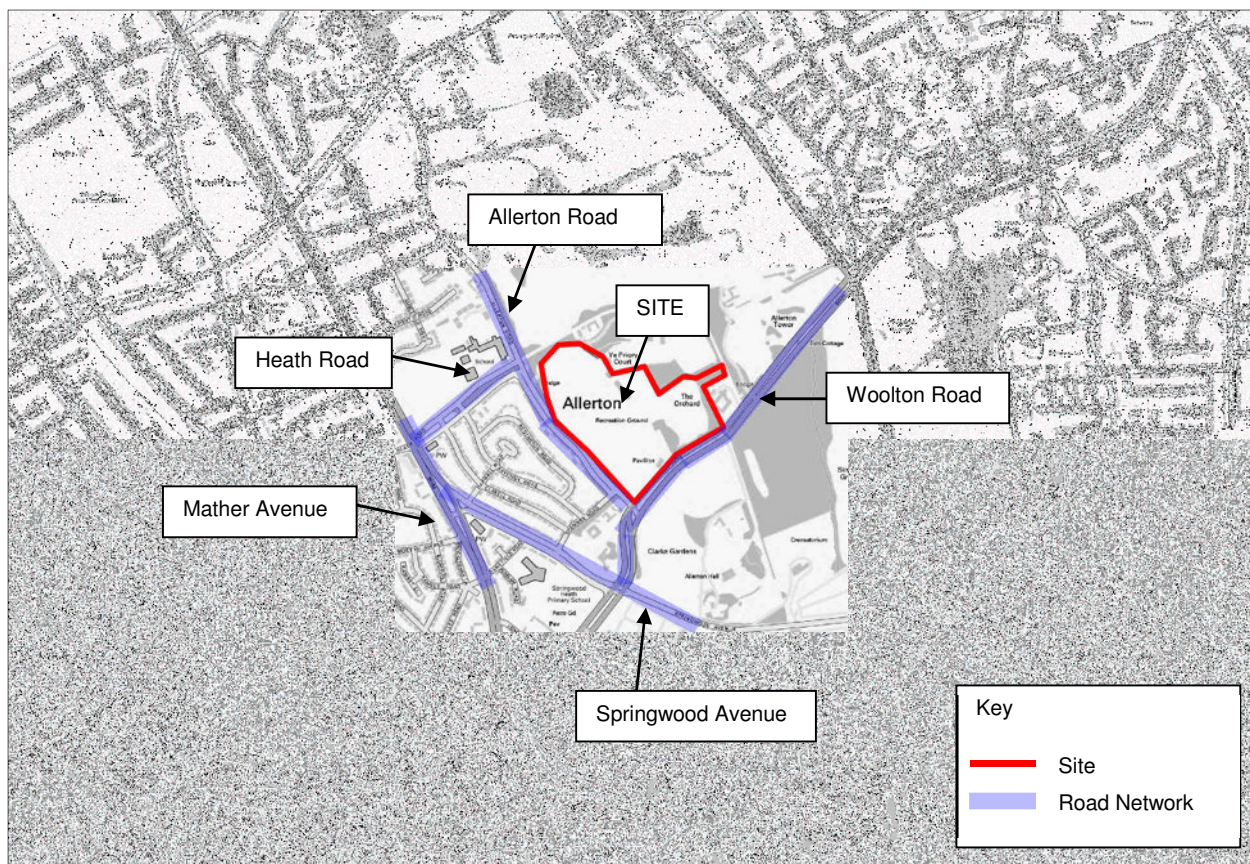
**Figure 1 – District Context of Site Location**



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- 1.3 The extents of the site are defined by Allerton Road along the south western boundary, Woolton Road along its south eastern boundary, residential development to the north, known as Ye Priory Court, and a disability care home on the eastern side. The location of the site in a local context is indicated in **Figure 2** below.

**Figure 2 – Local Context of Site Location**



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- 1.4 This TA has been prepared to inform highway officers at Liverpool City Council (LCC) on all traffic and transportation matters in relation to the proposed development.

## **2.0 EXISTING SITUATION**

- 2.1 This chapter describes the existing characteristics of the surrounding area in terms of the highway network (previously shown in **Figure 2**) and its road safety record.

### Highway Network

#### **Woolton Road**

- 2.2 Woolton Road is a local distributor road serving the fringes of Allerton. B5171 Woolton Road runs in a north east to south west direction passing predominantly between areas of open space from the signal controlled junction with A562 and the B5180 at a further signal controlled junction.
- 2.3 The section of Woolton Road that bounds the site is a 6m wide two-lane dual carriageway with the presence of a central reserve that is approximately 20m wide separating opposing traffic streams. There is an existing minor access to a former pavilion that is contained within the application site and a left in/left out access exists to the east of the site boundary serving a disability care home.
- 2.4 Woolton Road is subject to a 40mph speed limit and provides footways of at least 2m wide on both sides. The road is well lit with street lighting columns present at regular intervals.

#### **Allerton Road**

- 2.5 Allerton Road forms a link of about 3km running in a north/south direction between B5180 Mather Avenue near Allerton Library and B5171 Woolton Road. It joins both Mather Avenue to the north and Woolton Road to the south as a simple priority controlled junction. At the junction with Woolton Road, traffic turning right in or out of Allerton Road crosses the dual carriageway in two parts due to the width of the central reserve.
- 2.6 The section of Allerton Road that bounds the site is a single carriageway road circa 6m wide and is subject to a speed limit of 30 mph. A parallel service road to the south side of Allerton Road provides access to residential property. Footways of at least 2m in width are present on the north side of Allerton Road and the south side of the service road. In the vicinity of the site, it is a relatively quiet road in traffic terms. The road is well lit with street lighting columns present at regular intervals.

#### **Heath Road**

- 2.7 Heath Road runs in an east/west direction between Mather Avenue and Allerton Road and is approximately 400m in length.

- 2.8 Heath Road is a 6m wide two-lane dual carriageway road with the presence of a central reserve that is approximately 20m wide separating opposing traffic streams. The easterly direction of Heath Road forms the entire southern boundary of a residential development currently under construction by Redrow Homes while the westerly direction provides frontage to residential properties facing the site. The existing dwellings along the street have direct frontage access to the carriageway from their driveways.
- 2.9 It is well lit and is subject to a 20mph speed limit. There are footways of at least 2m wide present on both sides of Heath Road. Traffic calming in the form of road humps is present along the street and this restricts vehicle speeds to generally less than 20mph.
- 2.10 At the western end, Heath Road forms a signalised crossroads junction with Mather Avenue as Heath Road continues beyond this junction in a westerly direction. At the eastern end, Heath Road joins Allerton Road as a minor arm to form a priority junction.

### **Mather Avenue**

- 2.11 Mather Avenue is a local distributor and a locally important route that runs in a north/south direction connecting the A5058 to the north and the A561 to the south.
- 2.12 B5180 Mather Avenue is a 6.5m - 7.5m two-lane dual carriageway road with the presence of a central reserve that is approximately 8m wide separating opposing traffic streams.
- 2.13 It is well lit and is subject to a 40mph speed limit with footways of at least 2m wide present on both sides. In addition, there are verges of up to 2m wide on both sides of the dual carriageway.

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### **Springwood Avenue**

- 2.14 Springwood Avenue is a local distributor road running in an east/west direction connecting to Mather Avenue at its western end and the A562 at its eastern end. It intersects Woolton Road at a signal controlled junction. To the west of Woolton Road it is a 7.5m two-lane dual-carriageway with a 9m wide central reserve separating opposing traffic streams. To the east of Woolton Road it is a single carriageway road approximately 9m wide.
- 2.15 It is well lit and is subject to a 40mph speed limit with footways of at least 2m wide present on both sides and verges of at least 3m wide.

### **Menlove Avenue/Hillfoot Road**

- 2.16 Menlove Avenue/Hillfoot Road is a local distributor and a locally important route that runs in a north/south direction connecting to Liverpool city centre to the north and the A561 to the south. It intersects with Woolton Road at a signal controlled junction with Menlove Avenue to the north and Hillfoot Road to the south.
- 2.17 The A562 is a 7.5m wide two-lane dual carriageway road with the presence of a central reserve that is approximately 8m wide separating opposing traffic streams.
- 2.18 It is well lit and is subject to a 40mph speed limit with footways of at least 2m wide present on both sides. In addition, there are verges of at least 3m wide on both sides of the dual carriageway.

### **Road Safety**

- 2.19 The existing road safety record of the local highway network has been investigated in order to determine if there are any trends that may lead to identification of deficiencies in the layout of the highway or where an increase in traffic flows may lead to an increased risk to highway safety. In line with Planning Practice Guidance, data from the most recent three year period has been reviewed, which has been obtained from the DfT.

2.20 A review of the data across all junctions and relevant road links within close proximity to the proposed site has been undertaken for a three period between 1<sup>st</sup> January 2011 – 31<sup>st</sup> December 2013.

2.21 **Table 2.1** below summarises the eleven incidents in proximity to the site over the most recent three year period, while a plan illustrating the location of these accidents is provided at **Appendix 1**.

**Table 2.1 - Summary of Eleven 'Slight' Accidents by Year**

Location	2011-12	2012-13	2013-14
A562 Menlove Avenue/B5171 Woolton Road	1	4	0
B5171 Woolton Road/Allerton Road	0	0	0
B5171 Woolton Road/Springwood Avenue	0	2	1
Allerton Road/Heath Road	1	0	0
Heath Road/B5180 Mather Avenue	1	0	0
Woolton Road site frontage	0	0	1
Allerton Road site frontage	0	0	0
<b>Total</b>	<b>3</b>	<b>6</b>	<b>2</b>

Source: DFT

2.22 As can be seen in **Table 2.1** above, accident numbers have reduced over the three year period, with only two accidents reported in 2013. Examination of the data revealed that eleven incidents have occurred over that period, all recorded as resulting in 'slight' severity.

2.23 The information available on the accidents above suggests that they were predominantly caused by driver error, and it is considered that the design of the highway layout was not a contributory factor in any of the reported accidents.

#### Summary

2.24 While all collisions are unfortunate, the analysis presented above suggests that the junctions within the study area do not have any significant highway safety problems. Therefore the existing accident record does not lead to any significant concerns or demonstrate any discernible pattern that could be affected by the development proposals.

### 3.0 PROPOSED DEVELOPMENT

- 3.1 Redrow Homes proposes to construct up to 160 dwellings within the Application Site. It is proposed to develop a mix of 2, 3 and 4 bedroom detached houses in three separate areas of the site, linked by pedestrian and cycle connections. A plan illustrating the indicative layout is provided at **Appendix 2**.

#### Vehicular Access

- 3.2 The masterplan indicates that approximately 25 houses will be constructed in the north eastern portion of the site. This will be served by a newly constructed vehicular access to Woolton Road. This will be newly constructed priority junction, approximately 150 metres to the west of the existing houses located within the central reservation of Woolton Road. This entrance will benefit from a new link connecting both sides of Woolton Road which will allow all turning movements in and out of the site.
- 3.3 The second area of the development will comprise approximately 60 houses in the southern corner of the site, with boundaries onto Woolton Road and Allerton Road. An existing vehicular access serving a former pavilion will be upgraded to provide access to this development parcel, located some 120 metres to the south west of the access described above. The layout will only provide a left in/left out arrangement, requiring some users to perform a U-turn across the central reservation either at the new link described above or at the existing link at the junction of Woolton Road and Allerton Road.
- 3.4 The third area of the development will contain approximately 75 units located in the north western portion of the site with vehicular access to Allerton Road. This will be a newly constructed priority junction, approximately 150 metres to the south of the junction with Heath Road.
- 3.5 The layout of the proposed site access arrangements are illustrated at **Appendix 3**.

#### Pedestrian and Cycle Access

- 3.6 A network of internal pedestrian and cycle routes will provide connectivity throughout the development with external connections at each of the vehicular access points onto Woolton Road and Allerton Road and a link at the eastern boundary into Allerton Tower Park. This network will provide recreational routes as well as direct connections to the local highway network and local bus stops.

### Parking and Servicing

- 3.7 The development will provide a range of house types with a mix of garages and driveways to accommodate off-street parking for each property. Two-bedroomed properties will be provided with a minimum of two parking spaces, while larger properties will be provided with a minimum of three parking spaces.
- 3.8 The layout of the development, including each vehicular access, will be designed to accommodate all typical servicing requirements of residential development, including refuse collection vehicles.

## 4.0 POLICY CONTEXT

- 4.1 It is necessary to understand the national and local planning policies which relate to the development. Therefore, the following chapter sets out key policies and demonstrates how the proposals accord with them.

### National Policy

#### **National Planning Policy Framework**

- 4.2 The National Planning Policy Framework (NPPF) sets out the current national planning policy and outlines the important role that transport policies have to play in facilitating sustainable development. From the outset, the Minister for Planning's Foreword lays the foundations for current policy thinking:

*"The Purpose of planning is to help achieve sustainable development...Development means growth. We must accommodate the new ways by which we will earn our living in a competitive world. We must house a rising population, which is living longer and wants to make new choices. We must respond to the changes that new technologies offer us. Our lives, and the places in which we live them, can be better, but they will certainly be worse if things stagnate."*

- 4.3 Paragraph 14 states that at the heart of NPPF is a:

*"...presumption in favour of sustainable development, which should be seen as a golden thread running through both plan making and decision making."*

- 4.4 For decision making this means granting permission unless:

*"...any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies."*

- 4.5 Paragraph 32 of the NPPF states that:

*"All developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment. Plans and decisions should take account of whether:*

- the opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;*
- safe and suitable access to the site can be achieved for all people; and*

- *improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe”.*

4.6 This report considers the impact of the proposed development. There is also an accompanying Interim Travel Plan.

4.7 Paragraph 35 of the NPPF states that plans for new development should:

*“Protect and exploit opportunities for the use of sustainable transport modes for the movement of goods or people. Therefore, developments should be located and designed where practical to;*

- *Accommodate the efficient delivery of goods and supplies;*
- *Give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;*
- *Create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones;*
- *Incorporate facilities for charging plug-in and other ultra-low emission vehicles; and*
- *Consider the needs of people with disabilities by all modes of transport.”*

4.8 The proposals seek to address the above points by providing a well-designed development in a sustainable location, which would contribute towards local growth and development. There would be high quality linkages throughout the development and to the existing external network.

#### Local Policy

#### **Liverpool Unitary Development Plan (UDP) - 2002**

4.9 The UDP was adopted as the statutory development for the City in November 2002, and its saved policies currently constitute the main component of Liverpool's Local Development Scheme (LDS).

4.10 General policies that are of relevance and promote a mixed-use redevelopment within this area.

4.11 Policy GEN4 aims to promote a good quality living environment within Liverpool by:

- Improving the living environment of existing housing areas; and
- Considering carefully the design and layout of housing proposals.

4.12 Policy GEN6 aims to provide a balanced provision of transport infrastructure which:

- Provides access to employment, leisure, retail and other facilities for all of the City's residents; and
- Meets the transport needs of people who are economically and socially disadvantaged.

4.13 Policies H1, H3 & H5 assesses Liverpool's housing needs and demonstrates how these needs can be met:

- The City Council will make provision for at least 23,100 additional dwellings;
- The City Council will encourage and support proposals which improve Liverpool's housing stock through the development of new housing in the primarily residential and mixed-use areas; and
- Support residential proposals in non-residential areas where the development will not prejudice or harm the character, viability or functioning of the areas predominant land use or that of adjacent areas, in terms of its scale, density and design.

4.14 Policies T8, T9, T10, T11 & T15 aims to maintain and enhance Liverpool's transport strategy, making more efficient use of the existing highway network, public transport and walking and cycling routes by:

- Improving road safety;
- Optimise the efficient operation of the highway network; and
- Removing extraneous traffic from congested areas, particularly residential areas and other sensitive locations.

#### **Liverpool Development Scheme (LDS) – Sixth edition (2013 – 2016)**

4.15 The LDS covers the period January 2013 – December 2016 and therefore updates the fifth edition developed in 2009. In terms of proposed development plan documents, the LDS outlines the development plans that are proposed within Liverpool, which consist of:

- Core Strategy (City Wide coverage)
- North Liverpool Area Action Plan (Covers four Wards in North Liverpool)
- Land Allocations and City – Wide Policies (Covers the remainder of Liverpool)

- Merseyside Joint Waste (Covers Liverpool and the other four Mersey districts)

### **Ensuring a Choice of Travel Supplementary Planning Document (SPD)**

- 4.16 The Ensuring a Choice of Travel Supplementary Planning Document (SPD) supplements Policy GEN6 of the Liverpool UDP and provides guidance to developers on the access and transport requirements for new development across the city. The SPD is intended to;
- Enable the provision of a balanced transport infrastructure which provides access to employment, leisure, retail and other facilities for all of Liverpool's residents and visitors; and
  - Provide a framework for future investment towards Liverpool's strategic road and rail network where new development would create additional travel demand.
- 4.17 The objectives are achieved through components within the document. These components include a Minimum Accessibility Standard Assessment (MASA) and the Parking Standards. The MASA is a requirement for new developments and is intended to demonstrate accessibility by all modes. The complete MASA outputs are included in **Appendix 4**. Chapter 3 of this report describes the parking arrangements at the proposed development and how they comply with the prescribed standards.

### **Merseyside Local Transport Plan**

- 4.18 The Local Transport Plan sets out implementation plans for the medium and long term and aims to improve transport within the Merseyside region. The Third Local Transport Plan envisions the following;

*"A city region committed to a low carbon future, which has a transport network and mobility culture that positively contributes to a thriving economy and the health and wellbeing of its citizens and where sustainable travel is the option of choice".*

- 4.19 The Local Transport Plan has six goals;
- Help create the right conditions for sustainable economic growth by supporting the priorities of the Liverpool City Region, the Local Enterprise Partnership and the Local Strategic Partnerships.
  - Provide and promote a clean, low emission transport system which is resilient to changes to climate and oil availability.
  - Ensure the transport system promotes and enables improved health and wellbeing and road safety.

- Ensure equality of travel opportunity for all, through a transport system that allows people to connect easily with employment, education, healthcare, other essential services and leisure and recreational opportunities.
- Ensure the transport network supports the economic success of the city region by the efficient movement of people and goods.
- Maintain our assets to a high standard.

4.20 As described in Chapter 5 of this TA, the site is considered to be accessible by sustainable modes, including walking, cycling and public transport, and is therefore considered to be consistent with the priorities of the LTP.

#### Summary

4.21 In summary, it is considered that the proposed development conforms to local and national planning policy.

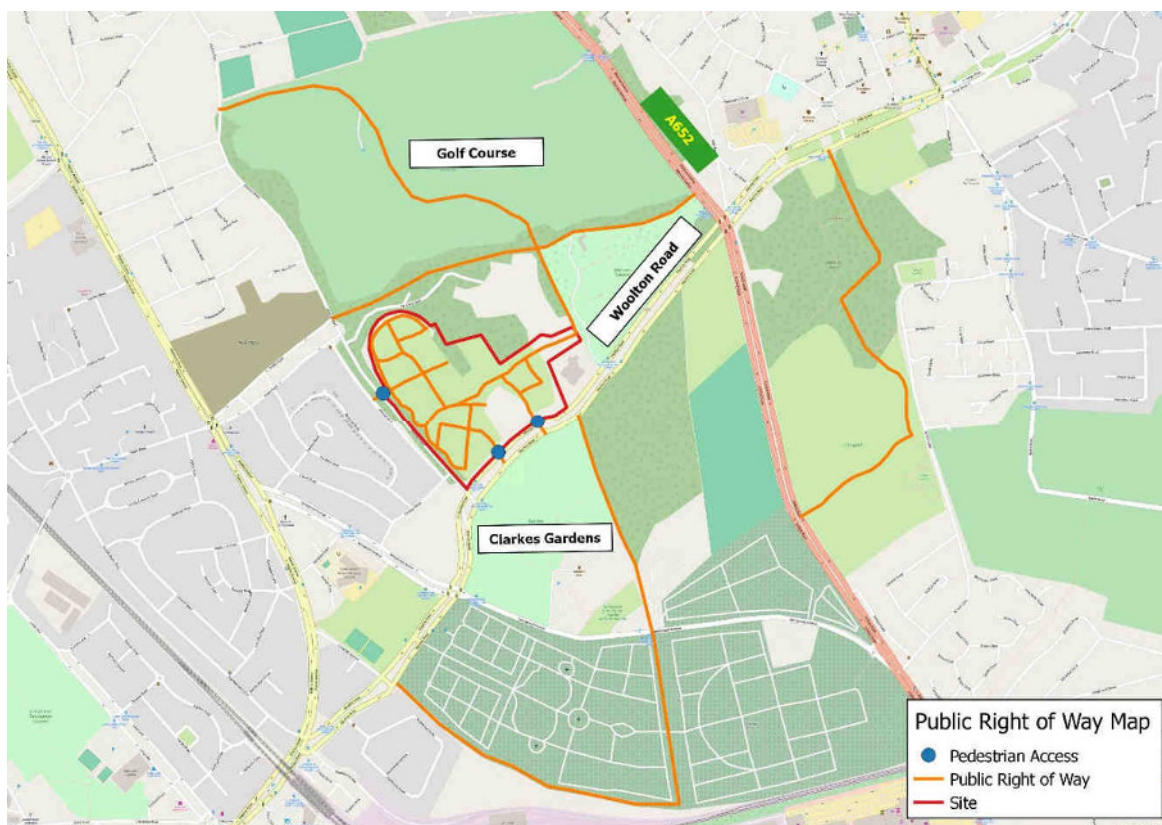
## 5.0 ACCESSIBILITY REVIEW

- 5.1 The compliance of the proposed residential development with LCC's adopted policy on accessibility is set out in this chapter. Specifically, the scheme has been assessed in terms of its compliance with the "Minimum Accessibility Standard Assessment" (MASA) criteria within LCC's "Ensuring a Choice of Travel" SPD, with the outputs provided at **Appendix 4**.

### Access on Foot

- 5.2 The site is located within a walkable neighbourhood with good quality pedestrian facilities across the surrounding area. There are a range of local facilities and public transport opportunities within a comfortable walking distance of the site, which are described in greater detail later in this chapter.
- 5.3 There are Public Rights of Way (PROW) to the north and east of the site that assist with its connectivity. A bridleway runs east/west from Allerton Road to Menlove Avenue just north of the site and between Allerton Park Golf Course and Allerton Tower Park. A public footpath runs north/south from Woolton Road, passing just east of the site, to connect to the aforementioned bridleway, continuing north into the golf course as a bridleway as illustrated in **Figure 3** below.

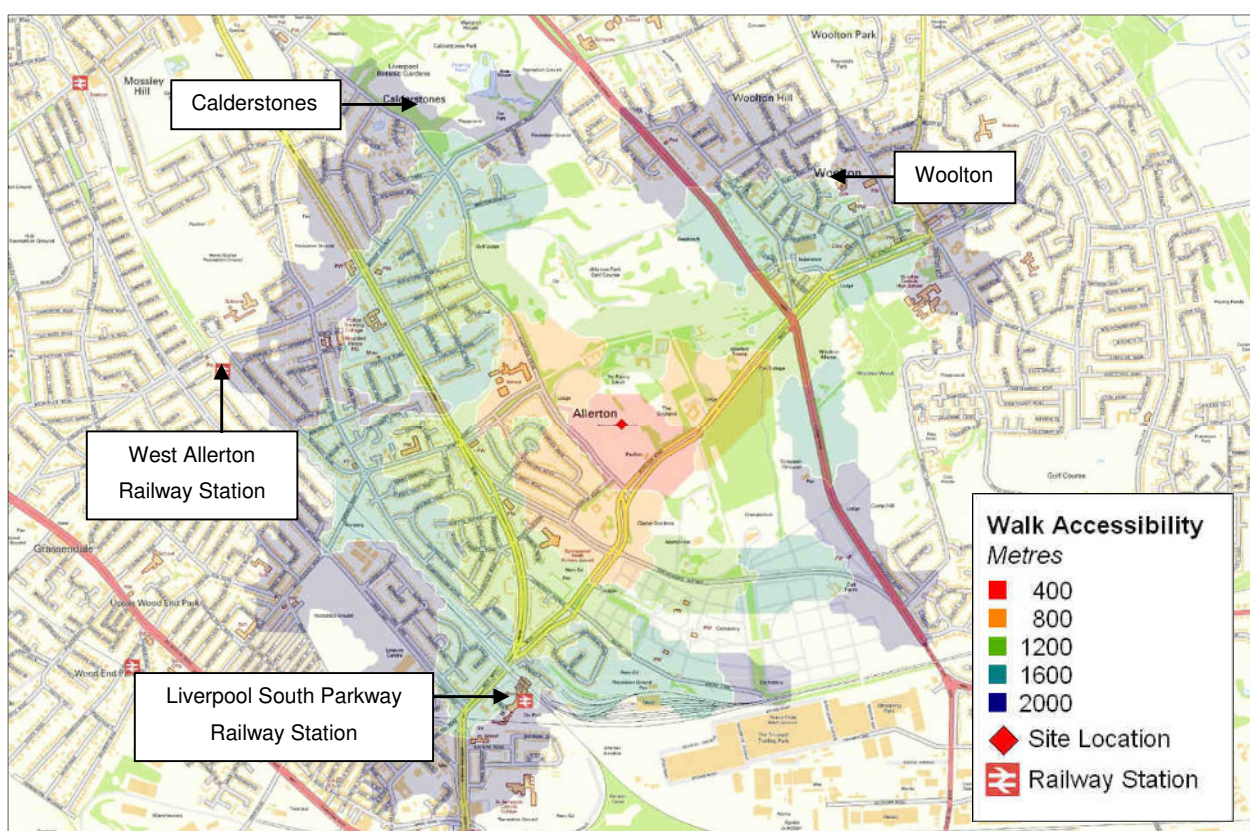
**Figure 3 – PROW Routes**



Contains openstreetmap data cc-by-sa

- 5.4 Manual for Street (MfS), states that walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes (up to about 800m) walking distance of residential areas which residents may access comfortably on foot. It goes on to state that this is not an upper limit and that walking offers the greatest potential to replace short car trips, particularly those under 2km.
- 5.5 Based on this threshold, the potential catchment on foot within 2km has been calculated, following existing highway and footpath routes with the results illustrated in **Figure 4** below.

**Figure 4 – Walk Accessibility**



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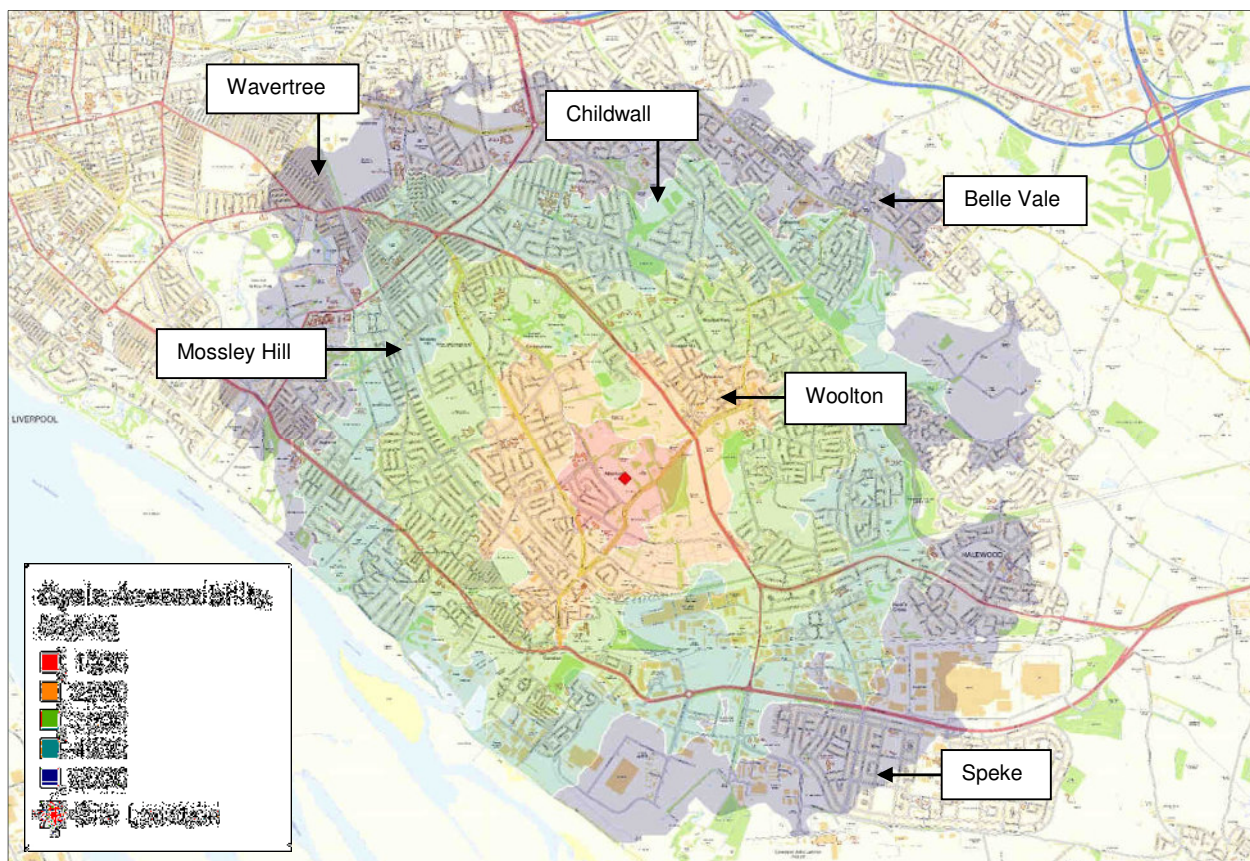
- 5.6 Based on the above plan, the site is within a comfortable walking distance of a range of facilities such as Allerton Tower Park, Springwood Heath Primary School on Danefield Road, Tesco superstore in Woolton, bus stops on Woolton Road and within easy walking distance of Liverpool South Parkway rail station.

#### [Access by Cycle](#)

- 5.7 The highway in the vicinity of the site provides a comprehensive network that offers opportunities for cycling. Combined with the local pedestrian network, which offers a number of shortcuts, cycle accessibility from the site can cover a significant area.

- 5.8 It is considered that short car journeys of up to 5km are replaceable by cycle journeys. **Figure 5** indicates the extent of the area surrounding the site which will be accessible by cycling.

**Figure 5 – Cycle Accessibility**



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- 5.9 From the site the available cycle catchment extends to Halewood, Liverpool John Lennon Airport, Sefton Park, Wavertree, Childwall and Gateacre, covering a range of employment opportunities and connections to the rail network.

#### Access by Bus

- 5.10 The nearest bus stops serving the development site are on Woolton Road, just north of the junction with Allerton Road and therefore within easy walking distance of the entire site. These stops provide easy access to circular bus services offering connections to Garston, Liverpool South Parkway rail station and Hunts Cross. Additional bus stops on Mather Avenue and Menlove Avenue provide frequent access to Liverpool city centre and Liverpool John Lennon Airport. Although these stops are beyond the typical 400m walk distance to bus stops, the high frequency of services will be attractive to future residents.

5.11 **Tables 5.1 – 5.3** below provides the detail of bus routes serving Woolton Road, Mather Avenue and Menlove Avenue, and the maximum daytime frequency.

**Table 5.1 – Bus Route Frequency from Woolton Road**

Service Number	Route Description	Maximum Frequency	
		Mon-Sat	Sunday
<b>166/188</b>	Liverpool South Parkway – Woolton – Belle Vale – Hale Wood – Hunts Cross – Garston	Hourly	Hourly
<b>266/288</b>	Liverpool South Parkway – Woolton – Belle Vale – Hale Wood – Hunts Cross – Garston	Hourly	No service

Source: Merseytravel

**Table 5.2 – Bus Route Frequency from Mather Avenue**

Service Number	Route Description	Maximum Frequency	
		Mon-Sat	Sunday
<b>45</b>	Garston – Woolton – Speke - Widnes	1 service during peak hours	No service
<b>86/86A</b>	Liverpool – Woolton – Garston	30mins	30mins

Source: Merseytravel

**Table 5.3 – Bus Route Frequency from Menlove Avenue**

Service Number	Route Description	Maximum Frequency	
		Mon-Sat	Sunday
<b>76</b>	Liverpool– Woolton – Hale Wood	30mins	30mins
<b>787</b>	Childwall – Calderstones Park – Garston	Hourly	No service

Source: Merseytravel

#### [Access by Rail](#)

5.12 Liverpool South Parkway rail station is within easy walking distance of the site, being only 1km from the southern corner of the site, or can be reached via either of the circular bus services that pass the site. This station offers connections to a range of destinations, including Liverpool city centre and its suburbs, Manchester, Crewe, Birmingham, and routes across to Yorkshire, the Midlands and East Anglia.

- 5.13 For any residents travelling from the site, utilising local train services will be a good alternative to using the private car, particularly for longer distance journeys.

[Summary](#)

- 5.14 Overall, the site is ideally located close to local facilities and transport connections that will provide a choice of travel modes for future residents that offer a viable alternative to the private car.

## 6.0 TRAFFIC FLOWS

- 6.1 This chapter sets out the existing and proposed traffic flow scenarios which will be used in the assessment of impacts of the development.

### Study Area

- 6.2 The proposals will provide vehicular access in three locations onto the two roads that bound the site, these being Woolton Road and Allerton Road. There are a choice of routes from these locations to the main highway network. From Woolton Road, the key choices are north east to the A562 and south west to Springwood Avenue. From Allerton Road, the key choices are to Woolton Road and to Heath Road to the north-west, leading to B5180 Mather Avenue.
- 6.3 In addition to the site accesses, the study area, which was agreed with LCC following the submission of a scoping note dated 4<sup>th</sup> August 2014, therefore comprises the following junctions:
- A562 Menlove Avenue/B5171 Woolton Road
  - B5171 Woolton Road/Allerton Road
  - B5171 Woolton Road/Springwood Avenue
  - B5180 Mather Avenue/Heath Road
  - Heath Road/Allerton Road

### Traffic Surveys

- 6.4 In the context of the above study area, traffic data was obtained at each of the junctions with previous data available for the B5180 Mather Avenue/Heath Road and Heath Road/Allerton Road junctions from January 2013 and new surveys were carried out for the remaining junctions in May 2014.
- 6.5 The data from January 2013 was associated with the Redrow Homes development proposal at the former New Heys School on Heath Road and were accepted by LCC. The new traffic surveys were undertaken on 14<sup>th</sup> May 2014 between the hours of 07:30-09:30 and 16:30-18:30. Copies of the survey results, which include queues, are provided at **Appendix 5**.
- 6.6 From these surveys the weekday AM and PM peak hours were identified as being 08:00-09:00 and 17:00-18:00. These peak hours have been used in the assessment of these junctions. A flow diagram illustrating the turning movements for both AM and PM weekday peak hours across the study area is provided at **Appendix 6**.

- 6.7 With regards to the use of traffic survey data from 2013 and 2014, DfT's document guidance - "Guidance on Transport Assessment" and "Planning Practice Guidance" states:

*"The assessment should include recent counts (normally surveyed within the last three years) for peak period turning movements at critical junctions. In certain instances, for example, where there is known to be a significant level of heavy goods vehicles (HGV) traffic, a classified count should be provided."*

- 6.8 Therefore it is considered acceptable to use the 2013 and the 2014 traffic count data to assess the proposed development, with traffic growth calculations undertaken to estimate future years.

#### Assessment Years and Traffic Growth

- 6.9 The expected year of opening of the development will be 2016 with guidelines recommending that a future year of 5 years after opening leading to an assessment of traffic conditions in 2021. The assessment will therefore comprise scenarios in 2016 and 2021 with and without development.
- 6.10 Calculations have been undertaken to determine the effect of background traffic growth on the local highway network from the year of the traffic surveys to the opening and future years. The DfT recommended software TEMPRO, version 6.2, has been used to generate relevant growth factors for the Liverpool area, which are summarised in Table 6.1 below.

**Table 6.1 – Growth Factors**

Year From	To 2016		To 2021	
	AM Peak	PM Peak	AM Peak	PM Peak
<b>2013</b>	1.032	1.031	1.055	1.054
<b>2014</b>	1.021	1.021	1.044	1.043

Source: TEMPRO version 6.2

- 6.11 These growth factors have been applied to the surveyed traffic flows to generate forecast traffic flows, as illustrated at **Appendix 7**.

#### Committed Development

- 6.12 Local developments that have the benefit of planning permission but have yet to be implemented have been taken into account in the assessment of traffic impacts. Only one development has been identified as being relevant, this being the Redrow Homes residential scheme at New Heys on Heath Road.

- 6.13 The traffic flows associated with this development are illustrated at **Appendix 8**. These flows have been added to the forecast flows to generate the baseline scenario for assessment, as illustrated at **Appendix 9**.

#### Traffic Distribution

- 6.14 As noted previously, there is a choice of routes available for development-related traffic to travel to and from each of the access locations with the access on Allerton Road potentially offering a different distribution to the two accesses on Woolton Road.
- 6.15 Based on the existing traffic flows exiting the study area during the AM peak and entering during the PM peak, these being the critical direction of traffic flow, the proportion of traffic travelling along each of the main routes has been calculated. **Table 6.2** provides a summary of the key destinations and routes, along with the proportions of traffic assigned to them for the purposes of this assessment.

**Table 6.2 – Trip distribution proportion**

Destination	Route	AM Peak	PM Peak
Liverpool city centre	A562 (N), B5180 (N), Allerton Road	35%	40%
Woolton	B5171 Woolton Road (N)	15%	10%
Speke/Widnes/Runcorn	A562 (S)	30%	30%
Garston	B5171 Woolton Road (S)	15%	15%
Aigburth/Allerton	Heath Road	5%	5%

- 6.16 Based on the above table, the distribution of development traffic for each site access is illustrated at **Appendix 10**.

#### Trip Generation

- 6.17 The industry standard TRICS database, version 7.1.2, has been used to predict the trip generation of the proposed development. The category of 'housing privately owned' has been selected with sites located within all mainland UK regions. Those multi-modal surveys with over 50 houses have been chosen for weekday surveys and categorised as being either 'suburban' or 'edge of town'. A small number of sites were removed due to the composition of the survey site being solely terraced housing or bungalows, which is not in line with the proposals.
- 6.18 The resulting trip rates (per dwelling) for the various modes of travel for the identified peak hours are summarised in **Table 6.3** below, while detailed TRICS outputs are provided at **Appendix 11**.

**Table 6.3 – Summary of TRICS trip rates**

Peak Hour	Vehicles		Pedestrians		Cyclists		Public Transport Users	
	In	Out	In	Out	In	Out	In	Out
0800-0900	0.156	0.415	0.052	0.181	0.005	0.022	0.003	0.020
1700-1800	0.392	0.235	0.065	0.053	0.018	0.012	0.016	0.006

Source: TRICS version 7.1.2

- 6.19 Applying these trip rates for each mode of travel to the proposed development of up to 160 houses will generate the predicted number of trips that are expected to be associated with the scheme. The peak hour trips for each mode are therefore summarised in **Table 6.4** below.

**Table 6.4 – Summary of multi-modal trips**

Peak Hour	Vehicles		Pedestrians		Cyclists		Public Transport Users	
	In	Out	In	Out	In	Out	In	Out
0800-0900	25	66	8	29	1	4	0	3
1700-1800	63	38	10	8	3	2	3	1

- 6.20 The vehicular trips have been assigned onto the local road network based on the distribution set out above and are illustrated at **Appendix 12**.

#### Assessment Traffic Flows

- 6.21 The assessment of traffic impacts has been carried out by comparing the operation of the highway network using the baseline traffic flows, established earlier, with the opening year and future year traffic flows. The opening year (2016) and future year (2021) traffic flows are generated by adding the assigned development traffic to the baseline flows for each of those years, which are illustrated at **Appendix 13**.

## 7.0 JUNCTION CAPACITY ASSESSMENTS

- 7.1 The potential impact of the proposed residential development on the local highway network has been assessed by analysing the capacity of the following key local junctions.
- 7.2 The key junctions that have been assessed for capacity purposes include the proposed site accesses as well as the A562 Menlove Avenue/B5171 Woolton Road and B5171 Woolton Road/Allerton Road signalised junctions. As mentioned earlier, the junctions have been assessed for capacity purposes in 2016 and 2021 with the proposed development in place.
- 7.3 Assessments of the priority junctions have been undertaken using Junctions 8 (PICADY) software. With the Junctions 8 models the results generated provide a Ratio of Flow to capacity (RFC) along with an estimate of the likely traffic queues. RFC values between 0.00 and 0.85 are generally accepted as representing stable and acceptable operating conditions. RFC values in excess of one represents overloaded conditions (i.e. congested conditions).
- 7.4 The signalised junctions have been assessed using LINSIG software. LINSIG software presents results as a percentage Degree of Saturation (DoS) and corresponding likely traffic queues for each modelled link at the junction. For traffic signals it is generally accepted that DoS of 90% or less on individual links represents satisfactory signal operation. DoS of between 90% and 100% represent variable operation which warrants further investigation and values in excess of 100% represent overloaded conditions.

### Site Access/Allerton Road

- 7.5 The capacity of the proposed site access junction onto Allerton Road has been assessed using the PICADY modelling program for the future year of 2021.
- 7.6 The table below summarises the capacity summary and the detailed assessment outputs are attached at **Appendix 14**.

**Table 7.1 – Proposed Site Access/Allerton Road Junction Assessment - 2021**

Approach	2021 Base + Development Output			
	AM Peak		PM Peak	
	Max. RFC	Max. Queue	Max. RFC	Max. Queue
<b>Site Access</b>	0.04	0.04	0.02	0.02
<b>Allerton Road (S)</b>	0.01	0.01	0.02	0.02

Note: RFC = ratio of flow to capacity

- 7.7 The predicted maximum RFC values, for the AM and PM peak periods, are comfortably below the normal 0.85 practical capacity threshold for the opening year of 2021. Therefore, the proposed site access at the north-western end of the development site is expected to operate with significant spare capacity in 2021.

[Site Access/Woolton Road \(western end of development site\)](#)

- 7.8 A PICADY assessment has been carried out at the proposed site access onto Woolton Road near the south eastern corner of the site for the future year of 2021. It is proposed that this junction will operate as a 'left in – left out' only junction, which has been modelled in the junction assessment.
- 7.9 The table below summarises the capacity summary and the detailed assessment outputs are attached at **Appendix 15**.

**Table 7.2 – Proposed Site Access/Woolton Road Junction Assessment - 2021**

Approach	2021 Base + Development Output			
	AM Peak		PM Peak	
	Max. RFC	Max. Queue	Max. RFC	Max. Queue
<b>Site Access</b>	0.04	0.04	0.02	0.02

Note: RFC = ratio of flow to capacity

- 7.10 The predicted maximum RFC values, for the AM and PM peak periods, are comfortably below the normal 0.85 practical capacity threshold for the opening year of 2021. Therefore, the proposed site access at the south-western end of the development site is expected to operate with significant spare capacity in 2021.

Site Access/Woolton Road (eastern end of development site)

- 7.11 A PICADY assessment has been carried out at the proposed site access onto Woolton Road at the north-eastern of the site for the future year of 2021. Two assessments have been carried out at this junction given its unusual layout; an assessment for the site access with Woolton Road and also the modelling of a new connection through the central reservation for right turn movements in to the site for westbound traffic along Woolton Road.
- 7.12 The tables below summarises the capacity summary and the detailed assessment outputs for both models are attached at **Appendix 16**.

**Table 7.3 – Proposed Site Access/Woolton Road Priority Junction Assessment - 2021**

Approach	2021 Base + Development Output			
	AM Peak		PM Peak	
	Max. RFC	Max. Queue	Max. RFC	Max. Queue
<b>Link Road</b>	0.02	0.02	0.01	0.01

Note: RFC = ratio of flow to capacity

**Table 7.4 – Proposed Site Access/Woolton Road Crossroads Junction Assessment - 2021**

Approach	2021 Base + Development Output			
	AM Peak		PM Peak	
	Max. RFC	Max. Queue	Max. RFC	Max. Queue
<b>Link Road</b>	0.02	0.02	0.05	0.06
<b>Site Access</b>	0.07	0.08	0.04	0.05

Note: RFC = ratio of flow to capacity

- 7.13 The predicted maximum RFC values, for the AM and PM peak periods, are comfortably below the normal 0.85 practical capacity threshold for the opening year of 2021. Therefore, the proposed site access at the north-eastern end of the development site is expected to operate with significant spare capacity in 2021.

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Allerton Road/Heath Road

- 7.14 The development related trip generation for the Allerton Road/Heath Road junction has been reviewed and the total vehicle movements associated with the proposed development totals only 20 movements for the combined AM and PM peaks.
- 7.15 On this basis it is considered that there will be no impact at this junction given the minimal level of additional vehicle movements that would be added, therefore this junction has been omitted from the assessment.

B5180 Mather Avenue/Heath Road

- 7.16 The development related trip generation for the Mather Avenue/Heath Road junction has been reviewed and the total vehicle movements associated with the proposed development totals only 29 movements for the combined AM and PM peaks.
- 7.17 Again it is considered that there will be no impact at this junction and has therefore been omitted from the assessment.

A562 Menlove Avenue/B5171 Woolton Road

- 7.18 To demonstrate the limited impacts the proposed residential development will have on the Menlove Avenue/Woolton Road signalised junction, an assessment has been carried out using LINSIG software for the future year of 2021.
- 7.19 The table below summarises the capacity summary and the detailed assessment outputs are attached at **Appendix 17**.

**Table 7.5 – A562 Menlove Avenue/B5171 Woolton Road Junction Assessment – 2021 Without Development**

	AM Peak		PM Peak	
	DoS	MMQ	DoS	MMQ
Menlove Avenue (Left Ahead)	71%	11.8	52%	8.7
Menlove Avenue (Ahead Right)	71%	11.8	51%	8.6
Allerton Road (Left Ahead)	55%	7.1	76%	6.4
Allerton Road (Right Ahead)	71.7 : 71.7%	8.4	66.4 : 66.4%	5.8
Hillfoot Road (Ahead Left)	33.8 : 33.8%	4.6	44.1 : 44.1%	7
Hillfoot Road (Ahead Right)	39.6 : 52.9%	5	65.0 : 78.8%	7.4
Woolton Road (Left Ahead)	72%	6.2	78%	8.7
Woolton Road (Ahead Right)	73%	6.4	75%	8.5
PRC	23.1		14.3	
Cycle Time (seconds)	90		90	

**Table 7.6 – A562 Menlove Avenue/B5171 Woolton Road Junction Assessment – 2021 With Development**

	AM Peak		PM Peak	
	DoS	MMQ	DoS	MMQ
Menlove Avenue (Left Ahead)	74%	12.1	53%	8.9
Menlove Avenue (Ahead Right)	74%	12.1	52%	8.8
Allerton Road (Left Ahead)	58%	7.3	77%	6.5
Allerton Road (Right Ahead)	73.8 : 73.8%	8.7	67.8 : 67.8%	5.9
Hillfoot Road (Ahead Left)	35.5 : 35.5%	4.7	46.3 : 46.3%	7.4
Hillfoot Road (Ahead Right)	41.2 : 54.8%	5.2	65.4 : 79.0%	7.4
Woolton Road (Left Ahead)	70%	6.5	81%	9.4
Woolton Road (Ahead Right)	70%	6.7	78%	9.1
PRC	21.8		11.1	
Cycle Time (seconds)	90		90	

7.20 The above assessments demonstrate that the junction will operate well within capacity in 2021 with the proposed development in place and is well below its 90% theoretical capacity.

### B5171 Woolton Road/Springwood Avenue

- 7.21 To demonstrate the limited impacts the proposed residential development will have on the Woolton Road/Springwood Avenue signalised junction, an assessment has been carried out using LINSIG software for the future year of 2021.
- 7.22 The table below summarises the capacity summary and the detailed assessment outputs are attached at **Appendix 18**.

**Table 7.7 –B5171 Woolton Road/Springwood Avenue Junction Assessment – 2021 Without Development**

	AM Peak		PM Peak	
	DoS	MMQ	DoS	MMQ
Woolton Road (N) (Left Ahead)	41.8%	5.1	20.0%	2.5
Woolton Road (N) (Ahead Right)	40.6%	4.7	19.3%	2.3
Springwood Avenue (E) (Left Ahead)	42.3%	7.1	47.1%	8.3
Woolton Road (S) (Ahead Left)	33.4 : 33.4%	3.5	45.7 : 45.7%	6.2
Woolton Road (S) (Ahead Right)	29.7%	3.4	43.8%	5.9
Springwood Avenue (W) (Left Ahead)	11.2%	1.4	13.4%	1.8
Springwood Avenue (W) (Ahead)	10.3%	1.3	12.1%	1.6
Springwood Avenue (E) Internal Connection (Ahead)	17.3%	1.0	18.5%	0.7
Springwood Avenue (E) Internal Connection (Right Ahead)	16.7%	0.9	16.9%	0.5
Springwood Avenue (W) Internal Connection (Ahead)	12.6%	1.5	19.3%	3.5
Springwood Avenue (W) Internal Connection (Ahead Right)	14.8%	1.4	20.5%	3.4
<b>PRC</b>	112.8		91.1	
<b>Cycle Time (seconds)</b>	90		90	

**Table 7.8 –B5171 Woolton Road/Springwood Avenue Junction Assessment – 2021 With Development**

	AM Peak		PM Peak	
	DoS	MMQ	DoS	MMQ
<b>Woolton Road (N) (Left Ahead)</b>	41.9%	5.3	20.9%	2.6
<b>Woolton Road (N) (Ahead Right)</b>	40.5%	4.8	19.9%	2.4
<b>Springwood Avenue (E) (Left Ahead)</b>	43.1%	7.3	47.1%	8.3
<b>Woolton Road (S) (Ahead Left)</b>	32.5 : 32.5%	3.5	46.4 : 46.4%	6.4
<b>Woolton Road (S) (Ahead Right)</b>	29.0%	3.4	44.7%	6.0
<b>Springwood Avenue (W) (Left Ahead)</b>	11.5%	1.5	13.9%	1.9
<b>Springwood Avenue (W) (Ahead)</b>	10.6%	1.4	12.4%	1.7
<b>Springwood Avenue (E) Internal Connection (Ahead)</b>	17.9%	1.1	18.7%	0.7
<b>Springwood Avenue (E) Internal Connection (Right Ahead)</b>	17.3%	1.0	17.0%	0.6
<b>Springwood Avenue (W) Internal Connection (Ahead)</b>	12.7%	1.5	19.1%	3.5
<b>Springwood Avenue (W) Internal Connection (Ahead Right)</b>	15.3%	1.4	20.8%	3.5
<b>PRC</b>	108.9		91.1	
<b>Cycle Time (seconds)</b>	90		90	

- 7.23 The above assessments demonstrate that the junction will operate well within capacity in 2021 with the proposed development in place and is well below its 90% theoretical capacity.

[Allerton Road/B5171 Woolton Road](#)

- 7.24 A PICADY assessment has been carried out at the Allerton Road/Woolton Road at the south-western boundary of the site for the future year of 2021. Two assessments have been carried out; an assessment of the link through the central reservation for right turn movements onto Woolton Road for eastbound traffic with Allerton Road and the link road with Woolton Road as a priority junction.
- 7.25 The tables below summarises the capacity summary and the detailed assessment outputs for both models are attached at **Appendix 19**.

**Table 7.3 – Proposed Allerton Road/Woolton Road Priority Junction Assessment - 2021**

Approach	2021 Base + Development Output			
	AM Peak		PM Peak	
	Max. RFC	Max. Queue	Max. RFC	Max. Queue
<b>Link Road</b>	0.07	0.07	0.07	0.07

Note: RFC = ratio of flow to capacity

**Table 7.4 – Allerton Road/Woolton Road Crossroads Junction Assessment - 2021**

Approach	2021 Base + Development Output			
	AM Peak		PM Peak	
	Max. RFC	Max. Queue	Max. RFC	Max. Queue
<b>Link Road</b>	0.30	0.43	0.26	0.35
<b>Allerton Road</b>	0.32	0.46	0.34	0.51

Note: RFC = ratio of flow to capacity

- 7.26 The predicted maximum RFC values, for the AM and PM peak periods, are comfortably below the normal 0.85 practical capacity threshold for the opening year of 2021. Therefore, the junction is expected to operate with significant spare capacity in 2021.

#### Overall Summary

- 7.27 In summary, it has been demonstrated that the anticipated traffic impacts associated with the development proposals would be negligible upon the local highway network and that the local junctions serving the proposed development would be anticipated to operate with significant spare capacity in the year 2021. It is therefore considered that the traffic associated with the development proposals can be safely accommodated onto the local highway network.
- 7.28 On the basis of the above assessments it is considered that the development would have no material impact on the operation of the local highway network.

## **8.0 SUMMARY AND CONCLUSIONS**

- 8.1 SCP has been instructed to assess the transport impacts arising from the proposal to construct up to 160 dwellings on land enclosed by Woolton Road and Allerton Road in Liverpool.
- 8.2 The development of the overall site is characterised by 3 distinct development areas with a network of pedestrian and cycle connections linking the areas and the surrounding infrastructure of roads, footways and cycle routes. Approximately 25 dwellings are anticipated to be served from the north east section of the site with access to Woolton Road, approximately 60 dwellings are anticipated to be developed further south, again with access from Woolton Road; and approximately 75 dwellings are proposed to be served via an existing, but improved, access to Allerton Road.
- 8.3 All sections of the site have excellent accessibility credentials, with a high quality road network, good pedestrian facilities and access to both buses and trains within recommended walking distances. Within this recommended walking distance there are a range of other everyday services and facilities, including local shops, a supermarket, school and health facilities.
- 8.4 A study of the existing highway safety record in the vicinity of the site has confirmed that there are no existing problems that need attention or would be exacerbated by the development traffic.
- 8.5 The capacity of the site access points has been tested for a design year of 2021 and have been demonstrated to operate well within capacity, with no queues or delays predicted.
- 8.6 More remote from the site, the junctions of Menlove Avenue/Woolton Road, Woolton Road/Springwood Avenue and Allerton Road/Woolton Road have also been assessed and found to operate well within their design capacity in 2021, with no material queues or delays expected.
- 8.7 At other junctions around the site it has been found that the traffic distribution will be such that there will be no material impact and the existing conditions experienced at those junctions will not noticeably change.
- 8.8 Overall, there are no highway, traffic or transport reasons to resist the development of this site and the NPPF presumption in favour of allowing sustainable development to proceed without delay can be adhered to.

