



Transport Assessment

**Proposed Residential Development
Land at Ilkeston Road/Sowbrook Lane
Ilkeston**

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1.0 Introduction

1.1 Instructions

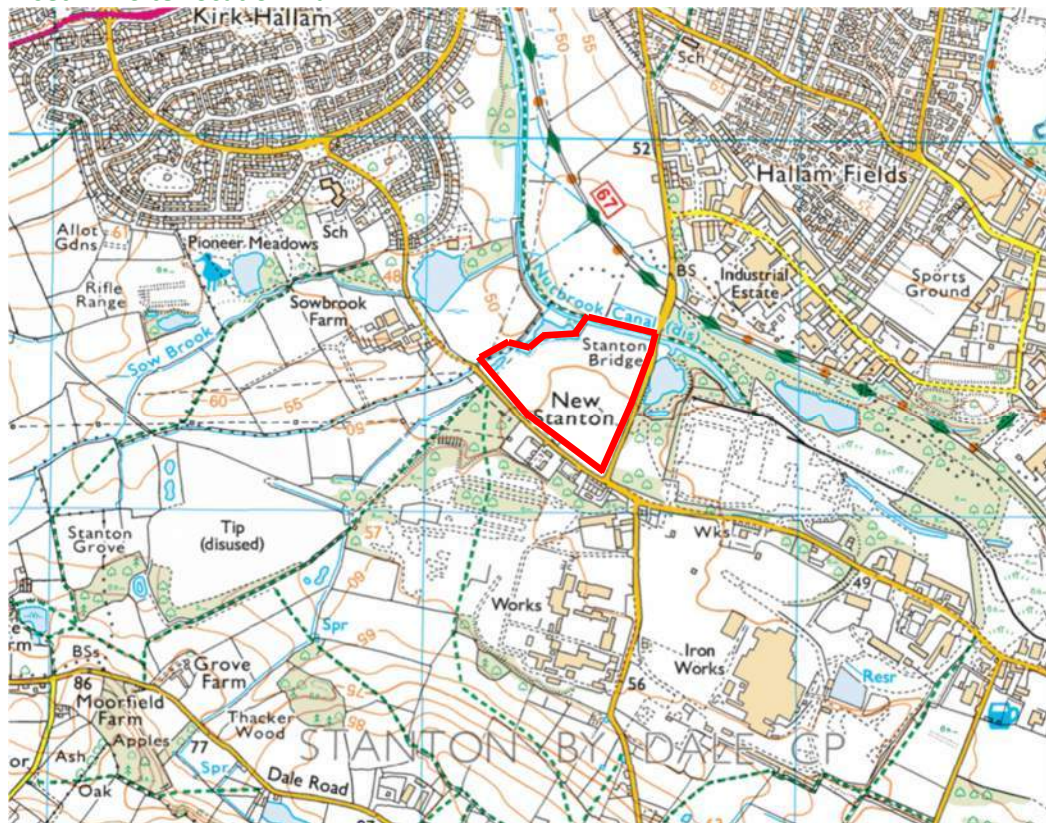
1.1.1 MAC Ltd have been appointed by Wulff Asset Management Limited to provide a Transport Assessment (TA) to accompany an outline planning application on land at Ilkeston Road/Sowbrook Lane, Ilkeston, Derbyshire.

1.1.2 The benefit of this report is to our instructing Client.

1.2 Site Location

1.2.1 The Site is located north of Sowbrook Lane and west of Ilkeston Road as shown on **Inset 1.1** below and enclosed in **Appendix A**. The approximate National Grid Reference for the Site is E446400, N339335.

Inset 1.1: Site Location Plan



1.3 Proposed Development

- 1.3.1 The proposed development will comprise up to 196 residential properties, alongside associated infrastructure and areas of public open space.
- 1.3.2 The Concept Masterplan is enclosed in **Appendix B**.

1.4 Consultations

- 1.4.1 The planning authority for the Site is Erewash Borough Council. The Local Highway Authority is Derbyshire County Council (DCC). The content of this TA and the Site access strategy has been discussed through a scoping exercise with DCC.

1.5 Summary

- 1.5.1 This TA has been prepared in accordance with DCC Highway Design Guide and its Guidance on Transport Assessment. This TA has been structured as follows:

Section 2 describes the existing conditions including the surrounding highway network, the available facilities for public transport, cyclists and pedestrians and the range of local facilities and amenities. Local highway safety is considered through a review of personal injury collision records.