**S|C|P**

## **APPENDIX 1**



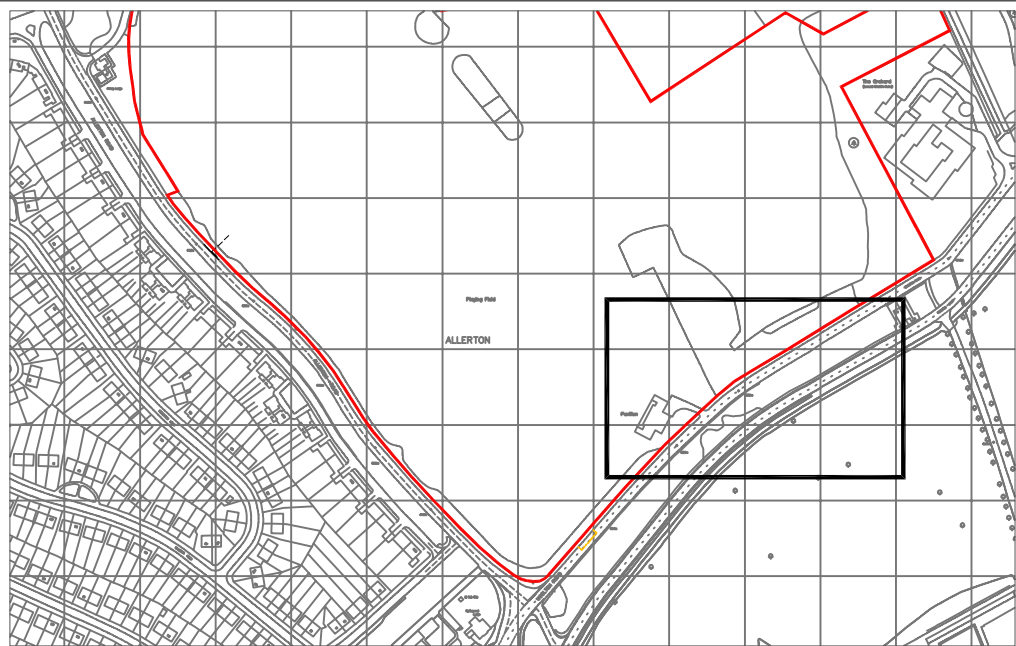
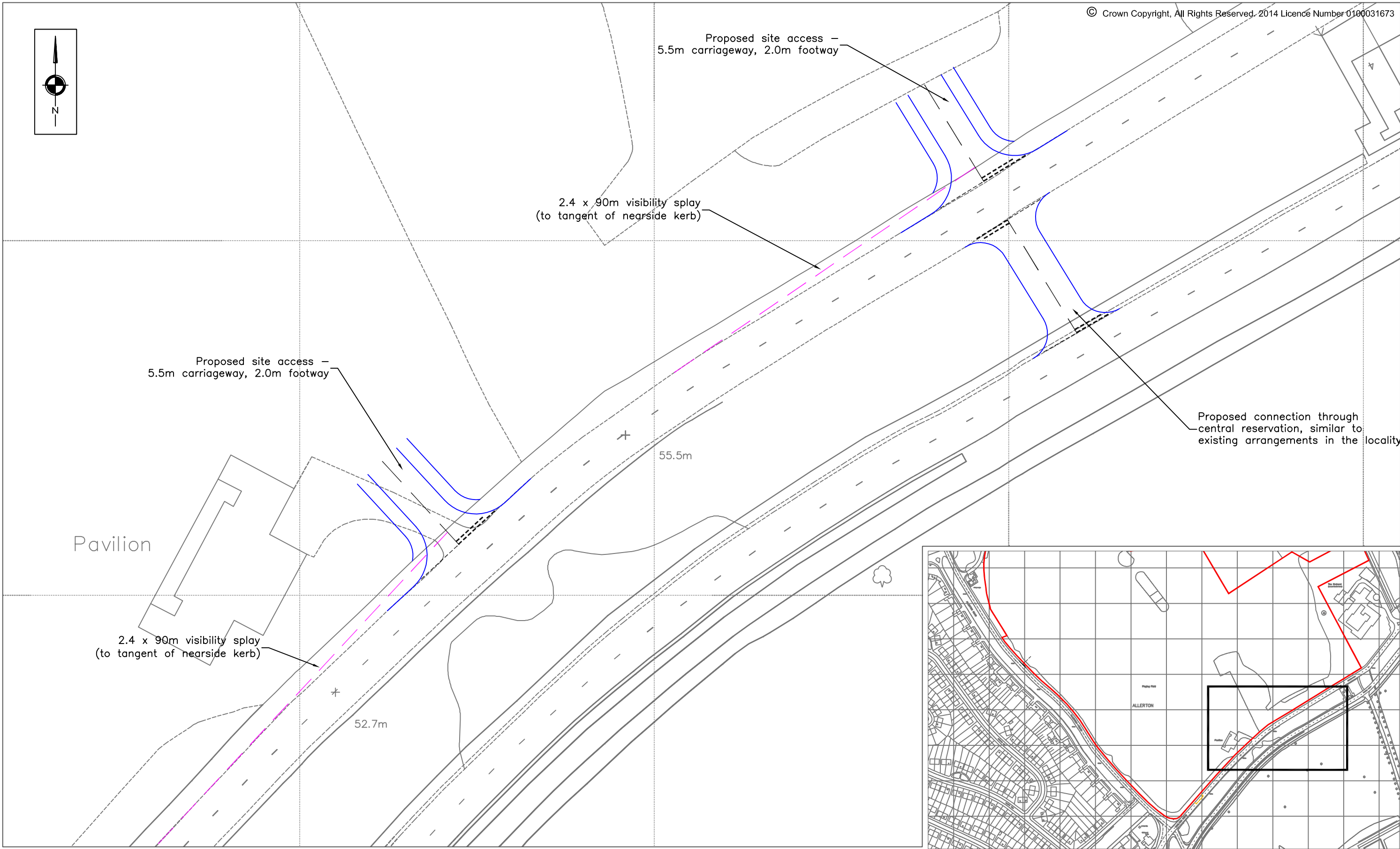
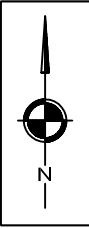
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## **APPENDIX 2**

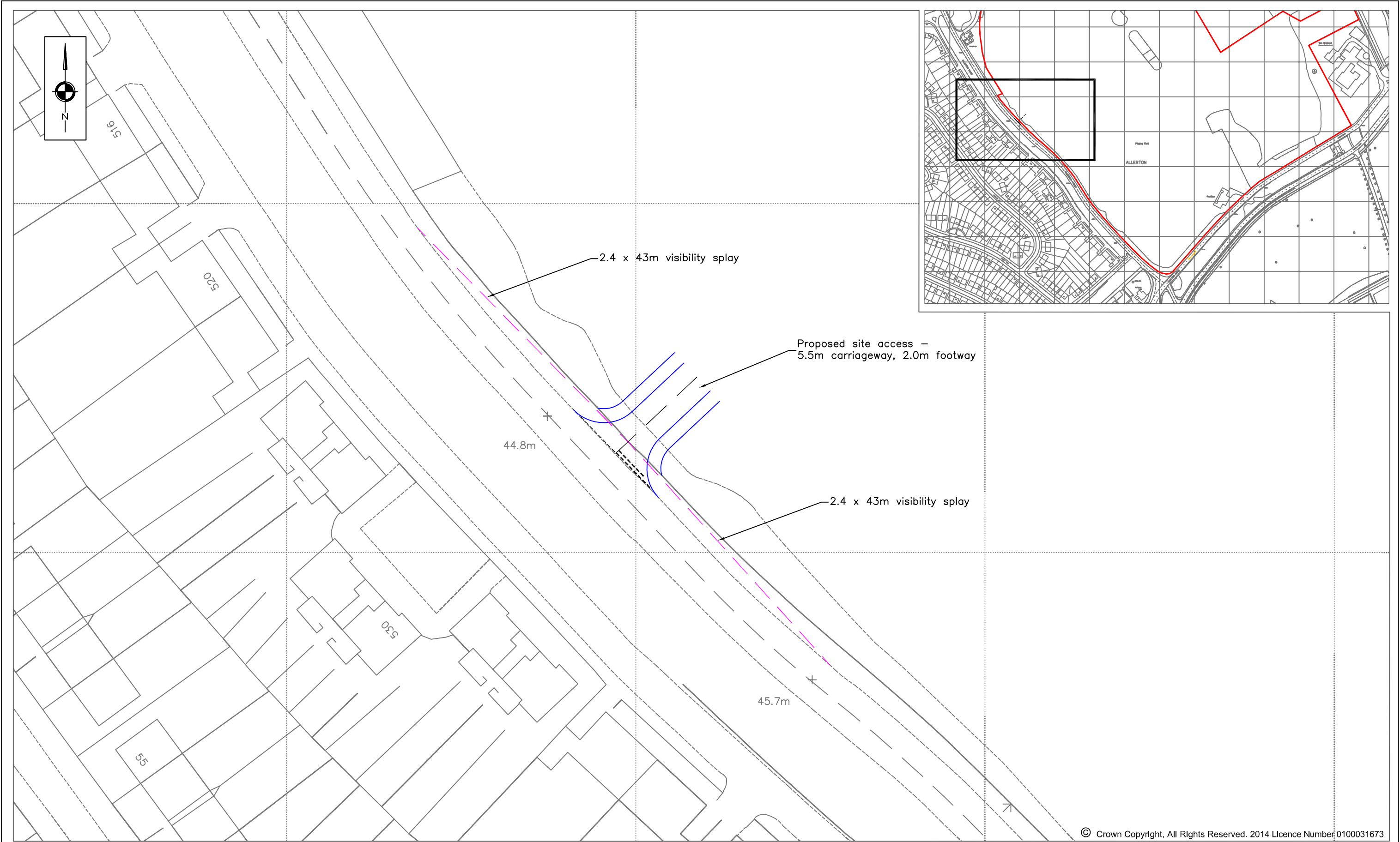


**S|C|P**

## **APPENDIX 3**



<div><div>S C P</div><div>Transportation Planning : Infrastructure Design</div><div>2 Mount Street, Manchester, M2 5WQ, Tel 0161 832 4400, Fax 0161 832 5111 www.scptransport.co.uk, Email info@scptransport.co.uk</div></div>	Project Title  ALLERTON PRIORY WOOLTON ROAD, LIVERPOOL	Drawing Title  PROPOSED SITE ACCESS ARRANGEMENTS - WOOLTON ROAD	Scale 1:500 @ A3	By IRW	Rev	Description	Date	By	Drawing No. SCP/14241/F01
			Date 05.09.2014	Checked -	-	-	-	-	Revision -
			Approved/ Unapproved -	Status PLANNING	-	-	-	-	
					-	-	-	-	



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## **APPENDIX 4**

## Ensuring Choice of Travel SPD - Accessibility Assessment

<b>Site Description / Address:</b> <b>Residential Development, Allerton Road, Liverpool</b>				
<b>Access diagram</b>				<b>Score</b>
Has a diagram been submitted which how people move to and through the place and how this links to surrounding roads, footpaths and sight lines?				<b>Yes/No</b>
<b>Access on foot</b>				<b>Score</b>
Safety	Is there safe pedestrian access to and within the site, and for pedestrians passing the site? Including footways no less than 2m on both sides of the road?			<b>Yes/No</b>
Location	<p>Housing development: Is the development within 500 metres of a district or local centre (see Accessibility Map 1 in Appendix F)?</p> <p>Other development: Is the density of local housing (i.e. within 800 metres) greater than 50 houses per hectare (see Accessibility Map 4 in Appendix F)?</p>	Yes	2 points	<b>2</b>
		No	0 points	
Internal layout	Does 'circulation' and access inside the site reflect direct, safe and easy to use pedestrian routes for all, with priority given to pedestrians when they have to cross roads or cycle routes?	Yes	1 point	<b>1</b>
		No	0 points	
External layout	<p>Are there barriers between site and local facilities or housing, which restrict pedestrian access? (see Merseyside Code of Practice on Access and Mobility), e.g.</p> <ul style="list-style-type: none"> <li>No dropped kerbs at crossing or on desire lines;</li> <li>No steep gradients;</li> <li>A lack of a formal crossing where there is heavy traffic; or</li> <li>Security concerns, e.g. as a result of lack of lighting</li> </ul>	There are barriers	-2 points	<b>1</b>
		There are no barriers	1 point	
Other	Links to identified recreational walking network (see Accessibility Map 1)			<b>Yes/No</b>
Summary	Minimum Score (from Table 3)		<b>4</b>	
	Actual Score		<b>4</b>	
	Comments or action needed to correct any shortfall			
<b>Access by Cycle</b>				<b>Score</b>
Safety	Are there safety issues for cyclists either turning into or out of the site or at road junctions within 400 metres of the site (e.g. dangerous right turns for cyclists due to the level of traffic)?			<b>Yes/No</b>
Cycle parking	Does the development meet cycle parking standards in a secure location with natural surveillance? (see table 7) - or where appropriate contribute to communal cycle parking facilities?			<b>Yes/No</b>

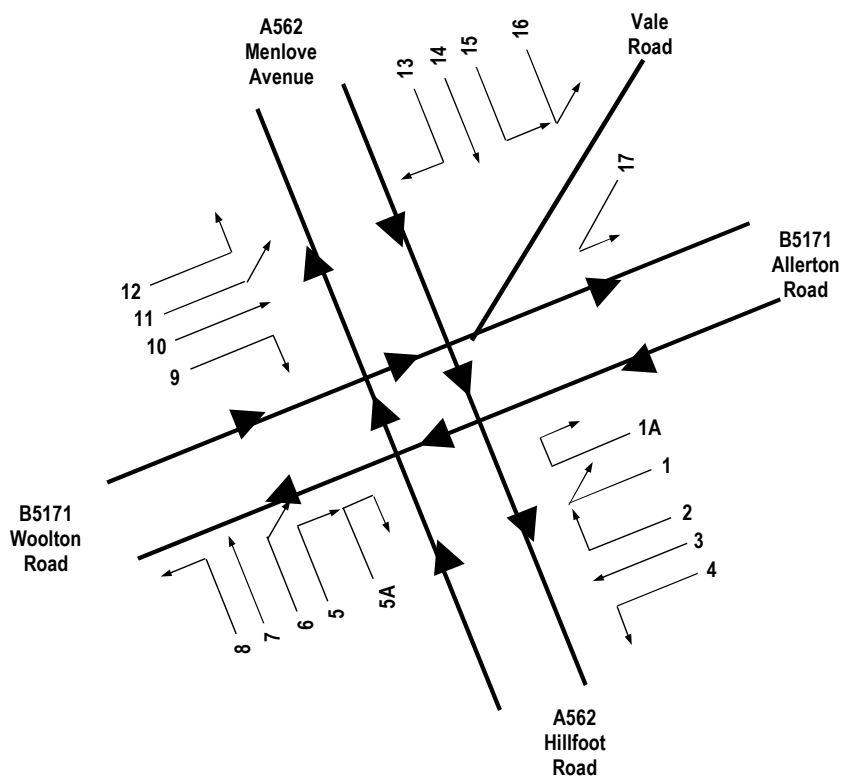
Location	<u>Housing development:</u> Is the development within 1 mile of a district or local centre (see Accessibility Map 1)? <u>Other development:</u> Is the density of local housing (i.e. within 1 mile) greater than 50 houses per hectare (see Accessibility Map 4)?	Yes	2 points	2
		No	0 points	
Internal layout	Does 'circulation' and access inside the site reflect direct and safe cycle routes, with priority given to cyclists where they meet motor vehicles?	Yes	1 point	1
		No	0 points	
External layout	The development is within 400 metre of an existing proposed cycle route (see Accessibility Map 1) and is connected or proposes to create a link to a cycle route, or develop a route	1 point	1	
	The development is not within 400 metres of an existing or proposed cycle route (see Accessibility Map 1)	-1 point		
Other	Development includes shower facilities and lockers for cyclists	1 point	1	
Summary	Minimum Score (from Table 3)	5		
	Actual Score	5		
	Comments or action needed to correct any shortfall			
Access by Public Transport				Score
Location and access to public transport	Is the site within a 200 metre walk of a bus stop and/or within 400 metres of a rail station? (see Accessibility Map 2)	Yes	2 points	2
		No	0 points	
	Are there barriers on direct and safe pedestrian routes to bus stops or rail stations, i.e. <ul style="list-style-type: none"><li>A lack of dropped kerbs</li><li>Pavements less than 2.00 metre wide</li><li>A lack of formal crossings where there is heavy traffic</li><li>Bus access kerbs</li></ul>	There are barriers	0 point	1
		There are no barriers	1 point	
Frequency	High (4 or more bus services or trains an hour)		2 points	2
	Medium (2 or 3 bus services or trains an hour)		1 point	
	Low (less than 2 bus services or trains an hour)		0 points	
Other	The proposal contributes to bus priority measures serving the site		1 point	0
	The proposal contributes to bus stops, bus interchange or bus or rail stations in the vicinity and/or provides bus stops or bus interchange in the site		1 point	0
	The proposal contributes to an existing or new supported bus service (Merseytravel or Community Transport)		1 point	0
Summary	Minimum Score (from Table 3)	5		
	Actual Score	5		
	Comments or action needed to correct any shortfall			

Vehicle access and parking			Score
Vehicle access and circulation	Is there safe access to and from the road?		Yes/No
	Can the site be adequately serviced?		Yes/No
	Is the safety and convenience of other users (pedestrians, cyclists and public transport) affected by the proposal?		Yes/No
	Has access for the emergency services been provided?		Yes/No
	For development, which generates significant freight movements, is the site easily accessed from the road or rail freight route networks (i.e. minimising the impact of traffic on local roads and neighbourhoods) (see Accessibility Map 3)?		Yes/No
Parking	The off-street parking provided is more than advised for that development type		Yes/No
	The off-street parking provided is as advised for that development	1 point	1
	The off-street parking provided is less than 75% of the amount advised for that development type (or shares parking provision with another development)	2 points	0
	For development in controlled parking zones:		
	- is a car free development	1 point	
	- supports the control or removal of on-street parking (inc provision of disabled spaces) or contributes to other identified measures in the local parking strategy (including car clubs)	1 point	
Summary	Minimum Score	1	
	Actual Score	1	
	Comments or action needed to correct any shortfall		

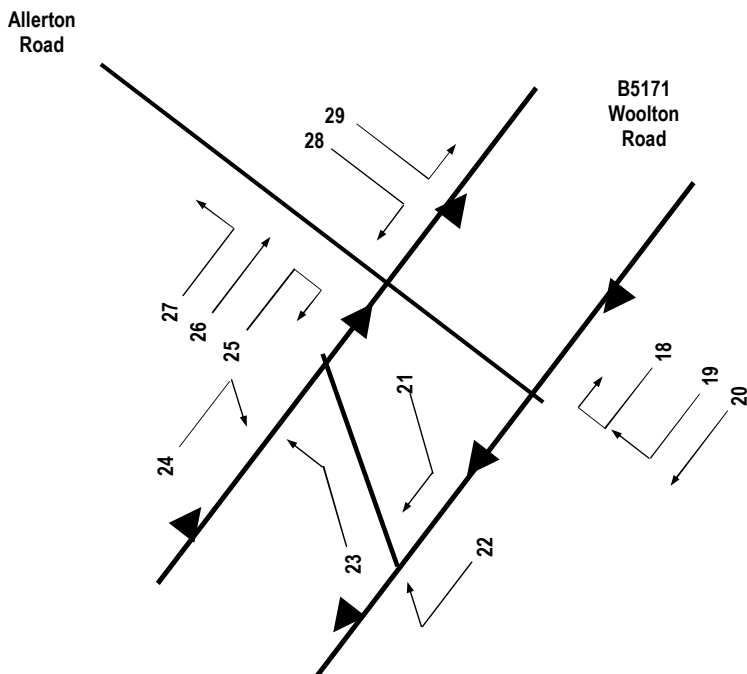
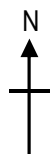
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## **APPENDIX 5**

# JUNCTION 1



# JUNCTION 2



DRAWING TITLE

TRAFFIC MOVEMENT REFERENCE

JOB TITLE

2014.058 ALLERTON ROAD

DRAWN BY  
DC

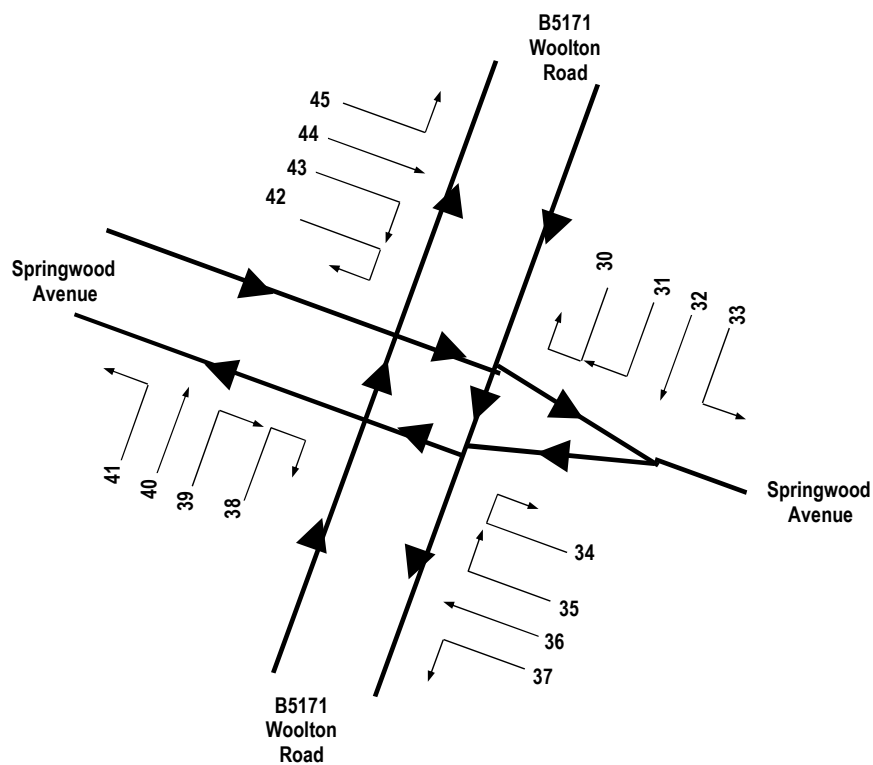
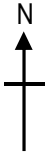
DATE  
MAY 2014

SCALE  
NTS

REF  
FIGURE 1

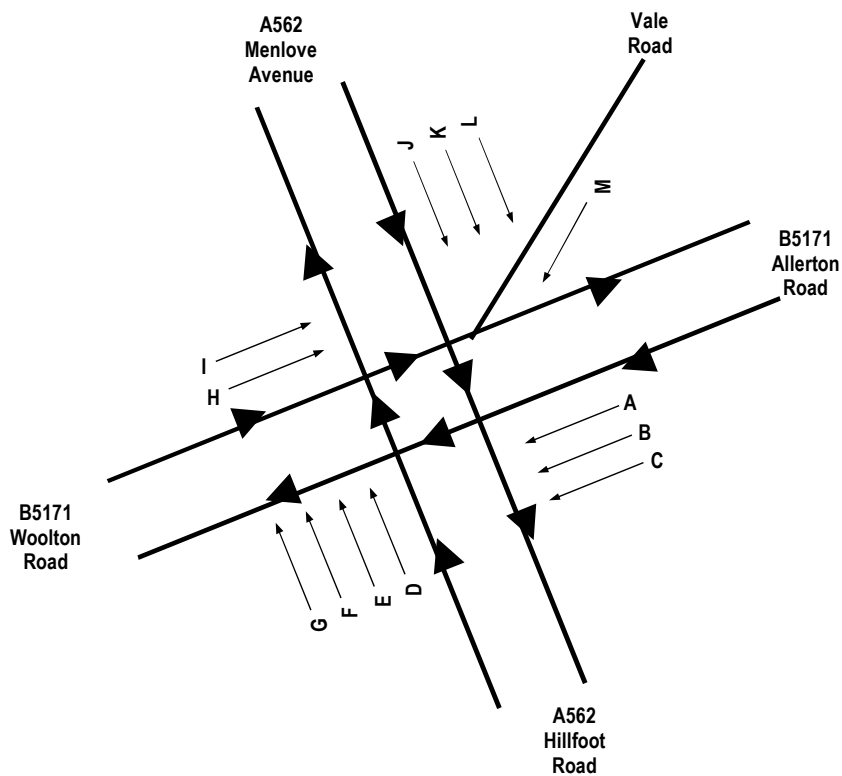
**signal surveys**

Traffic Counts and Car Park Surveys  
Parkway House, Palatine Road, Northenden, Manchester,  
M22 4DB  
Tel 0161 998 4226 Fax 0161 998 1189

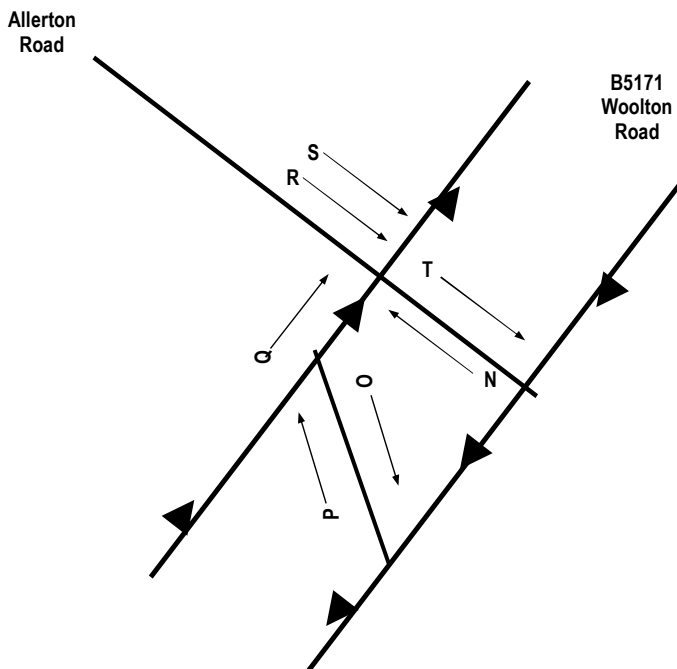


DRAWING TITLE				<div>signal surveys</div> <div>Traffic Counts and Car Park Surveys</div> <div>Parkway House, Palatine Road, Northenden, Manchester,</div> <div>M22 4DB</div> <div>Tel 0161 998 4226 Fax 0161 998 1189</div>
TRAFFIC MOVEMENT REFERENCE				
JOB TITLE				
2014.058 ALLERTON ROAD				
DRAWN BY	DATE	SCALE	REF	
DC	MAY 2014	NTS	FIGURE 2	

# JUNCTION 1



# JUNCTION 2



DRAWING TITLE

QUEUE REFERENCE

JOB TITLE

2014.058 ALLERTON ROAD

DRAWN BY

DC

DATE

MAY 2014

SCALE

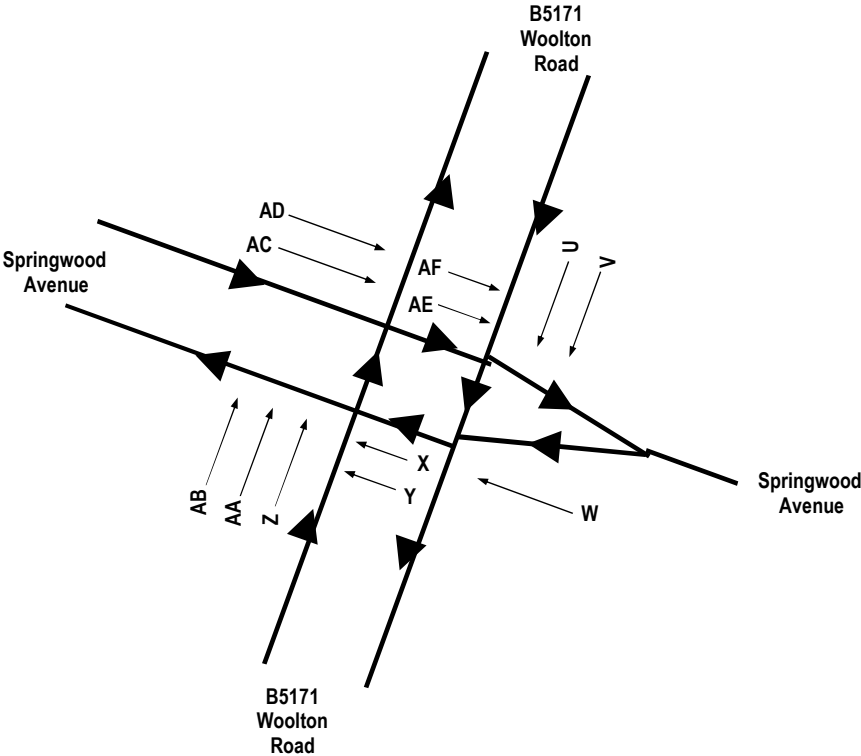
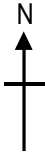
NTS

REF

FIGURE 3

**signal surveys**

Traffic Counts and Car Park Surveys  
Parkway House, Palatine Road, Northenden, Manchester,  
M22 4DB  
Tel 0161 998 4226 Fax 0161 998 1189



DRAWING TITLE				<div>signal surveys</div> <div>Traffic Counts and Car Park Surveys</div> <div>Parkway House, Palatine Road, Northenden, Manchester,</div> <div>M22 4DB</div> <div>Tel 0161 998 4226 Fax 0161 998 1189</div>
QUEUE REFERENCE				
JOB TITLE				
2014.058 ALLERTON ROAD				
DRAWN BY	DATE	SCALE	REF	
DC	MAY 2014	NTS	FIGURE 4	

Time Beginning	B5171 Allerton Road/A562 Hillfoot Road/B5171 Woolton Road/A562 Menlove Avenue - Wednesday 14 May 2014																			
	1		1A		2		3		4		5		5A		6		7		8	
	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV
0730	0	0	2	0	47	0	70	2	32	0	5	1	0	0	2	0	98	3	0	0
0745	3	0	0	0	72	1	85	0	38	2	15	0	0	0	4	0	97	6	2	0
0800	1	0	0	0	76	1	106	1	50	1	15	0	0	0	3	0	113	11	1	0
0815	3	0	0	0	67	2	104	0	62	0	12	0	0	0	11	0	101	2	1	0
0830	0	0	1	0	51	3	111	2	50	0	19	0	0	0	9	0	125	6	1	0
0845	4	0	0	0	51	1	73	1	56	1	26	0	0	0	7	0	92	2	0	0
0900	2	0	0	0	50	0	71	2	40	1	20	2	0	0	7	0	89	1	1	0
0915	2	0	0	0	22	2	44	1	41	0	19	2	0	0	4	0	77	5	1	0

Time Beginning	B5171 Allerton Road/A562 Hillfoot Road/B5171 Woolton Road/A562 Menlove Avenue - Wednesday 14 May 2014																			
	1		1A		2		3		4		5		5A		6		7		8	
	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV
1630	2	0	0	0	34	1	51	0	27	0	43	1	1	0	6	0	160	1	2	0
1645	3	0	0	0	26	1	45	1	37	0	45	0	0	0	4	0	191	1	3	0
1700	3	0	2	0	31	0	48	1	37	2	46	1	1	0	5	0	200	1	2	0
1715	1	0	0	0	33	1	54	2	37	0	40	0	0	0	13	0	186	1	3	0
1730	1	0	1	0	31	1	47	0	45	1	39	0	1	0	9	0	179	1	1	0
1745	2	0	1	0	37	1	61	0	45	0	43	0	2	0	9	0	172	0	4	0
1800	2	0	0	0	34	0	51	2	34	0	41	0	1	0	8	0	164	2	4	0
1815	4	0	2	0	33	1	42	1	48	0	44	0	0	0	7	0	151	0	3	0

Time Beginning	B5171 Allerton Road/A562 Hillfoot Road/B5171 Woolton Road/A562 Menlove Avenue - Wednesday 14 May 2014																	
	9		10		11		12		13		14		15		16		17	
	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV
0730	6	0	33	0	0	0	1	0	21	0	181	1	12	0	2	0	4	0
0745	11	0	46	0	5	1	7	0	17	1	190	4	24	1	2	0	6	0
0800	13	0	51	0	8	0	3	1	16	2	179	0	24	2	0	0	8	0
0815	13	1	59	1	7	0	6	0	36	3	171	2	28	0	0	0	14	0
0830	15	0	84	0	6	0	16	1	20	0	156	5	27	0	0	0	20	0
0845	8	0	64	2	7	0	7	0	21	2	188	2	27	2	0	0	10	0
0900	4	0	41	1	4	1	9	1	15	2	143	2	37	5	0	0	6	0
0915	7	0	38	1	1	0	10	1	18	1	115	5	30	1	0	0	9	0

Time Beginning	B5171 Allerton Road/A562 Hillfoot Road/B5171 Woolton Road/A562 Menlove Avenue - Wednesday 14 May 2014																	
	9		10		11		12		13		14		15		16		17	
	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV
1630	15	0	85	2	8	0	7	1	6	1	126	6	51	0	3	0	12	0
1645	13	0	86	1	8	0	12	0	9	1	144	4	59	2	0	0	11	0
1700	20	1	99	1	6	0	18	1	8	0	143	1	60	1	0	0	11	0
1715	20	1	98	1	5	0	30	0	11	1	142	1	52	1	1	0	12	0
1730	23	0	74	1	8	0	22	1	15	0	147	0	57	0	0	0	7	1
1745	5	0	103	0	6	0	11	0	10	1	154	2	51	1	1	0	8	0
1800	9	2	78	1	11	0	15	1	11	0	122	3	57	2	2	0	9	0
1815	9	0	59	0	5	0	9	0	12	1	107	0	38	0	5	0	9	0

signal surveys

Time Beginning	B5171 Woolton Road/Allerton Road - Wednesday 14 May 2014																							
	18		19		20		21		22		23		24		25		26		27		28		29	
	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV
0730	0	0	9	0	72	0	0	0	0	0	0	0	0	0	1	0	34	1	2	0	9	0	11	0
0745	1	0	23	0	103	2	2	0	0	0	0	0	2	0	0	0	51	0	9	0	7	0	23	0
0800	0	0	34	0	89	1	1	0	1	0	1	0	0	0	1	0	41	1	4	0	3	0	35	0
0815	1	0	20	0	109	5	0	0	1	0	0	0	1	0	0	0	66	2	5	0	11	0	31	0
0830	0	0	40	0	106	1	0	0	0	0	0	0	0	0	0	0	69	1	4	0	2	0	44	0
0845	2	0	16	0	85	3	0	0	0	0	0	0	0	0	0	0	53	2	5	0	5	0	35	0
0900	0	0	20	0	77	3	1	0	0	0	0	0	1	0	0	1	46	2	5	0	10	0	15	1
0915	1	0	14	0	58	2	1	0	0	0	0	0	1	0	0	0	37	2	6	0	8	0	17	0

Time Beginning	B5171 Woolton Road/Allerton Road - Wednesday 14 May 2014																							
	18		19		20		21		22		23		24		25		26		27		28		29	
	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV
1630	0	0	13	0	49	0	0	0	0	0	0	0	0	0	0	0	102	3	14	0	7	0	24	0
1645	0	0	12	0	48	3	0	0	0	0	0	0	0	0	0	0	100	2	8	0	9	0	26	0
1700	0	0	18	0	49	1	0	0	0	0	0	0	0	0	0	0	111	2	8	0	6	0	40	1
1715	1	0	12	0	57	3	0	0	2	0	1	0	0	0	0	0	117	2	9	0	9	0	38	0
1730	0	0	14	0	53	0	0	0	1	0	1	0	0	0	0	0	96	2	7	0	7	0	31	0
1745	2	0	28	0	54	1	0	0	0	0	0	0	0	0	0	0	79	0	7	0	3	0	41	0
1800	0	0	15	0	51	2	0	0	0	0	0	0	0	0	1	0	105	4	14	0	6	0	20	0
1815	0	0	14	0	43	1	0	0	1	0	0	0	0	0	0	0	53	0	17	0	3	0	25	0

**signal surveys**

Time Beginning	Springwood Avenue/B5171 Woolton Road - Wednesday 14 May 2014																															
	30		31		32		33		34		35		36		37		38		39		40		41		42		43		44		45	
	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV		
0730	2	0	5	0	71	0	6	0	0	0	5	0	57	2	14	2	0	0	31	0	27	0	3	0	0	0	4	0	48	1	5	1
0745	1	0	5	1	90	1	7	0	0	0	6	0	69	4	28	2	0	0	27	0	44	1	4	0	1	0	5	0	46	0	13	0
0800	1	0	9	0	77	0	4	1	0	0	6	1	79	5	29	4	0	0	18	1	33	1	9	0	0	0	3	0	49	1	4	0
0815	0	0	18	2	101	4	5	0	0	0	5	0	78	1	31	0	0	0	30	0	65	0	7	1	2	1	1	0	54	1	8	0
0830	0	0	17	0	85	1	5	1	0	0	3	0	80	4	44	1	2	0	24	0	54	1	2	3	2	2	4	0	38	0	7	2
0845	0	0	4	2	80	2	2	0	0	0	8	0	63	0	37	1	0	0	22	0	50	1	7	1	2	0	6	1	41	0	10	0
0900	0	0	10	1	75	3	4	0	0	0	6	0	41	0	22	1	0	0	27	1	29	3	6	0	1	0	5	0	42	0	2	0
0915	0	0	3	1	48	3	7	0	0	0	3	1	36	1	15	2	0	0	23	1	39	1	6	0	0	0	5	0	36	1	4	0
Time Beginning	Springwood Avenue/B5171 Woolton Road - Wednesday 14 May 2014																															
	30		31		32		33		34		35		36		37		38		39		40		41		42		43		44		45	
	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV
1630	1	0	9	0	41	0	4	0	0	0	14	0	69	0	30	0	1	0	39	1	88	3	7	0	0	0	8	0	36	0	5	0
1645	0	0	7	2	47	1	4	0	0	0	8	0	65	0	35	0	0	0	37	1	86	2	3	0	1	0	12	0	48	2	1	0
1700	0	0	3	1	40	0	6	0	0	0	7	0	78	0	36	1	2	0	37	0	107	2	4	0	3	0	8	0	46	1	4	0
1715	0	0	6	0	53	3	2	0	0	0	7	0	79	0	40	0	0	0	48	0	108	2	8	0	3	0	8	0	57	0	8	0
1730	0	0	10	0	59	0	5	0	0	0	6	0	82	2	33	0	0	0	38	1	81	2	6	0	3	0	9	0	57	1	4	0
1745	0	0	4	0	48	1	2	0	0	0	13	0	79	0	39	0	0	0	33	0	74	0	13	0	0	0	5	0	42	1	5	0
1800	1	0	4	1	50	1	4	0	0	0	13	0	74	0	26	0	0	0	37	0	89	3	7	1	0	0	6	1	35	0	3	0
1815	1	0	6	0	37	1	1	0	0	0	17	0	66	0	31	1	0	0	34	1	50	0	7	0	0	0	2	0	42	2	4	0

Time Beginning	B5171 Allerton Road/A562 Hillfoot Road/B5171 Woolton Road/A562 Menlove Avenue - Queues (vehs) - Wednesday 14 May 2014							Time Beginning	B5171 Allerton Road/A562 Hillfoot Road/B5171 Woolton Road/A562 Menlove Avenue - Queues (vehs) - Wednesday 14 May 2014					
	A	B	C	D	E	F	G		H	I	J	K	L	M
0730	2	2	1	1	1	1	0	0730	3	2	4	5	0	0
0731	2	0	2	0	1	2	0	0731	-	-	3	7	0	0
0732	3	1	3	0	3	1	1	0732	5	6	9	15	0	0
0733	4	4	3	0	0	0	0	0733	4	7	1	4	0	0
0734	3	1	0	0	2	1	1	0734	6	5	10	9	0	0
0735	1	1	3	0	3	3	0	0735	3	2	4	7	2	0
0736	1	2	2	0	1	4	0	0736	2	3	1	1	1	0
0737	0	1	1	1	4	2	0	0737	2	1	11	9	0	0
0738	5	3	8	-	-	-	-	0738	1	1	-	-	-	0
0739	2	2	1	0	2	3	0	0739	2	2	9	13	0	0
0739	-	-	-	1	4	3	0	0739	-	-	7	7	1	0
0740	0	1	3	0	2	2	0	0740	3	1	14	15	1	0
0741	1	4	6	1	1	0	0	0741	6	5	11	4	0	0
0742	2	2	5	0	2	4	0	0742	2	1	18	13	0	0
0743	4	3	6	-	-	-	-	0743	-	-	-	-	-	0
0744	7	7	6	0	1	2	0	0744	3	2	16	12	0	0
0745	3	4	8	1	4	1	0	0745	5	4	16	14	1	0
0746	-	-	-	1	3	4	0	0746	3	0	13	9	1	0
0747	3	2	2	1	0	0	0	0747	3	0	7	7	1	0
0748	8	4	9	-	-	-	-	0748	5	3	-	-	-	0
0749	1	3	6	1	4	3	0	0749	2	0	11	15	0	0
0750	-	-	-	3	1	2	0	0750	1	0	15	13	0	0
0751	4	1	7	1	1	3	0	0751	-	-	13	9	0	0
0752	12	5	5	0	5	7	0	0752	3	3	24	26	1	0
0753	3	1	4	-	-	-	-	0753	2	3	-	-	-	0
0754	-	-	-	0	9	6	0	0754	7	3	16	14	1	0
0755	2	1	2	1	1	1	0	0755	-	-	11	7	1	0
0755	6	3	5	-	-	-	-	0755	0	2	-	-	-	0
0756	-	-	-	2	3	6	0	0756	4	7	21	19	0	0
0757	6	3	8	1	0	4	0	0757	6	3	13	17	1	0
0758	8	7	4	-	-	-	-	0758	4	0	-	-	-	0
0759	0	1	3	1	3	3	0	0759	-	-	14	16	0	0
0800	7	3	4	1	4	2	0	0800	3	1	15	19	1	0
0801	-	-	-	2	0	3	0	0801	2	1	10	12	0	0
0802	6	5	5	0	1	1	0	0802	4	1	15	19	1	0
0803	1	2	4	3	1	3	0	0803	3	1	10	13	0	0
0804	9	4	3	-	-	-	-	0804	1	0	-	-	-	0
0805	5	5	7	1	3	2	0	0805	2	1	11	17	0	0
0806	-	-	-	2	3	6	0	0806	4	5	0	3	0	0
0807	4	1	6	0	1	2	0	0807	-	-	11	13	0	0
0807	1	8	6	-	-	-	-	0807	3	2	-	-	-	0
0808	-	-	-	0	5	3	0	0808	3	4	4	4	1	0
0809	1	3	6	2	4	3	0	0809	4	2	26	28	1	0
0810	16	6	4	-	-	-	-	0810	6	4	-	-	-	0
0811	-	-	-	2	3	4	0	0811	4	3	21	23	1	0
0812	14	6	7	0	5	5	0	0812	2	1	6	9	0	0
0813	2	3	10	-	-	-	-	0813	-	-	-	-	-	0

signal surveys

Time Beginning	B5171 Allerton Road/A562 Hillfoot Road/B5171 Woolton Road/A562 Menlove Avenue - Queues (vehs) - Wednesday 14 May 2014							Time Beginning	B5171 Allerton Road/A562 Hillfoot Road/B5171 Woolton Road/A562 Menlove Avenue - Queues (vehs) - Wednesday 14 May 2014					
	A	B	C	D	E	F	G		H	I	J	K	L	M
0814	5	9	11	0	3	6	0	0814	3	1	24	26	0	0
0815	-	-	-	1	1	5	0	0815	3	2	5	6	0	0
0816	6	7	10	2	1	2	0	0816	3	3	17	15	0	0
0817	0	4	5	-	-	-	-	0817	5	4	-	-	-	0
0818	-	-	-	2	1	5	0	0818	2	3	9	11	0	0
0819	2	3	8	0	0	5	0	0819	3	3	11	8	1	0
0820	11	6	10	-	-	-	-	0820	5	7	-	-	-	1
0821	1	1	4	1	6	4	0	0821	6	5	10	8	0	0
0822	-	-	-	2	7	4	0	0822	5	7	15	7	1	0
0823	5	2	10	2	2	3	0	0823	8	5	8	10	1	0
0824	8	8	8	-	-	-	-	0824	3	5	-	-	-	0
0825	5	5	10	1	0	0	0	0825	4	1	11	14	1	0
0826	-	-	-	2	2	5	0	0826	4	0	4	6	0	0
0827	3	0	5	2	5	5	0	0827	4	2	7	9	1	0
0828	9	4	5	-	-	-	-	0828	3	4	-	-	-	0
0829	2	3	7	4	2	3	0	0829	5	3	9	7	1	0
0830	1	5	7	4	5	5	0	0830	7	5	3	7	2	0
0831	-	-	-	1	3	5	0	0831	3	4	8	4	1	0
0832	7	9	7	1	3	3	0	0832	2	2	2	6	0	0
0833	1	2	3	-	-	-	-	0833	4	1	-	-	-	0
0834	6	5	12	2	3	4	0	0834	3	2	7	9	1	0
0835	-	-	-	0	1	3	0	0835	4	6	3	1	0	0
0836	5	5	8	-	-	-	-	0836	5	3	-	-	-	0
0837	3	4	5	1	9	7	0	0837	4	4	7	5	1	0
0838	1	0	7	2	3	3	0	0838	1	3	8	10	0	0
0839	0	14	4	0	3	4	0	0839	3	8	3	5	1	0
0840	-	-	-	0	4	5	0	0840	8	2	6	4	1	0
0841	6	2	4	-	-	-	-	0841	5	7	-	-	-	0
0842	1	6	8	1	4	3	0	0842	-	-	7	8	0	0
0843	-	-	-	3	3	5	0	0843	2	3	5	4	1	0
0844	6	3	9	-	-	-	-	0844	3	2	-	-	-	0
0845	7	2	6	2	3	2	1	0845	-	-	4	9	0	0
0846	-	-	-	0	7	4	0	0846	6	2	6	5	1	0
0847	1	2	6	-	-	-	-	0847	9	7	-	-	-	0
0848	4	3	6	2	2	1	0	0848	5	6	15	13	1	0
0849	6	1	4	3	0	2	0	0849	4	3	11	9	1	0
0850	-	-	-	0	5	3	0	0850	7	4	9	7	0	3
0851	4	4	9	-	-	-	-	0851	5	3	-	-	-	0
0852	3	5	7	9	2	4	0	0852	4	4	17	13	1	0
0853	-	-	-	3	2	4	0	0853	4	3	9	7	1	0
0854	4	6	5	2	3	4	0	0854	3	1	3	1	1	0
0855	0	0	4	1	1	0	0	0855	-	-	12	9	0	0
0855	3	1	3	-	-	-	-	0855	8	4	-	-	-	0
0856	-	-	-	1	3	4	0	0856	3	5	4	2	1	0
0857	2	3	4	1	2	3	0	0857	1	1	5	7	1	0
0858	5	2	8	4	2	4	0	0858	3	5	14	12	1	0
0859	1	3	7	-	-	-	-	0859	-	-	-	-	-	0

signal surveys

Time Beginning	B5171 Allerton Road/A562 Hillfoot Road/B5171 Woolton Road/A562 Menlove Avenue - Queues (vehs) - Wednesday 14 May 2014							Time Beginning	B5171 Allerton Road/A562 Hillfoot Road/B5171 Woolton Road/A562 Menlove Avenue - Queues (vehs) - Wednesday 14 May 2014					
	A	B	C	D	E	F	G		H	I	J	K	L	M
0900	5	5	9	4	3	2	0	0900	4	6	13	15	1	0
0901	-	-	-	2	1	2	0	0901	4	1	3	7	1	0
0902	11	4	6	-	-	-	-	0902	2	1	-	-	-	0
0903	2	2	1	2	5	6	0	0903	1	2	3	1	0	0
0904	6	6	7	5	0	3	0	0904	3	1	1	3	1	0
0905	0	0	2	0	0	0	0	0905	-	-	7	9	1	0
0906	3	3	4	0	2	1	0	0906	5	1	9	11	0	0
0907	0	1	1	1	2	2	0	0907	3	6	8	10	0	0
0908	9	6	5	1	1	4	0	0908	5	3	7	5	0	0
0909	-	-	-	0	1	1	1	0909	-	-	9	6	1	0
0910	0	4	4	1	7	5	0	0910	2	2	11	4	1	0
0911	2	1	1	2	0	3	0	0911	0	1	4	3	0	0
0912	5	0	6	2	2	3	0	0912	1	1	7	5	2	0
0913	0	1	2	2	0	0	0	0913	1	1	1	2	0	0
0914	2	3	5	0	1	4	0	0914	2	1	7	11	1	0
0915	0	0	0	1	3	3	0	0915	4	2	5	3	0	0
0916	2	3	6	1	2	3	0	0916	1	1	9	11	0	0
0917	0	2	5	0	1	1	0	0917	3	2	6	12	1	0
0918	4	2	2	1	1	1	0	0918	1	2	8	2	4	0
0919	0	1	5	3	0	1	0	0919	3	1	5	7	0	0
0920	3	2	6	0	3	1	0	0920	3	2	1	2	1	0
0921	1	0	1	1	0	1	0	0921	2	1	9	7	1	0
0921	2	2	1	-	-	-	-	0921	2	1	-	-	-	0
0922	-	-	-	1	3	5	0	0922	1	1	3	2	1	0
0923	0	3	3	1	3	2	0	0923	1	2	3	5	2	0
0924	5	2	3	2	1	2	0	0924	2	1	2	2	1	0
0925	1	1	1	1	1	1	0	0925	2	2	8	6	2	0
0926	2	3	5	-	-	-	-	0926	2	3	-	-	-	0
0927	1	0	0	1	2	3	0	0927	2	5	4	2	1	0
0928	1	0	2	0	3	3	0	0928	1	3	11	13	0	0
0928	-	-	-	1	1	2	0	0928	4	3	5	9	0	0
0929	0	0	1	1	1	1	0	0929	1	1	6	8	0	0
0930	3	1	4	-	-	-	-	0930	1	2	-	-	-	0

signal surveys

Time Beginning	B5171 Allerton Road/A562 Hillfoot Road/B5171 Woolton Road/A562 Menlove Avenue - Queues (vehs) - Wednesday 14 May 2014							Time Beginning	B5171 Allerton Road/A562 Hillfoot Road/B5171 Woolton Road/A562 Menlove Avenue - Queues (vehs) - Wednesday 14 May 2014					
	A	B	C	D	E	F	G		H	I	J	K	L	M
1630	2	1	4	-	-	-	-	1630	5	2	-	-	-	0
1631	2	4	2	2	12	6	0	1631	-	-	4	4	1	0
1632	4	0	4	1	1	2	1	1632	2	3	8	12	1	0
1633	-	-	-	5	5	5	0	1633	4	4	2	1	1	0
1634	0	3	3	1	4	3	0	1634	1	1	6	8	0	0
1635	5	0	3	2	0	4	0	1635	7	6	4	4	0	0
1636	1	0	6	7	7	6	0	1636	3	1	1	4	2	0
1637	5	2	2	-	-	-	-	1637	5	7	-	-	-	0
1638	1	4	5	2	2	3	0	1638	-	-	3	3	2	0
1639	-	-	-	3	2	4	0	1639	4	7	1	4	0	0
1640	0	2	4	2	6	6	0	1640	5	2	5	6	1	0
1641	4	2	8	-	-	-	-	1641	4	3	-	-	-	0
1642	1	3	5	6	10	11	0	1642	-	-	10	8	2	0
1643	-	-	-	7	2	6	0	1643	6	10	16	13	1	0
1644	2	2	3	7	8	10	0	1644	9	12	0	3	0	0
1645	1	1	6	-	-	-	-	1645	5	5	-	-	-	0
1646	1	1	6	1	5	4	0	1646	-	-	16	14	1	0
1647	-	-	-	2	4	4	0	1647	9	8	14	16	0	0
1648	4	0	5	-	-	-	-	1648	4	7	-	-	-	0
1649	5	1	10	6	9	4	0	1649	-	-	13	9	1	0
1650	-	-	-	4	3	3	0	1650	2	1	5	5	0	0
1651	1	0	5	4	4	2	0	1651	7	5	17	14	0	0
1652	1	4	6	-	-	-	-	1652	3	5	-	-	-	0
1653	1	2	5	1	6	8	0	1653	-	-	6	11	0	0
1654	3	1	4	3	5	4	0	1654	7	3	5	3	1	0
1655	-	-	-	2	8	5	0	1655	3	4	17	15	1	0
1656	2	3	4	3	5	5	0	1656	5	4	15	17	1	0
1657	1	2	3	-	-	-	-	1657	8	2	-	-	-	0
1658	3	2	3	4	4	3	0	1658	-	-	0	3	1	0
1659	1	2	7	4	2	3	0	1659	2	1	19	21	1	0
1700	-	-	-	5	9	6	0	1700	7	7	6	11	0	0
1701	2	3	1	-	-	-	-	1701	7	4	-	-	-	0
1702	1	1	1	9	1	5	0	1702	-	-	8	10	0	0
1703	-	-	-	4	9	8	0	1703	4	5	5	19	0	0
1704	3	1	3	7	8	8	0	1704	7	5	0	4	1	0
1705	3	5	6	-	-	-	-	1705	13	9	-	-	-	0
1706	2	1	2	3	4	2	0	1706	-	-	15	12	1	0
1707	-	-	-	4	8	6	0	1707	9	7	8	17	1	0
1708	3	1	3	-	-	-	-	1708	2	3	-	-	-	0
1709	2	2	9	7	9	12	0	1709	-	-	3	1	1	0
1710	-	-	-	3	6	4	0	1710	9	4	12	11	1	0
1711	3	2	6	3	2	1	0	1711	8	12	8	4	2	0
1712	4	0	2	-	-	-	-	1712	2	2	-	-	-	0
1713	2	5	5	5	10	3	0	1713	-	-	1	2	0	0
1714	-	-	-	3	5	1	0	1714	9	12	14	16	1	0
1715	1	3	7	-	-	-	-	1715	11	10	-	-	-	0
1716	1	1	4	3	5	6	0	1716	10	9	13	13	2	0

signal surveys

Time Beginning	B5171 Allerton Road/A562 Hillfoot Road/B5171 Woolton Road/A562 Menlove Avenue - Queues (vehs) - Wednesday 14 May 2014							Time Beginning	B5171 Allerton Road/A562 Hillfoot Road/B5171 Woolton Road/A562 Menlove Avenue - Queues (vehs) - Wednesday 14 May 2014					
	A	B	C	D	E	F	G		H	I	J	K	L	M
1717	4	3	4	6	3	4	0	1717	-	-	2	4	0	0
1718	-	-	-	7	3	5	1	1718	8	4	4	6	0	0
1719	3	2	6	2	6	7	0	1719	5	3	11	8	1	0
1720	1	0	4	-	-	-	-	1720	5	7	-	-	-	0
1721	5	3	5	8	9	13	0	1721	4	5	1	6	0	0
1722	-	-	-	10	3	6	0	1722	8	5	2	6	1	0
1723	2	3	4	-	-	-	-	1723	5	4	-	-	-	0
1724	0	0	3	2	4	4	0	1724	7	4	4	6	0	0
1725	8	2	7	5	8	8	0	1725	-	-	9	13	1	0
1726	-	-	-	0	6	3	0	1726	4	3	13	14	0	0
1727	1	3	4	6	5	3	0	1727	4	4	3	7	1	0
1728	0	2	5	-	-	-	-	1728	5	4	-	-	-	0
1729	-	-	-	7	6	14	0	1729	-	-	8	7	1	0
1730	5	1	6	0	10	9	0	1730	9	4	14	16	1	0
1731	6	4	9	-	-	-	-	1731	9	7	-	-	-	0
1732	-	-	-	4	11	4	0	1732	-	-	2	3	0	0
1733	1	4	4	1	2	6	0	1733	6	2	14	18	0	0
1734	1	0	2	1	5	6	0	1734	5	3	1	3	1	0
1735	2	3	3	-	-	-	-	1735	4	6	-	-	-	1
1736	0	1	1	2	1	3	0	1736	3	3	11	13	1	0
1737	-	-	-	2	7	5	0	1737	-	-	1	2	0	0
1738	2	1	1	4	5	5	0	1738	3	7	7	6	1	0
1739	3	1	3	7	2	6	0	1739	8	4	7	11	1	0
1740	2	2	4	-	-	-	-	1740	6	2	-	-	-	0
1741	-	-	-	7	10	12	0	1741	-	-	1	1	1	0
1742	3	2	4	5	7	5	0	1742	9	5	9	7	1	0
1743	1	3	7	-	-	-	-	1743	10	8	-	-	-	0
1744	0	0	4	3	1	2	0	1744	-	-	6	9	1	0
1745	1	4	4	5	8	4	0	1745	3	2	3	7	0	0
1746	-	-	-	4	3	2	1	1746	5	5	16	19	1	0
1747	4	6	8	7	3	4	0	1747	7	5	1	1	1	0
1748	1	1	3	-	-	-	-	1748	1	3	-	-	-	0
1749	-	-	-	5	14	9	0	1749	2	4	5	6	0	0
1750	4	3	5	0	7	4	0	1750	9	5	9	10	1	0
1751	4	5	5	-	-	-	-	1751	4	6	-	-	-	0
1752	2	1	3	3	3	7	0	1752	3	1	14	12	1	0
1753	-	-	-	2	9	10	0	1753	6	4	2	6	1	0
1754	3	1	5	-	-	-	-	1754	1	3	6	6	1	0
1755	7	2	7	9	8	5	0	1755	8	4	7	9	1	0
1756	-	-	-	12	2	3	0	1756	2	4	1	2	0	0
1757	4	6	9	11	2	3	0	1757	6	5	9	7	1	0
1758	0	0	3	-	-	-	-	1758	5	2	2	9	0	0
1759	1	1	3	7	3	5	0	1759	3	2	5	11	0	0
1800	-	-	-	4	8	3	0	1800	5	3	7	7	0	0
1801	5	1	4	-	-	-	-	1801	2	7	-	-	-	0
1802	0	1	4	0	9	7	1	1802	2	1	4	5	0	0
1803	0	1	6	3	4	6	0	1803	2	5	7	9	0	0

**signal surveys**

Time Beginning	B5171 Allerton Road/A562 Hillfoot Road/B5171 Woolton Road/A562 Menlove Avenue - Queues (vehs) - Wednesday 14 May 2014							Time Beginning	B5171 Allerton Road/A562 Hillfoot Road/B5171 Woolton Road/A562 Menlove Avenue - Queues (vehs) - Wednesday 14 May 2014					
	A	B	C	D	E	F	G		H	I	J	K	L	M
1804	-	-	-	3	5	4	0	1804	2	3	6	6	1	0
1805	3	2	4	4	1	5	0	1805	5	6	3	2	2	0
1806	1	0	2	4	7	6	0	1806	-	-	10	12	0	0
1807	0	2	9	-	-	-	-	1807	7	11	-	-	-	0
1808	5	1	5	3	4	3	0	1808	3	6	3	5	0	0
1809	-	-	-	5	2	4	0	1809	3	5	5	7	1	0
1810	5	2	2	3	1	2	0	1810	1	2	8	10	0	0
1811	5	4	6	-	-	-	-	1811	5	3	-	-	-	0
1812	5	1	3	3	3	3	0	1812	2	4	0	1	1	0
1813	1	0	3	8	2	5	1	1813	2	6	2	5	2	0
1814	-	-	-	3	7	9	0	1814	1	1	7	6	2	0
1815	4	0	8	-	-	-	-	1815	5	3	-	-	-	0
1816	0	0	6	1	6	4	0	1816	1	1	0	0	0	0
1817	-	-	-	4	7	10	0	1817	0	2	1	5	1	0
1818	2	0	6	4	8	4	0	1818	2	2	2	3	1	0
1819	5	1	6	1	7	6	0	1819	4	3	3	5	2	0
1820	1	4	5	-	-	-	-	1820	2	2	-	-	-	0
1821	3	2	2	8	4	5	0	1821	1	1	4	6	0	0
1822	4	2	2	1	2	2	0	1822	2	3	6	5	1	0
1823	-	-	-	2	2	7	0	1823	2	2	1	0	1	0
1824	2	1	6	3	4	5	0	1824	3	3	3	8	0	0
1825	3	1	8	5	1	3	0	1825	3	3	8	5	2	0
1826	1	0	3	1	1	1	0	1826	2	4	3	4	0	0
1827	3	1	3	-	-	-	-	1827	3	3	-	-	-	0
1828	5	2	3	4	1	1	0	1828	3	4	5	12	1	0
1829	3	0	1	3	6	5	0	1829	5	1	3	1	1	0
1830	-	-	-	2	3	2	0	1830	1	2	5	4	2	0

**signal surveys**

Time Beginning	B5171 Woolton Road/Allerton Road - Queues (vehs) - Wednesday 14 May 2014						
	N	O	P	Q	R	S	T
0730	0	0	0	0	0	0	0
0745	0	0	0	0	0	0	0
0800	0	0	0	0	0	0	0
0815	0	0	0	0	0	0	0
0830	0	0	0	0	0	0	0
0845	0	0	0	0	0	0	0
0900	0	0	0	0	0	0	0
0915	0	0	0	0	0	0	0
0930	0	0	0	0	0	0	0

Time Beginning	B5171 Woolton Road/Allerton Road - Queues (vehs) - Wednesday 14 May 2014						
	N	O	P	Q	R	S	T
0730	0	0	0	0	0	0	0
0745	0	0	0	0	0	0	0
0800	0	0	0	0	0	0	0
0815	0	0	0	0	0	0	0
0830	5	0	0	0	0	0	0
0845	0	0	0	0	0	0	0
0900	0	0	0	0	0	0	0
0915	0	0	0	0	1	2	0
0930	0	0	0	0	0	0	0

Time Beginning	Springwood Avenue/B5171 Woolton Road - Queues (vehs) - Wednesday 14 May 2014											
	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF
0730	0	1	2	0	0	0	1	0	0	0	0	1
0730	0	1	5	0	0	0	0	0	1	2	0	1
0731	0	0	0	0	0	1	0	0	1	2	0	0
0731	4	2	2	0	1	0	1	0	1	3	0	0
0732	1	1	0	0	0	1	0	0	1	1	0	0
0733	0	0	1	0	1	2	1	0	0	1	0	0
0734	2	1	0	0	0	0	0	0	0	1	0	0
0734	1	0	4	0	1	0	0	1	0	0	0	0
0734	-	-	3	0	1	-	-	-	1	0	0	0
0735	1	1	7	0	1	1	0	0	0	1	0	3
076	2	2	1	0	0	0	0	0	0	3	0	0
0736	1	3	1	0	0	2	1	0	1	2	1	1
0737	0	0	4	0	0	1	0	0	0	1	0	0
0737	1	1	0	0	0	0	1	0	1	1	0	0
0738	2	2	1	0	0	0	0	0	0	2	0	0
0739	0	1	1	0	0	1	0	0	0	1	0	1
0739	1	2	1	0	1	2	4	0	0	1	0	3
0740	0	0	3	0	0	2	1	0	1	1	0	0
7040	1	1	-	-	-	1	2	0	-	-	-	-
0741	2	2	2	0	0	2	0	0	0	0	0	5
0741	-	-	3	0	0	-	-	-	1	1	0	2
0742	1	2	2	0	1	0	0	0	0	1	0	0
0742	0	1	-	-	-	1	0	0	-	-	-	-
0743	2	2	3	0	0	1	1	0	0	2	0	0
0743	-	-	4	0	0	-	-	-	1	1	0	2
0744	2	0	0	0	0	2	1	0	0	0	0	1
0744	1	0	3	0	0	1	0	0	2	0	0	1
0745	2	1	9	0	0	0	1	0	0	2	0	0
0745	3	2	-	-	-	1	1	0	-	-	-	-
0746	3	0	1	0	1	1	2	0	0	2	0	2
0746	-	-	0	0	0	-	-	-	2	1	0	1
0747	0	0	6	0	0	2	0	0	0	1	0	0
0747	1	1	-	-	-	0	1	0	-	-	-	-
0748	4	2	2	0	0	1	0	0	0	0	0	0
0748	-	-	1	0	1	-	-	-	0	1	0	2
0749	0	2	1	0	0	0	1	0	1	2	0	0
0749	4	3	-	-	-	0	1	0	-	-	-	-
0750	1	1	3	0	1	0	0	0	0	1	0	0
0750	1	2	0	0	0	0	1	0	0	0	0	0
0751	2	0	4	0	0	0	3	0	0	1	0	0
0751	-	-	4	0	0	-	-	-	0	0	0	0
0752	3	1	2	1	0	1	0	0	0	0	0	1
0752	0	0	-	-	-	1	0	0	-	-	-	-
0753	1	1	3	0	0	3	1	0	1	0	0	2
0753	-	-	2	0	0	-	-	-	0	1	0	6
0754	3	2	0	1	0	1	1	0	1	2	0	1
0754	0	0	1	0	0	1	0	0	0	2	0	0
0755	1	1	5	0	0	1	2	0	0	1	0	1

Time Beginning	Springwood Avenue/B5171 Woolton Road - Queues (vehs) - Wednesday 14 May 2014											
	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF
0755	2	2	-	-	-	0	2	0	-	-	-	-
0756	1	1	3	0	0	1	0	0	2	2	0	0
0756	-	-	3	0	0	-	-	-	3	2	0	1
0757	0	0	3	0	1	2	1	0	0	2	0	0
0757	1	1	-	-	-	1	1	0	-	-	-	-
0758	1	2	3	0	1	2	0	0	0	0	0	1
0758	-	-	1	0	0	-	-	-	0	3	0	2
0759	2	1	2	0	2	0	0	0	0	3	0	1
0759	0	0	9	0	0	0	1	0	0	0	0	0
0800	3	0	2	0	0	0	0	0	0	2	0	0
0800	1	1	-	-	-	0	0	0	-	-	-	-
0801	0	0	7	1	0	0	1	0	0	0	0	0
0801	-	-	1	0	0	-	-	-	1	0	0	0
0802	1	0	1	0	0	0	1	0	1	0	0	0
0802	2	1	2	1	0	0	0	0	0	2	0	0
0803	3	1	9	0	0	0	1	0	0	0	0	0
0804	1	2	1	0	0	2	1	0	0	0	0	1
0804	1	1	1	0	0	0	0	0	0	1	0	0
0805	0	0	1	0	0	0	1	0	0	0	0	0
0805	4	2	-	-	-	2	3	0	-	-	-	-
0806	0	2	0	1	2	0	1	0	1	1	0	2
0806	-	-	1	0	0	-	-	-	1	2	0	0
0807	2	1	8	0	0	0	0	0	0	2	0	0
0807	0	0	-	-	-	0	1	0	-	-	-	-
0808	4	3	6	0	0	0	0	0	0	1	0	0
0808	-	-	1	0	1	-	-	-	0	2	0	0
0809	3	1	3	0	0	2	2	0	0	0	0	3
0809	0	0	-	-	-	1	2	0	-	-	-	-
0810	1	1	0	0	0	0	0	0	0	2	0	0
8010	-	-	0	0	0	-	-	-	0	1	0	0
8011	1	4	3	0	0	1	0	0	0	0	0	3
0811	0	1	1	0	0	0	1	0	0	0	0	0
0812	2	1	4	1	1	1	0	0	0	1	0	1
0812	0	0	-	-	-	0	1	0	-	-	-	-
0813	4	3	2	0	0	1	2	0	0	2	0	0
0814	1	0	2	0	1	1	0	0	0	3	0	0
0814	-	-	1	0	1	-	-	-	0	0	0	1
0815	0	0	2	0	0	0	0	0	0	2	0	0
0815	10	9	-	-	-	2	1	0	-	-	-	-
0816	6	4	9	1	0	1	1	0	0	0	0	0
0816	-	-	5	3	3	-	-	-	0	0	0	1
0817	0	0	0	0	1	0	0	0	0	1	0	0
0817	4	5	-	-	-	0	1	1	-	-	-	-
0818	0	0	2	0	3	1	0	0	1	2	0	0
0818	-	-	2	0	0	-	-	-	2	2	0	0
0819	2	2	0	0	1	1	1	1	0	1	0	1
0819	0	0	-	-	-	2	0	0	-	-	-	-
0820	6	5	1	0	0	0	1	0	1	2	0	0

Time Beginning	Springwood Avenue/B5171 Woolton Road - Queues (vehs) - Wednesday 14 May 2014											
	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF
0820	-	-	2	1	2	-	-	-	0	0	0	0
0821	0	3	0	0	0	1	1	0	0	2	0	0
0821	3	4	-	-	-	1	1	0	-	-	-	-
0822	0	0	3	0	0	1	0	0	2	3	2	1
0822	-	-	0	0	1	-	-	-	0	4	0	0
0823	2	0	11	0	1	1	1	0	0	3	0	2
0824	0	1	3	0	2	2	0	0	0	1	0	1
0824	2	2	3	0	0	0	0	0	0	0	0	2
0825	1	2	8	0	1	1	2	0	0	1	0	2
0826	1	2	1	0	3	1	1	0	0	1	0	1
0826	-	-	2	0	1	-	-	-	0	0	0	0
0827	1	0	1	0	1	0	2	0	0	0	0	0
0827	1	1	-	-	-	1	1	0	-	-	-	-
0828	1	0	2	0	1	1	0	0	2	1	0	2
0828	-	-	2	0	1	-	-	-	1	0	0	2
0829	0	0	1	0	0	1	0	0	0	0	0	0
0829	1	0	-	-	-	3	3	0	-	-	-	-
0830	1	1	4	0	0	1	0	0	0	0	0	2
0830	-	-	1	0	0	-	-	-	0	1	0	1
0831	1	0	10	2	2	0	0	0	2	0	0	0
0831	0	0	-	-	-	3	0	0	-	-	-	-
0832	0	0	1	0	1	0	1	0	0	1	1	3
0832	-	-	1	0	0	-	-	-	0	0	0	0
0833	5	3	6	0	1	1	1	0	0	1	0	1
0833	3	1	-	-	-	1	0	0	-	-	-	-
0834	0	0	0	0	1	1	0	0	1	2	1	1
0834	2	1	2	0	0	0	1	0	0	1	0	0
0835	2	1	0	0	0	0	0	0	1	2	0	0
0835	-	-	3	0	1	-	-	-	2	0	0	0
0836	1	4	2	1	1	0	0	0	1	1	0	1
0837	0	0	3	0	0	2	3	0	1	0	0	0
0837	3	1	8	0	0	4	1	0	0	1	0	0
0838	1	1	1	1	2	0	2	0	0	2	0	0
0839	1	1	2	0	0	1	1	0	0	0	0	0
0839	0	0	-	-	-	2	1	0	-	-	-	-
0840	4	6	2	0	0	1	0	0	0	2	0	0
0840	-	-	1	1	3	-	-	-	0	0	0	1
0841	0	0	11	0	0	0	1	0	0	2	0	0
0841	5	4	-	-	-	2	2	0	-	-	-	-
0842	1	0	9	0	0	0	1	0	0	0	0	3
0842	-	-	1	0	0	-	-	-	0	0	0	0
0843	4	6	13	0	0	0	0	0	2	3	0	0
0844	1	1	4	0	0	3	0	0	1	1	0	3
0844	3	1	-	-	-	0	0	0	-	-	-	-
0845	0	1	1	0	1	0	0	0	0	2	0	0
0845	-	-	10	0	0	-	-	-	0	1	0	0
0846	0	1	5	0	0	2	1	0	1	2	0	2

Time Beginning	Springwood Avenue/B5171 Woolton Road - Queues (vehs) - Wednesday 14 May 2014											
	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF
0847	1	0	1	0	0	0	0	0	0	2	0	0
0847	1	4	-	-	-	2	2	0	-	-	-	-
0848	0	1	2	0	0	0	0	0	0	0	0	1
0848	-	-	2	0	1	-	-	-	1	3	0	0
0849	0	2	4	0	0	0	0	0	1	2	0	0
0850	1	1	3	0	1	2	2	1	0	2	0	3
0850	0	0	4	0	0	0	2	0	0	0	0	0
0851	0	0	9	0	0	2	1	0	0	2	0	2
0851	1	1	-	-	-	1	0	0	-	-	-	-
0852	0	0	0	1	1	1	0	0	0	2	0	1
0852	-	-	2	0	0	-	-	-	1	1	0	0
0853	0	1	4	0	0	1	2	0	0	2	0	1
0853	1	1	-	-	-	2	2	0	-	-	-	-
0854	5	6	0	0	0	1	0	0	2	3	0	1
0854	-	-	0	0	1	-	-	-	0	0	0	1
0855	1	0	1	0	1	0	0	0	0	0	0	0
0855	1	2	-	-	-	0	1	0	-	-	-	-
0856	1	3	1	0	0	0	1	0	0	0	0	0
0856	0	0	0	0	0	1	0	0	1	1	0	0
0857	4	0	3	0	0	1	0	0	0	0	0	0
0857	-	-	1	0	0	-	-	-	2	0	0	2
0858	1	2	4	0	0	0	1	0	1	2	0	1
0859	0	0	0	0	0	1	0	0	1	2	0	0
0859	1	5	-	-	-	1	1	0	-	-	-	-
0900	0	1	3	0	0	1	1	0	1	2	0	1
0900	0	0	1	0	0	0	0	0	0	1	0	2
0901	2	5	0	0	0	1	1	0	0	3	0	0
0901	-	-	4	0	1	-	-	-	0	0	0	2
0902	0	0	1	0	0	1	1	0	1	0	0	0
0902	4	3	2	0	2	0	0	1	1	1	0	1
0903	0	0	2	0	0	0	1	0	1	2	0	0
0903	1	2	-	-	-	2	2	0	-	-	-	-
0904	1	1	2	0	1	2	1	0	0	2	0	1
0904	0	0	1	0	0	0	1	0	0	0	0	3
0905	3	3	2	0	0	2	2	0	0	1	0	0
0905	-	-	1	0	1	-	-	-	0	3	0	0
0906	0	1	0	0	0	0	0	0	0	1	0	0
0906	0	1	1	0	0	0	0	0	0	0	0	0
0907	2	2	2	0	0	3	0	0	0	1	1	2
0907	1	2	0	0	0	2	0	0	1	0	0	2
0908	0	0	0	0	0	1	0	0	0	0	0	0
0908	0	0	-	-	-	2	0	0	-	-	-	-
0909	4	3	0	0	0	0	0	0	0	3	0	0
0909	1	0	7	0	2	1	0	0	0	1	0	0
0910	1	3	1	1	0	0	0	0	0	0	0	1
0910	-	-	5	0	0	-	-	-	0	1	0	2
0911	1	1	3	0	0	0	0	0	2	1	0	2
0911	0	0	-	-	-	1	0	0	-	-	-	-

[illegible]

Time Beginning	Springwood Avenue/B5171 Woolton Road - Queues (vehs) - Wednesday 14 May 2014											
	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF
1630	0	0	3	0	0	2	3	0	0	0	0	0
1630	2	2	3	0	0	1	2	1	0	0	1	0
1631	0	0	3	0	0	1	2	0	0	1	0	0
1631	1	1	-	-	-	1	0	1	-	-	-	-
1632	0	3	5	0	0	0	0	0	0	0	0	1
1632	-	-	0	0	0	-	-	-	1	1	0	0
1633	1	1	-	-	-	0	0	0	-	-	-	-
1633	-	-	5	0	0	3	3	0	0	0	0	0
1634	1	4	0	0	0	0	0	0	0	1	0	0
1634	-	-	4	0	1	-	-	-	1	1	0	0
1635	-	-	4	0	0	0	2	0	0	0	-	-
1635	1	2	-	-	-	2	4	0	-	-	0	0
1635	-	-	3	0	1	-	-	-	0	1	-	-
1636	-	-	1	0	0	3	4	0	0	1	0	0
1636	1	1	4	0	1	1	3	0	-	-	-	-
1637	0	2	5	0	1	1	1	0	0	1	1	0
1637	0	2	5	0	0	1	0	0	0	2	0	0
1638	-	-	2	0	0	0	1	0	0	1	0	0
1638	1	1	0	0	0	0	0	0	0	1	1	0
1639	-	-	8	0	1	0	2	0	0	0	0	0
1640	4	3	0	0	0	1	1	0	0	3	6	0
1640	-	-	5	1	2	-	-	-	0	2	0	0
1641	-	-	2	0	0	2	2	0	0	1	0	0
1641	2	1	-	-	-	2	2	1	-	-	-	-
1642	1	2	2	0	2	4	5	0	0	0	0	0
1643	0	0	8	0	0	5	4	0	1	4	2	1
1644	1	4	5	0	0	2	2	0	1	0	5	0
1644	-	-	3	0	0	-	-	-	0	3	2	3
1645	0	1	-	-	-	5	3	0	-	-	-	-
1645	3	2	2	0	0	1	2	0	0	0	0	3
1646	0	0	2	0	3	0	0	0	0	0	4	0
1646	-	-	7	0	0	-	-	-	0	1	0	0
1647	1	1	4	0	0	2	5	0	1	3	0	2
1647	0	1	-	-	-	3	0	0	-	-	-	-
1648	1	2	1	0	0	2	0	0	1	4	0	1
1648	-	-	0	0	1	-	-	-	2	2	2	2
1649	0	0	8	0	0	2	3	0	0	0	0	2
1649	0	3	2	0	0	1	2	0	1	2	0	0
1650	-	-	7	0	0	2	3	0	0	1	0	1
1651	2	2	-	-	-	2	3	0	-	-	-	-
1651	0	1	7	0	2	1	2	0	0	0	0	0
1652	1	1	0	0	0	1	1	0	0	1	0	2
1652	-	-	2	0	0	-	-	-	0	0	2	0
1653	-	-	2	0	0	1	0	0	0	1	0	0
1653	1	1	-	-	-	2	2	0	-	-	-	-
1654	1	0	4	0	2	5	4	0	0	1	0	0
1654	-	-	8	0	1	-	-	-	0	2	0	1
1655	2	1	5	0	1	2	1	0	1	1	6	0

Time Beginning	Springwood Avenue/B5171 Woolton Road - Queues (vehs) - Wednesday 14 May 2014											
	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF
1655	-	-	-	-	-	3	3	0	-	-	-	-
1655	-	-	2	0	0	-	-	-	0	1	1	1
1656	2	3	4	0	1	2	2	0	0	3	0	0
1656	-	-	-	-	-	1	0	0	-	-	-	-
1657	1	4	1	0	0	0	0	0	0	2	0	1
1657	-	-	1	0	0	-	-	-	0	0	0	0
1658	0	1	2	0	0	3	5	0	1	1	0	0
1658	0	1	-	-	-	1	0	0	-	-	-	-
1659	0	1	2	0	0	0	1	0	1	1	0	3
1659	1	1	2	0	0	1	4	0	0	1	0	0
1700	0	1	1	0	0	1	1	0	0	1	0	0
1700	-	-	3	0	0	-	-	-	0	1	0	0
1701	2	2	2	0	2	2	1	0	0	0	1	0
1701	0	2	-	-	-	1	1	0	-	-	-	-
1702	-	-	0	0	0	2	4	0	1	3	0	2
1702	-	-	4	0	0	-	-	-	0	1	0	2
1703	1	3	5	0	0	1	0	0	0	1	0	0
1703	-	-	-	-	-	4	2	0	-	-	-	-
1704	4	2	2	0	0	2	1	0	0	1	1	0
1704	-	-	5	0	1	-	-	-	1	0	0	0
1705	-	-	9	0	0	1	0	0	0	1	0	1
1705	2	1	-	-	-	4	4	0	-	-	-	-
1706	-	-	6	0	0	4	1	0	0	0	0	0
1706	-	-	2	0	0	-	-	-	0	2	0	1
1707	3	3	8	0	0	0	1	0	1	2	0	0
1707	-	-	-	-	-	4	2	0	-	-	-	-
1708	0	4	1	0	0	1	3	0	0	1	0	0
1708	-	-	0	0	0	-	-	-	0	0	0	0
1709	0	1	5	0	0	1	0	0	1	2	0	0
1709	0	1	-	-	-	2	2	0	1	1	0	1
1710	-	-	4	0	0	2	0	0	0	1	0	3
1710	-	-	3	0	0	-	-	-	0	3	0	0
1711	2	3	7	0	1	1	0	0	0	0	0	0
1711	0	2	-	-	-	1	1	0	-	-	-	-
1712	1	3	6	0	0	2	4	1	0	1	0	0
1713	-	-	4	0	0	0	1	0	1	0	0	4
1713	-	-	0	0	0	-	-	-	0	2	0	0
1714	-	-	0	0	0	5	5	0	0	1	0	0
1714	-	-	-	-	-	0	1	0	-	-	-	-
1714	-	-	1	0	0	-	-	-	0	0	-	-
1715	2	5	3	0	0	1	0	0	0	1	0	3
1715	-	-	-	-	-	5	2	0	-	-	-	-
1716	2	2	3	0	0	3	1	0	0	0	-	-
1716	-	-	2	0	0	-	-	-	0	0	2	0
1717	-	-	-	-	-	3	2	0	-	-	-	-
1717	0	1	3	0	0	4	2	0	0	2	-	-
1718	-	-	1	0	0	2	1	0	0	0	1	1
1718	-	-	1	0	0	-	-	-	1	4	-	-

Time Beginning	Springwood Avenue/B5171 Woolton Road - Queues (vehs) - Wednesday 14 May 2014											
	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF
1719	1	1	4	0	0	3	4	0	1	0	1	1
1719	1	1	-	-	-	2	2	0	-	-	-	-
1720	2	1	8	0	0	2	5	0	0	0	3	0
1720	-	-	0	1	0	-	-	-	0	0	0	0
1721	0	1	6	0	0	2	1	0	0	2	1	1
1721	2	2	-	-	-	2	2	0	-	-	-	-
1722	-	-	6	0	0	0	1	0	0	2	0	0
1722	-	-	1	0	0	-	-	-	1	1	0	0
1723	1	5	-	-	-	1	1	0	-	-	-	-
1723	-	-	11	0	0	-	-	-	1	1	0	0
1724	-	-	-	-	-	1	4	0	-	-	-	-
1724	3	2	5	0	0	0	0	0	0	0	0	0
1725	-	-	2	0	0	0	1	0	2	1	0	1
1725	-	-	3	0	0	3	2	0	0	1	0	0
1726	0	1	2	0	0	2	5	0	2	2	0	0
1726	-	-	1	0	0	-	-	-	0	2	3	0
1727	2	4	13	0	0	0	3	0	0	1	0	0
1727	0	1	-	-	-	3	2	1	-	-	-	-
1728	2	3	4	0	0	3	3	1	1	1	0	1
1728	-	-	4	0	0	-	-	-	1	1	0	2
1729	-	-	7	0	0	1	0	0	2	0	-	-
1729	-	-	-	-	-	3	1	0	-	-	-	-
1730	4	7	6	0	0	1	2	0	0	0	-	-
1730	-	-	1	1	0	-	-	-	0	0	0	1
1731	2	2	5	0	0	2	1	0	1	2	1	0
1731	1	2	-	-	-	1	1	0	-	-	-	-
1732	0	1	2	0	1	3	1	0	0	1	0	2
1732	-	-	1	0	0	-	-	-	1	1	0	3
1733	1	6	6	1	0	0	0	0	3	1	1	1
1733	-	-	-	-	-	3	3	0	-	-	-	-
1734	2	3	3	0	0	0	1	0	0	0	-	-
1734	-	-	1	0	0	-	-	-	0	0	0	1
1735	1	1	0	0	0	1	0	0	0	0	0	0
1735	1	0	4	0	0	1	1	0	0	0	0	2
1736	1	2	0	0	1	1	0	0	0	0	0	0
1736	-	-	2	0	0	-	-	-	1	2	0	2
1737	1	0	0	0	0	1	1	1	0	0	0	0
1737	-	-	1	0	1	-	-	-	0	0	0	0
1738	1	3	4	0	0	2	1	0	0	3	1	4
1738	-	-	-	-	-	1	1	0	-	-	-	-
1739	-	-	4	0	0	3	1	0	0	1	-	-
1739	1	0	6	0	0	5	8	0	0	0	-	-
1740	0	1	5	0	0	0	2	0	1	3	1	3
1740	-	-	6	0	0	-	-	-	1	3	0	1
1741	-	-	-	-	-	2	4	0	-	-	-	-
1741	-	-	5	0	0	-	-	-	0	1	-	-
1742	3	5	2	0	1	2	3	0	1	1	0	0
1742	0	1	-	-	-	1	1	0	-	-	-	-

Time Beginning	Springwood Avenue/B5171 Woolton Road - Queues (vehs) - Wednesday 14 May 2014											
	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF
1743	0	1	2	0	0	0	0	0	0	2	0	1
1744	3	4	12	0	0	2	0	0	0	1	0	0
1744	-	-	2	0	1	-	-	-	2	0	0	2
1745	-	-	0	1	0	1	1	0	0	0	0	0
1745	-	-	5	0	0	-	-	-	0	0	-	-
1746	1	1	6	0	0	5	2	0	0	1	0	3
1746	-	-	-	-	-	2	1	0	-	-	-	-
1747	2	2	2	0	0	1	1	0	1	0	-	-
1747	-	-	8	0	0	-	-	-	0	1	0	1
1748	0	1	3	0	0	1	1	0	0	0	0	0
1748	0	2	-	-	-	2	0	0	-	-	-	-
1748	-	-	1	0	0	-	-	-	0	0	0	1
1749	-	-	-	-	-	1	2	0	-	-	-	-
1749	1	1	0	0	0	2	1	0	1	1	-	-
1750	0	0	5	0	0	1	2	0	0	1	0	2
1750	-	-	0	0	0	-	-	-	0	2	0	0
1751	1	1	1	0	0	0	2	0	1	0	0	0
1751	-	-	4	0	1	-	-	-	0	1	0	0
1752	0	0	2	0	0	1	1	0	0	1	1	0
1752	0	4	-	-	-	2	3	0	-	-	-	-
1753	1	0	2	0	0	0	0	0	0	0	0	0
1753	-	-	3	0	0	-	-	-	0	0	0	4
1754	2	2	4	1	0	3	3	0	0	2	-	-
1754	-	-	-	-	-	5	2	0	-	-	-	-
1755	0	1	4	0	0	4	3	0	0	0	-	-
1756	1	0	5	0	0	0	0	0	0	1	1	3
1756	2	1	0	1	0	0	1	0	0	1	0	0
1757	0	1	3	0	2	0	0	0	0	0	0	0
1757	-	-	2	0	0	-	-	-	0	0	0	0
1758	-	-	1	0	0	0	1	0	2	2	-	-
1758	2	4	-	-	-	1	0	0	-	-	-	-
1758	-	-	0	0	0	-	-	-	0	2	0	1
1759	0	1	13	0	0	3	2	0	0	0	0	2
1759	3	0	-	-	-	2	1	2	-	-	-	-
1800	-	-	2	0	0	0	0	0	0	1	0	0
1800	-	-	7	0	0	-	-	-	0	0	0	3
1801	0	1	-	-	-	2	1	0	-	-	-	-
1801	-	-	8	0	0	-	-	-	0	0	0	0
1802	-	-	1	0	0	4	1	0	0	0	0	0
1802	2	1	-	-	-	0	1	0	-	-	-	-
1803	0	1	0	0	2	2	3	0	1	1	0	2
1803	-	-	2	0	0	-	-	-	0	0	1	2
1804	0	1	3	0	0	4	3	0	0	2	0	0
1804	-	-	-	-	-	2	1	0	-	-	-	-
1805	4	2	3	0	0	5	5	0	0	3	0	2
1805	-	-	2	1	0	-	-	-	0	1	0	2
1806	0	0	0	0	0	5	4	0	0	1	0	0
1806	1	0	-	-	-	0	2	0	-	-	-	-

Time Beginning	Springwood Avenue/B5171 Woolton Road - Queues (vehs) - Wednesday 14 May 2014											
	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF
1807	1	1	4	0	1	1	2	0	0	0	0	1
1807	-	-	2	0	0	-	-	-	0	0	0	0
1808	-	-	3	0	0	1	4	0	0	2	0	0
1808	1	1	-	-	-	0	2	0	-	-	-	-
1808	-	-	0	0	0	-	-	-	0	0	0	0
1809	0	3	4	0	0	0	0	0	1	3	0	2
1809	0	1	-	-	-	0	1	0	-	-	-	-
1810	0	2	1	0	0	2	2	0	0	0	0	2
1810	-	-	0	0	0	-	-	-	0	1	0	0
1811	-	-	-	-	-	0	3	0	-	-	-	-
1811	2	1	7	0	0	3	0	0	1	1	0	1
1811	-	-	2	0	0	-	-	-	0	0	0	0
1812	0	0	4	0	0	1	1	0	2	1	0	3
1812	4	5	-	-	-	3	0	0	-	-	-	-
1813	2	1	7	0	1	2	0	0	0	0	0	4
1814	-	-	3	0	0	1	0	0	0	0	0	0
1814	0	1	2	0	0	1	0	0	0	0	0	1
1815	0	0	4	0	0	2	1	0	0	0	0	0
1815	-	-	5	0	0	-	-	-	0	2	0	5
1816	0	1	-	-	-	1	1	0	-	-	-	-
1816	-	-	5	1	0	-	-	-	0	3	0	0
1817	-	-	6	0	0	2	1	0	0	1	0	0
1817	-	-	-	-	-	2	0	0	-	-	-	-
1818	2	5	3	0	0	0	0	0	0	2	0	0
1818	-	-	0	0	0	-	-	-	1	0	0	0
1819	-	-	6	0	0	1	1	0	0	1	0	0
1819	0	3	-	-	-	0	1	0	-	-	-	-
1820	0	0	2	0	0	2	1	0	0	0	0	4
1820	-	-	2	0	0	1	1	0	0	0	0	0
1821	2	1	2	0	0	2	1	0	0	0	0	1
1821	4	2	2	0	0	1	1	0	0	1	0	1
1822	0	1	1	0	3	1	1	0	1	0	0	3
1823	-	-	0	0	0	1	1	0	1	0	0	0
1823	0	1	3	0	0	1	0	0	1	1	0	0
1824	0	0	1	0	0	0	0	0	2	2	0	1
1825	0	1	1	0	0	0	1	0	1	1	0	0
1825	0	1	-	-	-	1	1	0	-	-	-	-
1825	-	-	3	0	0	-	-	-	0	2	0	1
1826	0	1	0	0	0	1	0	0	0	1	0	1
1826	0	2	-	-	-	1	1	0	-	-	-	-
1827	0	1	0	0	0	0	0	0	0	2	0	1
1827	-	-	1	0	0	-	-	-	1	1	0	1
1828	0	0	5	1	0	1	1	0	0	0	0	0
1828	-	-	-	-	-	1	1	1	-	-	-	-
1828	-	-	2	0	0	-	-	-	0	0	0	1
1829	0	1	2	0	0	2	1	0	0	0	0	2
1829	0	1	-	-	-	0	1	0	-	-	-	-
1830	-	-	2	0	0	1	0	0	0	0	0	1

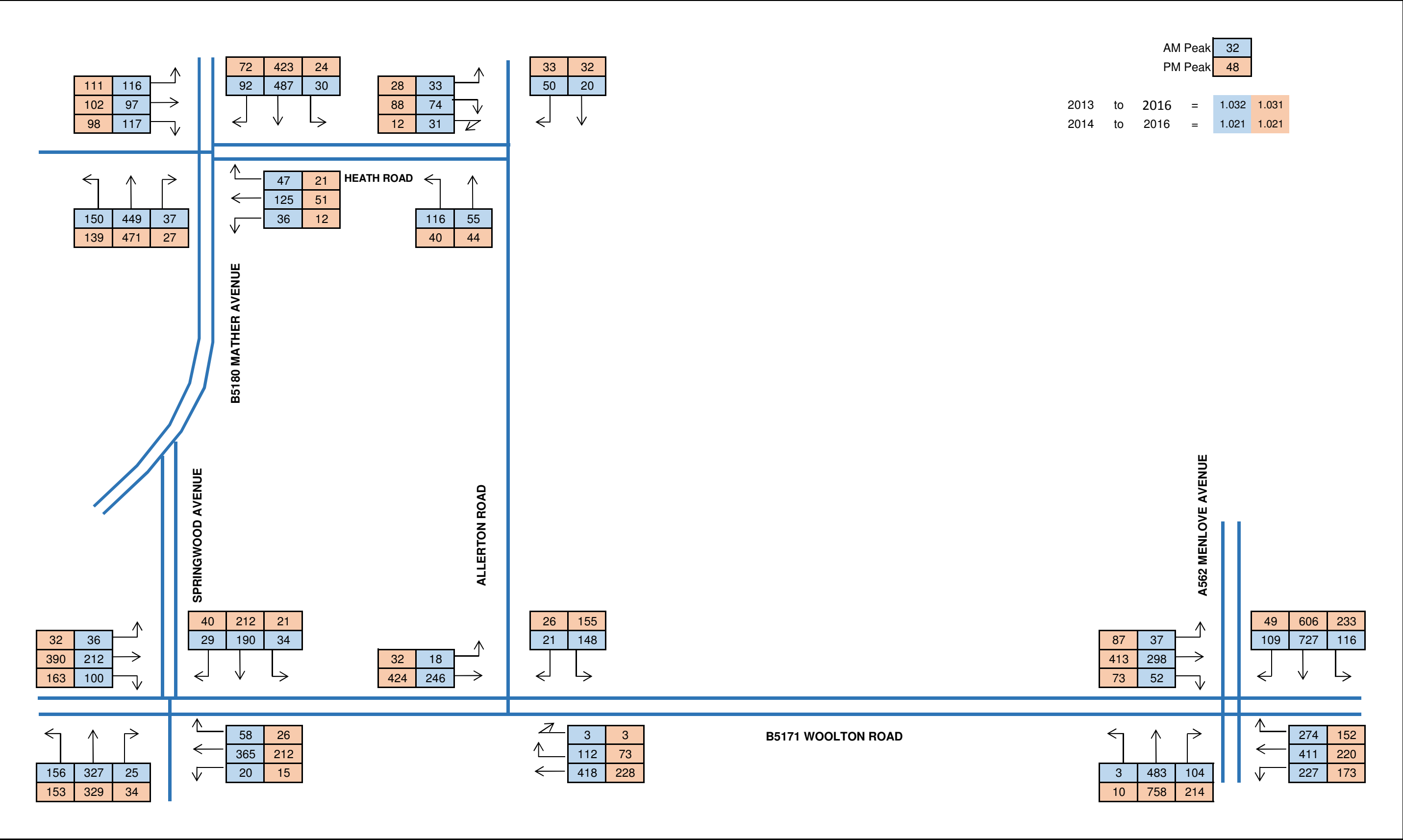
**S|C|P**

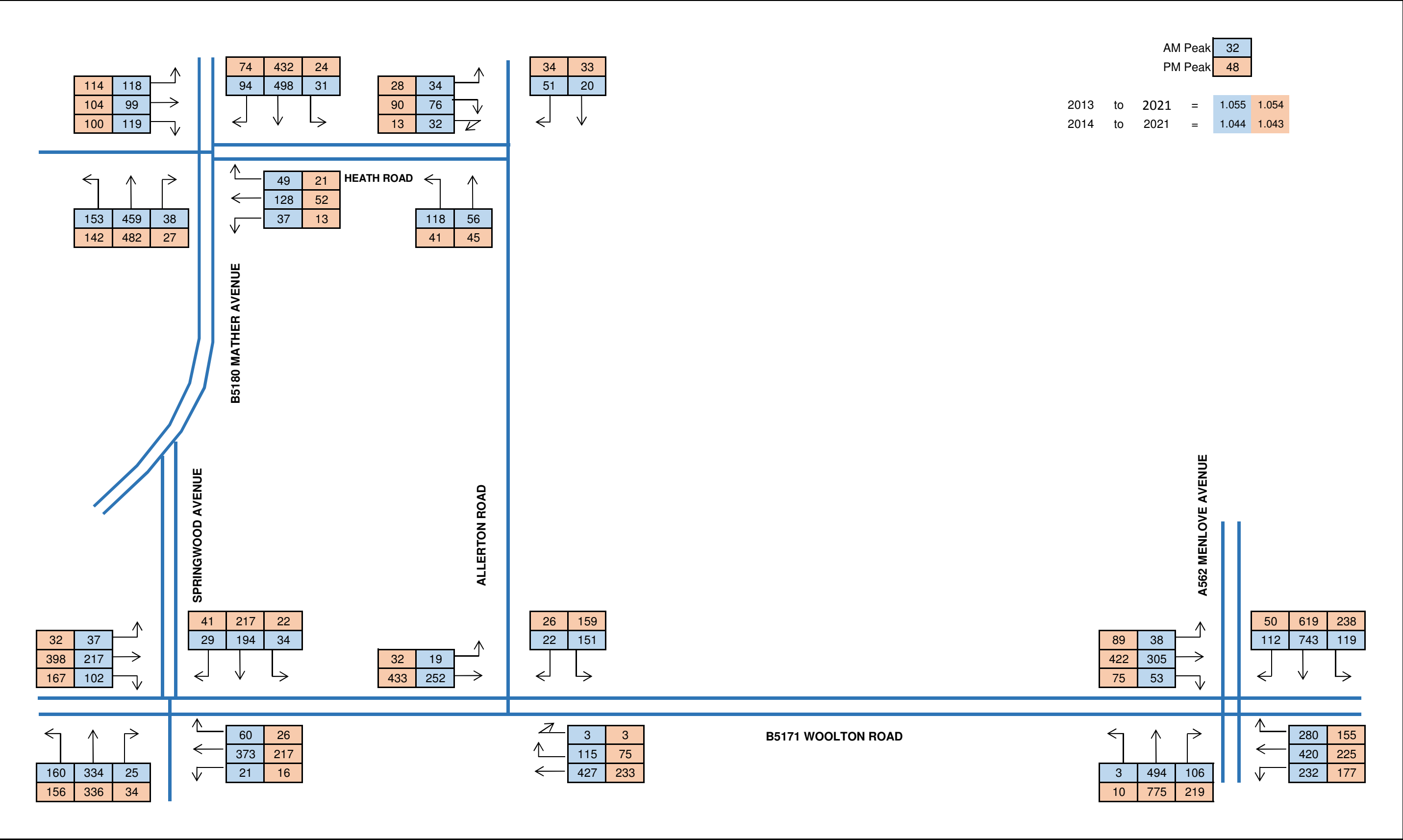
## **APPENDIX 6**



**S|C|P**

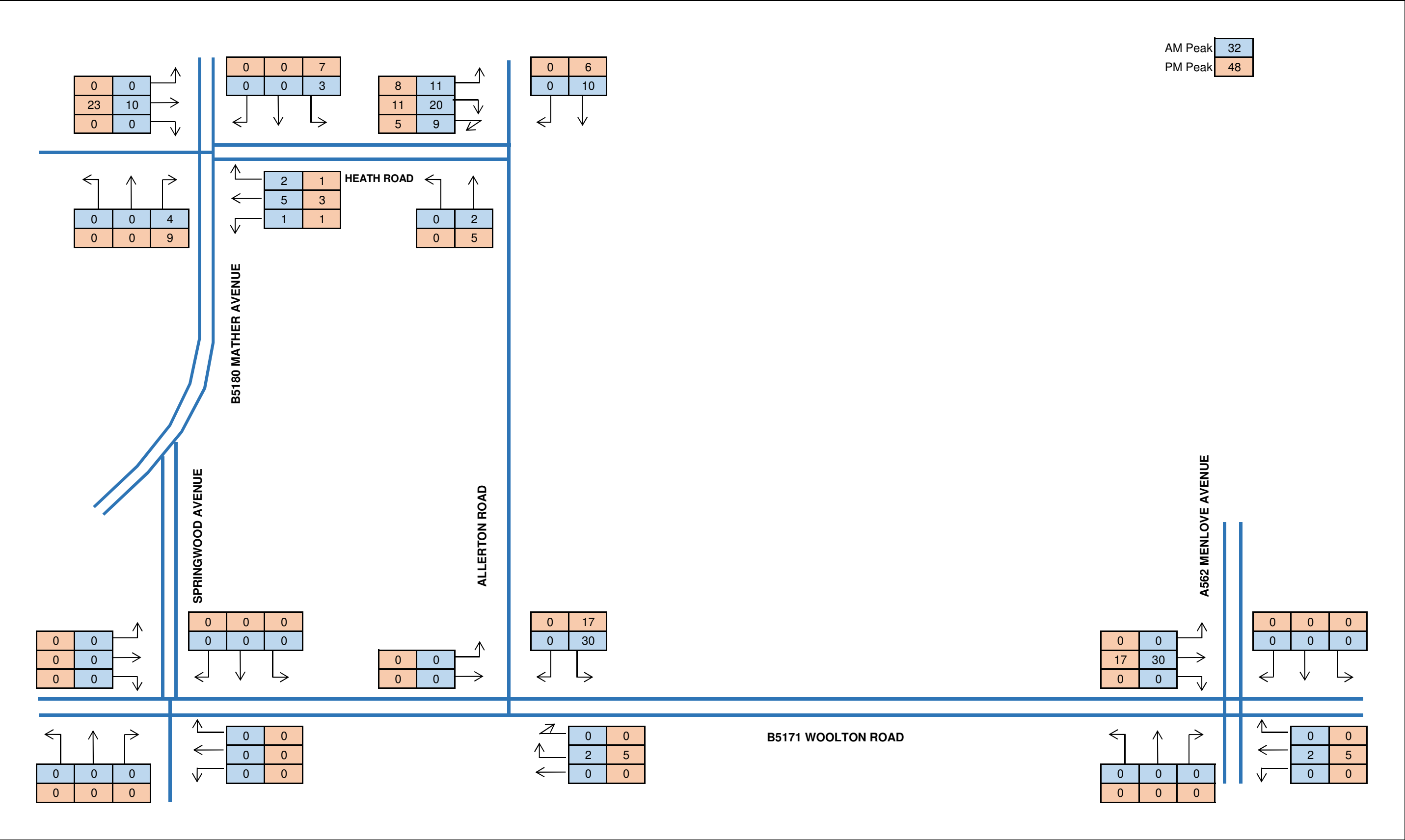
## **APPENDIX 7**





**S|C|P**

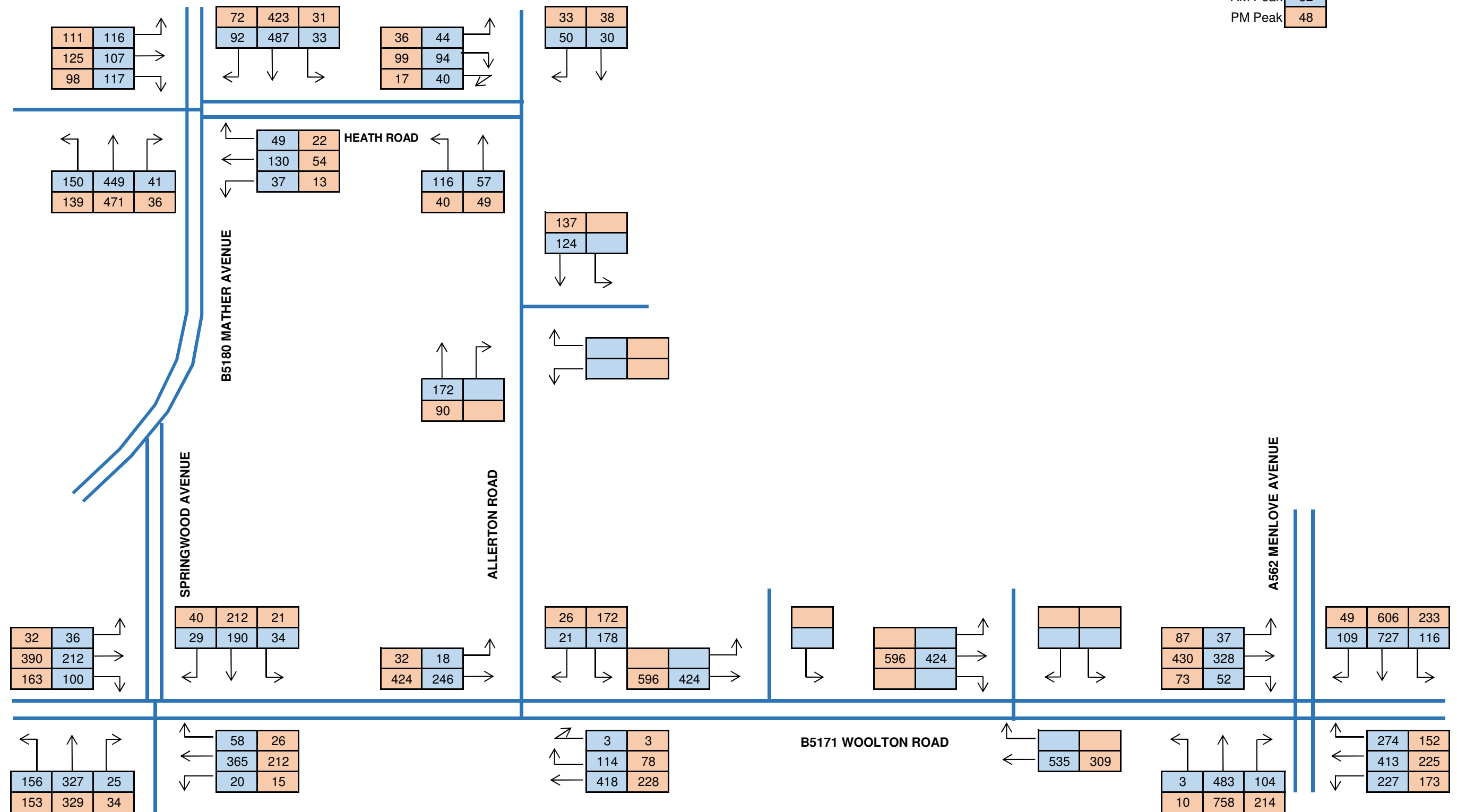
## **APPENDIX 8**



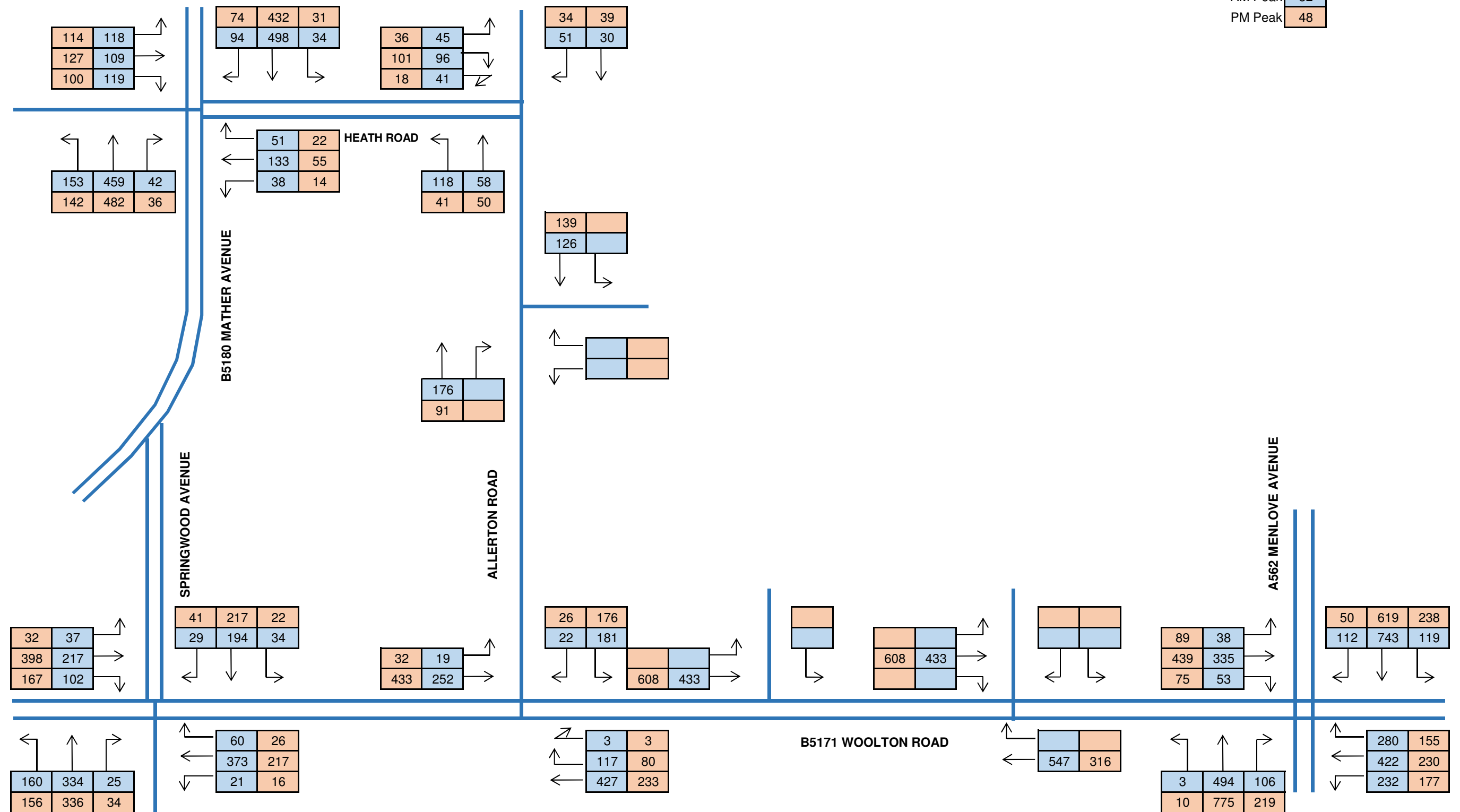
**S|C|P**

## **APPENDIX 9**

AM Peak	32
PM Peak	48

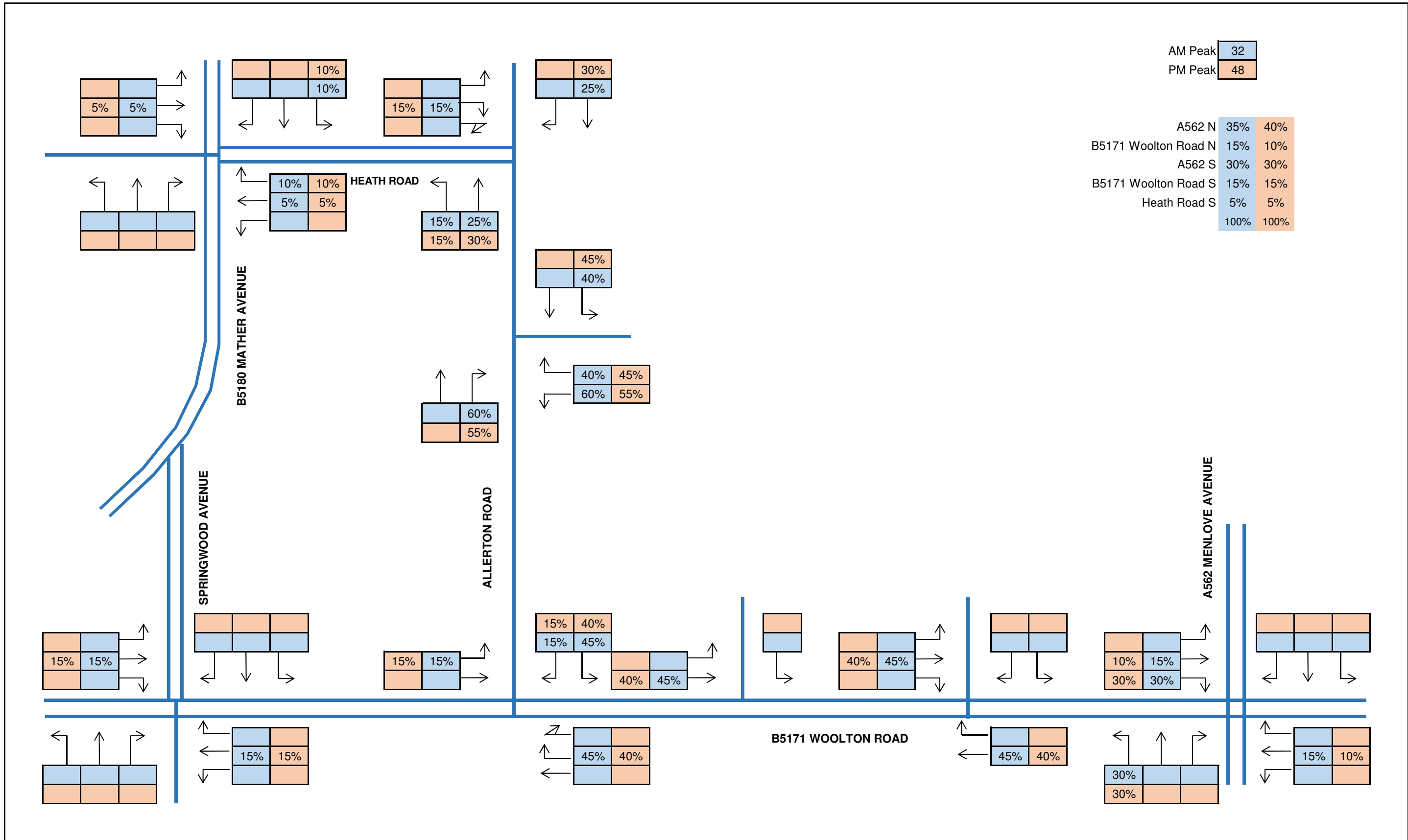


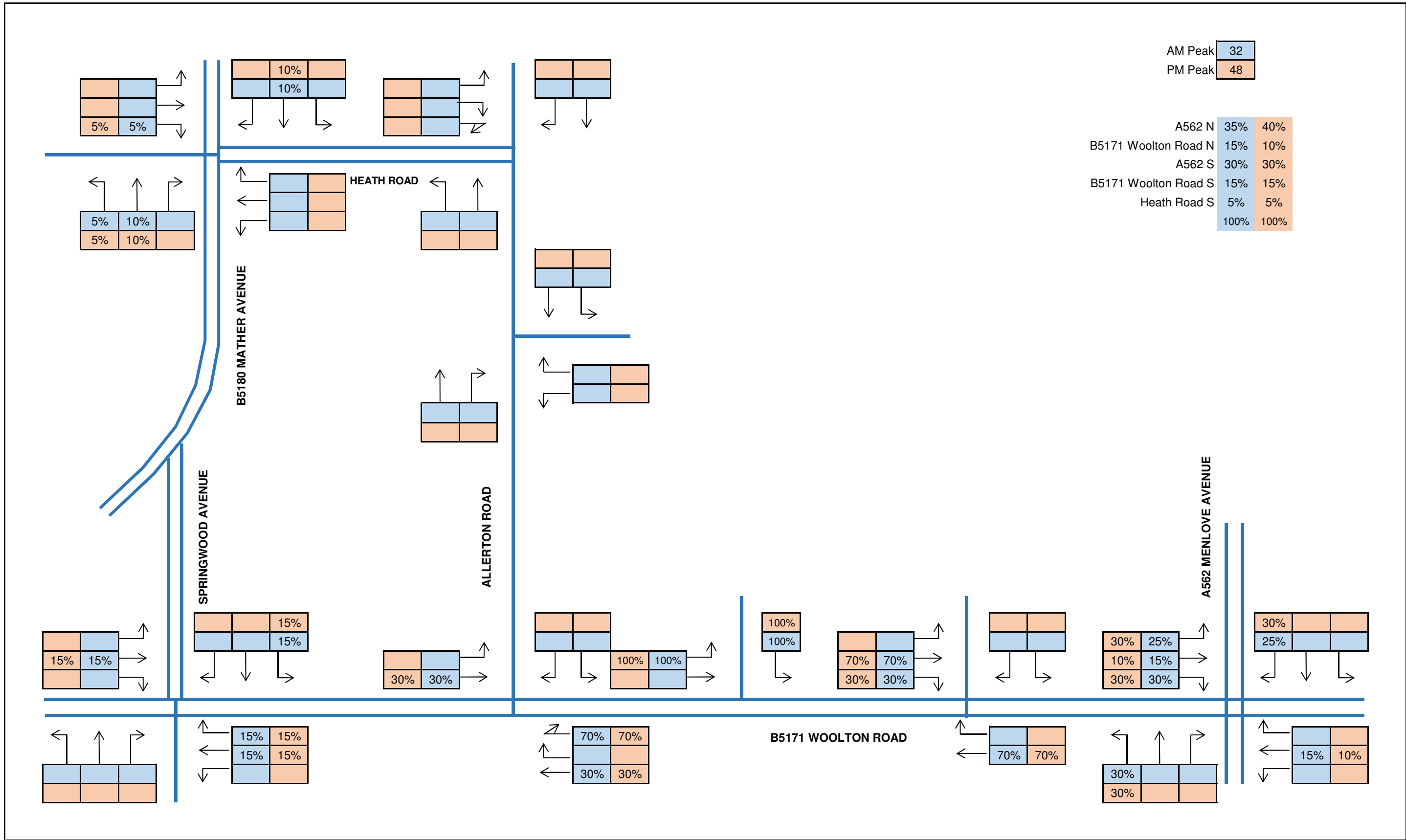
AM Peak	32
PM Peak	48

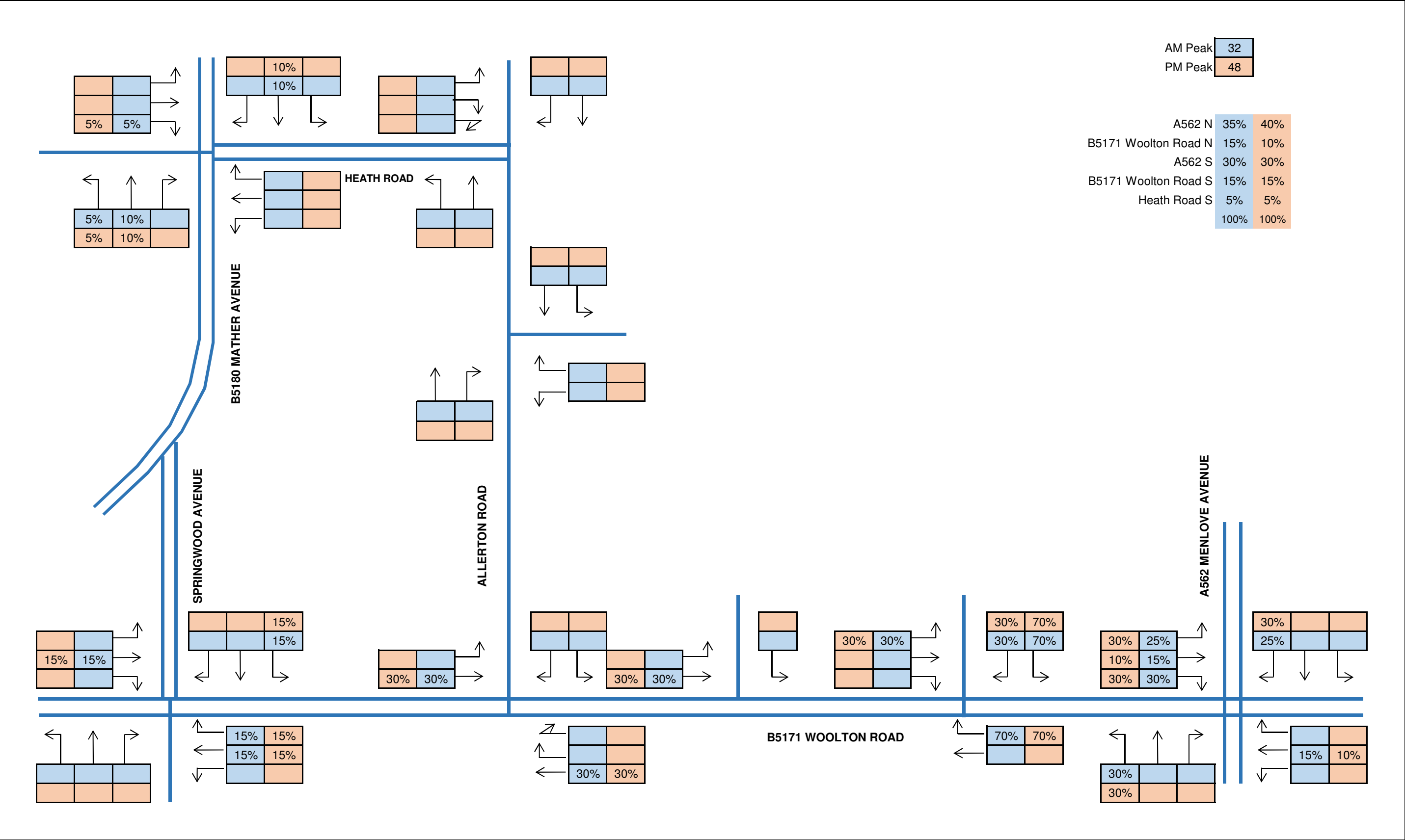


**S|C|P**

## **APPENDIX 10**







**S|C|P**

## **APPENDIX 11**

**TRIP RATE CALCULATION SELECTION PARAMETERS:**

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

**MULTI-MODAL VEHICLES**Selected regions and areas:

<b>01</b>	<b>GREATER LONDON</b>	
	BT BRENT	1 days
<b>02</b>	<b>SOUTH EAST</b>	
	EX ESSEX	1 days
	SC SURREY	1 days
<b>03</b>	<b>SOUTH WEST</b>	
	CW CORNWALL	1 days
	WL WILTSHIRE	1 days
<b>04</b>	<b>EAST ANGLIA</b>	
	NF NORFOLK	1 days
	SF SUFFOLK	3 days
<b>05</b>	<b>EAST MIDLANDS</b>	
	LN LINCOLNSHIRE	2 days
	NT NOTTINGHAMSHIRE	1 days
<b>06</b>	<b>WEST MIDLANDS</b>	
	SH SHROPSHIRE	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	1 days
<b>09</b>	<b>NORTH</b>	
	CB CUMBRIA	1 days
<b>10</b>	<b>WALES</b>	
	CF CARDIFF	1 days
<b>11</b>	<b>SCOTLAND</b>	
	AD ABERDEEN CITY	1 days
	FA FALKIRK	1 days
	FI FIFE	1 days
	HI HIGHLAND	1 days
	SR STIRLING	1 days