Section 3 provides a review of the National and Local planning and transport policies relevant to the proposed development.

Section 4 considers the overall accessibility of the Site with respect to sustainable travel modes and potential measures to reduce the impact from the proposed development.

Section 5 presents the proposals of the development, including the Site access arrangements, layout, and parking provision for vehicles and cycles.

Section 6 presents the trip generation and traffic distribution likely to be associated with the proposed development.

Section 7 summarises the highway impact of the proposed development on the local network and considers wider highway improvements in the area.

Section 8 provides a summary and conclusion to this Transport Assessment.

2.0 Existing Conditions

2.1 Location

- 2.1.1 At present the Site is undeveloped and used for agricultural purposes. An existing gated field access is located at the south-eastern corner on Sowbrook Lane near to the junction with Lows Lane. Opposite the Site are Grade II listed residential properties, known locally as Twelve Houses.

2.2 Walking and Cycling

- 2.2.1 A single 1.4-1.8m wide footway exists along the southern side of Sowbrook Lane and connects with the existing network within Kirk Hallam to the north of the Site. Some stretches of the footway are overgrown with vegetation and gives the impression that that footway is narrow over short sections.
- 2.2.2 To the east of its junction with Ilkeston Road there are existing footways along both sides of Lows Lane. A single footway continues along the northern side along Lows Lane, to the east from its junction with Littlewell Lane.
- 2.2.3 There are several Public Rights of Way (PRoW) connecting the Site. FP20 is located to the north and runs along the Nutbrook Canal and FP15 and FP18 to the south.
- 2.2.4 The nearest dedicated cycle route is within 400m to the north of Site known as the Nut Brook trail. The Nut Brook trail forms part of National Cycle Network (NCN) number 67 and provides a 16km (10 mile) long traffic-free leisure route between Long Eaton to the south and Heanor to the north utilising the disused rail line.
- 2.2.5 The Derbyshire cycle map is provided within **Appendix C**.

2.3 Public Transport

- 2.3.1 The nearest bus stops are located on Lows Lane near the Twelve Houses within 400m of the Site. The stop located on the northern side of Lows Lane provides a shelter, to the south by a flagpole, both stops are provided with raised kerb access. These stops are served by bus service number 14 operating between Sandiacre and Ilkeston. The service is currently provided by CT4N. Service number 14 is summarised in **Table 2.1** below and its route illustrated on the plan provided within **Appendix D**. The bus timetable and wider route information are also provided within **Appendix D**.

Table 2.1: Bus Services and Frequencies - Twelve Houses, Lows Lane

Route No.	Operator/Route	Typical Frequency	
		Mon – Sat	Sun
14	CT4N / Nelson Street – Ebenezer Street – Ilkeston, Tesco – Ilkeston, Bath Street – Ilkeston, Wharncliffe Road – <i>Twelve Houses, Lows Lane</i> – Stanton-by-Dale – Sandiacre, White Lion	0955-1055-1155-1255-1355-1455-1555*-1655	No Service
	CT4N / Sandiacre, White Lion – Stanton-by-dale – <i>Twelve Houses, Lows Lane</i> – Ilkeston, Wharncliffe Road – Ilkeston, Bath Street – Ilkeston, Tesco – Ebenezer Street -Nelson Street.	1015-1115-1215-1315-1415-1515*-1615*-1715	No Service

* Saturdays & School holidays only

2.3.2

Ilkeston rail station is located to the north within 5km of the Site. The station was re-opened in April 2017 and offers regular services to Nottingham, Sheffield and Leeds. The station provides two platforms, a self-service ticketing machine, 150 car parking spaces, 18 cycle parking spaces and a taxi rank. The available rail services and their frequencies are summarised in **Table 2.2** below. The rail timetable and route information are provided within **Appendix E**.