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

**Filtering Stage 2 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: 52 to 237 (units: )  
Range Selected by User: 50 to 491 (units: )

**Public Transport Provision:**

Selection by: Include all surveys

Date Range: 01/01/06 to 23/01/14

*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	8 days
Tuesday	6 days
Wednesday	4 days
Thursday	3 days
Friday	6 days

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

**Selected survey types:**

Manual count	27 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)	14
Edge of Town	13

*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	23
Out of Town	1
No Sub Category	3

*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.*

**Filtering Stage 3 selection:****Use Class:**

C3	27 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®.*

**Filtering Stage 3 selection (Cont.):**Population within 1 mile:

1,001 to 5,000	2 days
5,001 to 10,000	7 days
10,001 to 15,000	2 days
15,001 to 20,000	10 days
20,001 to 25,000	4 days
25,001 to 50,000	2 days

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

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	3 days
50,001 to 75,000	3 days
75,001 to 100,000	4 days
100,001 to 125,000	6 days
125,001 to 250,000	7 days
250,001 to 500,000	2 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	8 days
1.1 to 1.5	19 days

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

Travel Plan:

No	27 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.*

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

**MULTI-MODAL VEHICLES****Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	27	115	0.083	27	115	0.289	27	115	0.372
08:00 - 09:00	27	115	0.156	<b>27</b>	<b>115</b>	<b>0.415</b>	27	115	0.571
09:00 - 10:00	27	115	0.169	27	115	0.229	27	115	0.398
10:00 - 11:00	27	115	0.150	27	115	0.183	27	115	0.333
11:00 - 12:00	27	115	0.183	27	115	0.174	27	115	0.357
12:00 - 13:00	27	115	0.202	27	115	0.183	27	115	0.385
13:00 - 14:00	27	115	0.195	27	115	0.190	27	115	0.385
14:00 - 15:00	27	115	0.190	27	115	0.190	27	115	0.380
15:00 - 16:00	27	115	0.292	27	115	0.204	27	115	0.496
16:00 - 17:00	27	115	0.330	27	115	0.201	27	115	0.531
17:00 - 18:00	<b>27</b>	<b>115</b>	<b>0.392</b>	27	115	0.235	<b>27</b>	<b>115</b>	<b>0.627</b>
18:00 - 19:00	27	115	0.262	27	115	0.208	27	115	0.470
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.604			2.701			5.305

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

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

**Parameter summary**

Trip rate parameter range selected: 52 - 237 (units: )  
 Survey date range: 01/01/06 - 23/01/14  
 Number of weekdays (Monday-Friday): 27  
 Number of Saturdays: 0  
 Number of Sundays: 0  
 Surveys manually removed from selection: 5

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

**MULTI-MODAL CYCLISTS****Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	27	115	0.007	27	115	0.014	27	115	0.021
08:00 - 09:00	27	115	0.005	<b>27</b>	<b>115</b>	<b>0.022</b>	27	115	0.027
09:00 - 10:00	27	115	0.005	27	115	0.005	27	115	0.010
10:00 - 11:00	27	115	0.003	27	115	0.005	27	115	0.008
11:00 - 12:00	27	115	0.004	27	115	0.003	27	115	0.007
12:00 - 13:00	27	115	0.005	27	115	0.007	27	115	0.012
13:00 - 14:00	27	115	0.006	27	115	0.005	27	115	0.011
14:00 - 15:00	27	115	0.007	27	115	0.005	27	115	0.012
15:00 - 16:00	<b>27</b>	<b>115</b>	<b>0.019</b>	27	115	0.011	27	115	0.030
16:00 - 17:00	27	115	0.017	27	115	0.014	<b>27</b>	<b>115</b>	<b>0.031</b>
17:00 - 18:00	27	115	0.018	27	115	0.012	27	115	0.030
18:00 - 19:00	27	115	0.013	27	115	0.007	27	115	0.020
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.109			0.110			0.219

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

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

**Parameter summary**

Trip rate parameter range selected: 52 - 237 (units: )  
 Survey date range: 01/01/06 - 23/01/14  
 Number of weekdays (Monday-Friday): 27  
 Number of Saturdays: 0  
 Number of Sundays: 0  
 Surveys manually removed from selection: 5

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

**MULTI-MODAL PEDESTRIANS****Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	27	115	0.032	27	115	0.064	27	115	0.096
08:00 - 09:00	27	115	0.052	<b>27</b>	<b>115</b>	<b>0.181</b>	27	115	0.233
09:00 - 10:00	27	115	0.050	27	115	0.061	27	115	0.111
10:00 - 11:00	27	115	0.042	27	115	0.046	27	115	0.088
11:00 - 12:00	27	115	0.042	27	115	0.041	27	115	0.083
12:00 - 13:00	27	115	0.042	27	115	0.036	27	115	0.078
13:00 - 14:00	27	115	0.031	27	115	0.039	27	115	0.070
14:00 - 15:00	27	115	0.046	27	115	0.047	27	115	0.093
15:00 - 16:00	<b>27</b>	<b>115</b>	<b>0.169</b>	27	115	0.076	<b>27</b>	<b>115</b>	<b>0.245</b>
16:00 - 17:00	27	115	0.090	27	115	0.057	27	115	0.147
17:00 - 18:00	27	115	0.065	27	115	0.053	27	115	0.118
18:00 - 19:00	27	115	0.068	27	115	0.057	27	115	0.125
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.729			0.758			1.487

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

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

**Parameter summary**

Trip rate parameter range selected: 52 - 237 (units: )  
 Survey date range: 01/01/06 - 23/01/14  
 Number of weekdays (Monday-Friday): 27  
 Number of Saturdays: 0  
 Number of Sundays: 0  
 Surveys manually removed from selection: 5

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

**MULTI-MODAL PUBLIC TRANSPORT USERS****Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	27	115	0.002	27	115	0.011	27	115	0.013
08:00 - 09:00	27	115	0.003	<b>27</b>	<b>115</b>	<b>0.020</b>	<b>27</b>	<b>115</b>	<b>0.023</b>
09:00 - 10:00	27	115	0.003	27	115	0.008	27	115	0.011
10:00 - 11:00	27	115	0.004	27	115	0.006	27	115	0.010
11:00 - 12:00	27	115	0.005	27	115	0.008	27	115	0.013
12:00 - 13:00	27	115	0.006	27	115	0.011	27	115	0.017
13:00 - 14:00	27	115	0.007	27	115	0.004	27	115	0.011
14:00 - 15:00	27	115	0.006	27	115	0.003	27	115	0.009
15:00 - 16:00	27	115	0.008	27	115	0.005	27	115	0.013
16:00 - 17:00	27	115	0.012	27	115	0.004	27	115	0.016
17:00 - 18:00	<b>27</b>	<b>115</b>	<b>0.016</b>	27	115	0.006	27	115	0.022
18:00 - 19:00	27	115	0.007	27	115	0.001	27	115	0.008
19:00 - 20:00	1	73	0.000	1	73	0.000	1	73	0.000
20:00 - 21:00	1	73	0.000	1	73	0.000	1	73	0.000
21:00 - 22:00	1	73	0.000	1	73	0.000	1	73	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.079			0.087			0.166

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

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

**Parameter summary**

Trip rate parameter range selected: 52 - 237 (units: )  
 Survey date range: 01/01/06 - 23/01/14  
 Number of weekdays (Monday-Friday): 27  
 Number of Saturdays: 0  
 Number of Sundays: 0  
 Surveys manually removed from selection: 5

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

**MULTI-MODAL TOTAL PEOPLE****Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	27	115	0.135	27	115	0.438	27	115	0.573
08:00 - 09:00	27	115	0.255	<b>27</b>	<b>115</b>	<b>0.840</b>	<b>27</b>	<b>115</b>	<b>1.095</b>
09:00 - 10:00	27	115	0.262	27	115	0.373	27	115	0.635
10:00 - 11:00	27	115	0.238	27	115	0.295	27	115	0.533
11:00 - 12:00	27	115	0.282	27	115	0.274	27	115	0.556
12:00 - 13:00	27	115	0.311	27	115	0.290	27	115	0.601
13:00 - 14:00	27	115	0.292	27	115	0.294	27	115	0.586
14:00 - 15:00	27	115	0.303	27	115	0.303	27	115	0.606
15:00 - 16:00	<b>27</b>	<b>115</b>	<b>0.649</b>	27	115	0.372	27	115	1.021
16:00 - 17:00	27	115	0.569	27	115	0.358	27	115	0.927
17:00 - 18:00	27	115	0.624	27	115	0.391	27	115	1.015
18:00 - 19:00	27	115	0.437	27	115	0.361	27	115	0.798
19:00 - 20:00	1	73	0.000	1	73	0.000	1	73	0.000
20:00 - 21:00	1	73	0.000	1	73	0.000	1	73	0.000
21:00 - 22:00	1	73	0.000	1	73	0.000	1	73	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.357			4.589			8.946

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

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

**Parameter summary**

Trip rate parameter range selected: 52 - 237 (units: )  
 Survey date range: 01/01/06 - 23/01/14  
 Number of weekdays (Monday-Friday): 27  
 Number of Saturdays: 0  
 Number of Sundays: 0  
 Surveys manually removed from selection: 5

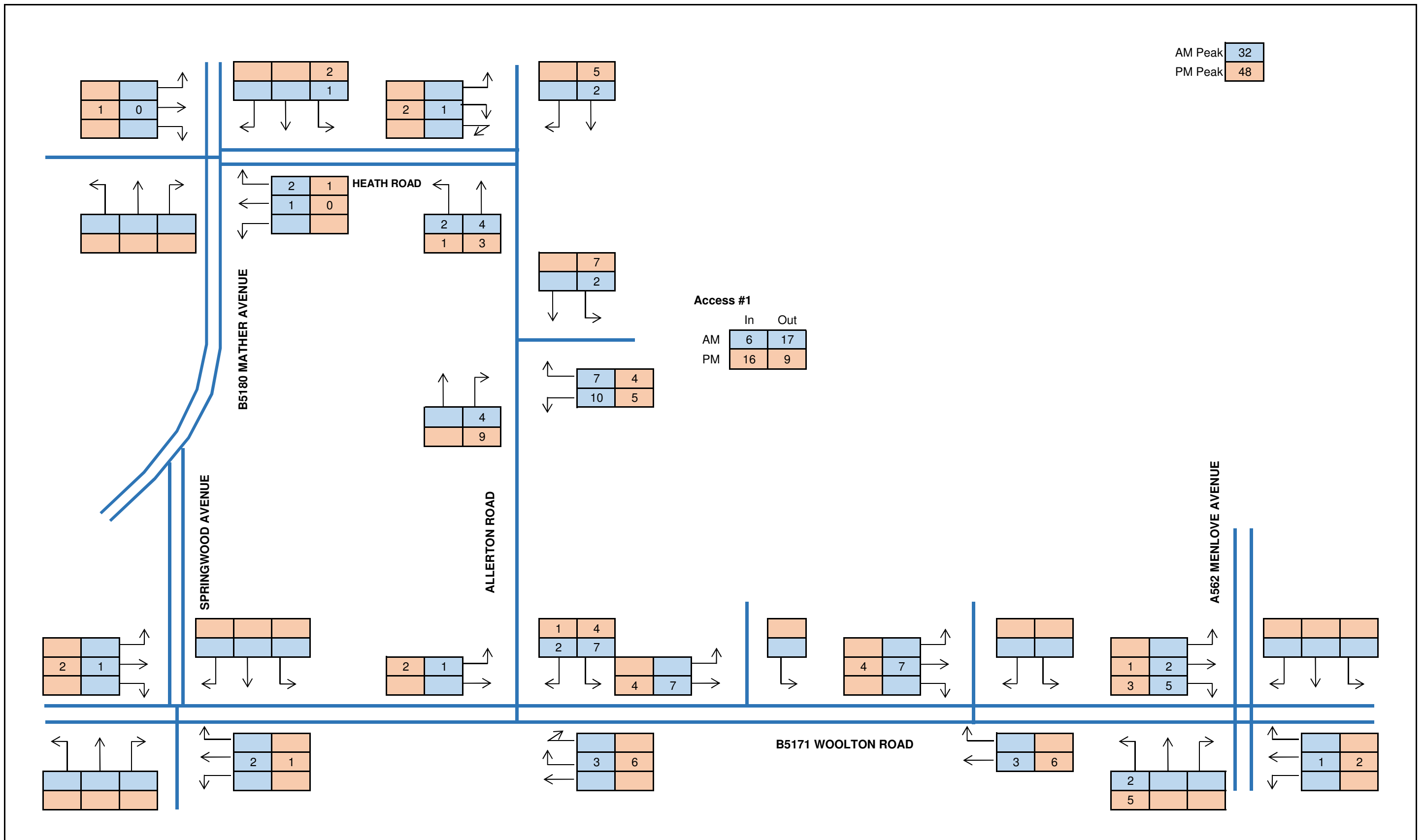
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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


**S|C|P**

## **APPENDIX 12**

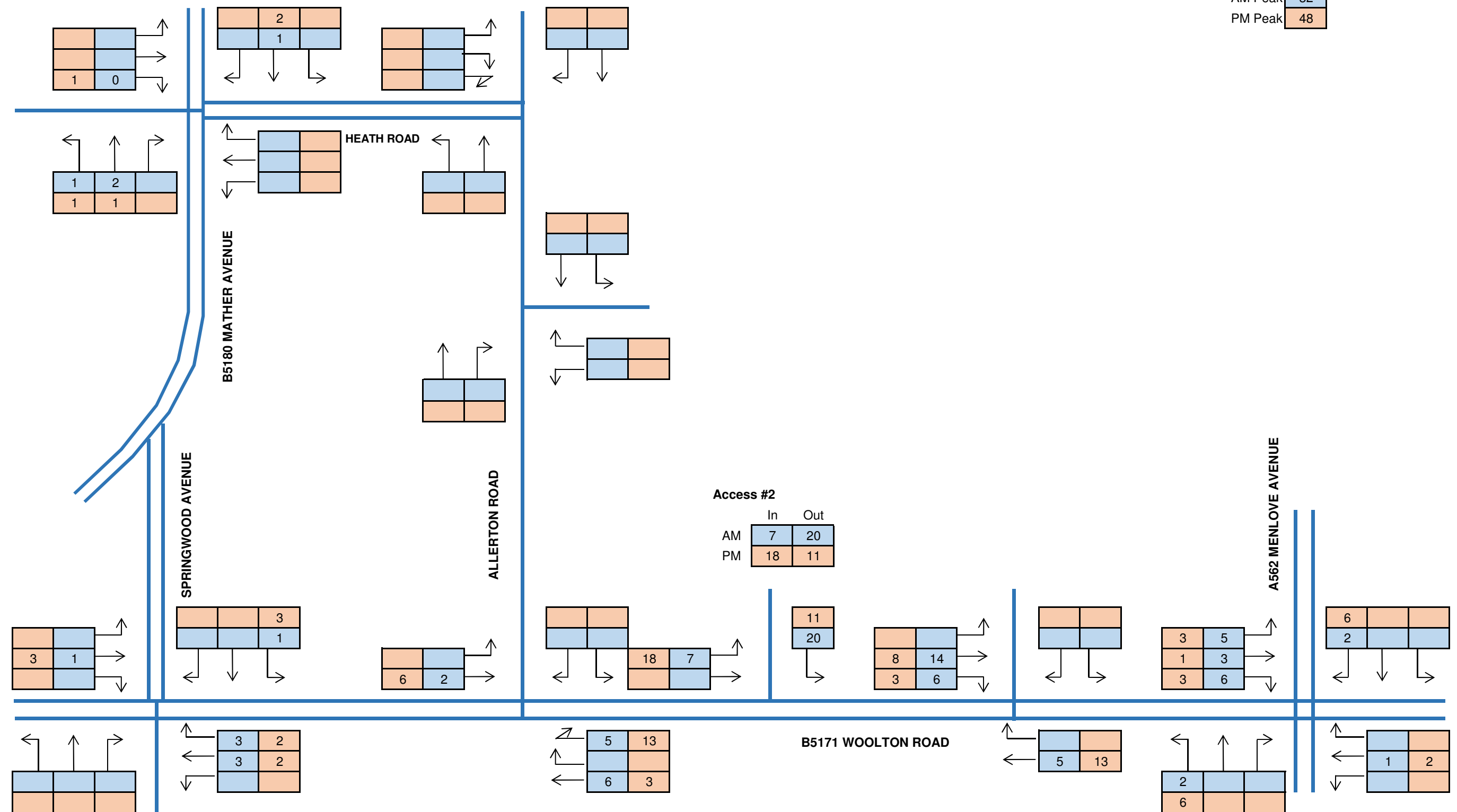
AM Peak	32
PM Peak	48

	In	Out
AM	6	17
PM	16	9

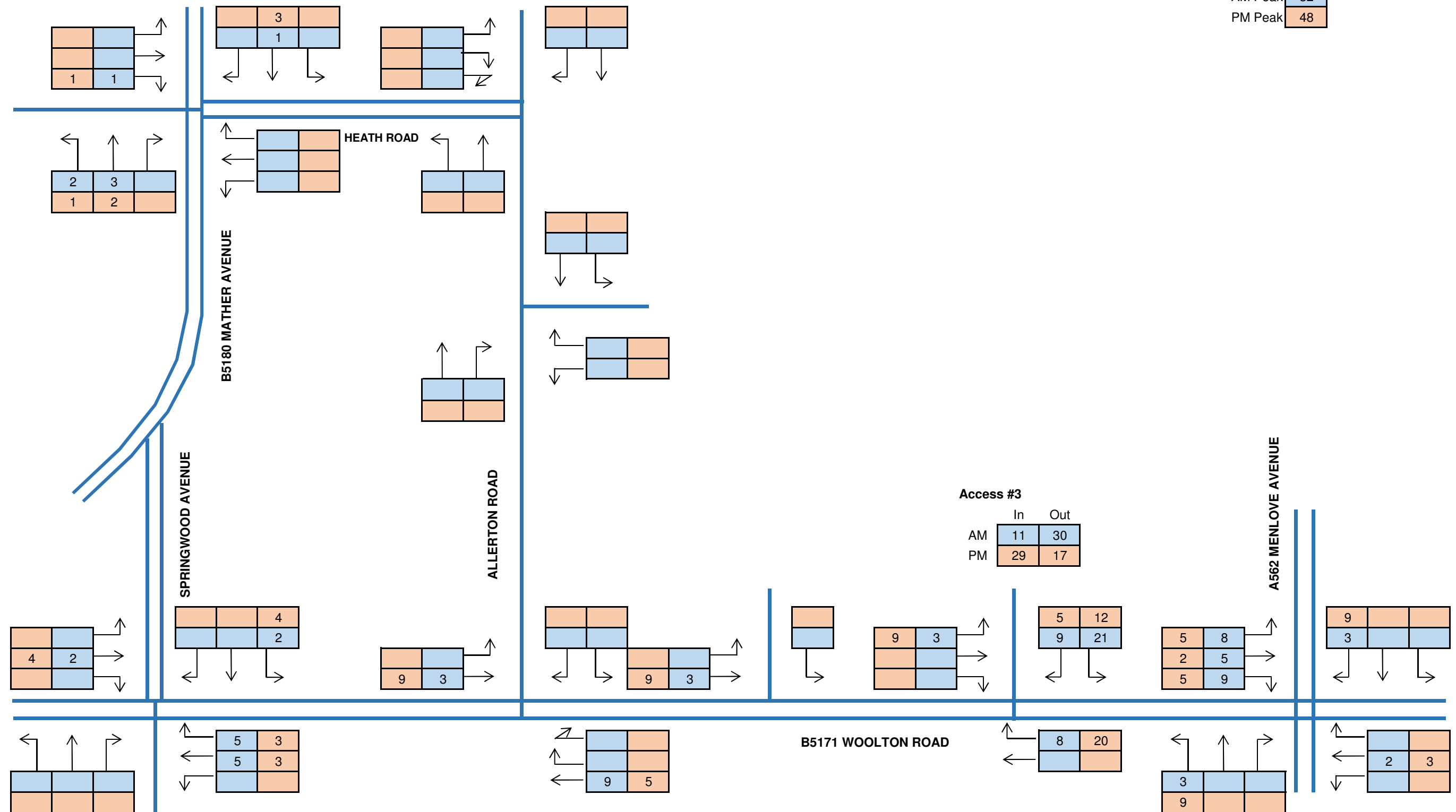


 Transportation Planning : Infrastructure Design	Development Flows: Access #1 - PCUs		07 October 2014
	Proposed Residential Development, Woolton Road, Liverpool		Job Number - SCP/14241
			Traffic Figure 010

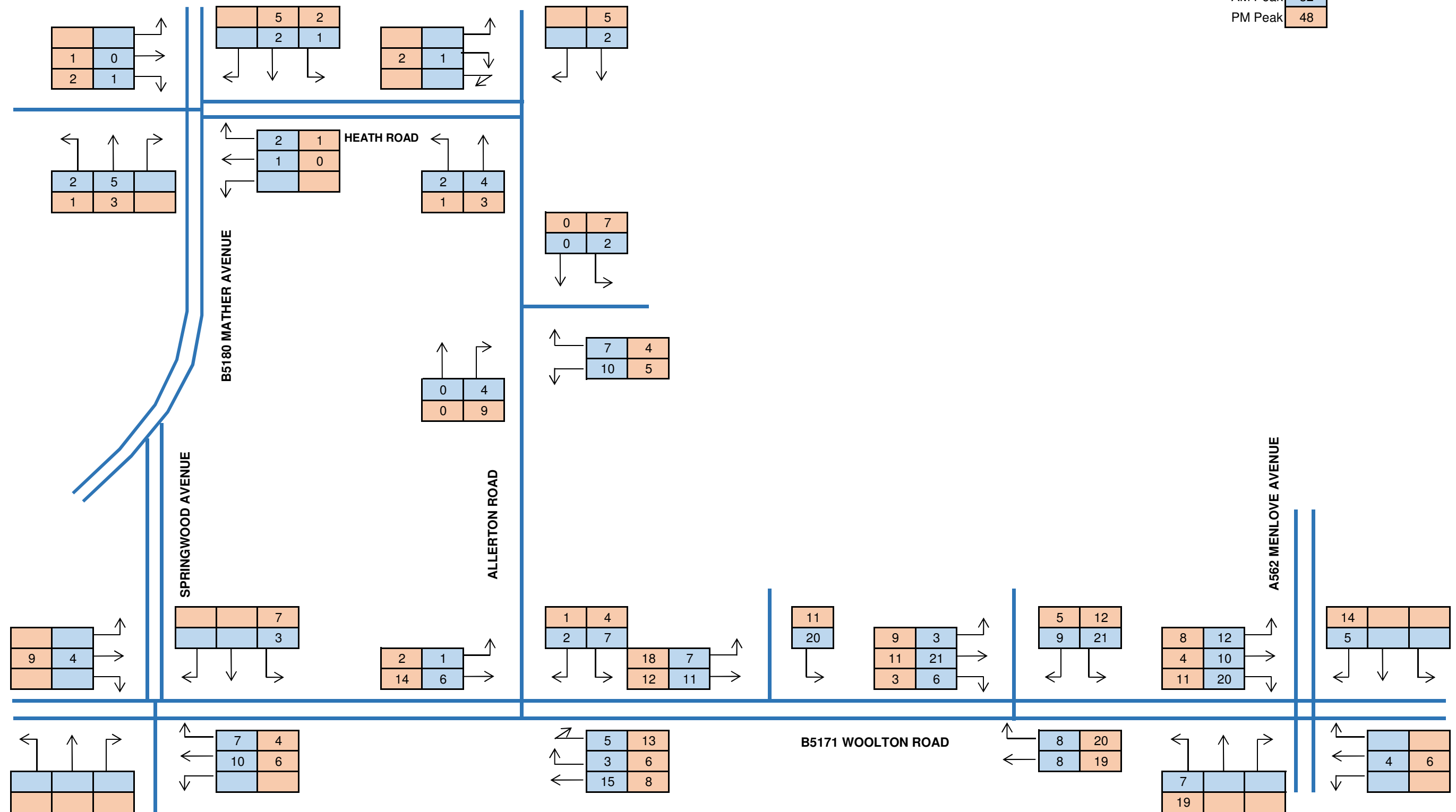
AM Peak	32
PM Peak	48



AM Peak	32
PM Peak	48

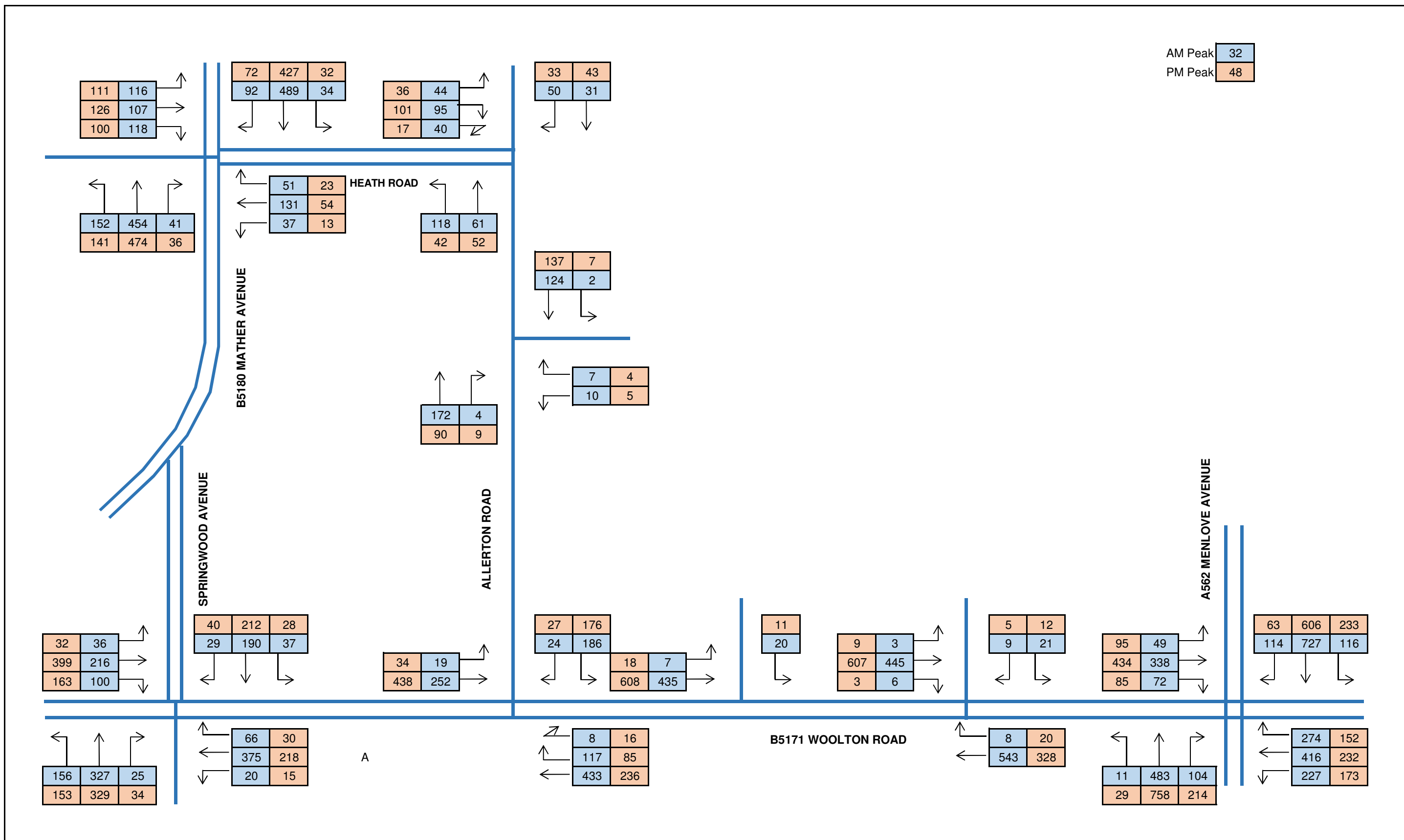


AM Peak 32  
PM Peak 48

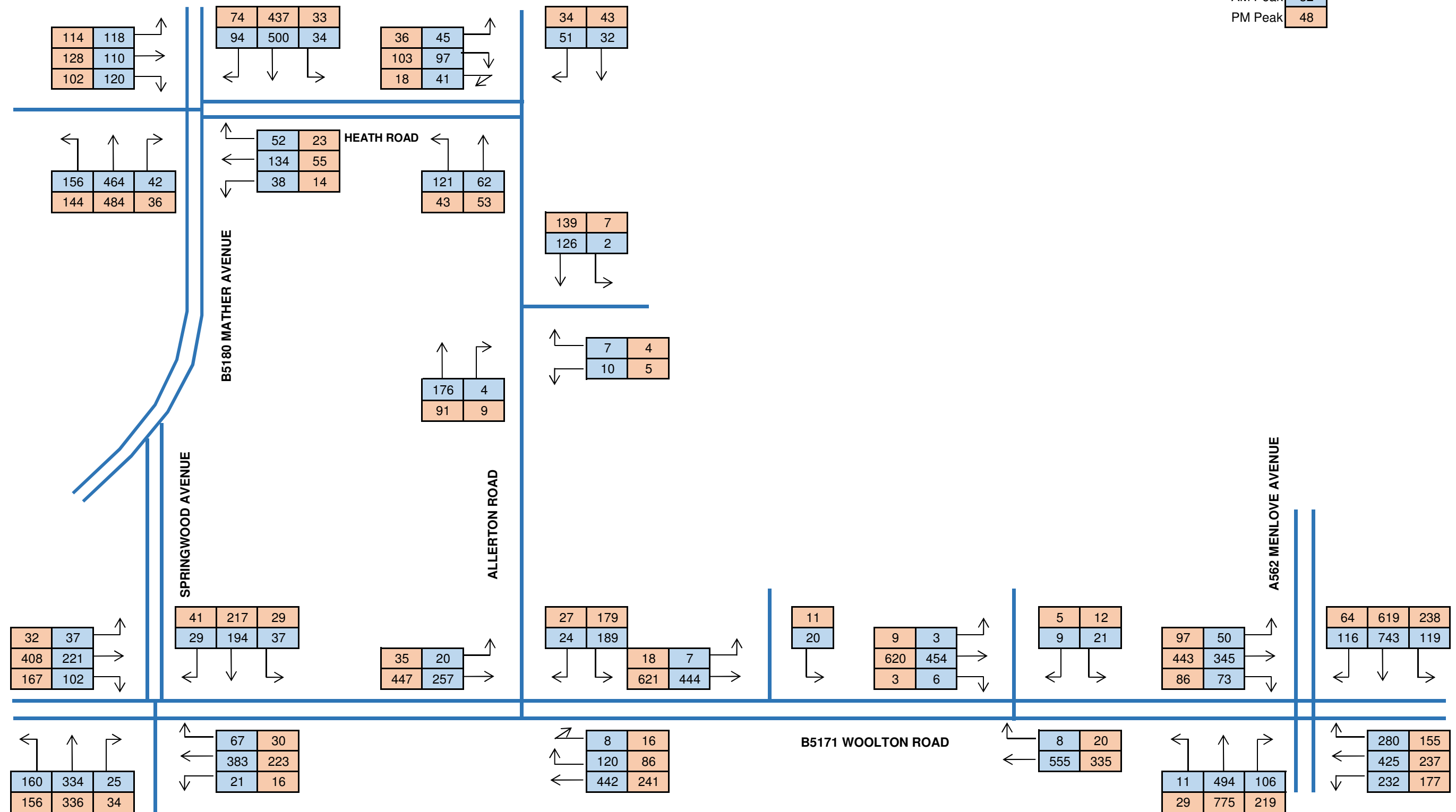


**S|C|P**

## **APPENDIX 13**



AM Peak	32
PM Peak	48



**S|C|P**

## **APPENDIX 14**

# Junctions 8

## PICADY 8 - Priority Intersection Module

Version: 8.0.4.487 [15039,24/03/2014]

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Filename: Site Access West.arc8

Path: Z:\Job Library\2014\14241 - Allerton Priory, Woolton Road\Traffic Data

Report generation date: 06/10/2014 15:44:34

- » Proposed Site Access - 2016 Base + Dev, AM
- » Proposed Site Access - 2016 Base + Dev, PM
- » Proposed Site Access - 2021 Base + Dev, AM
- » Proposed Site Access - 2021 Base + Dev, PM

## Summary of junction performance

	AM		PM	
	Queue (PCU)	RFC	Queue (PCU)	RFC
Proposed Site Access - 2016 Base + Dev				
Stream B-AC	0.04	0.04	0.02	0.02
Stream C-AB	0.01	0.01	0.02	0.02
Stream C-A	-	-	-	-
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-
Proposed Site Access - 2021 Base + Dev				
Stream B-AC	0.04	0.04	0.02	0.02
Stream C-AB	0.01	0.01	0.02	0.02
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.

"D1 - 2016 Base + Dev, AM" model duration: 07:45 - 09:15

"D2 - 2016 Base + Dev, PM" model duration: 16:45 - 18:15

"D3 - 2021 Base + Dev, AM" model duration: 07:45 - 09:15

"D4 - 2021 Base + Dev, PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.4.487 at 06/10/2014 15:44:32

## File summary

Title	(untitled)
Location	
Site Number	
Date	17/09/2014
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	Gavin Snowball
Description	

## 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	PCU	PCU	perHour	s	-Min	perMin

# Proposed Site Access - 2016 Base + Dev, 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
Proposed Site Access	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	Relationship
2016 Base + Dev, AM	2016 Base + Dev	AM		ONE HOUR	07:45	09:15	90	15				✓		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		6.59	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Arm	Name	Description	Arm Type
A	A	Allerton Road N		Major
B	B	Western Site Access		Minor
C	C	Allerton Road S		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	6.50		0.00		2.20	120.00	✓	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	3.20										23	18

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	503.798	0.090	0.227	0.143	0.324
1	B-C	647.988	0.097	0.246	-	-
1	C-B	643.457	0.244	0.244	-	-

*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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	126.00	100.000
B	ONE HOUR	✓	17.00	100.000
C	ONE HOUR	✓	176.00	100.000

# Turning Proportions

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

	To			
		A	B	C
From	A	0.000	2.000	124.000
	B	7.000	0.000	10.000
	C	172.000	4.000	0.000

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

	To			
		A	B	C
From	A	0.00	0.02	0.98
	B	0.41	0.00	0.59
	C	0.98	0.02	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	1.000
	C	1.000	1.000	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	0.0
	C	0.0	0.0	0.0

# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.04	7.03	0.04	A	15.60	23.40	2.67	6.85	0.03	2.67	6.85
C-AB	0.01	5.14	0.01	A	4.70	7.04	0.63	5.33	0.01	0.63	5.33
C-A	-	-	-	-	156.81	235.21	-	-	-	-	-
A-B	-	-	-	-	1.84	2.75	-	-	-	-	-
A-C	-	-	-	-	113.78	170.68	-	-	-	-	-

## Main Results for each time segment

### Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	12.80	3.20	12.70	0.00	546.27	0.023	0.00	0.02	6.747	A
C-AB	3.67	0.92	3.65	0.00	704.78	0.005	0.00	0.01	5.134	A
C-A	128.83	32.21	128.83	0.00	-	-	-	-	-	-
A-B	1.51	0.38	1.51	0.00	-	-	-	-	-	-
A-C	93.35	23.34	93.35	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	15.28	3.82	15.26	0.00	539.70	0.028	0.02	0.03	6.863	A
C-AB	4.55	1.14	4.55	0.00	716.87	0.006	0.01	0.01	5.053	A
C-A	153.67	38.42	153.67	0.00	-	-	-	-	-	-
A-B	1.80	0.45	1.80	0.00	-	-	-	-	-	-
A-C	111.47	27.87	111.47	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	18.72	4.68	18.69	0.00	530.58	0.035	0.03	0.04	7.032	A
C-AB	5.86	1.47	5.86	0.00	733.62	0.008	0.01	0.01	4.946	A
C-A	187.92	46.98	187.92	0.00	-	-	-	-	-	-
A-B	2.20	0.55	2.20	0.00	-	-	-	-	-	-
A-C	136.53	34.13	136.53	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	18.72	4.68	18.72	0.00	530.58	0.035	0.04	0.04	7.032	A
C-AB	5.87	1.47	5.87	0.00	733.62	0.008	0.01	0.01	4.946	A
C-A	187.91	46.98	187.91	0.00	-	-	-	-	-	-
A-B	2.20	0.55	2.20	0.00	-	-	-	-	-	-
A-C	136.53	34.13	136.53	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	15.28	3.82	15.31	0.00	539.70	0.028	0.04	0.03	6.864	A
C-AB	4.55	1.14	4.56	0.00	716.87	0.006	0.01	0.01	5.053	A
C-A	153.67	38.42	153.67	0.00	-	-	-	-	-	-
A-B	1.80	0.45	1.80	0.00	-	-	-	-	-	-
A-C	111.47	27.87	111.47	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	12.80	3.20	12.82	0.00	546.26	0.023	0.03	0.02	6.748	A
C-AB	3.67	0.92	3.68	0.00	704.78	0.005	0.01	0.01	5.136	A
C-A	128.83	32.21	128.83	0.00	-	-	-	-	-	-
A-B	1.51	0.38	1.51	0.00	-	-	-	-	-	-
A-C	93.35	23.34	93.35	0.00	-	-	-	-	-	-

## Queueing Delay Results for each time segment

### Queueing Delay results: (07:45-08:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.35	0.02	6.747	A	A
C-AB	0.08	0.01	5.134	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

### Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.43	0.03	6.863	A	A
C-AB	0.10	0.01	5.053	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.53	0.04	7.032	A	A
C-AB	0.13	0.01	4.946	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.55	0.04	7.032	A	A
C-AB	0.13	0.01	4.946	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.45	0.03	6.864	A	A
C-AB	0.10	0.01	5.053	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.37	0.02	6.748	A	A
C-AB	0.08	0.01	5.136	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## Proposed Site Access - 2016 Base + Dev, 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
Proposed Site Access	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	Relationship
2016 Base + Dev, FM	2016 Base + Dev	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	(untitled)	T-Junction	Two-way	A,B,C		6.18	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Allerton Road N		Major
B	B	Western Site Access		Minor
C	C	Allerton Road S		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	6.50		0.00		2.20	120.00	✓	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	3.20										23	18

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	503.798	0.090	0.227	0.143	0.324
1	B-C	647.988	0.097	0.246	-	-
1	C-B	643.457	0.244	0.244	-	-

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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	144.00	100.000
B	ONE HOUR	✓	9.00	100.000
C	ONE HOUR	✓	99.00	100.000

## Turning Proportions

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

		To		
From		A	B	C
	A	0.000	7.000	137.000
	B	4.000	0.000	5.000
	C	90.000	9.000	0.000

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

		To		
From		A	B	C
	A	0.00	0.05	0.95
	B	0.44	0.00	0.56
	C	0.91	0.09	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	1.000	1.000	1.000

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

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

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.02	6.95	0.02	A	8.26	12.39	1.40	6.79	0.02	1.40	6.79
C-AB	0.02	5.51	0.02	A	9.45	14.17	1.46	6.19	0.02	1.46	6.19
C-A	-	-	-	-	81.40	122.10	-	-	-	-	-
A-B	-	-	-	-	6.42	9.64	-	-	-	-	-
A-C	-	-	-	-	125.71	188.57	-	-	-	-	-

### Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	6.78	1.69	6.73	0.00	542.73	0.012	0.00	0.01	6.716	A
C-AB	7.54	1.88	7.49	0.00	661.49	0.011	0.00	0.01	5.504	A
C-A	66.99	16.75	66.99	0.00	-	-	-	-	-	-
A-B	5.27	1.32	5.27	0.00	-	-	-	-	-	-
A-C	103.14	25.79	103.14	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	8.09	2.02	8.08	0.00	536.45	0.015	0.01	0.02	6.812	A
C-AB	9.20	2.30	9.19	0.00	665.19	0.014	0.01	0.02	5.487	A
C-A	79.80	19.95	79.80	0.00	-	-	-	-	-	-
A-B	6.29	1.57	6.29	0.00	-	-	-	-	-	-
A-C	123.16	30.79	123.16	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	9.91	2.48	9.89	0.00	527.76	0.019	0.02	0.02	6.951	A
C-AB	11.60	2.90	11.58	0.00	670.40	0.017	0.02	0.02	5.463	A
C-A	97.40	24.35	97.40	0.00	-	-	-	-	-	-
A-B	7.71	1.93	7.71	0.00	-	-	-	-	-	-
A-C	150.84	37.71	150.84	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	9.91	2.48	9.91	0.00	527.75	0.019	0.02	0.02	6.951	A
C-AB	11.60	2.90	11.60	0.00	670.41	0.017	0.02	0.02	5.466	A
C-A	97.40	24.35	97.40	0.00	-	-	-	-	-	-
A-B	7.71	1.93	7.71	0.00	-	-	-	-	-	-
A-C	150.84	37.71	150.84	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	8.09	2.02	8.11	0.00	536.45	0.015	0.02	0.02	6.815	A
C-AB	9.20	2.30	9.22	0.00	665.19	0.014	0.02	0.02	5.487	A
C-A	79.80	19.95	79.80	0.00	-	-	-	-	-	-
A-B	6.29	1.57	6.29	0.00	-	-	-	-	-	-
A-C	123.16	30.79	123.16	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	6.78	1.69	6.79	0.00	542.72	0.012	0.02	0.01	6.719	A
C-AB	7.54	1.89	7.56	0.00	661.49	0.011	0.02	0.01	5.506	A
C-A	66.99	16.75	66.99	0.00	-	-	-	-	-	-
A-B	5.27	1.32	5.27	0.00	-	-	-	-	-	-
A-C	103.14	25.79	103.14	0.00	-	-	-	-	-	-

## Queueing Delay Results for each time segment

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.18	0.01	6.716	A	A
C-AB	0.19	0.01	5.504	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.22	0.01	6.812	A	A
C-AB	0.24	0.02	5.487	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.28	0.02	6.951	A	A
C-AB	0.30	0.02	5.463	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.29	0.02	6.951	A	A
C-AB	0.31	0.02	5.466	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.24	0.02	6.815	A	A
C-AB	0.24	0.02	5.487	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.19	0.01	6.719	A	A
C-AB	0.19	0.01	5.506	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## Proposed Site Access - 2021 Base + Dev, 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
Proposed Site Access	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	Relationship
2021 Base + Dev, AM	2021 Base + Dev	AM		ONE HOUR	07:45	09:15	90	15				✓		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		6.60	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Allerton Road N		Major
B	B	Western Site Access		Minor
C	C	Allerton Road S		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	6.50		0.00		2.20	120.00	✓	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	3.20										23	18

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	503.798	0.090	0.227	0.143	0.324
1	B-C	647.988	0.097	0.246	-	-
1	C-B	643.457	0.244	0.244	-	-

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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	128.00	100.000
B	ONE HOUR	✓	17.00	100.000
C	ONE HOUR	✓	180.00	100.000

## Turning Proportions

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

		To		
From		A	B	C
	A	0.000	2.000	126.000
	B	7.000	0.000	10.000
	C	176.000	4.000	0.000

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

		To		
From		A	B	C
	A	0.00	0.02	0.98
	B	0.41	0.00	0.59
	C	0.98	0.02	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	1.000	1.000	1.000

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

	To			
		A	B	C
	A	0.0	0.0	0.0
	B	0.0	0.0	0.0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.04	7.04	0.04	A	15.60	23.40	2.67	6.86	0.03	2.67	6.86
C-AB	0.01	5.12	0.01	A	4.72	7.08	0.63	5.31	0.01	0.63	5.31
C-A	-	-	-	-	160.45	240.67	-	-	-	-	-
A-B	-	-	-	-	1.84	2.75	-	-	-	-	-
A-C	-	-	-	-	115.62	173.43	-	-	-	-	-

### Main Results for each time segment

#### Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	12.80	3.20	12.70	0.00	545.66	0.023	0.00	0.02	6.755	A
C-AB	3.68	0.92	3.66	0.00	706.38	0.005	0.00	0.01	5.122	A
C-A	131.83	32.96	131.83	0.00	-	-	-	-	-	-
A-B	1.51	0.38	1.51	0.00	-	-	-	-	-	-
A-C	94.86	23.71	94.86	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	15.28	3.82	15.26	0.00	538.97	0.028	0.02	0.03	6.873	A
C-AB	4.57	1.14	4.57	0.00	718.79	0.006	0.01	0.01	5.040	A
C-A	157.24	39.31	157.24	0.00	-	-	-	-	-	-
A-B	1.80	0.45	1.80	0.00	-	-	-	-	-	-
A-C	113.27	28.32	113.27	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	18.72	4.68	18.69	0.00	529.68	0.035	0.03	0.04	7.044	A
C-AB	5.90	1.48	5.89	0.00	735.97	0.008	0.01	0.01	4.930	A
C-A	192.28	48.07	192.28	0.00	-	-	-	-	-	-
A-B	2.20	0.55	2.20	0.00	-	-	-	-	-	-
A-C	138.73	34.68	138.73	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	18.72	4.68	18.72	0.00	529.68	0.035	0.04	0.04	7.044	A
C-AB	5.90	1.48	5.90	0.00	735.97	0.008	0.01	0.01	4.932	A
C-A	192.28	48.07	192.28	0.00	-	-	-	-	-	-
A-B	2.20	0.55	2.20	0.00	-	-	-	-	-	-
A-C	138.73	34.68	138.73	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	15.28	3.82	15.31	0.00	538.97	0.028	0.04	0.03	6.876	A
C-AB	4.58	1.14	4.58	0.00	718.79	0.006	0.01	0.01	5.042	A
C-A	157.24	39.31	157.24	0.00	-	-	-	-	-	-
A-B	1.80	0.45	1.80	0.00	-	-	-	-	-	-
A-C	113.27	28.32	113.27	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	12.80	3.20	12.82	0.00	545.65	0.023	0.03	0.02	6.755	A
C-AB	3.69	0.92	3.69	0.00	706.39	0.005	0.01	0.01	5.122	A
C-A	131.82	32.96	131.82	0.00	-	-	-	-	-	-
A-B	1.51	0.38	1.51	0.00	-	-	-	-	-	-
A-C	94.86	23.71	94.86	0.00	-	-	-	-	-	-

## Queueing Delay Results for each time segment

### Queueing Delay results: (07:45-08:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.35	0.02	6.755	A	A
C-AB	0.08	0.01	5.122	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

### Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.43	0.03	6.873	A	A
C-AB	0.10	0.01	5.040	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.53	0.04	7.044	A	A
C-AB	0.13	0.01	4.930	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.55	0.04	7.044	A	A
C-AB	0.13	0.01	4.932	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.45	0.03	6.876	A	A
C-AB	0.10	0.01	5.042	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.37	0.02	6.755	A	A
C-AB	0.08	0.01	5.122	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## Proposed Site Access - 2021 Base + Dev, 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
Proposed Site Access	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	Relationship
2021 Base + Dev, FM	2021 Base + Dev	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	(untitled)	T-Junction	Two-way	A,B,C		6.18	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Allerton Road N		Major
B	B	Western Site Access		Minor
C	C	Allerton Road S		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	6.50		0.00		2.20	120.00	✓	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	3.20										23	18

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	503.798	0.090	0.227	0.143	0.324
1	B-C	647.988	0.097	0.246	-	-
1	C-B	643.457	0.244	0.244	-	-

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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	146.00	100.000
B	ONE HOUR	✓	9.00	100.000
C	ONE HOUR	✓	100.00	100.000

## Turning Proportions

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

		To		
From		A	B	C
	A	0.000	7.000	139.000
	B	4.000	0.000	5.000
	C	91.000	9.000	0.000

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

		To		
From		A	B	C
	A	0.00	0.05	0.95
	B	0.44	0.00	0.56
	C	0.91	0.09	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	1.000	1.000	1.000

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

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

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.02	6.96	0.02	A	8.26	12.39	1.40	6.80	0.02	1.40	6.80
C-AB	0.02	5.51	0.02	A	9.46	14.19	1.46	6.19	0.02	1.46	6.19
C-A	-	-	-	-	82.30	123.45	-	-	-	-	-
A-B	-	-	-	-	6.42	9.64	-	-	-	-	-
A-C	-	-	-	-	127.55	191.32	-	-	-	-	-

### Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	6.78	1.69	6.73	0.00	542.31	0.012	0.00	0.01	6.721	A
C-AB	7.55	1.89	7.50	0.00	661.63	0.011	0.00	0.01	5.503	A
C-A	67.74	16.93	67.74	0.00	-	-	-	-	-	-
A-B	5.27	1.32	5.27	0.00	-	-	-	-	-	-
A-C	104.65	26.16	104.65	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	8.09	2.02	8.08	0.00	535.94	0.015	0.01	0.02	6.819	A
C-AB	9.21	2.30	9.20	0.00	665.36	0.014	0.01	0.02	5.485	A
C-A	80.69	20.17	80.69	0.00	-	-	-	-	-	-
A-B	6.29	1.57	6.29	0.00	-	-	-	-	-	-
A-C	124.96	31.24	124.96	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	9.91	2.48	9.89	0.00	527.13	0.019	0.02	0.02	6.959	A
C-AB	11.62	2.90	11.60	0.00	670.62	0.017	0.02	0.02	5.462	A
C-A	98.48	24.62	98.48	0.00	-	-	-	-	-	-
A-B	7.71	1.93	7.71	0.00	-	-	-	-	-	-
A-C	153.04	38.26	153.04	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	9.91	2.48	9.91	0.00	527.13	0.019	0.02	0.02	6.959	A
C-AB	11.62	2.91	11.62	0.00	670.62	0.017	0.02	0.02	5.462	A
C-A	98.48	24.62	98.48	0.00	-	-	-	-	-	-
A-B	7.71	1.93	7.71	0.00	-	-	-	-	-	-
A-C	153.04	38.26	153.04	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	8.09	2.02	8.11	0.00	535.94	0.015	0.02	0.02	6.822	A
C-AB	9.21	2.30	9.23	0.00	665.37	0.014	0.02	0.02	5.488	A
C-A	80.68	20.17	80.68	0.00	-	-	-	-	-	-
A-B	6.29	1.57	6.29	0.00	-	-	-	-	-	-
A-C	124.96	31.24	124.96	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	6.78	1.69	6.79	0.00	542.30	0.012	0.02	0.01	6.721	A
C-AB	7.55	1.89	7.57	0.00	661.63	0.011	0.02	0.01	5.505	A
C-A	67.73	16.93	67.73	0.00	-	-	-	-	-	-
A-B	5.27	1.32	5.27	0.00	-	-	-	-	-	-
A-C	104.65	26.16	104.65	0.00	-	-	-	-	-	-

## Queueing Delay Results for each time segment

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.18	0.01	6.721	A	A
C-AB	0.19	0.01	5.503	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.22	0.01	6.819	A	A
C-AB	0.24	0.02	5.485	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.28	0.02	6.959	A	A
C-AB	0.30	0.02	5.462	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.29	0.02	6.959	A	A
C-AB	0.31	0.02	5.462	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.24	0.02	6.822	A	A
C-AB	0.24	0.02	5.488	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.19	0.01	6.721	A	A
C-AB	0.19	0.01	5.505	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-



**S|C|P**

## **APPENDIX 15**

Junctions 8	
PICADY 8 - Priority Intersection Module	
Version: 8.0.4.487 [15039,24/03/2014] © Copyright TRL Limited, 2014	
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Filename: Site Access Central.arc8

Path: Z:\Job Library\2014\14241 - Allerton Priory, Woolton Road\Traffic Data

Report generation date: 06/10/2014 16:00:25

- » Proposed Site Access - 2016 Base + Dev, AM
- » Proposed Site Access - 2016 Base + Dev, PM
- » Proposed Site Access - 2021 Base + Dev, AM
- » Proposed Site Access - 2021 Base + Dev, PM

## Summary of junction performance

	AM		PM	
	Queue (PCU)	RFC	Queue (PCU)	RFC
Proposed Site Access - 2016 Base + Dev				
Stream B-AC	0.04	0.04	0.02	0.02
Stream C-A	-	-	-	-
Stream C-B	0.00	0.00	0.00	0.00
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-
Proposed Site Access - 2021 Base + Dev				
Stream B-AC	0.04	0.04	0.02	0.02
Stream C-A	-	-	-	-
Stream C-B	0.00	0.00	0.00	0.00
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.

"D1 - 2016 Base + Dev, AM" model duration: 07:45 - 09:15

"D2 - 2016 Base + Dev, PM" model duration: 16:45 - 18:15

"D3 - 2021 Base + Dev, AM" model duration: 07:45 - 09:15

"D4 - 2021 Base + Dev, PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.4.487 at 06/10/2014 16:00:23

## File summary

Title	(untitled)
Location	
Site Number	
Date	18/09/2014
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	Gavin Snowball
Description	

## 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	PCU	PCU	perHour	s	-Min	perMin

# Proposed Site Access - 2016 Base + Dev, 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
Proposed Site Access	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	Relationship
2016 Base + Dev, AM	2016 Base + Dev	AM		ONE HOUR	07:45	09:15	90	15				✓		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	One-way from A to C	A,B,C		6.69	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Arm	Name	Description	Arm Type
A	A	Woolton Road W		Major
B	B	Site Access		Minor
C	C	Woolton 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	6.20		0.00		2.20	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	3.20										16	17

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	501.011	0.066	0.166	0.105	0.238
1	B-C	647.346	0.072	0.181	-	-
1	C-B	573.963	0.160	0.160	-	-

*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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	442.00	100.000
B	ONE HOUR	✓	20.00	100.000
C	ONE HOUR	✓	0.00	100.000

# Turning Proportions

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

	To			
		A	B	C
From	A	0.000	7.000	435.000
	B	0.000	0.000	20.000
	C	0.000	0.000	0.000

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

	To			
		A	B	C
From	A	0.00	0.02	0.98
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

# 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	1.000
	C	1.000	1.000	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	0.0
	C	0.0	0.0	0.0

# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.04	6.69	0.04	A	18.35	27.53	2.96	6.45	0.03	2.96	6.45
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	6.42	9.64	-	-	-	-	-
A-C	-	-	-	-	399.16	598.75	-	-	-	-	-

## Main Results for each time segment

### Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	15.06	3.76	14.95	0.00	587.70	0.026	0.00	0.03	6.285	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	520.57	0.000	0.00	0.00	0.000	A
A-B	5.27	1.32	5.27	0.00	-	-	-	-	-	-
A-C	327.49	81.87	327.49	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	17.98	4.49	17.96	0.00	576.12	0.031	0.03	0.03	6.449	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	510.20	0.000	0.00	0.00	0.000	A
A-B	6.29	1.57	6.29	0.00	-	-	-	-	-	-
A-C	391.06	97.76	391.06	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	22.02	5.51	21.99	0.00	560.12	0.039	0.03	0.04	6.689	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	495.87	0.000	0.00	0.00	0.000	A
A-B	7.71	1.93	7.71	0.00	-	-	-	-	-	-
A-C	478.94	119.74	478.94	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	22.02	5.51	22.02	0.00	560.12	0.039	0.04	0.04	6.689	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	495.87	0.000	0.00	0.00	0.000	A
A-B	7.71	1.93	7.71	0.00	-	-	-	-	-	-
A-C	478.94	119.74	478.94	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	17.98	4.49	18.01	0.00	576.12	0.031	0.04	0.03	6.452	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	510.20	0.000	0.00	0.00	0.000	A
A-B	6.29	1.57	6.29	0.00	-	-	-	-	-	-
A-C	391.06	97.76	391.06	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	15.06	3.76	15.08	0.00	587.70	0.026	0.03	0.03	6.286	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	520.57	0.000	0.00	0.00	0.000	A
A-B	5.27	1.32	5.27	0.00	-	-	-	-	-	-
A-C	327.49	81.87	327.49	0.00	-	-	-	-	-	-

## Queueing Delay Results for each time segment

### Queueing Delay results: (07:45-08:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.38	0.03	6.285	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

### Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.47	0.03	6.449	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.60	0.04	6.689	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.61	0.04	6.689	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.50	0.03	6.452	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.40	0.03	6.286	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## Proposed Site Access - 2016 Base + Dev, 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
Proposed Site Access	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	Relationship
2016 Base + Dev, FM	2016 Base + Dev	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	(untitled)	T-Junction	One-way from A to C	A,B,C		7.02	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Woolton Road W		Major
B	B	Site Access		Minor
C	C	Woolton 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	6.20		0.00		2.20	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	3.20										16	17

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	501.011	0.066	0.166	0.105	0.238
1	B-C	647.346	0.072	0.181	-	-
1	C-B	573.963	0.160	0.160	-	-

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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	626.00	100.000
B	ONE HOUR	✓	11.00	100.000
C	ONE HOUR	✓	0.00	100.000

## Turning Proportions

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

	To			
From		A	B	C
	A	0.000	18.000	608.000
	B	0.000	0.000	11.000
	C	0.000	0.000	0.000

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

	To			
From		A	B	C
	A	0.00	0.03	0.97
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

## 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	1.000	1.000	1.000

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

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

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.02	7.02	0.02	A	10.09	15.14	1.70	6.72	0.02	1.70	6.72
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	16.52	24.78	-	-	-	-	-
A-C	-	-	-	-	557.91	836.87	-	-	-	-	-

### Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	8.28	2.07	8.22	0.00	563.54	0.015	0.00	0.01	6.482	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	498.34	0.000	0.00	0.00	0.000	A
A-B	13.55	3.39	13.55	0.00	-	-	-	-	-	-
A-C	457.73	114.43	457.73	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	9.89	2.47	9.87	0.00	547.27	0.018	0.01	0.02	6.698	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	483.66	0.000	0.00	0.00	0.000	A
A-B	16.18	4.05	16.18	0.00	-	-	-	-	-	-
A-C	546.58	136.64	546.58	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	12.11	3.03	12.09	0.00	524.78	0.023	0.02	0.02	7.021	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	463.37	0.000	0.00	0.00	0.000	A
A-B	19.82	4.95	19.82	0.00	-	-	-	-	-	-
A-C	669.42	167.36	669.42	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	12.11	3.03	12.11	0.00	524.78	0.023	0.02	0.02	7.021	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	463.37	0.000	0.00	0.00	0.000	A
A-B	19.82	4.95	19.82	0.00	-	-	-	-	-	-
A-C	669.42	167.36	669.42	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	9.89	2.47	9.91	0.00	547.27	0.018	0.02	0.02	6.698	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	483.66	0.000	0.00	0.00	0.000	A
A-B	16.18	4.05	16.18	0.00	-	-	-	-	-	-
A-C	546.58	136.64	546.58	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	8.28	2.07	8.30	0.00	563.54	0.015	0.02	0.02	6.485	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	498.34	0.000	0.00	0.00	0.000	A
A-B	13.55	3.39	13.55	0.00	-	-	-	-	-	-
A-C	457.73	114.43	457.73	0.00	-	-	-	-	-	-

## Queueing Delay Results for each time segment

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.22	0.01	6.482	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.27	0.02	6.698	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.34	0.02	7.021	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.35	0.02	7.021	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.28	0.02	6.698	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.23	0.02	6.485	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## Proposed Site Access - 2021 Base + Dev, 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
Proposed Site Access	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	Relationship
2021 Base + Dev, AM	2021 Base + Dev	AM		ONE HOUR	07:45	09:15	90	15				✓		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	One-way from A to C	A,B,C		6.71	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Woolton Road W		Major
B	B	Site Access		Minor
C	C	Woolton 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	6.20		0.00		2.20	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	3.20										16	17

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	501.011	0.066	0.166	0.105	0.238
1	B-C	647.346	0.072	0.181	-	-
1	C-B	573.963	0.160	0.160	-	-

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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	451.00	100.000
B	ONE HOUR	✓	20.00	100.000
C	ONE HOUR	✓	0.00	100.000

## Turning Proportions

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

	To			
From		A	B	C
	A	0.000	7.000	444.000
	B	0.000	0.000	20.000
	C	0.000	0.000	0.000

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

	To			
From		A	B	C
	A	0.00	0.02	0.98
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

## 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	1.000	1.000	1.000

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

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

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.04	6.71	0.04	A	18.35	27.53	2.97	6.47	0.03	2.97	6.47
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	6.42	9.64	-	-	-	-	-
A-C	-	-	-	-	407.42	611.13	-	-	-	-	-

### Main Results for each time segment

#### Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	15.06	3.76	14.95	0.00	586.47	0.026	0.00	0.03	6.299	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	519.48	0.000	0.00	0.00	0.000	A
A-B	5.27	1.32	5.27	0.00	-	-	-	-	-	-
A-C	334.27	83.57	334.27	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	17.98	4.49	17.96	0.00	574.66	0.031	0.03	0.03	6.466	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	508.90	0.000	0.00	0.00	0.000	A
A-B	6.29	1.57	6.29	0.00	-	-	-	-	-	-
A-C	399.15	99.79	399.15	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	22.02	5.51	21.99	0.00	558.32	0.039	0.03	0.04	6.711	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	494.28	0.000	0.00	0.00	0.000	A
A-B	7.71	1.93	7.71	0.00	-	-	-	-	-	-
A-C	488.85	122.21	488.85	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	22.02	5.51	22.02	0.00	558.32	0.039	0.04	0.04	6.711	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	494.28	0.000	0.00	0.00	0.000	A
A-B	7.71	1.93	7.71	0.00	-	-	-	-	-	-
A-C	488.85	122.21	488.85	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	17.98	4.49	18.01	0.00	574.66	0.031	0.04	0.03	6.469	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	508.90	0.000	0.00	0.00	0.000	A
A-B	6.29	1.57	6.29	0.00	-	-	-	-	-	-
A-C	399.15	99.79	399.15	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	15.06	3.76	15.08	0.00	586.47	0.026	0.03	0.03	6.299	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	519.48	0.000	0.00	0.00	0.000	A
A-B	5.27	1.32	5.27	0.00	-	-	-	-	-	-
A-C	334.27	83.57	334.27	0.00	-	-	-	-	-	-

## Queueing Delay Results for each time segment

### Queueing Delay results: (07:45-08:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.38	0.03	6.299	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

### Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.47	0.03	6.466	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.60	0.04	6.711	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.61	0.04	6.711	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.50	0.03	6.469	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.41	0.03	6.299	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## Proposed Site Access - 2021 Base + Dev, 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
Proposed Site Access	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	Relationship
2021 Base + Dev, FM	2021 Base + Dev	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	(untitled)	T-Junction	One-way from A to C	A,B,C		7.06	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Woolton Road W		Major
B	B	Site Access		Minor
C	C	Woolton 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	6.20		0.00		2.20	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	3.20										16	17

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	501.011	0.066	0.166	0.105	0.238
1	B-C	647.346	0.072	0.181	-	-
1	C-B	573.963	0.160	0.160	-	-

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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	639.00	100.000
B	ONE HOUR	✓	11.00	100.000
C	ONE HOUR	✓	0.00	100.000

## Turning Proportions

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

		To		
From		A	B	C
	A	0.000	18.000	621.000
	B	0.000	0.000	11.000
	C	0.000	0.000	0.000

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

		To		
From		A	B	C
	A	0.00	0.03	0.97
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

## 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	1.000	1.000	1.000

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

	To			
		A	B	C
	A	0.0	0.0	0.0
	B	0.0	0.0	0.0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.02	7.06	0.02	A	10.09	15.14	1.70	6.75	0.02	1.70	6.75
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	16.52	24.78	-	-	-	-	-
A-C	-	-	-	-	569.84	854.76	-	-	-	-	-

### Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	8.28	2.07	8.22	0.00	561.76	0.015	0.00	0.01	6.503	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	496.77	0.000	0.00	0.00	0.000	A
A-B	13.55	3.39	13.55	0.00	-	-	-	-	-	-
A-C	467.52	116.88	467.52	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	9.89	2.47	9.87	0.00	545.15	0.018	0.01	0.02	6.724	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	481.79	0.000	0.00	0.00	0.000	A
A-B	16.18	4.05	16.18	0.00	-	-	-	-	-	-
A-C	558.27	139.57	558.27	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	12.11	3.03	12.09	0.00	522.19	0.023	0.02	0.02	7.056	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	461.07	0.000	0.00	0.00	0.000	A
A-B	19.82	4.95	19.82	0.00	-	-	-	-	-	-
A-C	683.73	170.93	683.73	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	12.11	3.03	12.11	0.00	522.19	0.023	0.02	0.02	7.056	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	461.07	0.000	0.00	0.00	0.000	A
A-B	19.82	4.95	19.82	0.00	-	-	-	-	-	-
A-C	683.73	170.93	683.73	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	9.89	2.47	9.91	0.00	545.15	0.018	0.02	0.02	6.725	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	481.79	0.000	0.00	0.00	0.000	A
A-B	16.18	4.05	16.18	0.00	-	-	-	-	-	-
A-C	558.27	139.57	558.27	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	8.28	2.07	8.30	0.00	561.76	0.015	0.02	0.02	6.506	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	496.77	0.000	0.00	0.00	0.000	A
A-B	13.55	3.39	13.55	0.00	-	-	-	-	-	-
A-C	467.52	116.88	467.52	0.00	-	-	-	-	-	-

## Queueing Delay Results for each time segment

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.22	0.01	6.503	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.27	0.02	6.724	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.35	0.02	7.056	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.35	0.02	7.056	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.28	0.02	6.725	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.23	0.02	6.506	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-



**S|C|P**

## **APPENDIX 16**

<h1>Junctions 8</h1>
<b>PICADY 8 - Priority Intersection Module</b>
Version: 8.0.4.487 [15039.24/03/2014] © Copyright TRL Limited, 2014
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Filename: Site Access East\_WestboundTjunct.arc8  
 Path: Z:\Job Library\2014\14241 - Allerton Priory, Woolton Road\Traffic Data  
 Report generation date: 08/10/2014 16:27:09

## Summary of junction performance

	AM		PM	
	Queue (PCU)	RFC	Queue (PCU)	RFC
<b>Proposed Access Link Road - 2016 With Development</b>				
Stream B-AC	0.02	0.02	0.01	0.01
Stream C-A	-	-	-	-
Stream C-B	0.02	0.02	0.04	0.04
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-
<b>Proposed Access Link Road - 2021 With Development</b>				
Stream B-AC	0.02	0.02	0.01	0.01
Stream C-A	-	-	-	-
Stream C-B	0.02	0.02	0.04	0.04
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.

"D1 - 2016 With Development, AM" model duration: 08:00 - 09:30  
 "D2 - 2016 With Development, PM" model duration: 16:15 - 17:45  
 "D3 - 2021 With Development, AM" model duration: 08:00 - 09:30  
 "D4 - 2021 With Development, PM" model duration: 16:15 - 17:45

Run using Junctions 8.0.4.487 at 08/10/2014 16:27:08

## File summary

Title	(untitled)
Location	
Site Number	
Date	18/09/2014
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	Gavin Snowball
Description	

## 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	PCU	PCU	perHour	s	-Min	perMin

# Proposed Access Link Road - 2016 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
Proposed Access Link Road	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	Relationship
2016 With Development, AM	2016 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	(untitled)	T-Junction	One-way from C to A	A,B,C		7.34	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Woolton Road W		Major
B	B	Link Road		Minor
C	C	Woolton 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	6.00		0.00		2.20	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	3.40										60	0

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	516.649	0.070	0.176	0.111	0.251
1	B-C	648.923	0.074	0.186	-	-
1	C-B	573.963	0.164	0.164	-	-

*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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	0.00	100.000
B	ONE HOUR	✓	9.00	100.000
C	ONE HOUR	✓	551.00	100.000

# Turning Proportions

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

	To			
From		A	B	C
	A	0.000	0.000	0.000
	B	9.000	0.000	0.000
	C	543.000	8.000	0.000

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

	To			
From		A	B	C
	A	0.33	0.33	0.33
	B	1.00	0.00	0.00
	C	0.99	0.01	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	1.000	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	0.0	0.0	0.0

# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.02	8.21	0.02	A	8.26	12.39	1.64	7.94	0.02	1.64	7.94
C-A	-	-	-	-	498.27	747.40	-	-	-	-	-
C-B	0.02	6.37	0.02	A	7.34	11.01	1.16	6.31	0.01	1.16	6.31
A-B	-	-	-	-	0.00	0.00	-	-	-	-	-
A-C	-	-	-	-	0.00	0.00	-	-	-	-	-

## Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	6.78	1.69	6.72	0.00	469.93	0.014	0.00	0.01	7.770	A

C-A	408.80	102.20	408.80	0.00	-	-	-	-	-	-
C-B	6.02	1.51	5.98	0.00	573.96	0.010	0.00	0.01	6.337	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	8.09	2.02	8.08	0.00	460.86	0.018	0.01	0.02	7.950	A
C-A	488.15	122.04	488.15	0.00	-	-	-	-	-	-
C-B	7.19	1.80	7.18	0.00	573.96	0.013	0.01	0.01	6.351	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	9.91	2.48	9.89	0.00	448.32	0.022	0.02	0.02	8.211	A
C-A	597.85	149.46	597.85	0.00	-	-	-	-	-	-
C-B	8.81	2.20	8.80	0.00	573.96	0.015	0.01	0.02	6.369	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	9.91	2.48	9.91	0.00	448.31	0.022	0.02	0.02	8.211	A
C-A	597.85	149.46	597.85	0.00	-	-	-	-	-	-
C-B	8.81	2.20	8.81	0.00	573.96	0.015	0.02	0.02	6.369	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	8.09	2.02	8.11	0.00	460.85	0.018	0.02	0.02	7.951	A
C-A	488.15	122.04	488.15	0.00	-	-	-	-	-	-
C-B	7.19	1.80	7.20	0.00	573.96	0.013	0.02	0.01	6.353	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	6.78	1.69	6.79	0.00	469.92	0.014	0.02	0.01	7.773	A
C-A	408.80	102.20	408.80	0.00	-	-	-	-	-	-
C-B	6.02	1.51	6.03	0.00	573.96	0.010	0.01	0.01	6.338	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.21	0.01	7.770	A	A
C-A	-	-	-	-	-
C-B	0.15	0.01	6.337	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.26	0.02	7.950	A	A
C-A	-	-	-	-	-
C-B	0.19	0.01	6.351	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
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B-AC	0.33	0.02	8.211	A	A
C-A	-	-	-	-	-
C-B	0.23	0.02	6.369	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.34	0.02	8.211	A	A
C-A	-	-	-	-	-
C-B	0.23	0.02	6.369	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.28	0.02	7.951	A	A
C-A	-	-	-	-	-
C-B	0.20	0.01	6.353	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.23	0.02	7.773	A	A
C-A	-	-	-	-	-
C-B	0.16	0.01	6.338	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## Proposed Access Link Road - 2016 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
Proposed Access Link Road	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	Relationship
2016 With Development, PM	2016 With Development	PM		ONE HOUR	16:15	17:45	90	15				✓		

## Junction Network

### Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	One-way from C to A	A,B,C		6.76	A

### Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

## Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Woolton Road W		Major
B	B	Link Road		Minor
C	C	Woolton 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	6.00		0.00		2.20	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	3.40										60	0

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	516.649	0.070	0.176	0.111	0.251
1	B-C	648.923	0.074	0.186	-	-
1	C-B	573.963	0.164	0.164	-	-

*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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	0.00	100.000
B	ONE HOUR	✓	5.00	100.000
C	ONE HOUR	✓	348.00	100.000

# Turning Proportions

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

	To			
From		A	B	C
	A	0.000	0.000	0.000
	B	5.000	0.000	0.000
	C	328.000	20.000	0.000

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

	To			
From		A	B	C
	A	0.33	0.33	0.33
	B	1.00	0.00	0.00
	C	0.94	0.06	0.00

# Vehicle Mix

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

	To			
		A	B	C
	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
From	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	0.0
	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 (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.01	7.73	0.01	A	4.59	6.88	0.87	7.56	0.01	0.87	7.56
C-A	-	-	-	-	300.98	451.47	-	-	-	-	-
C-B	0.04	6.52	0.04	A	18.35	27.53	2.95	6.44	0.03	2.95	6.44
A-B	-	-	-	-	0.00	0.00	-	-	-	-	-
A-C	-	-	-	-	0.00	0.00	-	-	-	-	-

## Main Results for each time segment

### Main results: (16:15-16:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	3.76	0.94	3.73	0.00	485.56	0.008	0.00	0.01	7.471	A
C-A	246.94	61.73	246.94	0.00	-	-	-	-	-	-
C-B	15.06	3.76	14.95	0.00	573.96	0.026	0.00	0.03	6.440	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

### Main results: (16:30-16:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	4.49	1.12	4.49	0.00	479.50	0.009	0.01	0.01	7.577	A
C-A	294.87	73.72	294.87	0.00	-	-	-	-	-	-
C-B	17.98	4.49	17.96	0.00	573.96	0.031	0.03	0.03	6.474	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	5.51	1.38	5.50	0.00	471.16	0.012	0.01	0.01	7.730	A
C-A	361.13	90.28	361.13	0.00	-	-	-	-	-	-
C-B	22.02	5.51	21.99	0.00	573.96	0.038	0.03	0.04	6.521	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	5.51	1.38	5.50	0.00	471.15	0.012	0.01	0.01	7.731	A
C-A	361.13	90.28	361.13	0.00	-	-	-	-	-	-
C-B	22.02	5.51	22.02	0.00	573.96	0.038	0.04	0.04	6.521	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-

A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
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**Main results: (17:15-17:30)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	4.49	1.12	4.50	0.00	479.49	0.009	0.01	0.01	7.581	A
C-A	294.87	73.72	294.87	0.00	-	-	-	-	-	-
C-B	17.98	4.49	18.01	0.00	573.96	0.031	0.04	0.03	6.474	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	3.76	0.94	3.77	0.00	485.53	0.008	0.01	0.01	7.471	A
C-A	246.94	61.73	246.94	0.00	-	-	-	-	-	-
C-B	15.06	3.76	15.08	0.00	573.96	0.026	0.03	0.03	6.440	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

**Queueing Delay Results for each time segment****Queueing Delay results: (16:15-16:30)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.11	0.01	7.471	A	A
C-A	-	-	-	-	-
C-B	0.39	0.03	6.440	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (16:30-16:45)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.14	0.01	7.577	A	A
C-A	-	-	-	-	-
C-B	0.47	0.03	6.474	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.17	0.01	7.730	A	A
C-A	-	-	-	-	-
C-B	0.58	0.04	6.521	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.18	0.01	7.731	A	A
C-A	-	-	-	-	-
C-B	0.60	0.04	6.521	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.15	0.01	7.581	A	A
C-A	-	-	-	-	-
C-B	0.50	0.03	6.474	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.12	0.01	7.471	A	A
C-A	-	-	-	-	-
C-B	0.41	0.03	6.440	A	A

A-B	-	-	-	-	-
A-C	-	-	-	-	-

# Proposed Access Link Road - 2021 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
Proposed Access Link Road	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	Relationship
2021 With Development, AM	2021 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	(untitled)	T-Junction	One-way from C to A	A,B,C		7.36	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Woolton Road W		Major
B	B	Link Road		Minor
C	C	Woolton 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	6.00		0.00		2.20	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	3.40										60	0

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	516.649	0.070	0.176	0.111	0.251
1	B-C	648.923	0.074	0.186	-	-
1	C-B	573.963	0.164	0.164	-	-

*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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	0.00	100.000
B	ONE HOUR	✓	9.00	100.000
C	ONE HOUR	✓	563.00	100.000

## Turning Proportions

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

	To			
		A	B	C
	From A	0.000	0.000	0.000
	From B	9.000	0.000	0.000
	From C	555.000	8.000	0.000

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

	To			
		A	B	C
	From A	0.33	0.33	0.33
	From B	1.00	0.00	0.00
	From C	0.99	0.01	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
	From B	1.000	1.000	1.000
	From C	1.000	1.000	1.000

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

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

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.02	8.24	0.02	A	8.26	12.39	1.64	7.96	0.02	1.64	7.96
C-A	-	-	-	-	509.28	763.92	-	-	-	-	-
C-B	0.02	6.37	0.02	A	7.34	11.01	1.16	6.31	0.01	1.16	6.31

A-B	-	-	-	-	0.00	0.00	-	-	-	-	-
A-C	-	-	-	-	0.00	0.00	-	-	-	-	-

## Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	6.78	1.69	6.72	0.00	468.93	0.014	0.00	0.01	7.787	A
C-A	417.83	104.46	417.83	0.00	-	-	-	-	-	-
C-B	6.02	1.51	5.98	0.00	573.96	0.010	0.00	0.01	6.337	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	8.09	2.02	8.08	0.00	459.66	0.018	0.01	0.02	7.971	A
C-A	498.93	124.73	498.93	0.00	-	-	-	-	-	-
C-B	7.19	1.80	7.18	0.00	573.96	0.013	0.01	0.01	6.351	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	9.91	2.48	9.89	0.00	446.86	0.022	0.02	0.02	8.238	A
C-A	611.07	152.77	611.07	0.00	-	-	-	-	-	-
C-B	8.81	2.20	8.80	0.00	573.96	0.015	0.01	0.02	6.369	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	9.91	2.48	9.91	0.00	446.85	0.022	0.02	0.02	8.238	A
C-A	611.07	152.77	611.07	0.00	-	-	-	-	-	-
C-B	8.81	2.20	8.81	0.00	573.96	0.015	0.02	0.02	6.369	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	8.09	2.02	8.11	0.00	459.66	0.018	0.02	0.02	7.974	A
C-A	498.93	124.73	498.93	0.00	-	-	-	-	-	-
C-B	7.19	1.80	7.20	0.00	573.96	0.013	0.02	0.01	6.353	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	6.78	1.69	6.79	0.00	468.92	0.014	0.02	0.01	7.791	A
C-A	417.83	104.46	417.83	0.00	-	-	-	-	-	-
C-B	6.02	1.51	6.03	0.00	573.96	0.010	0.01	0.01	6.338	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

## Queueing Delay Results for each time segment

### Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.21	0.01	7.787	A	A
C-A	-	-	-	-	-
C-B	0.15	0.01	6.337	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.26	0.02	7.971	A	A
C-A	-	-	-	-	-
C-B	0.19	0.01	6.351	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.33	0.02	8.238	A	A
C-A	-	-	-	-	-
C-B	0.23	0.02	6.369	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.34	0.02	8.238	A	A
C-A	-	-	-	-	-
C-B	0.23	0.02	6.369	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.28	0.02	7.974	A	A
C-A	-	-	-	-	-
C-B	0.20	0.01	6.353	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.23	0.02	7.791	A	A
C-A	-	-	-	-	-
C-B	0.16	0.01	6.338	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

# Proposed Access Link Road - 2021 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
Proposed Access Link Road	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	Relationship
2021 With Development, PM	2021 With Development	PM		ONE HOUR	16:15	17:45	90	15				✓		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	One-way from C to A	A,B,C		6.77	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Woolton Road W		Major
B	B	Link Road		Minor
C	C	Woolton 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	6.00		0.00		2.20	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	3.40										60	0

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	516.649	0.070	0.176	0.111	0.251
1	B-C	648.923	0.074	0.186	-	-
1	C-B	573.963	0.164	0.164	-	-

*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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	0.00	100.000
B	ONE HOUR	✓	5.00	100.000
C	ONE HOUR	✓	355.00	100.000

# Turning Proportions

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

To

From	To			
		A	B	C
	A	0.000	0.000	0.000
	B	5.000	0.000	0.000
	C	335.000	20.000	0.000

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

From	To			
		A	B	C
	A	0.33	0.33	0.33
	B	1.00	0.00	0.00
	C	0.94	0.06	0.00

## Vehicle Mix

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

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

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

From	To			
		A	B	C
	A	0.0	0.0	0.0
	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 (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.01	7.74	0.01	A	4.59	6.88	0.87	7.57	0.01	0.87	7.57
C-A	-	-	-	-	307.40	461.10	-	-	-	-	-
C-B	0.04	6.52	0.04	A	18.35	27.53	2.95	6.44	0.03	2.95	6.44
A-B	-	-	-	-	0.00	0.00	-	-	-	-	-
A-C	-	-	-	-	0.00	0.00	-	-	-	-	-

### Main Results for each time segment

#### Main results: (16:15-16:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	3.76	0.94	3.73	0.00	484.98	0.008	0.00	0.01	7.480	A
C-A	252.21	63.05	252.21	0.00	-	-	-	-	-	-
C-B	15.06	3.76	14.95	0.00	573.96	0.026	0.00	0.03	6.440	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

#### Main results: (16:30-16:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	4.49	1.12	4.49	0.00	478.81	0.009	0.01	0.01	7.588	A
C-A	301.16	75.29	301.16	0.00	-	-	-	-	-	-
C-B	17.98	4.49	17.96	0.00	573.96	0.031	0.03	0.03	6.474	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	5.51	1.38	5.50	0.00	470.30	0.012	0.01	0.01	7.745	A

C-A	368.84	92.21	368.84	0.00	-	-	-	-	-	-
C-B	22.02	5.51	21.99	0.00	573.96	0.038	0.03	0.04	6.521	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	5.51	1.38	5.50	0.00	470.30	0.012	0.01	0.01	7.745	A
C-A	368.84	92.21	368.84	0.00	-	-	-	-	-	-
C-B	22.02	5.51	22.02	0.00	573.96	0.038	0.04	0.04	6.521	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	4.49	1.12	4.50	0.00	478.79	0.009	0.01	0.01	7.589	A
C-A	301.16	75.29	301.16	0.00	-	-	-	-	-	-
C-B	17.98	4.49	18.01	0.00	573.96	0.031	0.04	0.03	6.474	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	3.76	0.94	3.77	0.00	484.95	0.008	0.01	0.01	7.483	A
C-A	252.21	63.05	252.21	0.00	-	-	-	-	-	-
C-B	15.06	3.76	15.08	0.00	573.96	0.026	0.03	0.03	6.440	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

**Queueing Delay Results for each time segment****Queueing Delay results: (16:15-16:30)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.11	0.01	7.480	A	A
C-A	-	-	-	-	-
C-B	0.39	0.03	6.440	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (16:30-16:45)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.14	0.01	7.588	A	A
C-A	-	-	-	-	-
C-B	0.47	0.03	6.474	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.17	0.01	7.745	A	A
C-A	-	-	-	-	-
C-B	0.58	0.04	6.521	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.18	0.01	7.745	A	A
C-A	-	-	-	-	-
C-B	0.60	0.04	6.521	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
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B-AC	0.15	0.01	7.589	A	A
C-A	-	-	-	-	-
C-B	0.50	0.03	6.474	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.12	0.01	7.483	A	A
C-A	-	-	-	-	-
C-B	0.41	0.03	6.440	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

<h1>Junctions 8</h1>
<b>PICADY 8 - Priority Intersection Module</b>
Version: 8.0.4.487 [15039.24/03/2014] © Copyright TRL Limited, 2014
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**Filename:** Site Access East\_EastboundXroads.arc8  
**Path:** Z:\Job Library\2014\14241 - Allerton Priory, Woolton Road\Traffic Data  
**Report generation date:** 07/10/2014 17:34:06

## Summary of junction performance

	AM		PM	
	Queue (PCU)	RFC	Queue (PCU)	RFC
<b>Proposed Site Access - With Development 2016</b>				
<b>Stream B-ACD</b>	0.02	0.02	0.06	0.05
<b>Stream A-B</b>	-	-	-	-
<b>Stream A-C</b>	-	-	-	-
<b>Stream A-D</b>	0.00	0.00	0.00	0.00
<b>Stream D-ABC</b>	0.07	0.07	0.05	0.04
<b>Stream C-D</b>	-	-	-	-
<b>Stream C-A</b>	-	-	-	-
<b>Stream C-B</b>	0.01	0.01	0.01	0.01
<b>Proposed Site Access - With Development 2021</b>				
<b>Stream B-ACD</b>	0.02	0.02	0.06	0.05
<b>Stream A-B</b>	-	-	-	-
<b>Stream A-C</b>	-	-	-	-
<b>Stream A-D</b>	0.00	0.00	0.00	0.00
<b>Stream D-ABC</b>	0.08	0.07	0.05	0.04
<b>Stream C-D</b>	-	-	-	-
<b>Stream C-A</b>	-	-	-	-
<b>Stream C-B</b>	0.01	0.01	0.01	0.01

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

"D1 - With Development 2016, AM" model duration: 08:00 - 09:30  
"D2 - With Development 2016, PM" model duration: 16:15 - 17:45  
"D3 - With Development 2021, AM" model duration: 08:00 - 09:30  
"D4 - With Development 2021, PM" model duration: 16:15 - 17:45

Run using Junctions 8.0.4.487 at 07/10/2014 17:34:04

## File summary

<b>Title</b>	(untitled)
<b>Location</b>	
<b>Site Number</b>	
<b>Date</b>	18/09/2014
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	
<b>Jobnumber</b>	
<b>Enumerator</b>	Gavin Snowball
<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	PCU	PCU	perHour	s	-Min	perMin

# Proposed Site Access - With Development 2016, 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
Proposed Site Access	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	Relationship
With Development 2016, AM	With Development 2016	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	(untitled)	Crossroads	Two-way	A,B,C,D		7.89	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Woolton Road E		Major
B	B	Link Road		Minor
C	C	Woolton Road W		Major
D	D	Site Access East		Minor

## 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)
A	6.20		0.00		2.20	0.00		
C	6.20		0.00		2.20	120.00		

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	3.40										27	0
D	One lane	3.20										0	18

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	573.963	-	-	-	-	-	-	0.220	0.315	0.220	-	-	-
1	B-A	505.836	0.091	0.231	0.231	-	-	-	0.145	0.330	-	0.231	0.231	0.115
1	B-C	648.923	0.099	0.249	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	505.836	0.091	0.231	0.231	-	-	-	0.145	0.330	0.145	-	-	-
1	B-D, offside lane	505.836	0.091	0.231	0.231	-	-	-	0.145	0.330	0.145	-	-	-

1	C-B	643.457	0.247	0.247	0.353	-	-	-	-	-	-	-	-	-
1	D-A	647.988	-	-	-	-	-	-	0.249	-	0.098	-	-	-
1	D-B, nearside lane	496.272	0.142	0.142	0.324	-	-	-	0.226	0.226	0.090	-	-	-
1	D-B, offside lane	496.272	0.142	0.142	0.324	-	-	-	0.226	0.226	0.090	-	-	-
1	D-C	496.272	-	0.142	0.324	0.113	0.226	0.226	0.226	0.226	0.090	-	-	-

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

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

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

## Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	0.00	100.000
B	ONE HOUR	✓	8.00	100.000
C	ONE HOUR	✓	454.00	100.000
D	ONE HOUR	✓	30.00	100.000

## Turning Proportions

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

	To			
	A	B	C	D
From	A	0.000	0.000	0.000
	B	0.000	0.000	8.000
	C	445.000	6.000	3.000
	D	21.000	9.000	0.000

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

	To			
	A	B	C	D
From	A	0.25	0.25	0.25
	B	0.00	0.00	1.00
	C	0.98	0.01	0.01
	D	0.70	0.30	0.00

## Vehicle Mix

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

	To			
	A	B	C	D
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000
	D	1.000	1.000	1.000

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

	To			
	A	B	C	D
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0
	D	0.0	0.0	0.0

# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-ACD	0.02	8.51	0.02	A	7.34	11.01	1.51	8.20	0.02	1.51	8.20
A-B	-	-	-	-	0.00	0.00	-	-	-	-	-
A-C	-	-	-	-	0.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D-ABC	0.07	8.18	0.07	A	27.53	41.29	5.32	7.73	0.06	5.32	7.73
C-D	-	-	-	-	2.75	4.13	-	-	-	-	-
C-A	-	-	-	-	408.34	612.51	-	-	-	-	-
C-B	0.01	5.65	0.01	A	5.51	8.26	0.77	5.61	0.01	0.77	5.61

## Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	6.02	1.51	5.97	0.00	455.36	0.013	0.00	0.01	8.009	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	498.19	0.000	0.00	0.00	0.000	A
D-ABC	22.59	5.65	22.40	0.00	511.25	0.044	0.00	0.05	7.363	A
C-D	2.26	0.56	2.26	0.00	-	-	-	-	-	-
C-A	335.02	83.75	335.02	0.00	-	-	-	-	-	-
C-B	4.52	1.13	4.49	0.00	643.46	0.007	0.00	0.01	5.633	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	7.19	1.80	7.18	0.00	445.56	0.016	0.01	0.02	8.212	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	483.47	0.000	0.00	0.00	0.000	A
D-ABC	26.97	6.74	26.92	0.00	495.24	0.054	0.05	0.06	7.686	A
C-D	2.70	0.67	2.70	0.00	-	-	-	-	-	-
C-A	400.05	100.01	400.05	0.00	-	-	-	-	-	-
C-B	5.39	1.35	5.39	0.00	643.46	0.008	0.01	0.01	5.641	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	8.81	2.20	8.79	0.00	432.01	0.020	0.02	0.02	8.506	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	463.13	0.000	0.00	0.00	0.000	A
D-ABC	33.03	8.26	32.96	0.00	473.09	0.070	0.06	0.07	8.178	A
C-D	3.30	0.83	3.30	0.00	-	-	-	-	-	-
C-A	489.95	122.49	489.95	0.00	-	-	-	-	-	-
C-B	6.61	1.65	6.60	0.00	643.46	0.010	0.01	0.01	5.652	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	8.81	2.20	8.81	0.00	432.01	0.020	0.02	0.02	8.506	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	463.13	0.000	0.00	0.00	0.000	A
D-ABC	33.03	8.26	33.03	0.00	473.09	0.070	0.07	0.07	8.180	A
C-D	3.30	0.83	3.30	0.00	-	-	-	-	-	-
C-A	489.95	122.49	489.95	0.00	-	-	-	-	-	-
C-B	6.61	1.65	6.61	0.00	643.46	0.010	0.01	0.01	5.652	A

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

	Total Demand	Junction Arrivals	Entry Flow	Pedestrian Demand	Capacity		Start Queue	End Queue	Delay	
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Stream	(PCU/hr)	(PCU)	(PCU/hr)	(Ped/hr)	(PCU/hr)	RFC	(PCU)	(PCU)	(s)	LOS
B-ACD	7.19	1.80	7.21	0.00	445.55	0.016	0.02	0.02	8.212	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	483.47	0.000	0.00	0.00	0.000	A
D-ABC	26.97	6.74	27.04	0.00	495.24	0.054	0.07	0.06	7.691	A
C-D	2.70	0.67	2.70	0.00	-	-	-	-	-	-
C-A	400.05	100.01	400.05	0.00	-	-	-	-	-	-
C-B	5.39	1.35	5.40	0.00	643.46	0.008	0.01	0.01	5.641	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	6.02	1.51	6.03	0.00	455.35	0.013	0.02	0.01	8.012	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	498.18	0.000	0.00	0.00	0.000	A
D-ABC	22.59	5.65	22.63	0.00	511.25	0.044	0.06	0.05	7.367	A
C-D	2.26	0.56	2.26	0.00	-	-	-	-	-	-
C-A	335.02	83.75	335.02	0.00	-	-	-	-	-	-
C-B	4.52	1.13	4.52	0.00	643.46	0.007	0.01	0.01	5.633	A

### Queueing Delay Results for each time segment

#### Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	0.19	0.01	8.009	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-ABC	0.67	0.04	7.363	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.10	0.01	5.633	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	0.24	0.02	8.212	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-ABC	0.84	0.06	7.686	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.12	0.01	5.641	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	0.30	0.02	8.506	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-ABC	1.09	0.07	8.178	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.15	0.01	5.652	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	0.31	0.02	8.506	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-ABC	1.12	0.07	8.180	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.16	0.01	5.652	A	A

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

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Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	0.25	0.02	8.212	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-ABC	0.89	0.06	7.691	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.13	0.01	5.641	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	0.21	0.01	8.012	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-ABC	0.71	0.05	7.367	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.11	0.01	5.633	A	A

## Proposed Site Access - With Development 2016, 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
Proposed Site Access	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	Relationship
With Development 2016, PM	With Development 2016	PM		ONE HOUR	16:15	17:45	90	15				✓		

## Junction Network

### Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	Crossroads	Two-way	A,B,C,D		8.83	A

### Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Arm	Name	Description	Arm Type
A	A	Woolton Road E		Major
B	B	Link Road		Minor
C	C	Woolton Road W		Major
D	D	Site Access East		Minor

### 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)
A	6.20		0.00		2.20	0.00		

C	6.20		0.00		2.20	120.00		
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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	3.40										27	0
D	One lane	3.20										0	18

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	573.963	-	-	-	-	-	-	0.220	0.315	0.220	-	-	-
1	B-A	505.836	0.091	0.231	0.231	-	-	-	0.145	0.330	-	0.231	0.231	0.115
1	B-C	648.923	0.099	0.249	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	505.836	0.091	0.231	0.231	-	-	-	0.145	0.330	0.145	-	-	-
1	B-D, offside lane	505.836	0.091	0.231	0.231	-	-	-	0.145	0.330	0.145	-	-	-
1	C-B	643.457	0.247	0.247	0.353	-	-	-	-	-	-	-	-	-
1	D-A	647.988	-	-	-	-	-	-	0.249	-	0.098	-	-	-
1	D-B, nearside lane	496.272	0.142	0.142	0.324	-	-	-	0.226	0.226	0.090	-	-	-
1	D-B, offside lane	496.272	0.142	0.142	0.324	-	-	-	0.226	0.226	0.090	-	-	-
1	D-C	496.272	-	0.142	0.324	0.113	0.226	0.226	0.226	0.226	0.090	-	-	-

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

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

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

## Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	0.00	100.000
B	ONE HOUR	✓	20.00	100.000
C	ONE HOUR	✓	619.00	100.000
D	ONE HOUR	✓	17.00	100.000

## Turning Proportions

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

		To			
		A	B	C	D
From	A	0.000	0.000	0.000	0.000
	B	0.000	0.000	0.000	20.000
	C	607.000	3.000	0.000	9.000
	D	12.000	5.000	0.000	0.000

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

		To			
		A	B	C	D
From	A	0.25	0.25	0.25	0.25
	B	0.00	0.00	0.00	1.00
	C	0.98	0.00	0.00	0.01
	D	0.71	0.29	0.00	0.00

# Vehicle Mix

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

	To				
		A	B	C	D
	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
From	D	1.000	1.000	1.000	1.000

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

	To				
		A	B	C	D
	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
From	D	0.0	0.0	0.0	0.0

# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-ACD	0.05	9.37	0.06	A	18.35	27.53	4.07	8.88	0.05	4.07	8.88
A-B	-	-	-	-	0.00	0.00	-	-	-	-	-
A-C	-	-	-	-	0.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D-ABC	0.04	8.75	0.05	A	15.60	23.40	3.18	8.16	0.04	3.18	8.16
C-D	-	-	-	-	8.26	12.39	-	-	-	-	-
C-A	-	-	-	-	556.99	835.49	-	-	-	-	-
C-B	0.01	5.62	0.01	A	2.75	4.13	0.38	5.59	0.00	0.38	5.59

## Main Results for each time segment

### Main results: (16:15-16:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	15.06	3.76	14.92	0.00	437.74	0.034	0.00	0.04	8.511	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	471.02	0.000	0.00	0.00	0.000	A
D-ABC	12.80	3.20	12.69	0.00	482.19	0.027	0.00	0.03	7.665	A
C-D	6.78	1.69	6.78	0.00	-	-	-	-	-	-
C-A	456.98	114.25	456.98	0.00	-	-	-	-	-	-
C-B	2.26	0.56	2.24	0.00	643.46	0.004	0.00	0.00	5.613	A

### Main results: (16:30-16:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	17.98	4.49	17.95	0.00	424.52	0.042	0.04	0.04	8.854	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	451.03	0.000	0.00	0.00	0.000	A
D-ABC	15.28	3.82	15.25	0.00	460.33	0.033	0.03	0.03	8.088	A
C-D	8.09	2.02	8.09	0.00	-	-	-	-	-	-
C-A	545.68	136.42	545.68	0.00	-	-	-	-	-	-
C-B	2.70	0.67	2.69	0.00	643.46	0.004	0.00	0.00	5.617	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	22.02	5.51	21.97	0.00	406.24	0.054	0.04	0.06	9.367	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-

A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	423.40	0.000	0.00	0.00	0.000	A
D-ABC	18.72	4.68	18.67	0.00	430.05	0.044	0.03	0.05	8.749	A
C-D	9.91	2.48	9.91	0.00	-	-	-	-	-	-
C-A	668.32	167.08	668.32	0.00	-	-	-	-	-	-
C-B	3.30	0.83	3.30	0.00	643.46	0.005	0.00	0.01	5.623	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	22.02	5.51	22.02	0.00	406.24	0.054	0.06	0.06	9.369	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	423.40	0.000	0.00	0.00	0.000	A
D-ABC	18.72	4.68	18.72	0.00	430.05	0.044	0.05	0.05	8.751	A
C-D	9.91	2.48	9.91	0.00	-	-	-	-	-	-
C-A	668.32	167.08	668.32	0.00	-	-	-	-	-	-
C-B	3.30	0.83	3.30	0.00	643.46	0.005	0.01	0.01	5.623	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	17.98	4.49	18.03	0.00	424.52	0.042	0.06	0.04	8.857	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	451.03	0.000	0.00	0.00	0.000	A
D-ABC	15.28	3.82	15.33	0.00	460.33	0.033	0.05	0.03	8.090	A
C-D	8.09	2.02	8.09	0.00	-	-	-	-	-	-
C-A	545.68	136.42	545.68	0.00	-	-	-	-	-	-
C-B	2.70	0.67	2.70	0.00	643.46	0.004	0.01	0.00	5.617	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	15.06	3.76	15.09	0.00	437.73	0.034	0.04	0.04	8.519	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	471.01	0.000	0.00	0.00	0.000	A
D-ABC	12.80	3.20	12.83	0.00	482.19	0.027	0.03	0.03	7.669	A
C-D	6.78	1.69	6.78	0.00	-	-	-	-	-	-
C-A	456.98	114.25	456.98	0.00	-	-	-	-	-	-
C-B	2.26	0.56	2.26	0.00	643.46	0.004	0.00	0.00	5.613	A

### Queueing Delay Results for each time segment

#### Queueing Delay results: (16:15-16:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	0.51	0.03	8.511	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-ABC	0.39	0.03	7.665	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.05	0.00	5.613	A	A

#### Queueing Delay results: (16:30-16:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	0.64	0.04	8.854	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-ABC	0.50	0.03	8.088	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.06	0.00	5.617	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	0.83	0.06	9.367	A	A

A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-ABC	0.66	0.04	8.749	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.08	0.01	5.623	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	0.85	0.06	9.369	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-ABC	0.68	0.05	8.751	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.08	0.01	5.623	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	0.69	0.05	8.857	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-ABC	0.53	0.04	8.090	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.06	0.00	5.617	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	0.55	0.04	8.519	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-ABC	0.42	0.03	7.669	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.05	0.00	5.613	A	A

## Proposed Site Access - With Development 2021, 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
Proposed Site Access	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	Relationship
With Development 2021, AM	With Development 2021	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	(untitled)	Crossroads	Two-way	A,B,C,D		7.93	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Woolton Road E		Major
B	B	Link Road		Minor
C	C	Woolton Road W		Major
D	D	Site Access East		Minor

## 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)
A	6.20		0.00		2.20	0.00		
C	6.20		0.00		2.20	120.00		

*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	3.40										27	0
D	One lane	3.20										0	18

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	573.963	-	-	-	-	-	-	0.220	0.315	0.220	-	-	-
1	B-A	505.836	0.091	0.231	0.231	-	-	-	0.145	0.330	-	0.231	0.231	0.115
1	B-C	648.923	0.099	0.249	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	505.836	0.091	0.231	0.231	-	-	-	0.145	0.330	0.145	-	-	-
1	B-D, offside lane	505.836	0.091	0.231	0.231	-	-	-	0.145	0.330	0.145	-	-	-
1	C-B	643.457	0.247	0.247	0.353	-	-	-	-	-	-	-	-	-
1	D-A	647.988	-	-	-	-	-	-	0.249	-	0.098	-	-	-
1	D-B, nearside lane	496.272	0.142	0.142	0.324	-	-	-	0.226	0.226	0.090	-	-	-
1	D-B, offside lane	496.272	0.142	0.142	0.324	-	-	-	0.226	0.226	0.090	-	-	-
1	D-C	496.272	-	0.142	0.324	0.113	0.226	0.226	0.226	0.226	0.090	-	-	-

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

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

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

# Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	0.00	100.000
B	ONE HOUR	✓	8.00	100.000
C	ONE HOUR	✓	463.00	100.000
D	ONE HOUR	✓	30.00	100.000

# Turning Proportions

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

	To				
		A	B	C	D
From	A	0.000	0.000	0.000	0.000
	B	0.000	0.000	0.000	8.000
	C	454.000	6.000	0.000	3.000
	D	21.000	9.000	0.000	0.000

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

	To				
		A	B	C	D
From	A	0.25	0.25	0.25	0.25
	B	0.00	0.00	0.00	1.00
	C	0.98	0.01	0.00	0.01
	D	0.70	0.30	0.00	0.00

# Vehicle Mix

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

	To				
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

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

	To				
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-ACD	0.02	8.53	0.02	A	7.34	11.01	1.51	8.23	0.02	1.51	8.23
A-B	-	-	-	-	0.00	0.00	-	-	-	-	-
A-C	-	-	-	-	0.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D-ABC	0.07	8.23	0.08	A	27.53	41.29	5.34	7.76	0.06	5.34	7.76
C-D	-	-	-	-	2.75	4.13	-	-	-	-	-
C-A	-	-	-	-	416.60	624.90	-	-	-	-	-
C-B	0.01	5.65	0.01	A	5.51	8.26	0.77	5.61	0.01	0.77	5.61

## Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	6.02	1.51	5.97	0.00	454.38	0.013	0.00	0.01	8.027	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	496.69	0.000	0.00	0.00	0.000	A
D-ABC	22.59	5.65	22.40	0.00	509.60	0.044	0.00	0.05	7.388	A

C-D	2.26	0.56	2.26	0.00	-	-	-	-	-	-
C-A	341.80	85.45	341.80	0.00	-	-	-	-	-	-
C-B	4.52	1.13	4.49	0.00	643.46	0.007	0.00	0.01	5.633	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	7.19	1.80	7.18	0.00	444.38	0.016	0.01	0.02	8.234	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	481.69	0.000	0.00	0.00	0.000	A
D-ABC	26.97	6.74	26.92	0.00	493.27	0.055	0.05	0.06	7.718	A
C-D	2.70	0.67	2.70	0.00	-	-	-	-	-	-
C-A	408.14	102.03	408.14	0.00	-	-	-	-	-	-
C-B	5.39	1.35	5.39	0.00	643.46	0.008	0.01	0.01	5.641	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	8.81	2.20	8.79	0.00	430.57	0.020	0.02	0.02	8.535	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	460.95	0.000	0.00	0.00	0.000	A
D-ABC	33.03	8.26	32.96	0.00	470.67	0.070	0.06	0.07	8.224	A
C-D	3.30	0.83	3.30	0.00	-	-	-	-	-	-
C-A	499.86	124.97	499.86	0.00	-	-	-	-	-	-
C-B	6.61	1.65	6.60	0.00	643.46	0.010	0.01	0.01	5.652	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	8.81	2.20	8.81	0.00	430.57	0.020	0.02	0.02	8.535	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	460.95	0.000	0.00	0.00	0.000	A
D-ABC	33.03	8.26	33.03	0.00	470.67	0.070	0.07	0.08	8.225	A
C-D	3.30	0.83	3.30	0.00	-	-	-	-	-	-
C-A	499.86	124.97	499.86	0.00	-	-	-	-	-	-
C-B	6.61	1.65	6.61	0.00	643.46	0.010	0.01	0.01	5.652	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	7.19	1.80	7.21	0.00	444.38	0.016	0.02	0.02	8.236	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	481.68	0.000	0.00	0.00	0.000	A
D-ABC	26.97	6.74	27.04	0.00	493.27	0.055	0.08	0.06	7.722	A
C-D	2.70	0.67	2.70	0.00	-	-	-	-	-	-
C-A	408.14	102.03	408.14	0.00	-	-	-	-	-	-
C-B	5.39	1.35	5.40	0.00	643.46	0.008	0.01	0.01	5.641	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	6.02	1.51	6.04	0.00	454.37	0.013	0.02	0.01	8.031	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	496.68	0.000	0.00	0.00	0.000	A
D-ABC	22.59	5.65	22.63	0.00	509.59	0.044	0.06	0.05	7.395	A
C-D	2.26	0.56	2.26	0.00	-	-	-	-	-	-
C-A	341.80	85.45	341.80	0.00	-	-	-	-	-	-
C-B	4.52	1.13	4.52	0.00	643.46	0.007	0.01	0.01	5.633	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	0.19	0.01	8.027	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A

D-ABC	0.67	0.04	7.388	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.10	0.01	5.633	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	0.24	0.02	8.234	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-ABC	0.84	0.06	7.718	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.12	0.01	5.641	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	0.30	0.02	8.535	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-ABC	1.10	0.07	8.224	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.15	0.01	5.652	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	0.31	0.02	8.535	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-ABC	1.12	0.07	8.225	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.16	0.01	5.652	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	0.25	0.02	8.236	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-ABC	0.90	0.06	7.722	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.13	0.01	5.641	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	0.21	0.01	8.031	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-ABC	0.72	0.05	7.395	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.11	0.01	5.633	A	A

## Proposed Site Access - With Development 2021, 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
Proposed Site Access	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	Relationship
With Development 2021, PM	With Development 2021	PM		ONE HOUR	16:15	17:45	90	15				✓		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	Crossroads	Two-way	A,B,C,D		8.88	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Woolton Road E		Major
B	B	Link Road		Minor
C	C	Woolton Road W		Major
D	D	Site Access East		Minor

## 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)
A	6.20		0.00		2.20	0.00		
C	6.20		0.00		2.20	120.00		

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	3.40										27	0
D	One lane	3.20										0	18

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	573.963	-	-	-	-	-	-	0.220	0.315	0.220	-	-	-
1	B-A	505.836	0.091	0.231	0.231	-	-	-	0.145	0.330	-	0.231	0.231	0.115
1	B-C	648.923	0.099	0.249	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	505.836	0.091	0.231	0.231	-	-	-	0.145	0.330	0.145	-	-	-
1	B-D, offside lane	505.836	0.091	0.231	0.231	-	-	-	0.145	0.330	0.145	-	-	-
1	C-B	643.457	0.247	0.247	0.353	-	-	-	-	-	-	-	-	-
1	D-A	647.988	-	-	-	-	-	-	0.249	-	0.098	-	-	-
1	D-B, nearside lane	496.272	0.142	0.142	0.324	-	-	-	0.226	0.226	0.090	-	-	-
1	D-B, offside lane	496.272	0.142	0.142	0.324	-	-	-	0.226	0.226	0.090	-	-	-
1	D-C	496.272	-	0.142	0.324	0.113	0.226	0.226	0.226	0.226	0.090	-	-	-

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

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

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

# Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	0.00	100.000
B	ONE HOUR	✓	20.00	100.000
C	ONE HOUR	✓	632.00	100.000
D	ONE HOUR	✓	17.00	100.000

# Turning Proportions

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

		To			
		A	B	C	D
From	A	0.000	0.000	0.000	0.000
	B	0.000	0.000	0.000	20.000
	C	620.000	3.000	0.000	9.000
	D	12.000	5.000	0.000	0.000

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

		To			
		A	B	C	D
From	A	0.25	0.25	0.25	0.25
	B	0.00	0.00	0.00	1.00
	C	0.98	0.00	0.00	0.01
	D	0.71	0.29	0.00	0.00

# Vehicle Mix

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

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

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

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)

B-ACD	0.05	9.42	0.06	A	18.35	27.53	4.09	8.92	0.05	4.09	8.92
A-B	-	-	-	-	0.00	0.00	-	-	-	-	-
A-C	-	-	-	-	0.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D-ABC	0.04	8.83	0.05	A	15.60	23.40	3.21	8.22	0.04	3.21	8.22
C-D	-	-	-	-	8.26	12.39	-	-	-	-	-
C-A	-	-	-	-	568.92	853.38	-	-	-	-	-
C-B	0.01	5.62	0.01	A	2.75	4.13	0.38	5.59	0.00	0.38	5.59

## Main Results for each time segment

### Main results: (16:15-16:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	15.06	3.76	14.92	0.00	436.32	0.035	0.00	0.04	8.540	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	468.86	0.000	0.00	0.00	0.000	A
D-ABC	12.80	3.20	12.69	0.00	479.80	0.027	0.00	0.03	7.705	A
C-D	6.78	1.69	6.78	0.00	-	-	-	-	-	-
C-A	466.77	116.69	466.77	0.00	-	-	-	-	-	-
C-B	2.26	0.56	2.24	0.00	643.46	0.004	0.00	0.00	5.613	A

### Main results: (16:30-16:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	17.98	4.49	17.95	0.00	422.82	0.043	0.04	0.04	8.892	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	448.46	0.000	0.00	0.00	0.000	A
D-ABC	15.28	3.82	15.25	0.00	457.47	0.033	0.03	0.03	8.141	A
C-D	8.09	2.02	8.09	0.00	-	-	-	-	-	-
C-A	557.37	139.34	557.37	0.00	-	-	-	-	-	-
C-B	2.70	0.67	2.69	0.00	643.46	0.004	0.00	0.00	5.617	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	22.02	5.51	21.97	0.00	404.16	0.054	0.04	0.06	9.418	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	420.25	0.000	0.00	0.00	0.000	A
D-ABC	18.72	4.68	18.67	0.00	426.54	0.044	0.03	0.05	8.825	A
C-D	9.91	2.48	9.91	0.00	-	-	-	-	-	-
C-A	682.63	170.66	682.63	0.00	-	-	-	-	-	-
C-B	3.30	0.83	3.30	0.00	643.46	0.005	0.00	0.01	5.623	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	22.02	5.51	22.02	0.00	404.16	0.054	0.06	0.06	9.420	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	420.25	0.000	0.00	0.00	0.000	A
D-ABC	18.72	4.68	18.72	0.00	426.54	0.044	0.05	0.05	8.827	A
C-D	9.91	2.48	9.91	0.00	-	-	-	-	-	-
C-A	682.63	170.66	682.63	0.00	-	-	-	-	-	-
C-B	3.30	0.83	3.30	0.00	643.46	0.005	0.01	0.01	5.623	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	17.98	4.49	18.03	0.00	422.82	0.043	0.06	0.04	8.894	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	448.45	0.000	0.00	0.00	0.000	A
D-ABC	15.28	3.82	15.33	0.00	457.47	0.033	0.05	0.03	8.142	A
C-D	8.09	2.02	8.09	0.00	-	-	-	-	-	-
C-A	557.37	139.34	557.37	0.00	-	-	-	-	-	-
C-B	2.70	0.67	2.70	0.00	643.46	0.004	0.01	0.00	5.617	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	15.06	3.76	15.09	0.00	436.31	0.035	0.04	0.04	8.548	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	468.85	0.000	0.00	0.00	0.000	A
D-ABC	12.80	3.20	12.83	0.00	479.80	0.027	0.03	0.03	7.710	A
C-D	6.78	1.69	6.78	0.00	-	-	-	-	-	-
C-A	466.77	116.69	466.77	0.00	-	-	-	-	-	-
C-B	2.26	0.56	2.26	0.00	643.46	0.004	0.00	0.00	5.613	A

**Queueing Delay Results for each time segment****Queueing Delay results: (16:15-16:30)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	0.51	0.03	8.540	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-ABC	0.39	0.03	7.705	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.05	0.00	5.613	A	A

**Queueing Delay results: (16:30-16:45)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	0.65	0.04	8.892	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-ABC	0.50	0.03	8.141	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.06	0.00	5.617	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	0.83	0.06	9.418	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-ABC	0.67	0.04	8.825	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.08	0.01	5.623	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	0.86	0.06	9.420	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-ABC	0.68	0.05	8.827	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.08	0.01	5.623	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	0.69	0.05	8.894	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-ABC	0.54	0.04	8.142	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.06	0.00	5.617	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	0.55	0.04	8.548	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-ABC	0.42	0.03	7.710	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.05	0.00	5.613	A	A

**S|C|P**

## **APPENDIX 17**

Basic Results Summary  
**Basic Results Summary**

**User and Project Details**

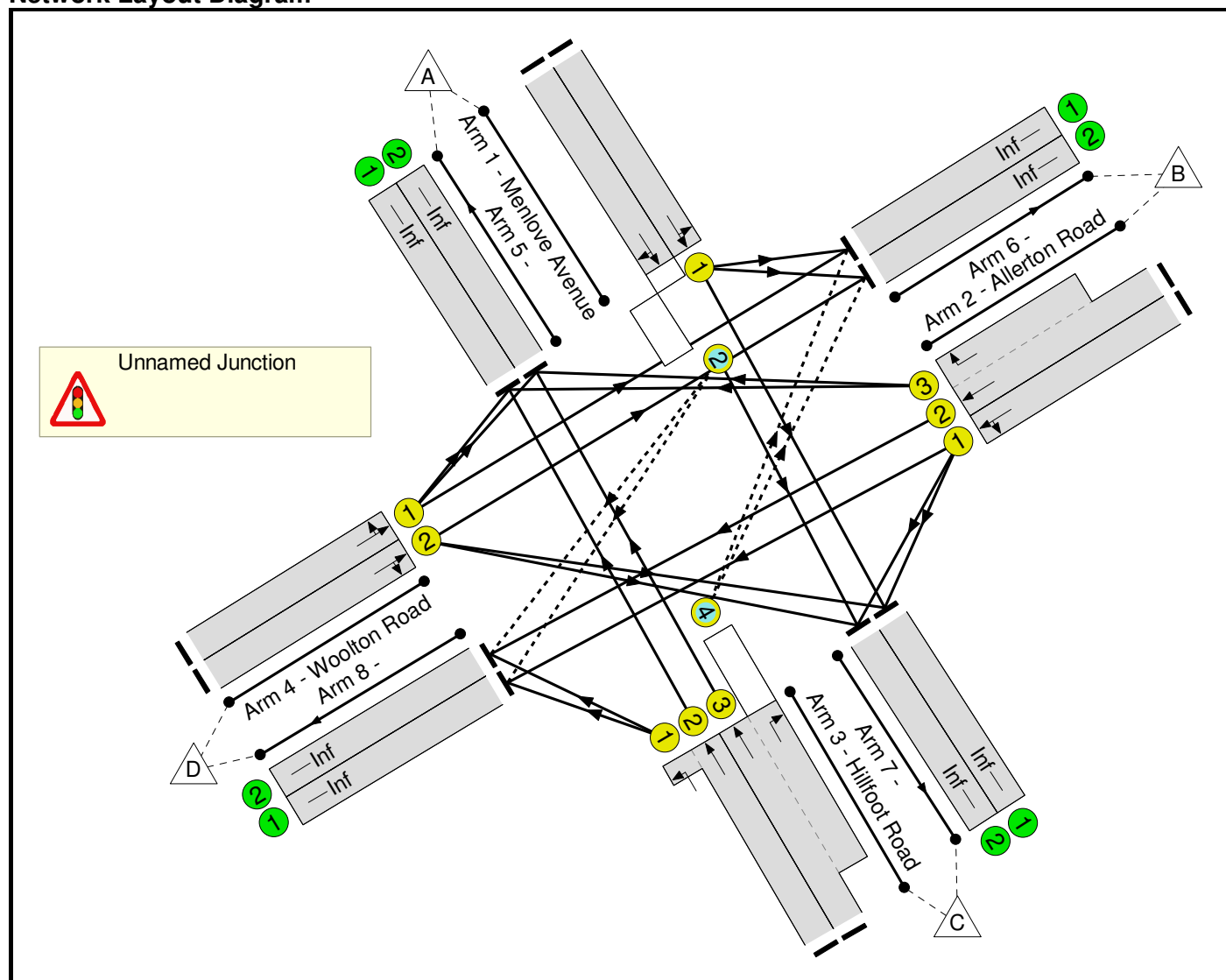
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<b>Author:</b>	
<b>Company:</b>	
<b>Address:</b>	

## Basic Results Summary

## Lane Input Data

Junction: Unnamed Junction												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Menlove Avenue)	U	A	2	3	60.0	Geom	-	3.90	0.00	Y	Arm 6 Left	30.00
											Arm 7 Ahead	Inf
1/2 (Menlove Avenue)	O	A	2	3	60.0	Geom	-	3.90	0.00	Y	Arm 7 Ahead	Inf
											Arm 8 Right	45.00
2/1 (Allerton Road)	U	B	2	3	60.0	Geom	-	3.70	0.00	Y	Arm 7 Left	20.00
											Arm 8 Ahead	Inf
2/2 (Allerton Road)	U	B	2	3	60.0	Geom	-	3.60	0.00	N	Arm 8 Ahead	Inf
2/3 (Allerton Road)	U	B	2	3	7.5	Geom	-	3.70	0.00	Y	Arm 5 Right	20.00
3/1 (Hillfoot Road)	U	C	2	3	1.0	Geom	-	3.00	0.00	Y	Arm 8 Left	15.00
3/2 (Hillfoot Road)	U	C	2	3	60.0	Geom	-	3.30	0.00	Y	Arm 5 Ahead	Inf
3/3 (Hillfoot Road)	U	C	2	3	60.0	Geom	-	3.30	0.00	N	Arm 5 Ahead	Inf
3/4 (Hillfoot Road)	O	C	2	3	9.6	Geom	-	3.90	0.00	Y	Arm 6 Right	50.00
4/1 (Woolton Road)	U	D	2	3	60.0	Geom	-	3.10	0.00	Y	Arm 5 Left	9.00
											Arm 6 Ahead	Inf
4/2 (Woolton Road)	U	D	2	3	60.0	Geom	-	3.10	0.00	Y	Arm 6 Ahead	Inf
											Arm 7 Right	28.00
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/2	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/2	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/2	U		2	3	60.0	Inf	-	-	-	-	-	-

## Network Layout Diagram



## Basic Results Summary

**Network Results****Scenario 1: 'Base 2014 AM'** (FG1: 'Base 2014 AM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	69.1%	167	0	42	26.8	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	69.1%	167	0	42	26.8	-	-
1/1	Menlove Avenue Left Ahead	U	A		1	30	-	465	1981	682	68.1%	-	-	-	4.3	33.5	11.0
1/2	Menlove Avenue Ahead Right	O	A		1	30	-	468	1990	685	68.3%	105	0	2	4.4	33.8	11.1
2/1	Allerton Road Left Ahead	U	B		1	26	-	293	1878	563	52.0%	-	-	-	2.7	32.8	6.6
2/2+2/3	Allerton Road Right Ahead	U	B		1	26	-	599	2115:1847	479+388	69.1 : 69.1%	-	-	-	5.4	32.7	7.9
3/2+3/1	Hillfoot Road Ahead Left	U	C		1	32	-	227	1945:1741	700+9	32.0 : 32.0%	-	-	-	1.5	24.2	4.3
3/3+3/4	Hillfoot Road Ahead Right	U+O	C		1	32	-	351	2085:1947	650+211	38.3 : 48.4%	63	0	39	2.9	29.7	4.8
4/1	Woolton Road Left Ahead	U	D		1	13	-	187	1865	290	64.5%	-	-	-	2.7	52.8	5.3
4/2	Woolton Road Ahead Right	U	D		1	13	-	192	1898	295	65.0%	-	-	-	2.8	52.8	5.4
			C1	PRC for Signalled Lanes (%):			30.2	Total Delay for Signalled Lanes (pcuHr):			26.81	Cycle Time (s):			90		
				PRC Over All Lanes (%):			30.2	Total Delay Over All Lanes(pcuHr):			26.81						

## Basic Results Summary

**Scenario 2: 'Base 2014 PM'** (FG2: 'Base 2014 PM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	72.6%	192	0	66	26.9	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	72.6%	192	0	66	26.9	-	-
1/1	Menlove Avenue Left Ahead	U	A		1	39	-	435	1954	868	50.1%	-	-	-	2.7	22.0	8.2
1/2	Menlove Avenue Ahead Right	O	A		1	39	-	435	1998	888	49.0%	47	0	1	2.7	22.0	8.1
2/1	Allerton Road Left Ahead	U	B		1	12	-	193	1862	269	71.8%	-	-	-	3.2	59.7	5.8
2/2+2/3	Allerton Road Right Ahead	U	B		1	12	-	342	2115:1847	305+236	63.2 : 63.2%	-	-	-	4.3	45.0	5.4
3/2+3/1	Hillfoot Road Ahead Left	U	C		1	41	-	382	1945:1741	879+24	42.3 : 42.3%	-	-	-	2.1	19.4	6.6
3/3+3/4	Hillfoot Road Ahead Right	U+O	C		1	41	-	581	2085:1947	662+293	56.0 : 71.7%	145	0	65	4.4	27.5	6.8
4/1	Woolton Road Left Ahead	U	D		1	18	-	281	1833	387	72.6%	-	-	-	3.9	49.7	7.8
4/2	Woolton Road Ahead Right	U	D		1	18	-	281	1899	401	70.1%	-	-	-	3.7	47.6	7.6
C1				PRC for Signalled Lanes (%):			23.9	Total Delay for Signalled Lanes (pcuHr):				26.89	Cycle Time (s): 90				
				PRC Over All Lanes (%):			23.9	Total Delay Over All Lanes(pcuHr):				26.89					

## Basic Results Summary

**Scenario 3: 'Base 2016 AM'** (FG3: 'Base 2016 AM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	71.4%	164	0	49	28.6	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	71.4%	164	0	49	28.6	-	-
1/1	Menlove Avenue Left Ahead	U	A		1	30	-	475	1981	682	69.6%	-	-	-	4.5	34.0	11.3
1/2	Menlove Avenue Ahead Right	O	A		1	30	-	477	1990	685	69.6%	107	0	2	4.5	34.3	11.3
2/1	Allerton Road Left Ahead	U	B		1	26	-	303	1879	564	53.8%	-	-	-	2.8	33.2	6.9
2/2+2/3	Allerton Road Right Ahead	U	B		1	26	-	611	2115:1847	478+389	70.4 : 70.4%	-	-	-	5.6	33.0	8.1
3/2+3/1	Hillfoot Road Ahead Left	U	C		1	32	-	234	1945:1741	700+9	33.0 : 33.0%	-	-	-	1.6	24.4	4.4
3/3+3/4	Hillfoot Road Ahead Right	U+O	C		1	32	-	356	2085:1947	649+206	38.8 : 50.4%	58	0	46	3.0	30.0	4.8
4/1	Woolton Road Left Ahead	U	D		1	13	-	206	1869	291	70.9%	-	-	-	3.2	56.7	6.0
4/2	Woolton Road Ahead Right	U	D		1	13	-	211	1900	296	71.4%	-	-	-	3.3	56.8	6.2
C1				PRC for Signalled Lanes (%):		26.1		Total Delay for Signalled Lanes (pcuHr):		28.56		Cycle Time (s):		90			
				PRC Over All Lanes (%):		26.1		Total Delay Over All Lanes(pcuHr):		28.56							

## Basic Results Summary

**Scenario 4: 'Base 2016 PM'** (FG4: 'Base 2016 PM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	76.2%	182	0	81	28.5	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	76.2%	182	0	81	28.5	-	-
1/1	Menlove Avenue Left Ahead	U	A		1	39	-	444	1954	868	51.1%	-	-	-	2.7	22.2	8.4
1/2	Menlove Avenue Ahead Right	O	A		1	39	-	444	1998	888	50.0%	48	0	1	2.7	22.2	8.4
2/1	Allerton Road Left Ahead	U	B		1	12	-	199	1863	269	74.0%	-	-	-	3.4	61.6	6.1
2/2+2/3	Allerton Road Right Ahead	U	B		1	12	-	351	2115:1847	305+233	65.1 : 65.1%	-	-	-	4.5	45.6	5.6
3/2+3/1	Hillfoot Road Ahead Left	U	C		1	41	-	389	1945:1741	880+23	43.1 : 43.1%	-	-	-	2.1	19.6	6.8
3/3+3/4	Hillfoot Road Ahead Right	U+O	C		1	41	-	593	2085:1947	630+283	60.2 : 75.7%	134	0	80	4.7	28.8	7.0
4/1	Woolton Road Left Ahead	U	D		1	18	-	295	1835	387	76.2%	-	-	-	4.3	52.2	8.4
4/2	Woolton Road Ahead Right	U	D		1	18	-	295	1900	401	73.5%	-	-	-	4.1	49.7	8.2
C1				PRC for Signalled Lanes (%):			18.2	Total Delay for Signalled Lanes (pcuHr):				28.54	Cycle Time (s): 90				
				PRC Over All Lanes (%):			18.2	Total Delay Over All Lanes(pcuHr):				28.54					

## Basic Results Summary

**Scenario 5: 'Base 2021 AM'** (FG5: 'Base 2021 AM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	73.1%	161	0	57	29.7	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	73.1%	161	0	57	29.7	-	-
1/1	Menlove Avenue Left Ahead	U	A		1	30	-	486	1981	682	71.2%	-	-	-	4.7	34.7	11.8
1/2	Menlove Avenue Ahead Right	O	A		1	30	-	488	1990	685	71.2%	110	0	2	4.7	35.0	11.8
2/1	Allerton Road Left Ahead	U	B		1	26	-	311	1880	564	55.1%	-	-	-	2.9	33.5	7.1
2/2+2/3	Allerton Road Right Ahead	U	B		1	26	-	623	2115:1847	478+390	71.7 : 71.7%	-	-	-	5.8	33.4	8.4
3/2+3/1	Hillfoot Road Ahead Left	U	C		1	32	-	240	1945:1741	701+9	33.8 : 33.8%	-	-	-	1.6	24.5	4.6
3/3+3/4	Hillfoot Road Ahead Right	U+O	C		1	32	-	363	2085:1947	649+200	39.6 : 52.9%	52	0	54	3.1	30.4	5.0
4/1	Woolton Road Left Ahead	U	D		1	13	-	210	1869	291	72.2%	-	-	-	3.4	57.8	6.2
4/2	Woolton Road Ahead Right	U	D		1	13	-	216	1900	296	73.1%	-	-	-	3.5	58.1	6.4
C1				PRC for Signalled Lanes (%):			23.1	Total Delay for Signalled Lanes (pcuHr):				29.65	Cycle Time (s): 90				
				PRC Over All Lanes (%):			23.1	Total Delay Over All Lanes(pcuHr):				29.65					

## Basic Results Summary

**Scenario 6: 'Base 2021 PM'** (FG6: 'Base 2021 PM', Plan 1: 'Network Control Plan 1')

Scenario 01 - Base 2021 PM (100% Base 2021 PM, Plan 1: Network Control Plan 1)																	
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	78.8%	178	0	91	29.8	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	78.8%	178	0	91	29.8	-	-
1/1	Menlove Avenue Left Ahead	U	A		1	39	-	454	1954	868	52.3%	-	-	-	2.8	22.4	8.7
1/2	Menlove Avenue Ahead Right	O	A		1	39	-	453	1998	888	51.0%	49	0	1	2.8	22.5	8.6
2/1	Allerton Road Left Ahead	U	B		1	12	-	204	1864	269	75.8%	-	-	-	3.6	63.4	6.4
2/2+2/3	Allerton Road Right Ahead	U	B		1	12	-	358	2115:1847	305+233	66.4 : 66.4%	-	-	-	4.6	46.1	5.8
3/2+3/1	Hillfoot Road Ahead Left	U	C		1	41	-	398	1945:1741	880+23	44.1 : 44.1%	-	-	-	2.2	19.7	7.0
3/3+3/4	Hillfoot Road Ahead Right	U+O	C		1	41	-	606	2085:1947	595+278	65.0 : 78.8%	129	0	90	5.1	30.1	7.4
4/1	Woolton Road Left Ahead	U	D		1	18	-	302	1835	387	78.0%	-	-	-	4.5	53.8	8.7
4/2	Woolton Road Ahead Right	U	D		1	18	-	301	1900	401	75.0%	-	-	-	4.2	50.8	8.5
<div><div>C1</div><div>PRC for Signalled Lanes (%): 14.3 PRC Over All Lanes (%): 14.3</div><div>Total Delay for Signalled Lanes (pcuHr): 29.84 Total Delay Over All Lanes(pcuHr): 29.84</div><div>Cycle Time (s): 90</div></div>																	

## Basic Results Summary

**Scenario 7: 'With Dev 2016 AM'** (FG7: 'With Dev 2016 AM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	72.5%	161	0	57	29.8	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	72.5%	161	0	57	29.8	-	-
1/1	Menlove Avenue Left Ahead	U	A		1	29	-	477	1981	660	72.2%	-	-	-	4.8	36.0	11.8
1/2	Menlove Avenue Ahead Right	O	A		1	29	-	480	1989	663	72.4%	111	0	3	4.9	36.4	11.8
2/1	Allerton Road Left Ahead	U	B		1	25	-	305	1880	543	56.2%	-	-	-	2.9	34.7	7.1
2/2+2/3	Allerton Road Right Ahead	U	B		1	25	-	612	2115:1847	466+378	72.5 : 72.5%	-	-	-	5.9	34.6	8.4
3/2+3/1	Hillfoot Road Ahead Left	U	C		1	31	-	238	1945:1741	655+32	34.7 : 34.7%	-	-	-	1.7	25.3	4.6
3/3+3/4	Hillfoot Road Ahead Right	U+O	C		1	31	-	360	2085:1947	634+198	40.4 : 52.5%	50	0	54	3.1	31.0	5.1
4/1	Woolton Road Left Ahead	U	D		1	15	-	226	1858	330	68.4%	-	-	-	3.2	51.6	6.3
4/2	Woolton Road Ahead Right	U	D		1	15	-	233	1894	337	69.2%	-	-	-	3.3	51.7	6.5
C1				PRC for Signalled Lanes (%):		24.2		Total Delay for Signalled Lanes (pcuHr):				29.80		Cycle Time (s): 90			
				PRC Over All Lanes (%):		24.2		Total Delay Over All Lanes(pcuHr):				29.80					

## Basic Results Summary

**Scenario 8: 'With Dev 2016 PM'** (FG8: 'With Dev 2016 PM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	77.3%	190	0	87	29.6	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	77.3%	190	0	87	29.6	-	-
1/1	Menlove Avenue Left Ahead	U	A		1	38	-	451	1955	847	53.2%	-	-	-	2.9	23.3	8.8
1/2	Menlove Avenue Ahead Right	O	A		1	38	-	451	1996	865	52.1%	62	0	1	3.0	23.6	8.7
2/1	Allerton Road Left Ahead	U	B		1	12	-	203	1866	270	75.3%	-	-	-	3.5	62.9	6.3
2/2+2/3	Allerton Road Right Ahead	U	B		1	12	-	354	2115:1847	305+230	66.1 : 66.1%	-	-	-	4.5	46.0	5.7
3/2+3/1	Hillfoot Road Ahead Left	U	C		1	40	-	408	1945:1741	816+62	46.4 : 46.4%	-	-	-	2.3	20.7	7.4
3/3+3/4	Hillfoot Road Ahead Right	U+O	C		1	40	-	593	2085:1947	614+277	61.7 : 77.3%	128	0	86	4.9	29.8	7.2
4/1	Woolton Road Left Ahead	U	D		1	19	-	307	1831	407	75.5%	-	-	-	4.3	50.2	8.7
4/2	Woolton Road Ahead Right	U	D		1	19	-	307	1897	422	72.8%	-	-	-	4.1	47.8	8.4
C1				PRC for Signalled Lanes (%):			16.4	Total Delay for Signalled Lanes (pcuHr):				29.57	Cycle Time (s): 90				
				PRC Over All Lanes (%):			16.4	Total Delay Over All Lanes(pcuHr):				29.57					

## Basic Results Summary

**Scenario 9: 'With Dev 2021 AM'** (FG9: 'With Dev 2021 AM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	73.9%	158	0	64	30.9	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	73.9%	158	0	64	30.9	-	-
1/1	Menlove Avenue Left Ahead	U	A		1	29	-	488	1981	660	73.9%	-	-	-	5.0	36.8	12.1
1/2	Menlove Avenue Ahead Right	O	A		1	29	-	490	1989	663	73.9%	113	0	3	5.1	37.2	12.1
2/1	Allerton Road Left Ahead	U	B		1	25	-	313	1880	543	57.6%	-	-	-	3.1	35.1	7.3
2/2+2/3	Allerton Road Right Ahead	U	B		1	25	-	624	2115:1847	466+379	73.8 : 73.8%	-	-	-	6.1	35.0	8.7
3/2+3/1	Hillfoot Road Ahead Left	U	C		1	31	-	244	1945:1741	656+31	35.5 : 35.5%	-	-	-	1.7	25.5	4.7
3/3+3/4	Hillfoot Road Ahead Right	U+O	C		1	31	-	367	2085:1947	634+193	41.2 : 54.8%	44	0	62	3.2	31.3	5.2
4/1	Woolton Road Left Ahead	U	D		1	15	-	231	1858	330	69.9%	-	-	-	3.4	52.5	6.5
4/2	Woolton Road Ahead Right	U	D		1	15	-	237	1894	337	70.4%	-	-	-	3.5	52.4	6.7
C1				PRC for Signalled Lanes (%):			21.8	Total Delay for Signalled Lanes (pcuHr):				30.91	Cycle Time (s): 90				
				PRC Over All Lanes (%):			21.8	Total Delay Over All Lanes(pcuHr):				30.91					

## Basic Results Summary

**Scenario 10: 'With Dev 2021 PM'** (FG10: 'With Dev 2021 PM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	81.0%	191	0	92	31.2	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	81.0%	191	0	92	31.2	-	-
1/1	Menlove Avenue Left Ahead	U	A		1	39	-	461	1955	869	53.1%	-	-	-	2.9	22.6	8.9
1/2	Menlove Avenue Ahead Right	O	A		1	39	-	460	1996	887	51.9%	63	0	1	2.9	22.9	8.8
2/1	Allerton Road Left Ahead	U	B		1	12	-	207	1865	269	76.8%	-	-	-	3.7	64.5	6.5
2/2+2/3	Allerton Road Right Ahead	U	B		1	12	-	362	2115:1847	305+229	67.8 : 67.8%	-	-	-	4.7	46.6	5.9
3/2+3/1	Hillfoot Road Ahead Left	U	C		1	41	-	417	1945:1741	838+63	46.3 : 46.3%	-	-	-	2.3	20.0	7.4
3/3+3/4	Hillfoot Road Ahead Right	U+O	C		1	41	-	606	2085:1947	592+277	65.4 : 79.0%	128	0	91	5.1	30.3	7.4
4/1	Woolton Road Left Ahead	U	D		1	18	-	313	1830	386	81.0%	-	-	-	5.0	57.1	9.4
4/2	Woolton Road Ahead Right	U	D		1	18	-	313	1897	400	78.2%	-	-	-	4.6	53.3	9.1
C1				PRC for Signalled Lanes (%):			11.1	Total Delay for Signalled Lanes (pcuHr):				31.22	Cycle Time (s): 90				
				PRC Over All Lanes (%):			11.1	Total Delay Over All Lanes(pcuHr):				31.22					

**S|C|P**

## **APPENDIX 18**

Basic Results Summary  
**Basic Results Summary**

**User and Project Details**

<b>Project:</b>	
<b>Title:</b>	
<b>Location:</b>	
<b>File name:</b>	LINSIG - Woolton Rd_Springwood Av.lsg3x
<b>Author:</b>	
<b>Company:</b>	
<b>Address:</b>	

## Basic Results Summary

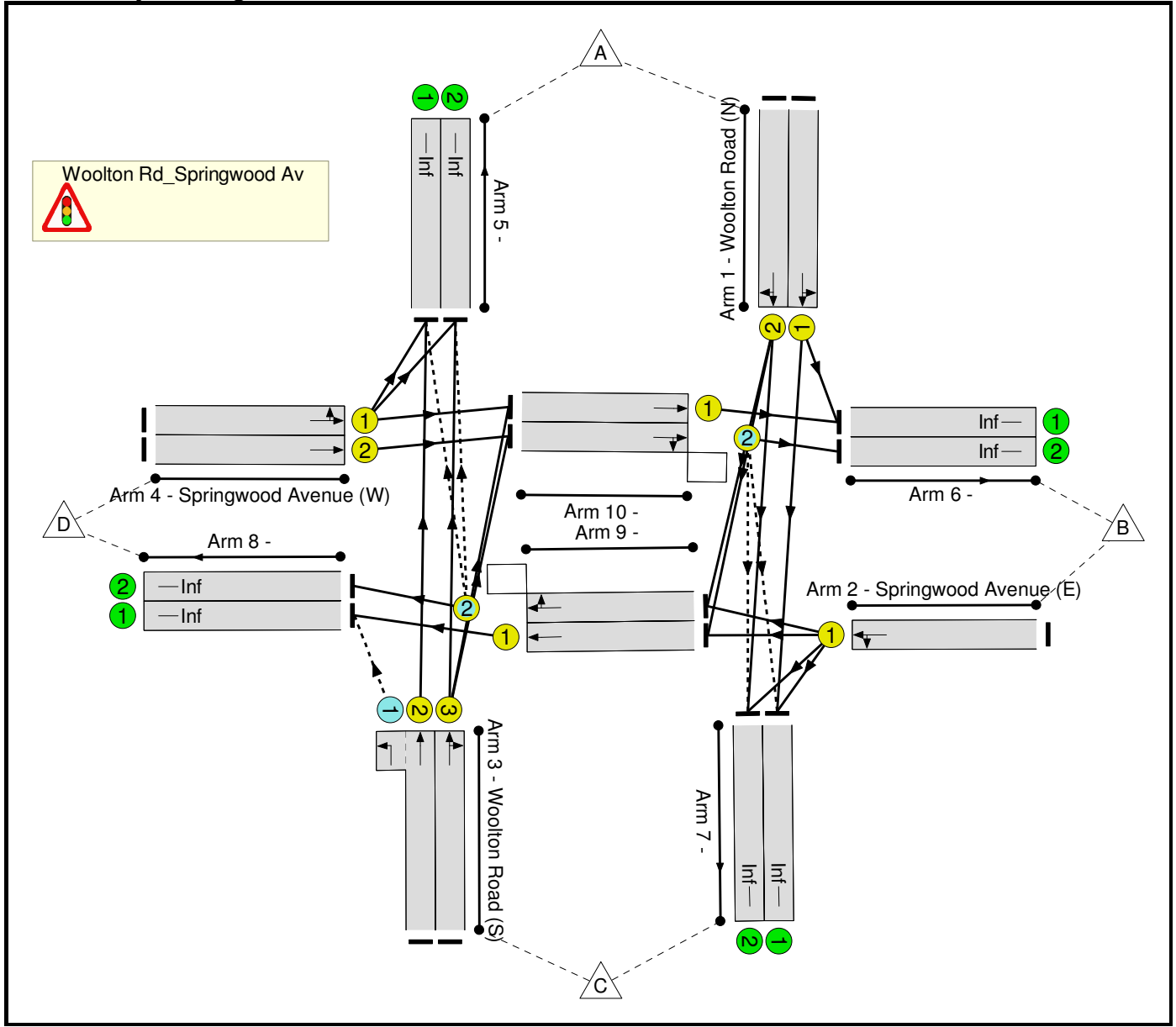
## Lane Input Data

Junction: Woolton Rd_Springwood Av												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Woolton Road (N))	U	A	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 6 Left Arm 7 Ahead	15.00 Inf
1/2 (Woolton Road (N))	U	A	2	3	60.0	Geom	-	3.20	0.00	Y	Arm 7 Ahead Arm 9 Right	Inf 11.40
2/1 (Springwood Avenue (E))	U	B	2	3	60.0	Geom	-	4.50	0.00	Y	Arm 7 Left Arm 9 Ahead	16.20 Inf
3/1 (Woolton Road (S))	O		2	3	2.0	Geom	-	3.25	0.00	Y	Arm 8 Left	17.00
3/2 (Woolton Road (S))	U	C	2	3	60.0	Geom	-	3.90	0.00	Y	Arm 5 Ahead	Inf
3/3 (Woolton Road (S))	U	C	2	3	60.0	Geom	-	3.90	0.00	Y	Arm 5 Ahead Arm 10 Right	9.90 Inf
4/1 (Springwood Avenue (W))	U	D	2	3	60.0	Geom	-	3.80	0.00	Y	Arm 5 Left Arm 10 Ahead	12.00 Inf
4/2 (Springwood Avenue (W))	U	D	2	3	60.0	Geom	-	3.80	0.00	Y	Arm 10 Ahead	Inf
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/2	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/2	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/2	U		2	3	60.0	Inf	-	-	-	-	-	-
9/1	U	F	2	3	5.2	Geom	-	3.80	0.00	Y	Arm 8 Ahead	Inf
9/2	O	F	2	3	5.2	Geom	-	3.80	0.00	Y	Arm 5 Right Arm 8 Ahead	14.00 Inf
10/1	U	E	2	3	6.4	Geom	-	3.30	0.00	Y	Arm 6 Ahead	Inf

Basic Results Summary

10/2	O	E	2	3	6.4	Geom	-	3.30	0.00	Y	Arm 6 Ahead	Inf
											Arm 7 Right	8.00

Network Layout Diagram



## Basic Results Summary

**Network Results****Scenario 1: 'Base 2014 AM'** (FG1: 'Base 2014 AM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	40.5%	68	19	0	10.0	-	-
Woolton Rd_Springwood Av	-	-	-		-	-	-	-	-	-	40.5%	68	19	0	10.0	-	-
1/1	Woolton Road (N) Left Ahead	U	A		1	25	-	225	1948	563	40.0%	-	-	-	1.9	31.1	4.8
1/2	Woolton Road (N) Ahead Right	U	A		1	25	-	209	1868	540	38.7%	-	-	-	1.8	31.1	4.5
2/1	Springwood Avenue (E) Left Ahead	U	B		1	54	-	497	2008	1227	40.5%	-	-	-	1.6	11.5	6.7
3/2+3/1	Woolton Road (S) Ahead Left	U+O	C -		1	25	-	186	2005:1783	469+109	32.2 : 32.2%	16	19	0	1.3	25.2	3.4
3/3	Woolton Road (S) Ahead Right	U	C		1	25	-	155	1899	549	28.3%	-	-	-	1.3	29.4	3.2
4/1	Springwood Avenue (W) Left Ahead	U	D		1	54	-	126	1932	1181	10.7%	-	-	-	0.3	9.0	1.4
4/2	Springwood Avenue (W) Ahead	U	D		1	54	-	121	1995	1219	9.9%	-	-	-	0.3	8.9	1.3
9/1	Ahead	U	F		1	55	-	206	1995	1241	16.6%	-	-	-	0.3	5.7	1.0
9/2	Right Ahead	O	F		1	55	-	195	1969	1225	15.9%	24	0	0	0.3	5.6	0.9
10/1	Ahead	U	E		1	55	-	146	1945	1210	12.1%	-	-	-	0.4	10.6	1.5
10/2	Ahead Right	O	E		1	55	-	166	1885	1167	14.2%	28	0	0	0.4	9.4	1.3
C1 PRC for Signalled Lanes (%): 122.2 PRC Over All Lanes (%): 122.2 Total Delay for Signalled Lanes (pcuHr): 10.01 Total Delay Over All Lanes(pcuHr): 10.01 Cycle Time (s): 90																	

# Basic Results Summary

## Scenario 2: 'Base 2014 PM' (FG2: 'Base 2014 PM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	45.2%	79	24	0	10.9	-	-
Woolton Rd_Springwood Av	-	-	-		-	-	-	-	-	-	45.2%	79	24	0	10.9	-	-
1/1	Woolton Road (N) Left Ahead	U	A		1	30	-	137	1944	670	20.5%	-	-	-	0.9	24.2	2.5
1/2	Woolton Road (N) Ahead Right	U	A		1	30	-	111	1879	647	17.2%	-	-	-	0.7	23.9	2.0
2/1	Springwood Avenue (E) Left Ahead	U	B		1	49	-	505	2010	1117	45.2%	-	-	-	2.1	14.8	7.8
3/2+3/1	Woolton Road (S) Ahead Left	U+O	C -		1	30	-	309	2005:1783	614+69	45.2 : 45.2%	7	24	0	2.3	26.3	6.2
3/3	Woolton Road (S) Ahead Right	U	C		1	30	-	264	1892	652	40.5%	-	-	-	2.0	27.1	5.3
4/1	Springwood Avenue (W) Left Ahead	U	D		1	49	-	133	1956	1087	12.2%	-	-	-	0.4	11.4	1.6
4/2	Springwood Avenue (W) Ahead	U	D		1	49	-	135	1995	1108	12.2%	-	-	-	0.4	11.4	1.6
9/1	Ahead	U	F		1	50	-	196	1995	1131	17.3%	-	-	-	0.2	3.1	0.3
9/2	Right Ahead	O	F		1	50	-	184	1957	1109	16.6%	33	0	0	0.3	6.6	0.8
10/1	Ahead	U	E		1	50	-	208	1945	1102	18.9%	-	-	-	0.9	14.9	3.7
10/2	Ahead Right	O	E		1	50	-	199	1876	1036	19.2%	39	0	0	0.7	12.3	1.8
C1				PRC for Signalled Lanes (%):			98.9	Total Delay for Signalled Lanes (pcuHr):				10.88	Cycle Time (s): 90				
				PRC Over All Lanes (%):			98.9	Total Delay Over All Lanes(pcuHr):				10.88					

# Basic Results Summary

## Scenario 3: 'Base 2016 AM' (FG3: 'Base 2016 AM', Plan 1: 'Network Control Plan 1')

Scenario C: Base 2010 AM (T-Cb: Base 2010 AM, Plan 1: Network Control Plan 1)																	
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	40.5%	69	18	0	10.0	-	-
Woolton Rd_Springwood Av	-	-	-		-	-	-	-	-	-	40.5%	69	18	0	10.0	-	-
1/1	Woolton Road (N) Left Ahead	U	A		1	25	-	223	1948	563	39.6%	-	-	-	1.9	31.0	4.8
1/2	Woolton Road (N) Ahead Right	U	A		1	25	-	211	1869	540	39.1%	-	-	-	1.8	31.1	4.5
2/1	Springwood Avenue (E) Left Ahead	U	B		1	54	-	497	2008	1227	40.5%	-	-	-	1.6	11.5	6.7
3/2+3/1	Woolton Road (S) Ahead Left	U+O	C -		1	25	-	178	2005:1783	464+114	30.8 : 30.8%	17	18	0	1.2	24.7	3.2
3/3	Woolton Road (S) Ahead Right	U	C		1	25	-	163	1891	546	29.8%	-	-	-	1.3	29.6	3.4
4/1	Springwood Avenue (W) Left Ahead	U	D		1	54	-	112	1924	1176	9.5%	-	-	-	0.3	8.9	1.2
4/2	Springwood Avenue (W) Ahead	U	D		1	54	-	135	1995	1219	11.1%	-	-	-	0.3	9.0	1.4
9/1	Ahead	U	F		1	55	-	207	1995	1241	16.7%	-	-	-	0.5	8.2	1.6
9/2	Right Ahead	O	F		1	55	-	194	1969	1225	15.8%	24	0	0	0.2	3.1	0.3
10/1	Ahead	U	E		1	55	-	173	1945	1210	14.3%	-	-	-	0.7	15.2	3.0
10/2	Ahead Right	O	E		1	55	-	139	1874	1146	12.1%	28	0	0	0.2	4.3	0.3
C1		PRC for Signalled Lanes (%):		122.2		PRC Over All Lanes (%):		122.2		Total Delay for Signalled Lanes (pcuHr):		10.04		Total Delay Over All Lanes(pcuHr):		10.04	
												Cycle Time (s):		90			

# Basic Results Summary

## Scenario 4: 'Base 2016 PM' (FG4: 'Base 2016 PM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)	
Network	-	-	-		-	-	-	-	-	-	45.2%	79	24	0	10.9	-	-	
Woolton Rd_Springwood Av	-	-	-		-	-	-	-	-	-	45.2%	79	24	0	10.9	-	-	
1/1	Woolton Road (N) Left Ahead	U	A		1	30	-	137	1944	670	20.5%	-	-	-	0.9	24.2	2.5	
1/2	Woolton Road (N) Ahead Right	U	A		1	30	-	111	1879	647	17.2%	-	-	-	0.7	23.9	2.0	
2/1	Springwood Avenue (E) Left Ahead	U	B		1	49	-	505	2010	1117	45.2%	-	-	-	2.1	14.8	7.8	
3/2+3/1	Woolton Road (S) Ahead Left	U+O	C -		1	30	-	309	2005:1783	614+69	45.2 : 45.2%	7	24	0	2.3	26.3	6.2	
3/3	Woolton Road (S) Ahead Right	U	C		1	30	-	264	1892	652	40.5%	-	-	-	2.0	27.1	5.3	
4/1	Springwood Avenue (W) Left Ahead	U	D		1	49	-	133	1956	1087	12.2%	-	-	-	0.4	11.4	1.6	
4/2	Springwood Avenue (W) Ahead	U	D		1	49	-	135	1995	1108	12.2%	-	-	-	0.4	11.4	1.6	
9/1	Ahead	U	F		1	50	-	196	1995	1131	17.3%	-	-	-	0.2	3.1	0.3	
9/2	Right Ahead	O	F		1	50	-	184	1957	1109	16.6%	33	0	0	0.3	6.6	0.8	
10/1	Ahead	U	E		1	50	-	208	1945	1102	18.9%	-	-	-	0.9	14.9	3.7	
10/2	Ahead Right	O	E		1	50	-	199	1876	1036	19.2%	39	0	0	0.7	12.3	1.8	
C1		PRC for Signalled Lanes (%):		98.9		PRC Over All Lanes (%):		98.9		Total Delay for Signalled Lanes (pcuHr):		10.88		Total Delay Over All Lanes(pcuHr):		10.88		Cycle Time (s): 90

## Basic Results Summary

**Scenario 5: 'Base 2021 AM'** (FG5: 'Base 2021 AM', Plan 1: 'Network Control Plan 1')

Schedule of Days 2024 Plan (1.05: Days 2024 Plan, Plan 1: Network Control Plan 1)																		
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)	
Network	-	-	-		-	-	-	-	-	-	42.3%	71	20	0	10.6	-	-	
Woolton Rd_Springwood Av	-	-	-		-	-	-	-	-	-	42.3%	71	20	0	10.6	-	-	
1/1	Woolton Road (N) Left Ahead	U	A		1	25	-	235	1948	563	41.8%	-	-	-	2.0	31.4	5.1	
1/2	Woolton Road (N) Ahead Right	U	A		1	25	-	219	1868	540	40.6%	-	-	-	1.9	31.4	4.7	
2/1	Springwood Avenue (E) Left Ahead	U	B		1	54	-	519	2008	1227	42.3%	-	-	-	1.7	11.7	7.1	
3/2+3/1	Woolton Road (S) Ahead Left	U+O	C -		1	25	-	193	2005:1783	467+111	33.4 : 33.4%	17	20	0	1.4	25.4	3.5	
3/3	Woolton Road (S) Ahead Right	U	C		1	25	-	163	1897	548	29.7%	-	-	-	1.3	29.6	3.4	
4/1	Springwood Avenue (W) Left Ahead	U	D		1	54	-	132	1933	1181	11.2%	-	-	-	0.3	9.0	1.4	
4/2	Springwood Avenue (W) Ahead	U	D		1	54	-	125	1995	1219	10.3%	-	-	-	0.3	8.9	1.3	
9/1	Ahead	U	F		1	55	-	215	1995	1241	17.3%	-	-	-	0.3	5.8	1.0	
9/2	Right Ahead	O	F		1	55	-	204	1969	1225	16.7%	25	0	0	0.3	5.6	0.9	
10/1	Ahead	U	E		1	55	-	153	1945	1210	12.6%	-	-	-	0.4	10.5	1.5	
10/2	Ahead Right	O	E		1	55	-	172	1885	1161	14.8%	29	0	0	0.5	9.5	1.4	
C1		PRC for Signalled Lanes (%):					112.8	Total Delay for Signalled Lanes (pcuHr):					10.55	Cycle Time (s): 90				
		PRC Over All Lanes (%):					112.8	Total Delay Over All Lanes(pcuHr):					10.55					

# Basic Results Summary

## Scenario 6: 'Base 2021 PM' (FG6: 'Base 2021 PM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)	
Network	-	-	-		-	-	-	-	-	-	47.1%	82	25	0	11.4	-	-	
Woolton Rd_Springwood Av	-	-	-		-	-	-	-	-	-	47.1%	82	25	0	11.4	-	-	
1/1	Woolton Road (N) Left Ahead	U	A		1	30	-	134	1942	669	20.0%	-	-	-	0.9	24.2	2.5	
1/2	Woolton Road (N) Ahead Right	U	A		1	30	-	125	1883	649	19.3%	-	-	-	0.8	24.2	2.3	
2/1	Springwood Avenue (E) Left Ahead	U	B		1	49	-	526	2010	1117	47.1%	-	-	-	2.2	15.1	8.3	
3/2+3/1	Woolton Road (S) Ahead Left	U+O	C -		1	30	-	312	2005:1783	613+70	45.7 : 45.7%	7	25	0	2.3	26.3	6.2	
3/3	Woolton Road (S) Ahead Right	U	C		1	30	-	285	1887	650	43.8%	-	-	-	2.2	27.7	5.9	
4/1	Springwood Avenue (W) Left Ahead	U	D		1	49	-	146	1958	1088	13.4%	-	-	-	0.5	11.5	1.8	
4/2	Springwood Avenue (W) Ahead	U	D		1	49	-	134	1995	1108	12.1%	-	-	-	0.4	11.4	1.6	
9/1	Ahead	U	F		1	50	-	209	1995	1131	18.5%	-	-	-	0.3	5.1	0.7	
9/2	Right Ahead	O	F		1	50	-	187	1957	1109	16.9%	34	0	0	0.2	4.3	0.5	
10/1	Ahead	U	E		1	50	-	213	1945	1102	19.3%	-	-	-	0.8	13.6	3.5	
10/2	Ahead Right	O	E		1	50	-	212	1877	1032	20.5%	41	0	0	0.8	13.7	3.4	
C1		PRC for Signalled Lanes (%):		91.1		PRC Over All Lanes (%):		91.1		Total Delay for Signalled Lanes (pcuHr):		11.44		Total Delay Over All Lanes(pcuHr):		11.44		Cycle Time (s): 90

## Basic Results Summary

**Scenario 7: 'With Dev 2016 AM'** (FG7: 'With Dev 2016 AM', Plan 1: 'Network Control Plan 1')

Scenario 11 - With Dev 2016 Plan (C1) - With Dev 2016 Plan, Plan 11 - Network Control Plan 11																		
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)	
Network	-	-	-		-	-	-	-	-	-	42.2%	70	20	0	10.5	-	-	
Woolton Rd_Springwood Av	-	-	-		-	-	-	-	-	-	42.2%	70	20	0	10.5	-	-	
1/1	Woolton Road (N) Left Ahead	U	A		1	26	-	240	1949	585	41.0%	-	-	-	2.0	30.4	5.1	
1/2	Woolton Road (N) Ahead Right	U	A		1	26	-	221	1862	559	39.6%	-	-	-	1.9	30.4	4.7	
2/1	Springwood Avenue (E) Left Ahead	U	B		1	53	-	508	2008	1205	42.2%	-	-	-	1.7	12.2	7.1	
3/2+3/1	Woolton Road (S) Ahead Left	U+O	C -		1	26	-	191	2005:1783	486+113	31.9 : 31.9%	16	20	0	1.3	24.4	3.5	
3/3	Woolton Road (S) Ahead Right	U	C		1	26	-	161	1896	569	28.3%	-	-	-	1.3	28.5	3.2	
4/1	Springwood Avenue (W) Left Ahead	U	D		1	53	-	131	1927	1156	11.3%	-	-	-	0.3	9.5	1.4	
4/2	Springwood Avenue (W) Ahead	U	D		1	53	-	125	1995	1197	10.4%	-	-	-	0.3	9.4	1.4	
9/1	Ahead	U	F		1	54	-	213	1995	1219	17.5%	-	-	-	0.4	6.3	1.1	
9/2	Right Ahead	O	F		1	54	-	205	1969	1203	17.0%	25	0	0	0.3	6.0	1.0	
10/1	Ahead	U	E		1	54	-	148	1945	1189	12.5%	-	-	-	0.5	11.0	1.5	
10/2	Ahead Right	O	E		1	54	-	171	1885	1140	15.0%	29	0	0	0.5	9.7	1.3	
		C1	PRC for Signalled Lanes (%):		113.4		PRC Over All Lanes (%):		113.4		Total Delay for Signalled Lanes (pcuHr):		10.49		Cycle Time (s):		90	
											Total Delay Over All Lanes(pcuHr):		10.49					

# Basic Results Summary

## Scenario 8: 'With Dev 2016 PM' (FG8: 'With Dev 2016 PM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)		
Network	-	-	-		-	-	-	-	-	-	46.2%	81	25	0	11.4	-	-		
Woolton Rd_Springwood Av	-	-	-		-	-	-	-	-	-	46.2%	81	25	0	11.4	-	-		
1/1	Woolton Road (N) Left Ahead	U	A		1	30	-	137	1944	670	20.5%	-	-	-	0.9	24.2	2.5		
1/2	Woolton Road (N) Ahead Right	U	A		1	30	-	126	1876	646	19.5%	-	-	-	0.8	24.2	2.3		
2/1	Springwood Avenue (E) Left Ahead	U	B		1	49	-	516	2010	1117	46.2%	-	-	-	2.1	15.0	8.0		
3/2+3/1	Woolton Road (S) Ahead Left	U+O	C -		1	30	-	311	2005:1783	613+70	45.5 : 45.5%	7	25	0	2.3	26.3	6.2		
3/3	Woolton Road (S) Ahead Right	U	C		1	30	-	283	1884	649	43.6%	-	-	-	2.2	27.7	5.8		
4/1	Springwood Avenue (W) Left Ahead	U	D		1	49	-	145	1948	1082	13.4%	-	-	-	0.5	11.5	1.8		
4/2	Springwood Avenue (W) Ahead	U	D		1	49	-	135	1995	1108	12.2%	-	-	-	0.4	11.4	1.6		
9/1	Ahead	U	F		1	50	-	207	1995	1131	18.3%	-	-	-	0.3	5.1	0.7		
9/2	Right Ahead	O	F		1	50	-	186	1957	1109	16.8%	34	0	0	0.3	4.9	0.6		
10/1	Ahead	U	E		1	50	-	204	1945	1102	18.5%	-	-	-	0.8	13.7	3.4		
10/2	Ahead Right	O	E		1	50	-	211	1878	1034	20.4%	40	0	0	0.8	13.4	3.4		
C1		PRC for Signalled Lanes (%):		94.8		PRC Over All Lanes (%):		94.8		Total Delay for Signalled Lanes (pcuHr):		11.36		Total Delay Over All Lanes(pcuHr):		11.36		Cycle Time (s): 90	

# Basic Results Summary

## Scenario 9: 'With Dev 2021 AM' (FG9: 'With Dev 2021 AM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)		
Network	-	-	-		-	-	-	-	-	-	43.1%	70	21	0	10.8	-	-		
Woolton Rd_Springwood Av	-	-	-		-	-	-	-	-	-	43.1%	70	21	0	10.8	-	-		
1/1	Woolton Road (N) Left Ahead	U	A		1	26	-	245	1948	584	41.9%	-	-	-	2.1	30.5	5.3		
1/2	Woolton Road (N) Ahead Right	U	A		1	26	-	226	1862	559	40.5%	-	-	-	1.9	30.5	4.8		
2/1	Springwood Avenue (E) Left Ahead	U	B		1	53	-	519	2008	1205	43.1%	-	-	-	1.8	12.3	7.3		
3/2+3/1	Woolton Road (S) Ahead Left	U+O	C -		1	26	-	195	2005:1783	486+114	32.5 : 32.5%	16	21	0	1.3	24.5	3.5		
3/3	Woolton Road (S) Ahead Right	U	C		1	26	-	165	1895	569	29.0%	-	-	-	1.3	28.6	3.4		
4/1	Springwood Avenue (W) Left Ahead	U	D		1	53	-	133	1928	1157	11.5%	-	-	-	0.4	9.5	1.5		
4/2	Springwood Avenue (W) Ahead	U	D		1	53	-	127	1995	1197	10.6%	-	-	-	0.3	9.4	1.4		
9/1	Ahead	U	F		1	54	-	218	1995	1219	17.9%	-	-	-	0.4	6.3	1.1		
9/2	Right Ahead	O	F		1	54	-	208	1970	1204	17.3%	25	0	0	0.3	6.0	1.0		
10/1	Ahead	U	E		1	54	-	151	1945	1189	12.7%	-	-	-	0.5	11.0	1.5		
10/2	Ahead Right	O	E		1	54	-	174	1886	1136	15.3%	29	0	0	0.5	9.8	1.4		
C1		PRC for Signalled Lanes (%):		108.9		PRC Over All Lanes (%):		108.9		Total Delay for Signalled Lanes (pcuHr):		10.76		Total Delay Over All Lanes(pcuHr):		10.76		Cycle Time (s): 90	

# Basic Results Summary

## Scenario 10: 'With Dev 2021 PM' (FG10: 'With Dev 2021 PM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)		
Network	-	-	-		-	-	-	-	-	-	47.1%	82	25	0	11.7	-	-		
Woolton Rd_Springwood Av	-	-	-		-	-	-	-	-	-	47.1%	82	25	0	11.7	-	-		
1/1	Woolton Road (N) Left Ahead	U	A		1	30	-	140	1943	669	20.9%	-	-	-	0.9	24.3	2.6		
1/2	Woolton Road (N) Ahead Right	U	A		1	30	-	129	1878	647	19.9%	-	-	-	0.9	24.3	2.4		
2/1	Springwood Avenue (E) Left Ahead	U	B		1	49	-	526	2010	1117	47.1%	-	-	-	2.2	15.1	8.3		
3/2+3/1	Woolton Road (S) Ahead Left	U+O	C -		1	30	-	317	2005:1783	614+69	46.4 : 46.4%	7	25	0	2.3	26.5	6.4		
3/3	Woolton Road (S) Ahead Right	U	C		1	30	-	290	1884	649	44.7%	-	-	-	2.2	27.9	6.0		
4/1	Springwood Avenue (W) Left Ahead	U	D		1	49	-	150	1948	1082	13.9%	-	-	-	0.5	11.6	1.9		
4/2	Springwood Avenue (W) Ahead	U	D		1	49	-	137	1995	1108	12.4%	-	-	-	0.4	11.4	1.7		
9/1	Ahead	U	F		1	50	-	211	1995	1131	18.7%	-	-	-	0.3	5.1	0.7		
9/2	Right Ahead	O	F		1	50	-	189	1957	1109	17.0%	34	0	0	0.3	4.8	0.6		
10/1	Ahead	U	E		1	50	-	210	1945	1102	19.1%	-	-	-	0.8	13.7	3.5		
10/2	Ahead Right	O	E		1	50	-	215	1878	1034	20.8%	41	0	0	0.8	13.5	3.5		
C1		PRC for Signalled Lanes (%):		91.1		PRC Over All Lanes (%):		91.1		Total Delay for Signalled Lanes (pcuHr):		11.67		Total Delay Over All Lanes(pcuHr):		11.67		Cycle Time (s): 90	

**S|C|P**

## **APPENDIX 19**

<b>Junctions 8</b>	
<b>PICADY 8 - Priority Intersection Module</b>	
Version: 8.0.4.487 [15039.24/03/2014] © Copyright TRL Limited, 2014	
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Filename: Allerton-Woolton-WB\_Tjunct.arc8  
 Path: Z:\Job Library\2014\14241 - Allerton Priory, Woolton Road\Traffic Data  
 Report generation date: 07/10/2014 17:25:16

## Summary of junction performance

	AM		PM	
	Queue (PCU)	RFC	Queue (PCU)	RFC
<b>Existing Layout - Base 2014</b>				
Stream B-AC	0.06	0.06	0.06	0.06
Stream C-A	-	-	-	-
Stream C-B	0.24	0.19	0.15	0.13
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-
<b>Existing Layout - Base 2016</b>				
Stream B-AC	0.06	0.06	0.07	0.06
Stream C-A	-	-	-	-
Stream C-B	0.25	0.20	0.16	0.14
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-
<b>Existing Layout - Base 2021</b>				
Stream B-AC	0.06	0.06	0.07	0.06
Stream C-A	-	-	-	-
Stream C-B	0.26	0.21	0.16	0.14
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-
<b>Existing Layout - With Development 2016</b>				
Stream B-AC	0.07	0.07	0.07	0.07
Stream C-A	-	-	-	-
Stream C-B	0.27	0.21	0.21	0.17
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-
<b>Existing Layout - With Development 2021</b>				
Stream B-AC	0.07	0.07	0.07	0.07
Stream C-A	-	-	-	-
Stream C-B	0.28	0.22	0.21	0.17
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.

"D1 - Base 2014, AM" model duration: 08:00 - 09:30  
 "D2 - Base 2014, PM" model duration: 16:15 - 17:45  
 "D3 - Base 2016, AM" model duration: 08:00 - 09:30  
 "D4 - Base 2016, PM" model duration: 16:15 - 17:45  
 "D5 - Base 2021, AM" model duration: 08:00 - 09:30  
 "D6 - Base 2021, PM" model duration: 16:15 - 17:45  
 "D7 - With Development 2016, AM" model duration: 08:00 - 09:30  
 "D8 - With Development 2016, PM" model duration: 16:15 - 17:45  
 "D9 - With Development 2021, AM" model duration: 08:00 - 09:30  
 "D10 - With Development 2021, PM" model duration: 16:15 - 17:45

Run using Junctions 8.0.4.487 at 07/10/2014 17:25:13

## File summary

Title	(untitled)
Location	
Site Number	
Date	07/10/2014
Version	
Status	(new file)
Identifier	

Client	
Jobnumber	
Enumerator	Gavin Snowball
Description	

## 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	PCU	PCU	perHour	s	-Min	perMin

# Existing Layout - Base 2014, 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
Existing Layout	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	Relationship
Base 2014, AM	Base 2014	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	(untitled)	T-Junction	Two-way	A,B,C		7.30	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Woolton Road W		Major
B	B	Link Road		Minor
C	C	Woolton 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	6.10		0.00		2.20	120.00		

*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	3.80										20	0

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	522.931	0.095	0.240	0.151	0.342
1	B-C	673.910	0.103	0.260	-	-
1	C-B	643.457	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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	0.00	100.000
B	ONE HOUR	✓	21.00	100.000
C	ONE HOUR	✓	522.00	100.000

## Turning Proportions

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

	To			
	A	B	C	
From	A	0.000	0.000	0.000
	B	21.000	0.000	0.000
	C	409.000	113.000	0.000

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

	To			
	A	B	C	
From	A	0.33	0.33	0.33
	B	1.00	0.00	0.00
	C	0.78	0.22	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	1.000
	C	1.000	1.000	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	0.0
	C	0.0	0.0	0.0

# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.06	9.25	0.06	A	19.27	28.90	4.21	8.74	0.05	4.21	8.74
C-A	-	-	-	-	375.31	562.96	-	-	-	-	-
C-B	0.19	6.93	0.24	A	103.69	155.54	17.24	6.65	0.19	17.24	6.65
A-B	-	-	-	-	0.00	0.00	-	-	-	-	-
A-C	-	-	-	-	0.00	0.00	-	-	-	-	-

## Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	15.81	3.95	15.66	0.00	447.37	0.035	0.00	0.04	8.336	A
C-A	307.92	76.98	307.92	0.00	-	-	-	-	-	-
C-B	85.07	21.27	84.47	0.00	643.46	0.132	0.00	0.15	6.433	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	18.88	4.72	18.84	0.00	432.49	0.044	0.04	0.05	8.703	A
C-A	367.68	91.92	367.68	0.00	-	-	-	-	-	-
C-B	101.58	25.40	101.45	0.00	643.46	0.158	0.15	0.19	6.640	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	23.12	5.78	23.07	0.00	412.17	0.056	0.05	0.06	9.251	A
C-A	450.32	112.58	450.32	0.00	-	-	-	-	-	-
C-B	124.42	31.10	124.21	0.00	643.46	0.193	0.19	0.24	6.929	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	23.12	5.78	23.12	0.00	412.10	0.056	0.06	0.06	9.254	A
C-A	450.32	112.58	450.32	0.00	-	-	-	-	-	-
C-B	124.42	31.10	124.41	0.00	643.46	0.193	0.24	0.24	6.935	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	18.88	4.72	18.93	0.00	432.37	0.044	0.06	0.05	8.708	A
C-A	367.68	91.92	367.68	0.00	-	-	-	-	-	-
C-B	101.58	25.40	101.78	0.00	643.46	0.158	0.24	0.19	6.647	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	15.81	3.95	15.85	0.00	447.11	0.035	0.05	0.04	8.348	A
C-A	307.92	76.98	307.92	0.00	-	-	-	-	-	-
C-B	85.07	21.27	85.21	0.00	643.46	0.132	0.19	0.15	6.449	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

## Queueing Delay Results for each time segment

### Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.53	0.04	8.336	A	A
C-A	-	-	-	-	-
C-B	2.20	0.15	6.433	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.66	0.04	8.703	A	A
C-A	-	-	-	-	-
C-B	2.73	0.18	6.640	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.86	0.06	9.251	A	A
C-A	-	-	-	-	-
C-B	3.49	0.23	6.929	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.89	0.06	9.254	A	A
C-A	-	-	-	-	-
C-B	3.57	0.24	6.935	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.71	0.05	8.708	A	A
C-A	-	-	-	-	-
C-B	2.90	0.19	6.647	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.57	0.04	8.348	A	A
C-A	-	-	-	-	-
C-B	2.35	0.16	6.449	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## Existing Layout - Base 2014, 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
Existing Layout	N/A		✓				100.000	100.000	

### Demand Set Details

Name	Scenario Name	Time Period	Description	Traffic Profile	Model Start Time	Model Finish Time	Model Time Period	Time Segment Length	Results For Central	Single Time Segment	Locked	Run Automatically	Use Relationship	Relationship
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		Name		Type	(HH:mm)	(HH:mm)	Length (min)	(min)	Hour Only	Only				
Base 2014, PM	Base 2014	PM		ONE HOUR	16:15	17:45	90	15				✓		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		6.91	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Woolton Road W		Major
B	B	Link Road		Minor
C	C	Woolton 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	6.10		0.00		2.20	120.00		

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	3.80										20	0

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	522.931	0.095	0.240	0.151	0.342
1	B-C	673.910	0.103	0.260	-	-
1	C-B	643.457	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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	0.00	100.000

<b>B</b>	ONE HOUR	✓	25.00	100.000
<b>C</b>	ONE HOUR	✓	298.00	100.000

## Turning Proportions

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

From	To			
		A	B	C
	A	0.000	0.000	0.000
	B	25.000	0.000	0.000
	C	223.000	75.000	0.000

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

From	To			
		A	B	C
	A	0.33	0.33	0.33
	B	1.00	0.00	0.00
	C	0.75	0.25	0.00

## Vehicle Mix

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

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

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

From	To			
		A	B	C
	A	0.0	0.0	0.0
	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 (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
<b>B-AC</b>	0.06	8.37	0.06	A	22.94	34.41	4.62	8.05	0.05	4.62	8.05
<b>C-A</b>	-	-	-	-	204.63	306.94	-	-	-	-	-
<b>C-B</b>	0.13	6.42	0.15	A	68.82	103.23	10.73	6.24	0.12	10.73	6.24
<b>A-B</b>	-	-	-	-	0.00	0.00	-	-	-	-	-
<b>A-C</b>	-	-	-	-	0.00	0.00	-	-	-	-	-

### Main Results for each time segment

#### Main results: (16:15-16:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
<b>B-AC</b>	18.82	4.71	18.66	0.00	478.28	0.039	0.00	0.04	7.830	A
<b>C-A</b>	167.89	41.97	167.89	0.00	-	-	-	-	-	-
<b>C-B</b>	56.46	14.12	56.08	0.00	643.46	0.088	0.00	0.10	6.125	A
<b>A-B</b>	0.00	0.00	0.00	0.00	-	-	-	-	-	-
<b>A-C</b>	0.00	0.00	0.00	0.00	-	-	-	-	-	-

#### Main results: (16:30-16:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS

B-AC	22.47	5.62	22.44	0.00	469.48	0.048	0.04	0.05	8.053	A
C-A	200.47	50.12	200.47	0.00	-	-	-	-	-	-
C-B	67.42	16.86	67.34	0.00	643.46	0.105	0.10	0.12	6.248	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	27.53	6.88	27.47	0.00	457.47	0.060	0.05	0.06	8.371	A
C-A	245.53	61.38	245.53	0.00	-	-	-	-	-	-
C-B	82.58	20.64	82.46	0.00	643.46	0.128	0.12	0.15	6.415	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	27.53	6.88	27.52	0.00	457.43	0.060	0.06	0.06	8.373	A
C-A	245.53	61.38	245.53	0.00	-	-	-	-	-	-
C-B	82.58	20.64	82.57	0.00	643.46	0.128	0.15	0.15	6.417	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	22.47	5.62	22.53	0.00	469.41	0.048	0.06	0.05	8.058	A
C-A	200.47	50.12	200.47	0.00	-	-	-	-	-	-
C-B	67.42	16.86	67.54	0.00	643.46	0.105	0.15	0.12	6.253	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	18.82	4.71	18.86	0.00	478.12	0.039	0.05	0.04	7.840	A
C-A	167.89	41.97	167.89	0.00	-	-	-	-	-	-
C-B	56.46	14.12	56.55	0.00	643.46	0.088	0.12	0.10	6.134	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

**Queueing Delay Results for each time segment****Queueing Delay results: (16:15-16:30)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.59	0.04	7.830	A	A
C-A	-	-	-	-	-
C-B	1.39	0.09	6.125	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (16:30-16:45)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.73	0.05	8.053	A	A
C-A	-	-	-	-	-
C-B	1.71	0.11	6.248	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.93	0.06	8.371	A	A
C-A	-	-	-	-	-
C-B	2.15	0.14	6.415	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

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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	6.10		0.00		2.20	120.00		

*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	3.80										20	0

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	522.931	0.095	0.240	0.151	0.342
1	B-C	673.910	0.103	0.260	-	-
1	C-B	643.457	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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	0.00	100.000
B	ONE HOUR	✓	21.00	100.000
C	ONE HOUR	✓	535.00	100.000

# Turning Proportions

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

	To		
	A	B	C
From	A	0.000	0.000
	B	21.000	0.000
	C	418.000	117.000

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

	To		
	A	B	C
From	A	0.33	0.33
	B	1.00	0.00
	C	0.78	0.22

# Vehicle Mix

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

	To		
	A	B	C
From	A	1.000	1.000

	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

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

	To			
	A	B	C	
	A	0.0	0.0	0.0
	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 (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.06	9.33	0.06	A	19.27	28.90	4.24	8.80	0.05	4.24	8.80
C-A	-	-	-	-	383.56	575.35	-	-	-	-	-
C-B	0.20	6.99	0.25	A	107.36	161.04	17.97	6.70	0.20	17.97	6.70
A-B	-	-	-	-	0.00	0.00	-	-	-	-	-
A-C	-	-	-	-	0.00	0.00	-	-	-	-	-

### Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	15.81	3.95	15.66	0.00	445.31	0.036	0.00	0.04	8.376	A
C-A	314.69	78.67	314.69	0.00	-	-	-	-	-	-
C-B	88.08	22.02	87.45	0.00	643.46	0.137	0.00	0.16	6.468	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	18.88	4.72	18.84	0.00	430.03	0.044	0.04	0.05	8.755	A
C-A	375.77	93.94	375.77	0.00	-	-	-	-	-	-
C-B	105.18	26.30	105.03	0.00	643.46	0.163	0.16	0.19	6.684	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	23.12	5.78	23.07	0.00	409.15	0.057	0.05	0.06	9.323	A
C-A	460.23	115.06	460.23	0.00	-	-	-	-	-	-
C-B	128.82	32.20	128.60	0.00	643.46	0.200	0.19	0.25	6.988	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	23.12	5.78	23.12	0.00	409.08	0.057	0.06	0.06	9.327	A
C-A	460.23	115.06	460.23	0.00	-	-	-	-	-	-
C-B	128.82	32.20	128.81	0.00	643.46	0.200	0.25	0.25	6.994	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	18.88	4.72	18.93	0.00	429.91	0.044	0.06	0.05	8.762	A
C-A	375.77	93.94	375.77	0.00	-	-	-	-	-	-
C-B	105.18	26.30	105.39	0.00	643.46	0.163	0.25	0.20	6.695	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-

A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
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**Main results: (09:15-09:30)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	15.81	3.95	15.85	0.00	445.04	0.036	0.05	0.04	8.389	A
C-A	314.69	78.67	314.69	0.00	-	-	-	-	-	-
C-B	88.08	22.02	88.23	0.00	643.46	0.137	0.20	0.16	6.484	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.53	0.04	8.376	A	A
C-A	-	-	-	-	-
C-B	2.29	0.15	6.468	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.67	0.04	8.755	A	A
C-A	-	-	-	-	-
C-B	2.85	0.19	6.684	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.87	0.06	9.323	A	A
C-A	-	-	-	-	-
C-B	3.64	0.24	6.988	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.89	0.06	9.327	A	A
C-A	-	-	-	-	-
C-B	3.73	0.25	6.994	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.71	0.05	8.762	A	A
C-A	-	-	-	-	-
C-B	3.02	0.20	6.695	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.57	0.04	8.389	A	A
C-A	-	-	-	-	-
C-B	2.45	0.16	6.484	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

# Existing Layout - Base 2016, 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
Existing Layout	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	Relationship
Base 2016, PM	Base 2016	PM		ONE HOUR	16:15	17:45	90	15				✓		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		6.98	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Woolton Road W		Major
B	B	Link Road		Minor
C	C	Woolton 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	6.10		0.00		2.20	120.00		

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	3.80										20	0

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	522.931	0.095	0.240	0.151	0.342
1	B-C	673.910	0.103	0.260	-	-
1	C-B	643.457	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	Vehicle Mix Varies Over	Vehicle Mix Varies Over	Vehicle Mix Varies Over	Vehicle Mix Source	PCU Factor for	Default Turning Proportions	Estimate from entry/exit	Turning Proportions Vary	Turning Proportions Vary	Turning Proportions Vary
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Mix	Time	Turn	Entry		a HV (PCU)		counts	Over Time	Over Turn	Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	0.00	100.000
B	ONE HOUR	✓	26.00	100.000
C	ONE HOUR	✓	310.00	100.000

## Turning Proportions

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

	To			
		A	B	C
	From A	0.000	0.000	0.000
	From B	26.000	0.000	0.000
	From C	228.000	82.000	0.000

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

	To			
		A	B	C
	From A	0.33	0.33	0.33
	From B	1.00	0.00	0.00
	From 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	1.000
	From B	1.000	1.000	1.000
	From C	1.000	1.000	1.000

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

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

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.06	8.46	0.07	A	23.86	35.79	4.84	8.12	0.05	4.84	8.12
C-A	-	-	-	-	209.22	313.83	-	-	-	-	-
C-B	0.14	6.51	0.16	A	75.24	112.87	11.87	6.31	0.13	11.87	6.31
A-B	-	-	-	-	0.00	0.00	-	-	-	-	-
A-C	-	-	-	-	0.00	0.00	-	-	-	-	-

### Main Results for each time segment

Main results: (16:15-16:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	19.57	4.89	19.40	0.00	475.91	0.041	0.00	0.04	7.884	A
C-A	171.65	42.91	171.65	0.00	-	-	-	-	-	-
C-B	61.73	15.43	61.31	0.00	643.46	0.096	0.00	0.11	6.180	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

**Main results: (16:30-16:45)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	23.37	5.84	23.33	0.00	466.64	0.050	0.04	0.05	8.121	A
C-A	204.97	51.24	204.97	0.00	-	-	-	-	-	-
C-B	73.72	18.43	73.62	0.00	643.46	0.115	0.11	0.13	6.317	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	28.63	7.16	28.57	0.00	453.98	0.063	0.05	0.07	8.461	A
C-A	251.03	62.76	251.03	0.00	-	-	-	-	-	-
C-B	90.28	22.57	90.15	0.00	643.46	0.140	0.13	0.16	6.504	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	28.63	7.16	28.63	0.00	453.94	0.063	0.07	0.07	8.464	A
C-A	251.03	62.76	251.03	0.00	-	-	-	-	-	-
C-B	90.28	22.57	90.28	0.00	643.46	0.140	0.16	0.16	6.507	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	23.37	5.84	23.43	0.00	466.56	0.050	0.07	0.05	8.126	A
C-A	204.97	51.24	204.97	0.00	-	-	-	-	-	-
C-B	73.72	18.43	73.84	0.00	643.46	0.115	0.16	0.13	6.320	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	19.57	4.89	19.61	0.00	475.73	0.041	0.05	0.04	7.893	A
C-A	171.65	42.91	171.65	0.00	-	-	-	-	-	-
C-B	61.73	15.43	61.83	0.00	643.46	0.096	0.13	0.11	6.192	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

**Queueing Delay Results for each time segment****Queueing Delay results: (16:15-16:30)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.62	0.04	7.884	A	A
C-A	-	-	-	-	-
C-B	1.53	0.10	6.180	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (16:30-16:45)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.77	0.05	8.121	A	A
C-A	-	-	-	-	-
C-B	1.89	0.13	6.317	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.98	0.07	8.461	A	A
C-A	-	-	-	-	-
C-B	2.38	0.16	6.504	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.00	0.07	8.464	A	A
C-A	-	-	-	-	-
C-B	2.43	0.16	6.507	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.82	0.05	8.126	A	A
C-A	-	-	-	-	-
C-B	1.99	0.13	6.320	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.66	0.04	7.893	A	A
C-A	-	-	-	-	-
C-B	1.63	0.11	6.192	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## Existing Layout - Base 2021, 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
Existing Layout	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	Relationship
Base 2021, AM	Base 2021	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	(untitled)	T-Junction	Two-way	A,B,C		7.41	A

**Junction Network Options**

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Woolton Road W		Major
B	B	Link Road		Minor
C	C	Woolton 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	6.10		0.00		2.20	120.00		

*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	3.80										20	0

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	522.931	0.095	0.240	0.151	0.342
1	B-C	673.910	0.103	0.260	-	-
1	C-B	643.457	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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	0.00	100.000
B	ONE HOUR	✓	22.00	100.000
C	ONE HOUR	✓	547.00	100.000

# Turning Proportions

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

	To		
	A	B	C
	A	0.000	0.000
	B	22.000	0.000
	C	427.000	120.000

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

	To		
	A	B	C

From	A	0.33	0.33	0.33
	B	1.00	0.00	0.00
	C	0.78	0.22	0.00

## Vehicle Mix

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

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

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

From	To			
	A	B	C	
	A	0.0	0.0	0.0
	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 (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.06	9.42	0.06	A	20.19	30.28	4.47	8.87	0.05	4.47	8.87
C-A	-	-	-	-	391.82	587.73	-	-	-	-	-
C-B	0.21	7.04	0.26	A	110.11	165.17	18.53	6.73	0.21	18.53	6.73
A-B	-	-	-	-	0.00	0.00	-	-	-	-	-
A-C	-	-	-	-	0.00	0.00	-	-	-	-	-

### Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	16.56	4.14	16.41	0.00	443.52	0.037	0.00	0.04	8.426	A
C-A	321.47	80.37	321.47	0.00	-	-	-	-	-	-
C-B	90.34	22.59	89.69	0.00	643.46	0.140	0.00	0.16	6.495	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	19.78	4.94	19.74	0.00	427.88	0.046	0.04	0.05	8.820	A
C-A	383.86	95.97	383.86	0.00	-	-	-	-	-	-
C-B	107.88	26.97	107.73	0.00	643.46	0.168	0.16	0.20	6.718	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	24.22	6.06	24.16	0.00	406.52	0.060	0.05	0.06	9.414	A
C-A	470.14	117.53	470.14	0.00	-	-	-	-	-	-
C-B	132.12	33.03	131.90	0.00	643.46	0.205	0.20	0.26	7.034	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS

B-AC	24.22	6.06	24.22	0.00	406.44	0.060	0.06	0.06	9.418	A
C-A	470.14	117.53	470.14	0.00	-	-	-	-	-	-
C-B	132.12	33.03	132.12	0.00	643.46	0.205	0.26	0.26	7.039	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	19.78	4.94	19.83	0.00	427.75	0.046	0.06	0.05	8.826	A
C-A	383.86	95.97	383.86	0.00	-	-	-	-	-	-
C-B	107.88	26.97	108.09	0.00	643.46	0.168	0.26	0.20	6.726	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	16.56	4.14	16.60	0.00	443.24	0.037	0.05	0.04	8.440	A
C-A	321.47	80.37	321.47	0.00	-	-	-	-	-	-
C-B	90.34	22.59	90.50	0.00	643.46	0.140	0.20	0.16	6.511	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.56	0.04	8.426	A	A
C-A	-	-	-	-	-
C-B	2.35	0.16	6.495	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.70	0.05	8.820	A	A
C-A	-	-	-	-	-
C-B	2.94	0.20	6.718	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.92	0.06	9.414	A	A
C-A	-	-	-	-	-
C-B	3.75	0.25	7.034	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.94	0.06	9.418	A	A
C-A	-	-	-	-	-
C-B	3.85	0.26	7.039	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.75	0.05	8.826	A	A
C-A	-	-	-	-	-
C-B	3.11	0.21	6.726	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

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Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.60	0.04	8.440	A	A
C-A	-	-	-	-	-
C-B	2.52	0.17	6.511	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## Existing Layout - Base 2021, 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
Existing Layout	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	Relationship
Base 2021, PM	Base 2021	PM		ONE HOUR	16:15	17:45	90	15				✓		

## Junction Network

### Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		6.99	A

### Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Arm	Name	Description	Arm Type
A	A	Woolton Road W		Major
B	B	Link Road		Minor
C	C	Woolton 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	6.10		0.00		2.20	120.00		

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	3.80										20	0

### Slope / Intercept / Capacity

#### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	522.931	0.095	0.240	0.151	0.342

1	B-C	673.910	0.103	0.260	-	-
1	C-B	643.457	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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	0.00	100.000
B	ONE HOUR	✓	26.00	100.000
C	ONE HOUR	✓	316.00	100.000

## Turning Proportions

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

	To			
From		A	B	C
	A	0.000	0.000	0.000
	B	26.000	0.000	0.000
	C	233.000	83.000	0.000

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

	To			
From		A	B	C
	A	0.33	0.33	0.33
	B	1.00	0.00	0.00
	C	0.74	0.26	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	1.000	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	0.0	0.0	0.0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
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B-AC	0.06	8.49	0.07	A	23.86	35.79	4.86	8.14	0.05	4.86	8.14
C-A	-	-	-	-	213.80	320.71	-	-	-	-	-
C-B	0.14	6.52	0.16	A	76.16	114.24	12.03	6.32	0.13	12.03	6.32
A-B	-	-	-	-	0.00	0.00	-	-	-	-	-
A-C	-	-	-	-	0.00	0.00	-	-	-	-	-

## Main Results for each time segment

### Main results: (16:15-16:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	19.57	4.89	19.40	0.00	475.08	0.041	0.00	0.04	7.898	A
C-A	175.41	43.85	175.41	0.00	-	-	-	-	-	-
C-B	62.49	15.62	62.06	0.00	643.46	0.097	0.00	0.11	6.188	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

### Main results: (16:30-16:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	23.37	5.84	23.33	0.00	465.65	0.050	0.04	0.05	8.139	A
C-A	209.46	52.37	209.46	0.00	-	-	-	-	-	-
C-B	74.62	18.65	74.52	0.00	643.46	0.116	0.11	0.13	6.327	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	28.63	7.16	28.57	0.00	452.78	0.063	0.05	0.07	8.485	A
C-A	256.54	64.13	256.54	0.00	-	-	-	-	-	-
C-B	91.38	22.85	91.25	0.00	643.46	0.142	0.13	0.16	6.517	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	28.63	7.16	28.63	0.00	452.73	0.063	0.07	0.07	8.488	A
C-A	256.54	64.13	256.54	0.00	-	-	-	-	-	-
C-B	91.38	22.85	91.38	0.00	643.46	0.142	0.16	0.16	6.520	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	23.37	5.84	23.43	0.00	465.57	0.050	0.07	0.05	8.142	A
C-A	209.46	52.37	209.46	0.00	-	-	-	-	-	-
C-B	74.62	18.65	74.75	0.00	643.46	0.116	0.16	0.13	6.333	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	19.57	4.89	19.61	0.00	474.90	0.041	0.05	0.04	7.909	A
C-A	175.41	43.85	175.41	0.00	-	-	-	-	-	-
C-B	62.49	15.62	62.58	0.00	643.46	0.097	0.13	0.11	6.197	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

## Queueing Delay Results for each time segment

### Queueing Delay results: (16:15-16:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.62	0.04	7.898	A	A
C-A	-	-	-	-	-

C-B	1.55	0.10	6.188	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

#### Queueing Delay results: (16:30-16:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.77	0.05	8.139	A	A
C-A	-	-	-	-	-
C-B	1.92	0.13	6.327	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.98	0.07	8.485	A	A
C-A	-	-	-	-	-
C-B	2.41	0.16	6.517	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.01	0.07	8.488	A	A
C-A	-	-	-	-	-
C-B	2.47	0.16	6.520	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.82	0.05	8.142	A	A
C-A	-	-	-	-	-
C-B	2.02	0.13	6.333	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.66	0.04	7.909	A	A
C-A	-	-	-	-	-
C-B	1.66	0.11	6.197	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## Existing Layout - With Development 2016, 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
Existing Layout	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	Relationship
With Development 2016, AM	With Development 2016	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	(untitled)	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	Woolton Road W		Major
B	B	Link Road		Minor
C	C	Woolton 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	6.10		0.00		2.20	120.00		

*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	3.80										20	0

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	522.931	0.095	0.240	0.151	0.342
1	B-C	673.910	0.103	0.260	-	-
1	C-B	643.457	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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	0.00	100.000
B	ONE HOUR	✓	24.00	100.000
C	ONE HOUR	✓	558.00	100.000

# Turning Proportions

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

	To			
		A	B	C
	A	0.000	0.000	0.000
	B	24.000	0.000	0.000
	C	433.000	125.000	0.000

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

	To			
		A	B	C
	A	0.33	0.33	0.33
	B	1.00	0.00	0.00
	C	0.78	0.22	0.00

# Vehicle Mix

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

	To			
		A	B	C
	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

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

	To			
		A	B	C
	A	0.0	0.0	0.0
	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 (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.07	9.55	0.07	A	22.02	33.03	4.93	8.96	0.05	4.93	8.96
C-A	-	-	-	-	397.33	595.99	-	-	-	-	-
C-B	0.21	7.12	0.27	A	114.70	172.05	19.47	6.79	0.22	19.47	6.79
A-B	-	-	-	-	0.00	0.00	-	-	-	-	-
A-C	-	-	-	-	0.00	0.00	-	-	-	-	-

## Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	18.07	4.52	17.90	0.00	441.55	0.041	0.00	0.04	8.491	A
C-A	325.99	81.50	325.99	0.00	-	-	-	-	-	-
C-B	94.11	23.53	93.43	0.00	643.46	0.146	0.00	0.17	6.537	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	21.58	5.39	21.53	0.00	425.52	0.051	0.04	0.05	8.909	A
C-A	389.26	97.31	389.26	0.00	-	-	-	-	-	-
C-B	112.37	28.09	112.21	0.00	643.46	0.175	0.17	0.21	6.775	A

A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	26.42	6.61	26.36	0.00	403.63	0.065	0.05	0.07	9.541	A
C-A	476.74	119.19	476.74	0.00	-	-	-	-	-	-
C-B	137.63	34.41	137.39	0.00	643.46	0.214	0.21	0.27	7.110	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	26.42	6.61	26.42	0.00	403.54	0.065	0.07	0.07	9.545	A
C-A	476.74	119.19	476.74	0.00	-	-	-	-	-	-
C-B	137.63	34.41	137.62	0.00	643.46	0.214	0.27	0.27	7.116	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	21.58	5.39	21.64	0.00	425.38	0.051	0.07	0.05	8.917	A
C-A	389.26	97.31	389.26	0.00	-	-	-	-	-	-
C-B	112.37	28.09	112.60	0.00	643.46	0.175	0.27	0.21	6.783	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	18.07	4.52	18.11	0.00	441.26	0.041	0.05	0.04	8.509	A
C-A	325.99	81.50	325.99	0.00	-	-	-	-	-	-
C-B	94.11	23.53	94.27	0.00	643.46	0.146	0.21	0.17	6.558	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.61	0.04	8.491	A	A
C-A	-	-	-	-	-
C-B	2.47	0.16	6.537	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.78	0.05	8.909	A	A
C-A	-	-	-	-	-
C-B	3.08	0.21	6.775	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.01	0.07	9.541	A	A
C-A	-	-	-	-	-
C-B	3.95	0.26	7.110	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.04	0.07	9.545	A	A
C-A	-	-	-	-	-

C-B	4.05	0.27	7.116	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.83	0.06	8.917	A	A
C-A	-	-	-	-	-
C-B	3.27	0.22	6.783	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.66	0.04	8.509	A	A
C-A	-	-	-	-	-
C-B	2.64	0.18	6.558	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## Existing Layout - With Development 2016, 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
Existing Layout	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	Relationship
With Development 2016, PM	With Development 2016	PM		ONE HOUR	16:15	17:45	90	15				✓		

## Junction Network

### Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		7.16	A

### Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Arm	Name	Description	Arm Type
A	A	Woolton Road W		Major
B	B	Link Road		Minor
C	C	Woolton 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	6.10		0.00		2.20	120.00		

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	3.80										20	0

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	522.931	0.095	0.240	0.151	0.342
1	B-C	673.910	0.103	0.260	-	-
1	C-B	643.457	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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	0.00	100.000
B	ONE HOUR	✓	27.00	100.000
C	ONE HOUR	✓	337.00	100.000

# Turning Proportions

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

	To		
	A	B	C
From	A	0.000	0.000
	B	27.000	0.000
	C	236.000	101.000

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

	To		
	A	B	C
From	A	0.33	0.33
	B	1.00	0.00
	C	0.70	0.30

# Vehicle Mix

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

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

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

To		

From	A	B	C
	A	0.0	0.0
	B	0.0	0.0
	C	0.0	0.0

# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.07	8.66	0.07	A	24.78	37.16	5.13	8.28	0.06	5.13	8.28
C-A	-	-	-	-	216.56	324.84	-	-	-	-	-
C-B	0.17	6.76	0.21	A	92.68	139.02	15.09	6.51	0.17	15.09	6.51
A-B	-	-	-	-	0.00	0.00	-	-	-	-	-
A-C	-	-	-	-	0.00	0.00	-	-	-	-	-

## Main Results for each time segment

### Main results: (16:15-16:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	20.33	5.08	20.15	0.00	470.10	0.043	0.00	0.04	7.995	A
C-A	177.67	44.42	177.67	0.00	-	-	-	-	-	-
C-B	76.04	19.01	75.51	0.00	643.46	0.118	0.00	0.13	6.333	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

### Main results: (16:30-16:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	24.27	6.07	24.23	0.00	459.66	0.053	0.04	0.06	8.266	A
C-A	212.16	53.04	212.16	0.00	-	-	-	-	-	-
C-B	90.80	22.70	90.68	0.00	643.46	0.141	0.13	0.16	6.510	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	29.73	7.43	29.67	0.00	445.45	0.067	0.06	0.07	8.657	A
C-A	259.84	64.96	259.84	0.00	-	-	-	-	-	-
C-B	111.20	27.80	111.03	0.00	643.46	0.173	0.16	0.21	6.760	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	29.73	7.43	29.73	0.00	445.39	0.067	0.07	0.07	8.660	A
C-A	259.84	64.96	259.84	0.00	-	-	-	-	-	-
C-B	111.20	27.80	111.20	0.00	643.46	0.173	0.21	0.21	6.762	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	24.27	6.07	24.33	0.00	459.56	0.053	0.07	0.06	8.273	A
C-A	212.16	53.04	212.16	0.00	-	-	-	-	-	-
C-B	90.80	22.70	90.97	0.00	643.46	0.141	0.21	0.17	6.519	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS

B-AC	20.33	5.08	20.37	0.00	469.87	0.043	0.06	0.05	8.010	A
C-A	177.67	44.42	177.67	0.00	-	-	-	-	-	-
C-B	76.04	19.01	76.16	0.00	643.46	0.118	0.17	0.14	6.346	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

## Queueing Delay Results for each time segment

### Queueing Delay results: (16:15-16:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.65	0.04	7.995	A	A
C-A	-	-	-	-	-
C-B	1.93	0.13	6.333	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

### Queueing Delay results: (16:30-16:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.81	0.05	8.266	A	A
C-A	-	-	-	-	-
C-B	2.40	0.16	6.510	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.04	0.07	8.657	A	A
C-A	-	-	-	-	-
C-B	3.04	0.20	6.760	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.07	0.07	8.660	A	A
C-A	-	-	-	-	-
C-B	3.11	0.21	6.762	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.86	0.06	8.273	A	A
C-A	-	-	-	-	-
C-B	2.54	0.17	6.519	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.70	0.05	8.010	A	A
C-A	-	-	-	-	-
C-B	2.06	0.14	6.346	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

# Existing Layout - With Development 2021, 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

Existing Layout	N/A		✓				100.000	100.000	
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## 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	Relationship
With Development 2021, AM	With Development 2021	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	(untitled)	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	Woolton Road W		Major
B	B	Link Road		Minor
C	C	Woolton 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	6.10		0.00		2.20	120.00		

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	3.80										20	0

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	522.931	0.095	0.240	0.151	0.342
1	B-C	673.910	0.103	0.260	-	-
1	C-B	643.457	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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	0.00	100.000
B	ONE HOUR	✓	24.00	100.000
C	ONE HOUR	✓	570.00	100.000

# Turning Proportions

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

	To			
From		A	B	C
	A	0.000	0.000	0.000
	B	24.000	0.000	0.000
	C	442.000	128.000	0.000

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

	To			
From		A	B	C
	A	0.33	0.33	0.33
	B	1.00	0.00	0.00
	C	0.78	0.22	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	1.000	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	0.0	0.0	0.0

# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.07	9.61	0.07	A	22.02	33.03	4.96	9.01	0.06	4.96	9.01
C-A	-	-	-	-	405.59	608.38	-	-	-	-	-
C-B	0.22	7.16	0.28	A	117.46	176.18	20.05	6.83	0.22	20.05	6.83
A-B	-	-	-	-	0.00	0.00	-	-	-	-	-
A-C	-	-	-	-	0.00	0.00	-	-	-	-	-

## Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	18.07	4.52	17.90	0.00	439.75	0.041	0.00	0.04	8.527	A

C-A	332.76	83.19	332.76	0.00	-	-	-	-	-	-
C-B	96.37	24.09	95.67	0.00	643.46	0.150	0.00	0.17	6.564	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	21.58	5.39	21.53	0.00	423.37	0.051	0.04	0.05	8.957	A
C-A	397.35	99.34	397.35	0.00	-	-	-	-	-	-
C-B	115.07	28.77	114.90	0.00	643.46	0.179	0.17	0.22	6.809	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	26.42	6.61	26.36	0.00	400.99	0.066	0.05	0.07	9.608	A
C-A	486.65	121.66	486.65	0.00	-	-	-	-	-	-
C-B	140.93	35.23	140.68	0.00	643.46	0.219	0.22	0.28	7.157	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	26.42	6.61	26.42	0.00	400.91	0.066	0.07	0.07	9.612	A
C-A	486.65	121.66	486.65	0.00	-	-	-	-	-	-
C-B	140.93	35.23	140.93	0.00	643.46	0.219	0.28	0.28	7.162	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	21.58	5.39	21.64	0.00	423.23	0.051	0.07	0.05	8.965	A
C-A	397.35	99.34	397.35	0.00	-	-	-	-	-	-
C-B	115.07	28.77	115.31	0.00	643.46	0.179	0.28	0.22	6.818	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	18.07	4.52	18.11	0.00	439.45	0.041	0.05	0.04	8.546	A
C-A	332.76	83.19	332.76	0.00	-	-	-	-	-	-
C-B	96.37	24.09	96.53	0.00	643.46	0.150	0.22	0.18	6.583	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.61	0.04	8.527	A	A
C-A	-	-	-	-	-
C-B	2.54	0.17	6.564	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.78	0.05	8.957	A	A
C-A	-	-	-	-	-
C-B	3.17	0.21	6.809	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
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B-AC	1.02	0.07	9.608	A	A
C-A	-	-	-	-	-
C-B	4.07	0.27	7.157	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.05	0.07	9.612	A	A
C-A	-	-	-	-	-
C-B	4.18	0.28	7.162	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.83	0.06	8.965	A	A
C-A	-	-	-	-	-
C-B	3.37	0.22	6.818	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.66	0.04	8.546	A	A
C-A	-	-	-	-	-
C-B	2.72	0.18	6.583	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## Existing Layout - With Development 2021, 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
Existing Layout	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	Relationship
With Development 2021, PM	With Development 2021	PM		ONE HOUR	16:15	17:45	90	15				✓		

## Junction Network

### Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		7.18	A

### Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Arm	Name	Description	Arm Type
A	A	Woolton Road W		Major
B	B	Link Road		Minor
C	C	Woolton 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	6.10		0.00		2.20	120.00		

*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	3.80										20	0

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	522.931	0.095	0.240	0.151	0.342
1	B-C	673.910	0.103	0.260	-	-
1	C-B	643.457	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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	0.00	100.000
B	ONE HOUR	✓	27.00	100.000
C	ONE HOUR	✓	343.00	100.000

# Turning Proportions

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

	To		
	A	B	C
From	A	0.000	0.000
	B	27.000	0.000
	C	241.000	102.000

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

	To		
	A	B	C
From	A	0.33	0.33
	B	1.00	0.00
	C	0.70	0.30

# Vehicle Mix

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

	To			
		A	B	C
	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

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

	To			
		A	B	C
	A	0.0	0.0	0.0
	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 (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.07	8.69	0.07	A	24.78	37.16	5.14	8.30	0.06	5.14	8.30
C-A	-	-	-	-	221.15	331.72	-	-	-	-	-
C-B	0.17	6.78	0.21	A	93.60	140.40	15.27	6.52	0.17	15.27	6.52
A-B	-	-	-	-	0.00	0.00	-	-	-	-	-
A-C	-	-	-	-	0.00	0.00	-	-	-	-	-

## Main Results for each time segment

### Main results: (16:15-16:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	20.33	5.08	20.15	0.00	469.28	0.043	0.00	0.04	8.009	A
C-A	181.44	45.36	181.44	0.00	-	-	-	-	-	-
C-B	76.79	19.20	76.25	0.00	643.46	0.119	0.00	0.13	6.342	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

### Main results: (16:30-16:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	24.27	6.07	24.23	0.00	458.68	0.053	0.04	0.06	8.285	A
C-A	216.65	54.16	216.65	0.00	-	-	-	-	-	-
C-B	91.70	22.92	91.57	0.00	643.46	0.143	0.13	0.16	6.521	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	29.73	7.43	29.66	0.00	444.24	0.067	0.06	0.07	8.682	A
C-A	265.35	66.34	265.35	0.00	-	-	-	-	-	-
C-B	112.30	28.08	112.13	0.00	643.46	0.175	0.16	0.21	6.774	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	29.73	7.43	29.73	0.00	444.18	0.067	0.07	0.07	8.685	A
C-A	265.35	66.34	265.35	0.00	-	-	-	-	-	-
C-B	112.30	28.08	112.30	0.00	643.46	0.175	0.21	0.21	6.776	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-

A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
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**Main results: (17:15-17:30)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	24.27	6.07	24.33	0.00	458.57	0.053	0.07	0.06	8.291	A
C-A	216.65	54.16	216.65	0.00	-	-	-	-	-	-
C-B	91.70	22.92	91.87	0.00	643.46	0.143	0.21	0.17	6.527	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	20.33	5.08	20.37	0.00	469.05	0.043	0.06	0.05	8.025	A
C-A	181.44	45.36	181.44	0.00	-	-	-	-	-	-
C-B	76.79	19.20	76.91	0.00	643.46	0.119	0.17	0.14	6.355	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

**Queueing Delay Results for each time segment****Queueing Delay results: (16:15-16:30)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.65	0.04	8.009	A	A
C-A	-	-	-	-	-
C-B	1.95	0.13	6.342	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (16:30-16:45)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.81	0.05	8.285	A	A
C-A	-	-	-	-	-
C-B	2.43	0.16	6.521	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.04	0.07	8.682	A	A
C-A	-	-	-	-	-
C-B	3.08	0.21	6.774	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.07	0.07	8.685	A	A
C-A	-	-	-	-	-
C-B	3.15	0.21	6.776	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.87	0.06	8.291	A	A
C-A	-	-	-	-	-
C-B	2.57	0.17	6.527	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.70	0.05	8.025	A	A
C-A	-	-	-	-	-
C-B	2.09	0.14	6.355	A	A

A-B	-	-	-	-	-
A-C	-	-	-	-	-

<b>Junctions 8</b>				
<b>PICADY 8 - Priority Intersection Module</b>				
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Filename: Allerton-Woolton-EB\_Xroads.arc8  
 Path: Z:\Job Library\2014\14241 - Allerton Priory, Woolton Road\Traffic Data  
 Report generation date: 08/10/2014 17:13:49

## Summary of junction performance

	AM		PM	
	Queue (PCU)	RFC	Queue (PCU)	RFC
<b>Existing Layout - Base 2014</b>				
Stream B-ACD	0.35	0.26	0.23	0.19
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-
Stream A-D	0.00	0.00	0.00	0.00
Stream D-AB	0.32	0.24	0.39	0.28
Stream D-BC	0.03	0.03	0.04	0.04
Stream C-D	-	-	-	-
Stream C-A	-	-	-	-
Stream C-B	0.00	0.00	0.00	0.00
<b>Existing Layout - Base 2016</b>				
Stream B-ACD	0.37	0.27	0.25	0.20
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-
Stream A-D	0.00	0.00	0.00	0.00
Stream D-AB	0.41	0.29	0.47	0.32
Stream D-BC	0.03	0.03	0.04	0.04
Stream C-D	-	-	-	-
Stream C-A	-	-	-	-
Stream C-B	0.00	0.00	0.00	0.00
<b>Existing Layout - Base 2021</b>				
Stream B-ACD	0.39	0.28	0.26	0.21
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-
Stream A-D	0.00	0.00	0.00	0.00
Stream D-AB	0.43	0.30	0.48	0.33
Stream D-BC	0.03	0.03	0.04	0.04
Stream C-D	-	-	-	-
Stream C-A	-	-	-	-
Stream C-B	0.00	0.00	0.00	0.00
<b>Existing Layout - With Development 2016</b>				
Stream B-ACD	0.41	0.29	0.34	0.26
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-
Stream A-D	0.00	0.00	0.00	0.00
Stream D-AB	0.45	0.31	0.49	0.33
Stream D-BC	0.03	0.03	0.04	0.04
Stream C-D	-	-	-	-
Stream C-A	-	-	-	-
Stream C-B	0.00	0.00	0.00	0.00
<b>Existing Layout - With Development 2021</b>				
Stream B-ACD	0.43	0.30	0.35	0.26
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-
Stream A-D	0.00	0.00	0.00	0.00
Stream D-AB	0.46	0.32	0.51	0.34
Stream D-BC	0.03	0.03	0.04	0.04
Stream C-D	-	-	-	-
Stream C-A	-	-	-	-
Stream C-B	0.00	0.00	0.00	0.00

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

"D1 - Base 2014, AM" model duration: 08:00 - 09:30  
 "D2 - Base 2014, PM" model duration: 08:00 - 09:30  
 "D3 - Base 2016, AM" model duration: 08:00 - 09:30  
 "D4 - Base 2016, PM" model duration: 08:00 - 09:30  
 "D5 - Base 2021, AM" model duration: 08:00 - 09:30  
 "D6 - Base 2021, PM" model duration: 08:00 - 09:30  
 "D7 - With Development 2016, AM" model duration: 08:00 - 09:30  
 "D8 - With Development 2016, PM" model duration: 08:00 - 09:30  
 "D9 - With Development 2021, AM" model duration: 08:00 - 09:30  
 "D10 - With Development 2021, PM" model duration: 08:00 - 09:30

Run using Junctions 8.0.4.487 at 08/10/2014 17:13:44

## File summary

Title	(untitled)
Location	
Site Number	
Date	07/10/2014
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	Gavin Snowball
Description	

## 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	PCU	PCU	perHour	s	-Min	perMin

# Existing Layout - Base 2014, 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
Existing Layout	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	Relationship
Base 2014, AM	Base 2014	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	(untitled)	Crossroads	Two-way	A,B,C,D		8.29	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Woolton Road NE		Major
B	B	Link Road		Minor
C	C	Woolton Road SW		Major
D	D	Allerton Road		Minor

## 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)
A	6.50		0.00		2.20	0.00		
C	6.50		0.00		2.20	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	3.70										12	0
D	One lane plus flare				10.00	8.00	6.00	5.00	4.40	✓	3.00	0	110

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	573.963	-	-	-	-	-	-	0.218	0.311	0.218	-	-	-
1	B-A	515.386	0.092	0.232	0.232	-	-	-	0.146	0.332	-	0.232	0.232	0.116
1	B-C	667.663	0.100	0.253	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	515.386	0.092	0.232	0.232	-	-	-	0.146	0.332	0.146	-	-	-
1	B-D, offside lane	515.386	0.092	0.232	0.232	-	-	-	0.146	0.332	0.146	-	-	-
1	C-B	573.963	0.218	0.218	0.311	-	-	-	-	-	-	-	-	-
1	D-A	807.151	-	-	-	-	-	-	0.306	-	0.121	-	-	-
1	D-B, nearside lane	618.170	0.175	0.175	0.398	-	-	-	0.278	0.278	0.110	-	-	-
1	D-B, offside lane	479.747	0.136	0.136	0.309	-	-	-	0.216	0.216	0.085	-	-	-
1	D-C	479.747	-	0.136	0.309	0.108	0.216	0.216	0.216	0.085	-	-	-	-

*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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	0.00	100.000
B	ONE HOUR	✓	113.00	100.000
C	ONE HOUR	✓	259.00	100.000
D	ONE HOUR	✓	166.00	100.000

# Turning Proportions

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

	To			
	A	B	C	D
A	0.000	0.000	0.000	0.000

From	B	3.000	0.000	0.000	110.000
	C	241.000	0.000	0.000	18.000
	D	145.000	21.000	0.000	0.000

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

From	To				
		A	B	C	D
	A	0.25	0.25	0.25	0.25
	B	0.03	0.00	0.00	0.97
	C	0.93	0.00	0.00	0.07
	D	0.87	0.13	0.00	0.00

## Vehicle Mix

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

From	To				
		A	B	C	D
	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

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

From	To				
		A	B	C	D
	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-ACD	0.26	10.34	0.35	B	103.69	155.54	24.81	9.57	0.28	24.81	9.57
A-B	-	-	-	-	0.00	0.00	-	-	-	-	-
A-C	-	-	-	-	0.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D-AB	0.24	6.77	0.32	A	142.69	214.03	22.43	6.29	0.25	22.43	6.29
D-BC	0.03	8.80	0.03	A	9.63	14.45	2.05	8.51	0.02	2.05	8.51
C-D	-	-	-	-	16.52	24.78	-	-	-	-	-
C-A	-	-	-	-	221.15	331.72	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	85.07	21.27	84.23	0.00	486.15	0.175	0.00	0.21	8.938	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	531.54	0.000	0.00	0.00	0.000	A
D-AB	117.07	29.27	116.31	0.00	730.61	0.160	0.00	0.19	5.853	A
D-BC	7.90	1.98	7.83	0.00	439.35	0.018	0.00	0.02	8.342	A
C-D	13.55	3.39	13.55	0.00	-	-	-	-	-	-
C-A	181.44	45.36	181.44	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS

B-ACD	101.58	25.40	101.36	0.00	480.46	0.211	0.21	0.26	9.490	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	523.31	0.000	0.00	0.00	0.000	A
D-AB	139.79	34.95	139.59	0.00	718.87	0.194	0.19	0.24	6.213	A
D-BC	9.44	2.36	9.42	0.00	431.46	0.022	0.02	0.02	8.530	A
C-D	16.18	4.05	16.18	0.00	-	-	-	-	-	-
C-A	216.65	54.16	216.65	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	124.42	31.10	124.07	0.00	472.60	0.263	0.26	0.35	10.318	B
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	511.93	0.000	0.00	0.00	0.000	A
D-AB	171.21	42.80	170.89	0.00	702.67	0.244	0.24	0.32	6.764	A
D-BC	11.56	2.89	11.54	0.00	420.40	0.028	0.02	0.03	8.804	A
C-D	19.82	4.95	19.82	0.00	-	-	-	-	-	-
C-A	265.35	66.34	265.35	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	124.42	31.10	124.41	0.00	472.59	0.263	0.35	0.35	10.339	B
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	511.93	0.000	0.00	0.00	0.000	A
D-AB	171.21	42.80	171.20	0.00	702.66	0.244	0.32	0.32	6.773	A
D-BC	11.56	2.89	11.56	0.00	420.40	0.028	0.03	0.03	8.805	A
C-D	19.82	4.95	19.82	0.00	-	-	-	-	-	-
C-A	265.35	66.34	265.35	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	101.58	25.40	101.92	0.00	480.46	0.211	0.35	0.27	9.520	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	523.31	0.000	0.00	0.00	0.000	A
D-AB	139.79	34.95	140.10	0.00	718.85	0.194	0.32	0.24	6.225	A
D-BC	9.44	2.36	9.46	0.00	431.46	0.022	0.03	0.02	8.531	A
C-D	16.18	4.05	16.18	0.00	-	-	-	-	-	-
C-A	216.65	54.16	216.65	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	85.07	21.27	85.30	0.00	486.15	0.175	0.27	0.21	8.985	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	531.54	0.000	0.00	0.00	0.000	A
D-AB	117.07	29.27	117.27	0.00	730.55	0.160	0.24	0.19	5.873	A
D-BC	7.90	1.98	7.92	0.00	439.36	0.018	0.02	0.02	8.344	A
C-D	13.55	3.39	13.55	0.00	-	-	-	-	-	-
C-A	181.44	45.36	181.44	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

### Queueing Delay Results for each time segment

#### Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.01	0.20	8.938	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	2.76	0.18	5.853	A	A
D-BC	0.26	0.02	8.342	A	A
C-D	-	-	-	-	-

C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.87	0.26	9.490	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	3.52	0.23	6.213	A	A
D-BC	0.33	0.02	8.530	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	5.12	0.34	10.318	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	4.67	0.31	6.764	A	A
D-BC	0.41	0.03	8.804	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	5.30	0.35	10.339	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	4.80	0.32	6.773	A	A
D-BC	0.42	0.03	8.805	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	4.19	0.28	9.520	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	3.73	0.25	6.225	A	A
D-BC	0.35	0.02	8.531	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.30	0.22	8.985	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	2.94	0.20	5.873	A	A
D-BC	0.28	0.02	8.344	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

## Existing Layout - Base 2014, 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
Existing Layout	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	Relationship
Base 2014, PM	Base 2014	PM		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	(untitled)	Crossroads	Two-way	A,B,C,D		8.61	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Woolton Road NE		Major
B	B	Link Road		Minor
C	C	Woolton Road SW		Major
D	D	Allerton Road		Minor

## 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)
A	6.50		0.00		2.20	0.00		
C	6.50		0.00		2.20	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	3.70										12	0
D	One lane plus flare				10.00	8.00	6.00	5.00	4.40	✓	3.00	0	110

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	573.963	-	-	-	-	-	-	0.218	0.311	0.218	-	-	-
1	B-A	515.386	0.092	0.232	0.232	-	-	-	0.146	0.332	-	0.232	0.232	0.116
1	B-C	667.663	0.100	0.253	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	515.386	0.092	0.232	0.232	-	-	-	0.146	0.332	0.146	-	-	-
1	B-D, offside lane	515.386	0.092	0.232	0.232	-	-	-	0.146	0.332	0.146	-	-	-
1	C-B	573.963	0.218	0.218	0.311	-	-	-	-	-	-	-	-	-
1	D-A	805.228	-	-	-	-	-	-	0.305	-	0.121	-	-	-
1	D-B, nearside lane	616.697	0.175	0.175	0.397	-	-	-	0.278	0.278	0.110	-	-	-
1	D-B, offside lane	481.219	0.136	0.136	0.310	-	-	-	0.217	0.217	0.086	-	-	-
1	D-C	481.219	-	0.136	0.310	0.108	0.217	0.217	0.217	0.217	0.086	-	-	-

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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	0.00	100.000
B	ONE HOUR	✓	75.00	100.000
C	ONE HOUR	✓	446.00	100.000
D	ONE HOUR	✓	177.00	100.000

## Turning Proportions

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

		To			
From		A	B	C	D
	A	0.000	0.000	0.000	0.000
	B	3.000	0.000	0.000	72.000
	C	415.000	0.000	0.000	31.000
	D	152.000	25.000	0.000	0.000

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

	To				
From	A	0.25	0.25	0.25	0.25
	B	0.04	0.00	0.00	0.96
	C	0.93	0.00	0.00	0.07
	D	0.86	0.14	0.00	0.00

## Vehicle Mix

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

	To				
From		A	B	C	D
	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

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

		To			
From		A	B	C	D
	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

## Results

### Results Summary for whole modelled period

[illegible]

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-ACD	0.19	10.02	0.23	B	68.82	103.23	16.06	9.34	0.18	16.07	9.34
A-B	-	-	-	-	0.00	0.00	-	-	-	-	-
A-C	-	-	-	-	0.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D-AB	0.28	7.88	0.39	A	150.95	226.42	26.79	7.10	0.30	26.79	7.10
D-BC	0.04	9.87	0.04	A	11.47	17.21	2.68	9.34	0.03	2.68	9.34
C-D	-	-	-	-	28.45	42.67	-	-	-	-	-
C-A	-	-	-	-	380.81	571.22	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	56.46	14.12	55.92	0.00	465.19	0.121	0.00	0.14	8.785	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	500.92	0.000	0.00	0.00	0.000	A
D-AB	123.84	30.96	122.97	0.00	685.27	0.181	0.00	0.22	6.393	A
D-BC	9.41	2.35	9.32	0.00	411.44	0.023	0.00	0.02	8.950	A
C-D	23.34	5.83	23.34	0.00	-	-	-	-	-	-
C-A	312.43	78.11	312.43	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	67.42	16.86	67.28	0.00	455.42	0.148	0.14	0.17	9.272	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	486.74	0.000	0.00	0.00	0.000	A
D-AB	147.88	36.97	147.62	0.00	665.44	0.222	0.22	0.28	6.949	A
D-BC	11.24	2.81	11.21	0.00	397.79	0.028	0.02	0.03	9.312	A
C-D	27.87	6.97	27.87	0.00	-	-	-	-	-	-
C-A	373.08	93.27	373.08	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	82.58	20.64	82.36	0.00	441.90	0.187	0.17	0.23	10.006	B
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	467.14	0.000	0.00	0.00	0.000	A
D-AB	181.12	45.28	180.68	0.00	638.07	0.284	0.28	0.39	7.864	A
D-BC	13.76	3.44	13.73	0.00	378.65	0.036	0.03	0.04	9.865	A
C-D	34.13	8.53	34.13	0.00	-	-	-	-	-	-
C-A	456.92	114.23	456.92	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	82.58	20.64	82.57	0.00	441.90	0.187	0.23	0.23	10.018	B
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	467.14	0.000	0.00	0.00	0.000	A
D-AB	181.12	45.28	181.11	0.00	638.05	0.284	0.39	0.39	7.878	A
D-BC	13.76	3.44	13.76	0.00	378.64	0.036	0.04	0.04	9.865	A
C-D	34.13	8.53	34.13	0.00	-	-	-	-	-	-
C-A	456.92	114.23	456.92	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	67.42	16.86	67.63	0.00	455.41	0.148	0.23	0.18	9.288	A

A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	486.74	0.000	0.00	0.00	0.000	A
D-AB	147.88	36.97	148.30	0.00	665.42	0.222	0.39	0.29	6.966	A
D-BC	11.24	2.81	11.27	0.00	397.79	0.028	0.04	0.03	9.314	A
C-D	27.87	6.97	27.87	0.00	-	-	-	-	-	-
C-A	373.08	93.27	373.08	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	56.46	14.12	56.61	0.00	465.18	0.121	0.18	0.14	8.815	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	500.92	0.000	0.00	0.00	0.000	A
D-AB	123.84	30.96	124.11	0.00	685.20	0.181	0.29	0.22	6.418	A
D-BC	9.41	2.35	9.43	0.00	411.45	0.023	0.03	0.02	8.954	A
C-D	23.34	5.83	23.34	0.00	-	-	-	-	-	-
C-A	312.43	78.11	312.43	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

### Queueing Delay Results for each time segment

#### Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	1.97	0.13	8.785	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	3.17	0.21	6.393	A	A
D-BC	0.33	0.02	8.950	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	2.51	0.17	9.272	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	4.15	0.28	6.949	A	A
D-BC	0.42	0.03	9.312	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.31	0.22	10.006	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	5.71	0.38	7.864	A	A
D-BC	0.55	0.04	9.865	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.42	0.23	10.018	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	5.90	0.39	7.878	A	A
D-BC	0.56	0.04	9.865	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

C-B	0.00	0.00	0.000	A	A
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#### Queueing Delay results: (09:00-09:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	2.71	0.18	9.288	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	4.44	0.30	6.966	A	A
D-BC	0.45	0.03	9.314	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	2.15	0.14	8.815	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	3.41	0.23	6.418	A	A
D-BC	0.36	0.02	8.954	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

## Existing Layout - Base 2016, 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
Existing Layout	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	Relationship
Base 2016, AM	Base 2016	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	(untitled)	Crossroads	Two-way	A,B,C,D		8.49	A

### Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Arm	Name	Description	Arm Type
A	A	Woolton Road NE		Major
B	B	Link Road		Minor
C	C	Woolton Road SW		Major

D	D	Allerton Road		Minor
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## 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)
A	6.50		0.00		2.20	0.00		
C	6.50		0.00		2.20	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	3.70										12	0
D	One lane plus flare				10.00	8.00	6.00	5.00	4.40	✓	3.00	0	110

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	573.963	-	-	-	-	-	-	0.218	0.311	0.218	-	-	-
1	B-A	515.386	0.092	0.232	0.232	-	-	-	0.146	0.332	-	0.232	0.232	0.116
1	B-C	667.663	0.100	0.253	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	515.386	0.092	0.232	0.232	-	-	-	0.146	0.332	0.146	-	-	-
1	B-D, offside lane	515.386	0.092	0.232	0.232	-	-	-	0.146	0.332	0.146	-	-	-
1	C-B	573.963	0.218	0.218	0.311	-	-	-	-	-	-	-	-	-
1	D-A	809.888	-	-	-	-	-	-	0.307	-	0.121	-	-	-
1	D-B, nearside lane	620.266	0.176	0.176	0.399	-	-	-	0.279	0.279	0.111	-	-	-
1	D-B, offside lane	477.650	0.135	0.135	0.307	-	-	-	0.215	0.215	0.085	-	-	-
1	D-C	477.650	-	0.135	0.307	0.108	0.215	0.215	0.215	0.215	0.085	-	-	-

*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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	0.00	100.000
B	ONE HOUR	✓	117.00	100.000
C	ONE HOUR	✓	264.00	100.000
D	ONE HOUR	✓	199.00	100.000

## Turning Proportions

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

	To				
From		A	B	C	D
	A	0.000	0.000	0.000	0.000
	B	3.000	0.000	0.000	114.000
	C	246.000	0.000	0.000	18.000
	D	178.000	21.000	0.000	0.000

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

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From	To				
	A	B	C	D	
	A	0.25	0.25	0.25	0.25
	B	0.03	0.00	0.00	0.97
	C	0.93	0.00	0.00	0.07
	D	0.89	0.11	0.00	0.00

## Vehicle Mix

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

From	To				
	A	B	C	D	
	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

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

From	To				
	A	B	C	D	
	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-ACD	0.27	10.50	0.37	B	107.36	161.04	26.01	9.69	0.29	26.01	9.69
A-B	-	-	-	-	0.00	0.00	-	-	-	-	-
A-C	-	-	-	-	0.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D-AB	0.29	7.22	0.41	A	172.97	259.46	28.57	6.61	0.32	28.57	6.61
D-BC	0.03	8.88	0.03	A	9.63	14.45	2.07	8.58	0.02	2.07	8.58
C-D	-	-	-	-	16.52	24.78	-	-	-	-	-
C-A	-	-	-	-	225.73	338.60	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	88.08	22.02	87.21	0.00	485.46	0.181	0.00	0.22	9.020	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	530.73	0.000	0.00	0.00	0.000	A
D-AB	141.91	35.48	140.96	0.00	734.69	0.193	0.00	0.24	6.053	A
D-BC	7.90	1.98	7.83	0.00	436.55	0.018	0.00	0.02	8.396	A
C-D	13.55	3.39	13.55	0.00	-	-	-	-	-	-
C-A	185.20	46.30	185.20	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	105.18	26.30	104.95	0.00	479.63	0.219	0.22	0.28	9.602	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	522.33	0.000	0.00	0.00	0.000	A
D-AB	169.46	42.36	169.19	0.00	722.66	0.234	0.24	0.30	6.501	A
D-BC	9.44	2.36	9.42	0.00	428.43	0.022	0.02	0.02	8.591	A

C-D	16.18	4.05	16.18	0.00	-	-	-	-	-	-
C-A	221.15	55.29	221.15	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	128.82	32.20	128.45	0.00	471.57	0.273	0.28	0.37	10.480	B
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	510.73	0.000	0.00	0.00	0.000	A
D-AB	207.54	51.89	207.11	0.00	706.09	0.294	0.30	0.41	7.208	A
D-BC	11.56	2.89	11.54	0.00	416.85	0.028	0.02	0.03	8.882	A
C-D	19.82	4.95	19.82	0.00	-	-	-	-	-	-
C-A	270.85	67.71	270.85	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	128.82	32.20	128.81	0.00	471.56	0.273	0.37	0.37	10.502	B
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	510.73	0.000	0.00	0.00	0.000	A
D-AB	207.54	51.89	207.53	0.00	706.08	0.294	0.41	0.41	7.220	A
D-BC	11.56	2.89	11.56	0.00	416.84	0.028	0.03	0.03	8.882	A
C-D	19.82	4.95	19.82	0.00	-	-	-	-	-	-
C-A	270.85	67.71	270.85	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	105.18	26.30	105.53	0.00	479.63	0.219	0.37	0.28	9.632	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	522.33	0.000	0.00	0.00	0.000	A
D-AB	169.46	42.36	169.88	0.00	722.65	0.235	0.41	0.31	6.519	A
D-BC	9.44	2.36	9.46	0.00	428.42	0.022	0.03	0.02	8.594	A
C-D	16.18	4.05	16.18	0.00	-	-	-	-	-	-
C-A	221.15	55.29	221.15	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	88.08	22.02	88.32	0.00	485.45	0.181	0.28	0.22	9.072	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	530.73	0.000	0.00	0.00	0.000	A
D-AB	141.91	35.48	142.18	0.00	734.63	0.193	0.31	0.24	6.081	A
D-BC	7.90	1.98	7.92	0.00	436.56	0.018	0.02	0.02	8.400	A
C-D	13.55	3.39	13.55	0.00	-	-	-	-	-	-
C-A	185.20	46.30	185.20	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.15	0.21	9.020	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	3.45	0.23	6.053	A	A
D-BC	0.26	0.02	8.396	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
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	min)	min/min)	(s)	Service	Service
B-ACD	4.05	0.27	9.602	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	4.46	0.30	6.501	A	A
D-BC	0.33	0.02	8.591	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	5.38	0.36	10.480	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	6.02	0.40	7.208	A	A
D-BC	0.41	0.03	8.882	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	5.58	0.37	10.502	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	6.20	0.41	7.220	A	A
D-BC	0.42	0.03	8.882	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	4.40	0.29	9.632	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	4.75	0.32	6.519	A	A
D-BC	0.35	0.02	8.594	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.45	0.23	9.072	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	3.70	0.25	6.081	A	A
D-BC	0.29	0.02	8.400	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

## Existing Layout - Base 2016, 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

Existing Layout	N/A		✓				100.000	100.000	
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## 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	Relationship
Base 2016, PM	Base 2016	PM		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	(untitled)	Crossroads	Two-way	A,B,C,D		8.95	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Woolton Road NE		Major
B	B	Link Road		Minor
C	C	Woolton Road SW		Major
D	D	Allerton Road		Minor

## 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)
A	6.50		0.00		2.20	0.00		
C	6.50		0.00		2.20	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	3.70										12	0
D	One lane plus flare				10.00	8.00	6.00	5.00	4.40	✓	3.00	0	110

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	573.963	-	-	-	-	-	-	0.218	0.311	0.218	-	-	-
1	B-A	515.386	0.092	0.232	0.232	-	-	-	0.146	0.332	-	0.232	0.232	0.116
1	B-C	667.663	0.100	0.253	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	515.386	0.092	0.232	0.232	-	-	-	0.146	0.332	0.146	-	-	-
1	B-D, offside lane	515.386	0.092	0.232	0.232	-	-	-	0.146	0.332	0.146	-	-	-
1	C-B	573.963	0.218	0.218	0.311	-	-	-	-	-	-	-	-	-
1	D-A	806.524	-	-	-	-	-	-	0.306	-	0.121	-	-	-
1	D-B, nearside lane	617.689	0.175	0.175	0.397	-	-	-	0.278	0.278	0.110	-	-	-
1	D-B, offside lane	480.227	0.136	0.136	0.309	-	-	-	0.216	0.216	0.086	-	-	-
1	D-C	480.227	-	0.136	0.309	0.108	0.216	0.216	0.216	0.216	0.086	-	-	-

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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	0.00	100.000
B	ONE HOUR	✓	81.00	100.000
C	ONE HOUR	✓	456.00	100.000
D	ONE HOUR	✓	198.00	100.000

# Turning Proportions

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

		To			
		A	B	C	D
From	A	0.000	0.000	0.000	0.000
	B	3.000	0.000	0.000	78.000
	C	424.000	0.000	0.000	32.000
	D	172.000	26.000	0.000	0.000

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

		To			
		A	B	C	D
From	A	0.25	0.25	0.25	0.25
	B	0.04	0.00	0.00	0.96
	C	0.93	0.00	0.00	0.07
	D	0.87	0.13	0.00	0.00

# Vehicle Mix

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

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

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

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)

B-ACD	0.20	10.26	0.25	B	74.33	111.49	17.68	9.51	0.20	17.68	9.51
A-B	-	-	-	-	0.00	0.00	-	-	-	-	-
A-C	-	-	-	-	0.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D-AB	0.32	8.31	0.47	A	169.76	254.64	31.39	7.40	0.35	31.39	7.40
D-BC	0.04	9.98	0.04	A	11.93	17.89	2.81	9.43	0.03	2.81	9.43
C-D	-	-	-	-	29.36	44.05	-	-	-	-	-
C-A	-	-	-	-	389.07	583.60	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	60.98	15.25	60.38	0.00	464.03	0.131	0.00	0.15	8.907	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	499.28	0.000	0.00	0.00	0.000	A
D-AB	139.28	34.82	138.27	0.00	685.35	0.203	0.00	0.25	6.568	A
D-BC	9.79	2.45	9.69	0.00	409.00	0.024	0.00	0.02	9.013	A
C-D	24.09	6.02	24.09	0.00	-	-	-	-	-	-
C-A	319.21	79.80	319.21	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	72.82	18.20	72.66	0.00	454.02	0.160	0.15	0.19	9.435	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	484.78	0.000	0.00	0.00	0.000	A
D-AB	166.31	41.58	166.00	0.00	665.03	0.250	0.25	0.33	7.209	A
D-BC	11.69	2.92	11.66	0.00	394.99	0.030	0.02	0.03	9.391	A
C-D	28.77	7.19	28.77	0.00	-	-	-	-	-	-
C-A	381.17	95.29	381.17	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	89.18	22.30	88.94	0.00	440.19	0.203	0.19	0.25	10.241	B
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	464.74	0.000	0.00	0.00	0.000	A
D-AB	203.69	50.92	203.15	0.00	636.98	0.320	0.33	0.46	8.288	A
D-BC	14.31	3.58	14.28	0.00	375.11	0.038	0.03	0.04	9.975	A
C-D	35.23	8.81	35.23	0.00	-	-	-	-	-	-
C-A	466.83	116.71	466.83	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	89.18	22.30	89.18	0.00	440.18	0.203	0.25	0.25	10.255	B
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	464.74	0.000	0.00	0.00	0.000	A
D-AB	203.69	50.92	203.68	0.00	636.96	0.320	0.46	0.47	8.308	A
D-BC	14.31	3.58	14.31	0.00	375.10	0.038	0.04	0.04	9.977	A
C-D	35.23	8.81	35.23	0.00	-	-	-	-	-	-
C-A	466.83	116.71	466.83	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	72.82	18.20	73.05	0.00	454.01	0.160	0.25	0.19	9.455	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

A-D	0.00	0.00	0.00	0.00	484.78	0.000	0.00	0.00	0.000	A
D-AB	166.31	41.58	166.83	0.00	665.01	0.250	0.47	0.34	7.235	A
D-BC	11.69	2.92	11.72	0.00	394.98	0.030	0.04	0.03	9.393	A
C-D	28.77	7.19	28.77	0.00	-	-	-	-	-	-
C-A	381.17	95.29	381.17	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	60.98	15.25	61.14	0.00	464.01	0.131	0.19	0.15	8.940	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	499.28	0.000	0.00	0.00	0.000	A
D-AB	139.28	34.82	139.60	0.00	685.28	0.203	0.34	0.26	6.600	A
D-BC	9.79	2.45	9.81	0.00	409.01	0.024	0.03	0.02	9.019	A
C-D	24.09	6.02	24.09	0.00	-	-	-	-	-	-
C-A	319.21	79.80	319.21	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

### Queueing Delay Results for each time segment

#### Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	2.15	0.14	8.907	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	3.66	0.24	6.568	A	A
D-BC	0.35	0.02	9.013	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	2.76	0.18	9.435	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	4.83	0.32	7.209	A	A
D-BC	0.44	0.03	9.391	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.65	0.24	10.241	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	6.75	0.45	8.288	A	A
D-BC	0.57	0.04	9.975	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.77	0.25	10.255	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	6.99	0.47	8.308	A	A
D-BC	0.59	0.04	9.977	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	2.98	0.20	9.455	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	5.20	0.35	7.235	A	A
D-BC	0.47	0.03	9.393	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	2.35	0.16	8.940	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	3.95	0.26	6.600	A	A
D-BC	0.38	0.03	9.019	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

## Existing Layout - Base 2021, 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
Existing Layout	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	Relationship
Base 2021, AM	Base 2021	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	(untitled)	Crossroads	Two-way	A,B,C,D		8.61	A

**Junction Network Options**

Driving Side	Lighting
Left	Normal/unknown

## Arms

**Arms**

Arm	Arm	Name	Description	Arm Type
A	A	Woolton Road NE		Major
B	B	Link Road		Minor
C	C	Woolton Road SW		Major
D	D	Allerton Road		Minor

**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)
A	6.50		0.00		2.20	0.00		
C	6.50		0.00		2.20	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	3.70										12	0
D	One lane plus flare				10.00	8.00	6.00	5.00	4.40	✓	3.00	0	110

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	573.963	-	-	-	-	-	-	0.218	0.311	0.218	-	-	-
1	B-A	515.386	0.092	0.232	0.232	-	-	-	0.146	0.332	-	0.232	0.232	0.116
1	B-C	667.663	0.100	0.253	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	515.386	0.092	0.232	0.232	-	-	-	0.146	0.332	0.146	-	-	-
1	B-D, offside lane	515.386	0.092	0.232	0.232	-	-	-	0.146	0.332	0.146	-	-	-
1	C-B	573.963	0.218	0.218	0.311	-	-	-	-	-	-	-	-	-
1	D-A	809.517	-	-	-	-	-	-	0.307	-	0.121	-	-	-
1	D-B, nearside lane	619.981	0.176	0.176	0.399	-	-	-	0.279	0.279	0.110	-	-	-
1	D-B, offside lane	477.935	0.135	0.135	0.307	-	-	-	0.215	0.215	0.085	-	-	-
1	D-C	477.935	-	0.135	0.307	0.108	0.215	0.215	0.215	0.215	0.085	-	-	-

*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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	0.00	100.000
B	ONE HOUR	✓	120.00	100.000
C	ONE HOUR	✓	271.00	100.000
D	ONE HOUR	✓	203.00	100.000

## Turning Proportions

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

	To			
	A	B	C	D
From	A	0.000	0.000	0.000
	B	3.000	0.000	0.000
	C	252.000	0.000	0.000
	D	181.000	22.000	0.000

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

	To			
	A	B	C	D
A	0.25	0.25	0.25	0.25

From	B	0.03	0.00	0.00	0.98
	C	0.93	0.00	0.00	0.07
	D	0.89	0.11	0.00	0.00

## Vehicle Mix

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

From	To				
		A	B	C	D
	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

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

From	To				
		A	B	C	D
	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-ACD	0.28	10.64	0.39	B	110.11	165.17	26.95	9.79	0.30	26.96	9.79
A-B	-	-	-	-	0.00	0.00	-	-	-	-	-
A-C	-	-	-	-	0.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D-AB	0.30	7.32	0.43	A	176.18	264.27	29.43	6.68	0.33	29.44	6.68
D-BC	0.03	8.92	0.03	A	10.09	15.14	2.17	8.61	0.02	2.17	8.61
C-D	-	-	-	-	17.43	26.15	-	-	-	-	-
C-A	-	-	-	-	231.24	346.86	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.34	22.59	89.44	0.00	484.70	0.186	0.00	0.23	9.087	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	529.58	0.000	0.00	0.00	0.000	A
D-AB	144.55	36.14	143.57	0.00	732.35	0.197	0.00	0.24	6.104	A
D-BC	8.28	2.07	8.20	0.00	435.76	0.019	0.00	0.02	8.419	A
C-D	14.30	3.58	14.30	0.00	-	-	-	-	-	-
C-A	189.72	47.43	189.72	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	107.88	26.97	107.63	0.00	478.72	0.225	0.23	0.29	9.695	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	520.96	0.000	0.00	0.00	0.000	A
D-AB	172.60	43.15	172.33	0.00	720.01	0.240	0.24	0.31	6.570	A
D-BC	9.89	2.47	9.87	0.00	427.41	0.023	0.02	0.02	8.621	A
C-D	17.08	4.27	17.08	0.00	-	-	-	-	-	-
C-A	226.54	56.64	226.54	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	132.12	33.03	131.73	0.00	470.45	0.281	0.29	0.38	10.615	B
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	509.05	0.000	0.00	0.00	0.000	A
D-AB	211.40	52.85	210.94	0.00	703.00	0.301	0.31	0.43	7.310	A
D-BC	12.11	3.03	12.09	0.00	415.49	0.029	0.02	0.03	8.924	A
C-D	20.92	5.23	20.92	0.00	-	-	-	-	-	-
C-A	277.46	69.36	277.46	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	132.12	33.03	132.11	0.00	470.45	0.281	0.38	0.39	10.640	B
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	509.05	0.000	0.00	0.00	0.000	A
D-AB	211.40	52.85	211.39	0.00	702.99	0.301	0.43	0.43	7.322	A
D-BC	12.11	3.03	12.11	0.00	415.48	0.029	0.03	0.03	8.924	A
C-D	20.92	5.23	20.92	0.00	-	-	-	-	-	-
C-A	277.46	69.36	277.46	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	107.88	26.97	108.25	0.00	478.71	0.225	0.39	0.29	9.727	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	520.96	0.000	0.00	0.00	0.000	A
D-AB	172.60	43.15	173.04	0.00	719.99	0.240	0.43	0.32	6.586	A
D-BC	9.89	2.47	9.91	0.00	427.41	0.023	0.03	0.02	8.623	A
C-D	17.08	4.27	17.08	0.00	-	-	-	-	-	-
C-A	226.54	56.64	226.54	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.34	22.59	90.59	0.00	484.69	0.186	0.29	0.23	9.142	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	529.58	0.000	0.00	0.00	0.000	A
D-AB	144.55	36.14	144.83	0.00	732.29	0.197	0.32	0.25	6.130	A
D-BC	8.28	2.07	8.30	0.00	435.77	0.019	0.02	0.02	8.423	A
C-D	14.30	3.58	14.30	0.00	-	-	-	-	-	-
C-A	189.72	47.43	189.72	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.25	0.22	9.087	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	3.54	0.24	6.104	A	A
D-BC	0.28	0.02	8.419	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	4.19	0.28	9.695	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A

D-AB	4.58	0.31	6.570	A	A
D-BC	0.34	0.02	8.621	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	5.59	0.37	10.615	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	6.21	0.41	7.310	A	A
D-BC	0.44	0.03	8.924	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	5.79	0.39	10.640	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	6.40	0.43	7.322	A	A
D-BC	0.45	0.03	8.924	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	4.56	0.30	9.727	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	4.89	0.33	6.586	A	A
D-BC	0.37	0.02	8.623	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.57	0.24	9.142	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	3.80	0.25	6.130	A	A
D-BC	0.30	0.02	8.423	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

## Existing Layout - Base 2021, 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
Existing Layout	N/A		✓				100.000	100.000	

### Demand Set Details

							Model		Results					
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Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Time Period Length (min)	Time Segment Length (min)	For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
Base 2021, PM	Base 2021	PM		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	(untitled)	Crossroads	Two-way	A,B,C,D		9.07	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Woolton Road NE		Major
B	B	Link Road		Minor
C	C	Woolton Road SW		Major
D	D	Allerton Road		Minor

## 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)
A	6.50		0.00		2.20	0.00		
C	6.50		0.00		2.20	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	3.70										12	0
D	One lane plus flare				10.00	8.00	6.00	5.00	4.40	✓	3.00	0	110

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	573.963	-	-	-	-	-	-	0.218	0.311	0.218	-	-	-
1	B-A	515.386	0.092	0.232	0.232	-	-	-	0.146	0.332	-	0.232	0.232	0.116
1	B-C	667.663	0.100	0.253	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	515.386	0.092	0.232	0.232	-	-	-	0.146	0.332	0.146	-	-	-
1	B-D, offside lane	515.386	0.092	0.232	0.232	-	-	-	0.146	0.332	0.146	-	-	-
1	C-B	573.963	0.218	0.218	0.311	-	-	-	-	-	-	-	-	-
1	D-A	806.863	-	-	-	-	-	-	0.306	-	0.121	-	-	-
1	D-B, nearside lane	617.949	0.175	0.175	0.398	-	-	-	0.278	0.278	0.110	-	-	-
1	D-B, offside lane	479.967	0.136	0.136	0.309	-	-	-	0.216	0.216	0.086	-	-	-
1	D-C	479.967	-	0.136	0.309	0.108	0.216	0.216	0.216	0.216	0.086	-	-	-

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

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	0.00	100.000
B	ONE HOUR	✓	83.00	100.000
C	ONE HOUR	✓	465.00	100.000
D	ONE HOUR	✓	202.00	100.000

## Turning Proportions

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

	To				
	A	B	C	D	
From	A	0.000	0.000	0.000	0.000
	B	3.000	0.000	0.000	80.000
	C	433.000	0.000	0.000	32.000
	D	176.000	26.000	0.000	0.000

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

	To				
	A	B	C	D	
From	A	0.25	0.25	0.25	0.25
	B	0.04	0.00	0.00	0.96
	C	0.93	0.00	0.00	0.07
	D	0.87	0.13	0.00	0.00

## Vehicle Mix

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

	To				
	A	B	C	D	
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

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

	To				
	A	B	C	D	
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-ACD	0.21	10.36	0.26	B	76.16	114.24	18.27	9.59	0.20	18.27	9.59
A-B	-	-	-	-	0.00	0.00	-	-	-	-	-
A-C	-	-	-	-	0.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D-AB	0.33	8.44	0.48	A	173.43	260.14	32.46	7.49	0.36	32.46	7.49
D-BC	0.04	10.05	0.04	B	11.93	17.89	2.83	9.48	0.03	2.83	9.48
C-D	-	-	-	-	29.36	44.05	-	-	-	-	-
C-A	-	-	-	-	397.33	595.99	-	-	-	-	-

C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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## Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	62.49	15.62	61.87	0.00	463.04	0.135	0.00	0.15	8.960	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	497.81	0.000	0.00	0.00	0.000	A
D-AB	142.29	35.57	141.25	0.00	683.91	0.208	0.00	0.26	6.622	A
D-BC	9.79	2.45	9.69	0.00	407.30	0.024	0.00	0.02	9.052	A
C-D	24.09	6.02	24.09	0.00	-	-	-	-	-	-
C-A	325.99	81.50	325.99	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	74.62	18.65	74.45	0.00	452.84	0.165	0.15	0.19	9.510	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	483.02	0.000	0.00	0.00	0.000	A
D-AB	169.91	42.48	169.58	0.00	663.18	0.256	0.26	0.34	7.288	A
D-BC	11.69	2.92	11.66	0.00	392.98	0.030	0.02	0.03	9.441	A
C-D	28.77	7.19	28.77	0.00	-	-	-	-	-	-
C-A	389.26	97.31	389.26	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	91.38	22.85	91.13	0.00	438.74	0.208	0.19	0.26	10.349	B
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	462.59	0.000	0.00	0.00	0.000	A
D-AB	208.09	52.02	207.53	0.00	634.55	0.328	0.34	0.48	8.419	A
D-BC	14.31	3.58	14.28	0.00	372.62	0.038	0.03	0.04	10.044	B
C-D	35.23	8.81	35.23	0.00	-	-	-	-	-	-
C-A	476.74	119.19	476.74	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	91.38	22.85	91.38	0.00	438.73	0.208	0.26	0.26	10.363	B
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	462.59	0.000	0.00	0.00	0.000	A
D-AB	208.09	52.02	208.08	0.00	634.53	0.328	0.48	0.48	8.441	A
D-BC	14.31	3.58	14.31	0.00	372.60	0.038	0.04	0.04	10.047	B
C-D	35.23	8.81	35.23	0.00	-	-	-	-	-	-
C-A	476.74	119.19	476.74	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	74.62	18.65	74.86	0.00	452.83	0.165	0.26	0.20	9.532	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	483.02	0.000	0.00	0.00	0.000	A
D-AB	169.91	42.48	170.45	0.00	663.15	0.256	0.48	0.35	7.316	A
D-BC	11.69	2.92	11.72	0.00	392.97	0.030	0.04	0.03	9.443	A
C-D	28.77	7.19	28.77	0.00	-	-	-	-	-	-
C-A	389.26	97.31	389.26	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	62.49	15.62	62.65	0.00	463.02	0.135	0.20	0.16	8.997	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	497.81	0.000	0.00	0.00	0.000	A
D-AB	142.29	35.57	142.62	0.00	683.84	0.208	0.35	0.27	6.657	A
D-BC	9.79	2.45	9.81	0.00	407.31	0.024	0.03	0.02	9.058	A
C-D	24.09	6.02	24.09	0.00	-	-	-	-	-	-
C-A	325.99	81.50	325.99	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

### Queueing Delay Results for each time segment

#### Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	2.22	0.15	8.960	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	3.77	0.25	6.622	A	A
D-BC	0.35	0.02	9.052	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	2.85	0.19	9.510	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	4.99	0.33	7.288	A	A
D-BC	0.44	0.03	9.441	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.78	0.25	10.349	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	7.00	0.47	8.419	A	A
D-BC	0.58	0.04	10.044	B	B
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.91	0.26	10.363	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	7.25	0.48	8.441	A	A
D-BC	0.59	0.04	10.047	B	B
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.08	0.21	9.532	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	5.37	0.36	7.316	A	A

D-BC	0.48	0.03	9.443	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	2.43	0.16	8.997	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	4.07	0.27	6.657	A	A
D-BC	0.38	0.03	9.058	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

## Existing Layout - With Development 2016, 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
Existing Layout	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	Relationship
With Development 2016, AM	With Development 2016	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	(untitled)	Crossroads	Two-way	A,B,C,D		8.79	A

### Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Arm	Name	Description	Arm Type
A	A	Woolton Road NE		Major
B	B	Link Road		Minor
C	C	Woolton Road SW		Major
D	D	Allerton Road		Minor

### 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)
A	6.50		0.00		2.20	0.00		
C	6.50		0.00		2.20	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	3.70										12	0
D	One lane plus flare				10.00	8.00	6.00	5.00	4.40	✓	3.00	0	110

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	573.963	-	-	-	-	-	-	0.218	0.311	0.218	-	-	-
1	B-A	515.386	0.092	0.232	0.232	-	-	-	0.146	0.332	-	0.232	0.232	0.116
1	B-C	667.663	0.100	0.253	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	515.386	0.092	0.232	0.232	-	-	-	0.146	0.332	0.146	-	-	-
1	B-D, offside lane	515.386	0.092	0.232	0.232	-	-	-	0.146	0.332	0.146	-	-	-
1	C-B	573.963	0.218	0.218	0.311	-	-	-	-	-	-	-	-	-
1	D-A	808.746	-	-	-	-	-	-	0.307	-	0.121	-	-	-
1	D-B, nearside lane	619.391	0.175	0.175	0.398	-	-	-	0.279	0.279	0.110	-	-	-
1	D-B, offside lane	478.526	0.136	0.136	0.308	-	-	-	0.216	0.216	0.085	-	-	-
1	D-C	478.526	-	0.136	0.308	0.108	0.216	0.216	0.216	0.216	0.085	-	-	-

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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	0.00	100.000
B	ONE HOUR	✓	125.00	100.000
C	ONE HOUR	✓	271.00	100.000
D	ONE HOUR	✓	210.00	100.000

## Turning Proportions

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

	To				
From		A	B	C	D
	A	0.000	0.000	0.000	0.000
	B	8.000	0.000	0.000	117.000
	C	252.000	0.000	0.000	19.000
	D	186.000	24.000	0.000	0.000

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

	To				
From		A	B	C	D
	A	0.25	0.25	0.25	0.25
	B	0.06	0.00	0.00	0.94
	C	0.93	0.00	0.00	0.07
	D	0.89	0.11	0.00	0.00

## Vehicle Mix

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

	To				
From		A	B	C	D
	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

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

	To				
From		A	B	C	D
	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-ACD	0.29	10.89	0.41	B	114.70	172.05	28.60	9.97	0.32	28.60	9.97
A-B	-	-	-	-	0.00	0.00	-	-	-	-	-
A-C	-	-	-	-	0.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D-AB	0.31	7.45	0.45	A	181.69	272.53	30.79	6.78	0.34	30.79	6.78
D-BC	0.03	8.94	0.03	A	11.01	16.52	2.37	8.62	0.03	2.37	8.62
C-D	-	-	-	-	17.43	26.15	-	-	-	-	-
C-A	-	-	-	-	231.24	346.86	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	94.11	23.53	93.15	0.00	483.22	0.195	0.00	0.24	9.208	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	529.58	0.000	0.00	0.00	0.000	A
D-AB	149.06	37.27	148.05	0.00	730.56	0.204	0.00	0.25	6.170	A
D-BC	9.03	2.26	8.95	0.00	436.28	0.021	0.00	0.02	8.424	A
C-D	14.30	3.58	14.30	0.00	-	-	-	-	-	-
C-A	189.72	47.43	189.72	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	112.37	28.09	112.11	0.00	476.92	0.236	0.24	0.30	9.861	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	520.96	0.000	0.00	0.00	0.000	A
D-AB	178.00	44.50	177.71	0.00	718.18	0.248	0.25	0.33	6.658	A
D-BC	10.79	2.70	10.77	0.00	427.89	0.025	0.02	0.03	8.630	A
C-D	17.08	4.27	17.08	0.00	-	-	-	-	-	-
C-A	226.54	56.64	226.54	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	137.63	34.41	137.21	0.00	468.19	0.294	0.30	0.41	10.862	B
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	509.05	0.000	0.00	0.00	0.000	A
D-AB	218.00	54.50	217.52	0.00	701.10	0.311	0.33	0.45	7.436	A

D-BC	13.21	3.30	13.18	0.00	415.83	0.032	0.03	0.03	8.941	A
C-D	20.92	5.23	20.92	0.00	-	-	-	-	-	-
C-A	277.46	69.36	277.46	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	137.63	34.41	137.61	0.00	468.18	0.294	0.41	0.41	10.890	B
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	509.05	0.000	0.00	0.00	0.000	A
D-AB	218.00	54.50	217.99	0.00	701.09	0.311	0.45	0.45	7.451	A
D-BC	13.21	3.30	13.21	0.00	415.82	0.032	0.03	0.03	8.941	A
C-D	20.92	5.23	20.92	0.00	-	-	-	-	-	-
C-A	277.46	69.36	277.46	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	112.37	28.09	112.77	0.00	476.90	0.236	0.41	0.31	9.899	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	520.96	0.000	0.00	0.00	0.000	A
D-AB	178.00	44.50	178.46	0.00	718.16	0.248	0.45	0.33	6.678	A
D-BC	10.79	2.70	10.81	0.00	427.88	0.025	0.03	0.03	8.631	A
C-D	17.08	4.27	17.08	0.00	-	-	-	-	-	-
C-A	226.54	56.64	226.54	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	94.11	23.53	94.38	0.00	483.20	0.195	0.31	0.24	9.265	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	529.58	0.000	0.00	0.00	0.000	A
D-AB	149.06	37.27	149.36	0.00	730.50	0.204	0.33	0.26	6.197	A
D-BC	9.03	2.26	9.05	0.00	436.29	0.021	0.03	0.02	8.426	A
C-D	14.30	3.58	14.30	0.00	-	-	-	-	-	-
C-A	189.72	47.43	189.72	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.43	0.23	9.208	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	3.69	0.25	6.170	A	A
D-BC	0.30	0.02	8.424	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	4.44	0.30	9.861	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	4.79	0.32	6.658	A	A
D-BC	0.38	0.03	8.630	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

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Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	5.94	0.40	10.862	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	6.51	0.43	7.436	A	A
D-BC	0.48	0.03	8.941	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	6.17	0.41	10.890	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	6.71	0.45	7.451	A	A
D-BC	0.49	0.03	8.941	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	4.84	0.32	9.899	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	5.12	0.34	6.678	A	A
D-BC	0.40	0.03	8.631	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.77	0.25	9.265	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	3.96	0.26	6.197	A	A
D-BC	0.33	0.02	8.426	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

## Existing Layout - With Development 2016, 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
Existing Layout	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	Relationship
With Development 2016, PM	With Development 2016	PM		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	(untitled)	Crossroads	Two-way	A,B,C,D		9.49	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Woolton Road NE		Major
B	B	Link Road		Minor
C	C	Woolton Road SW		Major
D	D	Allerton Road		Minor

## 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)
A	6.50		0.00		2.20	0.00		
C	6.50		0.00		2.20	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	3.70										12	0
D	One lane plus flare				10.00	8.00	6.00	5.00	4.40	✓	3.00	0	110

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	573.963	-	-	-	-	-	-	0.218	0.311	0.218	-	-	-
1	B-A	515.386	0.092	0.232	0.232	-	-	-	0.146	0.332	-	0.232	0.232	0.116
1	B-C	667.663	0.100	0.253	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	515.386	0.092	0.232	0.232	-	-	-	0.146	0.332	0.146	-	-	-
1	B-D, offside lane	515.386	0.092	0.232	0.232	-	-	-	0.146	0.332	0.146	-	-	-
1	C-B	573.963	0.218	0.218	0.311	-	-	-	-	-	-	-	-	-
1	D-A	806.303	-	-	-	-	-	-	0.306	-	0.121	-	-	-
1	D-B, nearside lane	617.520	0.175	0.175	0.397	-	-	-	0.278	0.278	0.110	-	-	-
1	D-B, offside lane	480.396	0.136	0.136	0.309	-	-	-	0.216	0.216	0.086	-	-	-
1	D-C	480.396	-	0.136	0.309	0.108	0.216	0.216	0.216	0.216	0.086	-	-	-

*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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	0.00	100.000
B	ONE HOUR	✓	101.00	100.000
C	ONE HOUR	✓	472.00	100.000
D	ONE HOUR	✓	203.00	100.000

# Turning Proportions

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

	To				
		A	B	C	D
	A	0.000	0.000	0.000	0.000
	B	16.000	0.000	0.000	85.000
	C	438.000	0.000	0.000	34.000
From	D	176.000	27.000	0.000	0.000

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

	To				
		A	B	C	D
	A	0.25	0.25	0.25	0.25
	B	0.16	0.00	0.00	0.84
	C	0.93	0.00	0.00	0.07
From	D	0.87	0.13	0.00	0.00

# Vehicle Mix

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

	To				
		A	B	C	D
	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
From	D	1.000	1.000	1.000	1.000

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

	To				
		A	B	C	D
	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
From	D	0.0	0.0	0.0	0.0

# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-ACD	0.26	11.24	0.34	B	92.68	139.02	23.71	10.23	0.26	23.71	10.24
A-B	-	-	-	-	0.00	0.00	-	-	-	-	-
A-C	-	-	-	-	0.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D-AB	0.33	8.52	0.49	A	173.89	260.83	32.78	7.54	0.36	32.78	7.54
D-BC	0.04	10.09	0.04	B	12.39	18.58	2.95	9.51	0.03	2.95	9.51
C-D	-	-	-	-	31.20	46.80	-	-	-	-	-
C-A	-	-	-	-	401.92	602.87	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	76.04	19.01	75.25	0.00	458.16	0.166	0.00	0.20	9.383	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	496.66	0.000	0.00	0.00	0.000	A
D-AB	142.67	35.67	141.62	0.00	681.39	0.209	0.00	0.26	6.658	A
D-BC	10.16	2.54	10.06	0.00	406.72	0.025	0.00	0.03	9.074	A
C-D	25.60	6.40	25.60	0.00	-	-	-	-	-	-
C-A	329.75	82.44	329.75	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.80	22.70	90.58	0.00	446.92	0.203	0.20	0.25	10.096	B
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	481.65	0.000	0.00	0.00	0.000	A
D-AB	170.36	42.59	170.03	0.00	660.38	0.258	0.26	0.34	7.336	A
D-BC	12.14	3.03	12.11	0.00	392.19	0.031	0.03	0.03	9.471	A
C-D	30.57	7.64	30.57	0.00	-	-	-	-	-	-
C-A	393.75	98.44	393.75	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	111.20	27.80	110.84	0.00	431.36	0.258	0.25	0.34	11.219	B
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	460.91	0.000	0.00	0.00	0.000	A
D-AB	208.64	52.16	208.07	0.00	631.38	0.330	0.34	0.49	8.491	A
D-BC	14.86	3.72	14.83	0.00	371.53	0.040	0.03	0.04	10.091	B
C-D	37.43	9.36	37.43	0.00	-	-	-	-	-	-
C-A	482.25	120.56	482.25	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	111.20	27.80	111.19	0.00	431.34	0.258	0.34	0.34	11.244	B
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	460.91	0.000	0.00	0.00	0.000	A
D-AB	208.64	52.16	208.63	0.00	631.36	0.330	0.49	0.49	8.516	A
D-BC	14.86	3.72	14.86	0.00	371.51	0.040	0.04	0.04	10.093	B
C-D	37.43	9.36	37.43	0.00	-	-	-	-	-	-
C-A	482.25	120.56	482.25	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.80	22.70	91.14	0.00	446.88	0.203	0.34	0.26	10.131	B
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	481.65	0.000	0.00	0.00	0.000	A
D-AB	170.36	42.59	170.91	0.00	660.36	0.258	0.49	0.35	7.362	A
D-BC	12.14	3.03	12.17	0.00	392.18	0.031	0.04	0.03	9.475	A
C-D	30.57	7.64	30.57	0.00	-	-	-	-	-	-
C-A	393.75	98.44	393.75	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	76.04	19.01	76.27	0.00	458.10	0.166	0.26	0.20	9.435	A

A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	496.66	0.000	0.00	0.00	0.000	A
D-AB	142.67	35.67	143.00	0.00	681.32	0.209	0.35	0.27	6.690	A
D-BC	10.16	2.54	10.19	0.00	406.73	0.025	0.03	0.03	9.078	A
C-D	25.60	6.40	25.60	0.00	-	-	-	-	-	-
C-A	329.75	82.44	329.75	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

### Queueing Delay Results for each time segment

#### Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	2.82	0.19	9.383	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	3.80	0.25	6.658	A	A
D-BC	0.37	0.02	9.074	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.67	0.24	10.096	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	5.03	0.34	7.336	A	A
D-BC	0.46	0.03	9.471	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	4.96	0.33	11.219	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	7.08	0.47	8.491	A	A
D-BC	0.60	0.04	10.091	B	B
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	5.15	0.34	11.244	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	7.33	0.49	8.516	A	A
D-BC	0.62	0.04	10.093	B	B
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	4.00	0.27	10.131	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	5.42	0.36	7.362	A	A
D-BC	0.50	0.03	9.475	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

C-B	0.00	0.00	0.000	A	A
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### Queueing Delay results: (09:15-09:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.11	0.21	9.435	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	4.11	0.27	6.690	A	A
D-BC	0.40	0.03	9.078	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

## Existing Layout - With Development 2021, 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
Existing Layout	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	Relationship
With Development 2021, AM	With Development 2021	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	(untitled)	Crossroads	Two-way	A,B,C,D		8.89	A

### Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Arm	Name	Description	Arm Type
A	A	Woolton Road NE		Major
B	B	Link Road		Minor
C	C	Woolton Road SW		Major
D	D	Allerton Road		Minor

### 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)
A	6.50		0.00		2.20	0.00		
C	6.50		0.00		2.20	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	3.70										12	0
D	One lane plus flare				10.00	8.00	6.00	5.00	4.40	✓	3.00	0	110

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	573.963	-	-	-	-	-	-	0.218	0.311	0.218	-	-	-
1	B-A	515.386	0.092	0.232	0.232	-	-	-	0.146	0.332	-	0.232	0.232	0.116
1	B-C	667.663	0.100	0.253	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	515.386	0.092	0.232	0.232	-	-	-	0.146	0.332	0.146	-	-	-
1	B-D, offside lane	515.386	0.092	0.232	0.232	-	-	-	0.146	0.332	0.146	-	-	-
1	C-B	573.963	0.218	0.218	0.311	-	-	-	-	-	-	-	-	-
1	D-A	808.956	-	-	-	-	-	-	0.307	-	0.121	-	-	-
1	D-B, nearside lane	619.551	0.176	0.176	0.399	-	-	-	0.279	0.279	0.110	-	-	-
1	D-B, offside lane	478.365	0.136	0.136	0.308	-	-	-	0.215	0.215	0.085	-	-	-
1	D-C	478.365	-	0.136	0.308	0.108	0.215	0.215	0.215	0.215	0.085	-	-	-

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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	0.00	100.000
B	ONE HOUR	✓	128.00	100.000
C	ONE HOUR	✓	277.00	100.000
D	ONE HOUR	✓	213.00	100.000

## Turning Proportions

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

	To				
		A	B	C	D
From	A	0.000	0.000	0.000	0.000
	B	8.000	0.000	0.000	120.000
	C	257.000	0.000	0.000	20.000
	D	189.000	24.000	0.000	0.000

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

	To				
		A	B	C	D
From	A	0.25	0.25	0.25	0.25
	B	0.06	0.00	0.00	0.94
	C	0.93	0.00	0.00	0.07
	D	0.89	0.11	0.00	0.00

## Vehicle Mix

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

	To
--	----

From	To				
	A	B	C	D	
	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

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

From	To				
	A	B	C	D	
	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-ACD	0.30	11.03	0.43	B	117.46	176.18	29.58	10.07	0.33	29.59	10.08
A-B	-	-	-	-	0.00	0.00	-	-	-	-	-
A-C	-	-	-	-	0.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D-AB	0.32	7.52	0.46	A	184.44	276.66	31.49	6.83	0.35	31.50	6.83
D-BC	0.03	8.97	0.03	A	11.01	16.52	2.38	8.65	0.03	2.38	8.65
C-D	-	-	-	-	18.35	27.53	-	-	-	-	-
C-A	-	-	-	-	235.83	353.74	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	96.37	24.09	95.38	0.00	482.59	0.200	0.00	0.25	9.275	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	528.60	0.000	0.00	0.00	0.000	A
D-AB	151.32	37.83	150.29	0.00	729.72	0.207	0.00	0.26	6.201	A
D-BC	9.03	2.26	8.95	0.00	435.25	0.021	0.00	0.02	8.445	A
C-D	15.06	3.76	15.06	0.00	-	-	-	-	-	-
C-A	193.48	48.37	193.48	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	115.07	28.77	114.80	0.00	476.16	0.242	0.25	0.31	9.962	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	519.79	0.000	0.00	0.00	0.000	A
D-AB	180.69	45.17	180.40	0.00	717.09	0.252	0.26	0.33	6.705	A
D-BC	10.79	2.70	10.77	0.00	426.67	0.025	0.02	0.03	8.656	A
C-D	17.98	4.49	17.98	0.00	-	-	-	-	-	-
C-A	231.04	57.76	231.04	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	140.93	35.23	140.49	0.00	467.26	0.302	0.31	0.42	11.001	B
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	507.62	0.000	0.00	0.00	0.000	A
D-AB	221.31	55.33	220.81	0.00	699.67	0.316	0.33	0.46	7.509	A
D-BC	13.21	3.30	13.18	0.00	414.32	0.032	0.03	0.03	8.974	A
C-D	22.02	5.51	22.02	0.00	-	-	-	-	-	-

C-A	282.96	70.74	282.96	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	140.93	35.23	140.92	0.00	467.25	0.302	0.42	0.43	11.031	B
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	507.62	0.000	0.00	0.00	0.000	A
D-AB	221.31	55.33	221.29	0.00	699.66	0.316	0.46	0.46	7.524	A
D-BC	13.21	3.30	13.21	0.00	414.30	0.032	0.03	0.03	8.975	A
C-D	22.02	5.51	22.02	0.00	-	-	-	-	-	-
C-A	282.96	70.74	282.96	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	115.07	28.77	115.49	0.00	476.14	0.242	0.43	0.32	9.993	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	519.79	0.000	0.00	0.00	0.000	A
D-AB	180.69	45.17	181.17	0.00	717.07	0.252	0.46	0.34	6.725	A
D-BC	10.79	2.70	10.81	0.00	426.66	0.025	0.03	0.03	8.659	A
C-D	17.98	4.49	17.98	0.00	-	-	-	-	-	-
C-A	231.04	57.76	231.04	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	96.37	24.09	96.65	0.00	482.56	0.200	0.32	0.25	9.336	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	528.60	0.000	0.00	0.00	0.000	A
D-AB	151.32	37.83	151.63	0.00	729.66	0.207	0.34	0.26	6.233	A
D-BC	9.03	2.26	9.05	0.00	435.25	0.021	0.03	0.02	8.446	A
C-D	15.06	3.76	15.06	0.00	-	-	-	-	-	-
C-A	193.48	48.37	193.48	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.54	0.24	9.275	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	3.77	0.25	6.201	A	A
D-BC	0.30	0.02	8.445	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	4.58	0.31	9.962	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	4.89	0.33	6.705	A	A
D-BC	0.38	0.03	8.656	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service

B-ACD	6.16	0.41	11.001	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	6.67	0.44	7.509	A	A
D-BC	0.48	0.03	8.974	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	6.40	0.43	11.031	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	6.88	0.46	7.524	A	A
D-BC	0.49	0.03	8.975	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	5.00	0.33	9.993	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	5.24	0.35	6.725	A	A
D-BC	0.40	0.03	8.659	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.90	0.26	9.336	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	4.05	0.27	6.233	A	A
D-BC	0.33	0.02	8.446	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

## Existing Layout - With Development 2021, 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
Existing Layout	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	Relationship
With Development 2021, PM	With Development 2021	PM		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	(untitled)	Crossroads	Two-way	A,B,C,D		9.60	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	Woolton Road NE		Major
B	B	Link Road		Minor
C	C	Woolton Road SW		Major
D	D	Allerton Road		Minor

## 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)
A	6.50		0.00		2.20	0.00		
C	6.50		0.00		2.20	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	3.70										12	0
D	One lane plus flare				10.00	8.00	6.00	5.00	4.40	✓	3.00	0	110

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	573.963	-	-	-	-	-	-	0.218	0.311	0.218	-	-	-
1	B-A	515.386	0.092	0.232	0.232	-	-	-	0.146	0.332	-	0.232	0.232	0.116
1	B-C	667.663	0.100	0.253	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	515.386	0.092	0.232	0.232	-	-	-	0.146	0.332	0.146	-	-	-
1	B-D, offside lane	515.386	0.092	0.232	0.232	-	-	-	0.146	0.332	0.146	-	-	-
1	C-B	573.963	0.218	0.218	0.311	-	-	-	-	-	-	-	-	-
1	D-A	806.556	-	-	-	-	-	-	0.306	-	0.121	-	-	-
1	D-B, nearside lane	617.714	0.175	0.175	0.397	-	-	-	0.278	0.278	0.110	-	-	-
1	D-B, offside lane	480.203	0.136	0.136	0.309	-	-	-	0.216	0.216	0.086	-	-	-
1	D-C	480.203	-	0.136	0.309	0.108	0.216	0.216	0.216	0.216	0.086	-	-	-

*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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR		0.00	100.000

		✓		
<b>B</b>	ONE HOUR	✓	102.00	100.000
<b>C</b>	ONE HOUR	✓	482.00	100.000
<b>D</b>	ONE HOUR	✓	206.00	100.000

## Turning Proportions

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

		To			
		A	B	C	D
<b>From</b>	<b>A</b>	0.000	0.000	0.000	0.000
	<b>B</b>	16.000	0.000	0.000	86.000
	<b>C</b>	447.000	0.000	0.000	35.000
	<b>D</b>	179.000	27.000	0.000	0.000

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

		To			
		A	B	C	D
<b>From</b>	<b>A</b>	0.25	0.25	0.25	0.25
	<b>B</b>	0.16	0.00	0.00	0.84
	<b>C</b>	0.93	0.00	0.00	0.07
	<b>D</b>	0.87	0.13	0.00	0.00

## Vehicle Mix

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

		To			
		A	B	C	D
<b>From</b>	<b>A</b>	1.000	1.000	1.000	1.000
	<b>B</b>	1.000	1.000	1.000	1.000
	<b>C</b>	1.000	1.000	1.000	1.000
	<b>D</b>	1.000	1.000	1.000	1.000

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

		To			
		A	B	C	D
<b>From</b>	<b>A</b>	0.0	0.0	0.0	0.0
	<b>B</b>	0.0	0.0	0.0	0.0
	<b>C</b>	0.0	0.0	0.0	0.0
	<b>D</b>	0.0	0.0	0.0	0.0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
<b>B-ACD</b>	0.26	11.34	0.35	<b>B</b>	93.60	140.40	24.11	10.30	0.27	24.11	10.31
<b>A-B</b>	-	-	-	-	0.00	0.00	-	-	-	-	-
<b>A-C</b>	-	-	-	-	0.00	0.00	-	-	-	-	-
<b>A-D</b>	0.00	0.00	0.00	<b>A</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>D-AB</b>	0.34	8.64	0.51	<b>A</b>	176.64	264.96	33.67	7.62	0.37	33.67	7.62
<b>D-BC</b>	0.04	10.16	0.04	<b>B</b>	12.39	18.58	2.96	9.57	0.03	2.96	9.57
<b>C-D</b>	-	-	-	-	32.12	48.17	-	-	-	-	-
<b>C-A</b>	-	-	-	-	410.18	615.26	-	-	-	-	-
<b>C-B</b>	0.00	0.00	0.00	<b>A</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### Main Results for each time segment

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

Stream	Total Demand	Junction Arrivals	Entry Flow	Pedestrian Demand	Capacity	RFC	Start Queue	End Queue	Delay	LOS
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	(PCU/hr)	(PCU)	(PCU/hr)	(Ped/hr)	(PCU/hr)		(PCU)	(PCU)	(s)	
B-ACD	76.79	19.20	75.99	0.00	457.04	0.168	0.00	0.20	9.428	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	495.02	0.000	0.00	0.00	0.000	A
D-AB	144.92	36.23	143.85	0.00	679.70	0.213	0.00	0.27	6.704	A
D-BC	10.16	2.54	10.06	0.00	405.01	0.025	0.00	0.03	9.113	A
C-D	26.35	6.59	26.35	0.00	-	-	-	-	-	-
C-A	336.53	84.13	336.53	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	91.70	22.92	91.47	0.00	445.58	0.206	0.20	0.26	10.160	B
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	479.70	0.000	0.00	0.00	0.000	A
D-AB	173.05	43.26	172.72	0.00	658.26	0.263	0.27	0.35	7.409	A
D-BC	12.14	3.03	12.11	0.00	390.17	0.031	0.03	0.03	9.522	A
C-D	31.46	7.87	31.46	0.00	-	-	-	-	-	-
C-A	401.84	100.46	401.84	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	112.30	28.08	111.93	0.00	429.72	0.261	0.26	0.35	11.314	B
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	458.51	0.000	0.00	0.00	0.000	A
D-AB	211.95	52.99	211.35	0.00	628.66	0.337	0.35	0.50	8.615	A
D-BC	14.86	3.72	14.82	0.00	369.01	0.040	0.03	0.04	10.162	B
C-D	38.54	9.63	38.54	0.00	-	-	-	-	-	-
C-A	492.16	123.04	492.16	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	112.30	28.08	112.29	0.00	429.69	0.261	0.35	0.35	11.342	B
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	458.51	0.000	0.00	0.00	0.000	A
D-AB	211.95	52.99	211.93	0.00	628.65	0.337	0.50	0.51	8.638	A
D-BC	14.86	3.72	14.86	0.00	368.99	0.040	0.04	0.04	10.165	B
C-D	38.54	9.63	38.54	0.00	-	-	-	-	-	-
C-A	492.16	123.04	492.16	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	91.70	22.92	92.05	0.00	445.53	0.206	0.35	0.26	10.194	B
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	479.70	0.000	0.00	0.00	0.000	A
D-AB	173.05	43.26	173.63	0.00	658.24	0.263	0.51	0.36	7.436	A
D-BC	12.14	3.03	12.17	0.00	390.16	0.031	0.04	0.03	9.524	A
C-D	31.46	7.87	31.46	0.00	-	-	-	-	-	-
C-A	401.84	100.46	401.84	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	76.79	19.20	77.02	0.00	456.98	0.168	0.26	0.20	9.480	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-D	0.00	0.00	0.00	0.00	495.02	0.000	0.00	0.00	0.000	A
D-AB	144.92	36.23	145.27	0.00	679.63	0.213	0.36	0.27	6.740	A
D-BC	10.16	2.54	10.19	0.00	405.02	0.025	0.03	0.03	9.118	A
C-D	26.35	6.59	26.35	0.00	-	-	-	-	-	-
C-A	336.53	84.13	336.53	0.00	-	-	-	-	-	-

C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A
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## Queueing Delay Results for each time segment

### Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	2.86	0.19	9.428	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	3.89	0.26	6.704	A	A
D-BC	0.37	0.02	9.113	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.73	0.25	10.160	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	5.16	0.34	7.409	A	A
D-BC	0.47	0.03	9.522	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	5.05	0.34	11.314	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	7.29	0.49	8.615	A	A
D-BC	0.61	0.04	10.162	B	B
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	5.25	0.35	11.342	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	7.56	0.50	8.638	A	A
D-BC	0.62	0.04	10.165	B	B
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	4.07	0.27	10.194	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-
A-D	0.00	0.00	0.000	A	A
D-AB	5.57	0.37	7.436	A	A
D-BC	0.50	0.03	9.524	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.15	0.21	9.480	A	A

<b>A-B</b>	-	-	-	-	-
<b>A-C</b>	-	-	-	-	-
<b>A-D</b>	0.00	0.00	0.000	A	A
<b>D-AB</b>	4.20	0.28	6.740	A	A
<b>D-BC</b>	0.40	0.03	9.118	A	A
<b>C-D</b>	-	-	-	-	-
<b>C-A</b>	-	-	-	-	-
<b>C-B</b>	0.00	0.00	0.000	A	A