Table 2.2: Rail Services and Frequencies

Day	First Service	Destination Arrival	Peak Frequency	Daytime Frequency	Final Service	Destination Arrival
Nottingham – Sheffield* – Leeds						
Mon-Fri	0628	0817	0628-0730-0829-1629-1729	0929-1029-1129-1229-1329-1429-1529-1829-1929-2029	2330	0015*
Sat	0629	0817		0929-1029-1129-1229-1329-1429-1529-1829-1929-2029	2330	0015*
Sun	0933	1113		1030-1131-1232-1332-1432-1533-1632-1732-1832-1932-2028-2152	2252	2335*
Leeds – Sheffield – Nottingham						
Mon-Fri	0558	0611	0641-0740-0846-1645-1745	0945-1045-1145-1245-1345-1445-1545-1645-1745-1845-1945-2045	2244	2258
Sat	0641	0700		0945-1045-1145-1245-1345-1445-1545-1645-1745-1845-1945-2045	2243	2257
Sun	0944	1000		1045-1145-1245-1345-1445-1545-1645-1745-1845-1945-2045-2145	2247	2305

2.4 Local Amenities

2.4.1 Having regard to the above review of sustainable transport options, consideration has been given to the proximity of the Site to the key local services including education, employment, retail and health facilities. The Site is located with respect to a range of facilities and services that can be accessed by walking and cycling in accordance with the principles of the NPPF.

2.4.2 A summary of the distances and journey times to the local amenities is provided in **Table 2.3**.

Table 2.3: Distance and Journey Times to Local Amenities

Destination	Distance (m)	Journey Time (minutes)	
		Walk	Cycle
Quarry Hill Industrial Park	700m	8	3
Dallimore Primary School	740m	9	3
Stanton Employment Area	400-2,000m	5-24	2-8
Kirk Hallam Community Centre	1,100m	13	5
Butterfly Castle Day Nursery	1,100m	13	5
Pharmacy	1,100m	13	5
Nisa Extra Convenience Store	1,200m	14	5
Co-op Convenience Store	1,400m	17	6
Takeaway	1,400m	17	6
Texaco PFS	1,400m	17	6
Ladywood Primary School	1,400m	17	6
All Saints Church	1,400m	17	6
Kirk Hallam Community Academy	2,300m	27	10
St John Houghton Catholic School	2,400m	29	10

Note: Assumes average walking speed of 1.4m/s and average cycling speed of 4m/s

2.4.3 It is evident from **Table 2.3** there is employment and a range of local amenities within acceptable walking and cycling distances. It should be noted that these distances have been taken from the Site access onto Sowbrook Lane and this could vary depending on where dwellings are located within the Site. The centre of the Site measured from Sowbrook Lane to the south and Ilkeston Road to the east is approximately 160m.

2.5 Highway Network

- 2.5.1 The Site is located north of Sowbrook Lane. Sowbrook Lane is a single carriageway road, approximately 6.3-7.3m wide, and provides an east-west route between the Site and neighbouring Kirk Hallam. The distance along Sowbrook Lane between the Site frontage and Dallimore Road entering Kirk Hallam to the south is approximately 670m.
- 2.5.2 Sowbrook Lane is subject to a 40mph speed limit, and this reduces to 30mph where it connects with Dallimore Road within Kirk Hallam. Sowbrook Lane connecting Kirk Hallam between Dallimore Road and Lows Lane is street lit. Immediately west of the junction with Lows Lane and Ilkeston Road there is a weight restriction of 7.5 tonnes (except for access) along Sowbrook Lane.
- 2.5.3 The Site is bounded to the east by Ilkeston Road. The length of Ilkeston Road fronting the Site is approximately 400m where it meets Stanton Bridge over the Nutbrook Canal. Along this length of carriageway, a single footway exists along the eastern side, and from this point Ilkeston Road continues north and connects with Quarry Hill Road beyond the bridge over the Nut Brook Trail. There is no footway connection between the Stanton Bridge and the bridge over the Nut Brook Trail. A footway then commences north along Quarry Hill Road from the access to the industrial estate. Quarry Hill Road provides a route into Ilkeston where it connects with the A6096 Little Hallam Hill.
- 2.5.4 Lows Lane is a single carriageway road approximately 1.8km in length and connects Ilkeston Road to the east via an underbridge with the M1 and provides a local route into Sandiacre to the south. The section of Lows Lane between the Site and Ilkeston Road primarily serves commercial development. A single footway is primarily located along the northern side of Lows Lane and is street lit. Lows Lane is subject to a 40mph speed limit, and this reduces to 30mph approaching Sandiacre.
- 2.5.5 The proximity of the Site in relation to the local highway network is shown on **Inset 1.1**.

2.6 Collision Data

- 2.6.1 Collision data has been obtained from Derbyshire Constabulary, which covers the most recent 5-year period from 1st September 2016 to 31st August 2021. A copy of the accident data is enclosed in **Appendix F**.
- 2.6.2 There have been a total of five reported accidents within the locality of the Site along Ilkeston Road and Lows Lane. The first accident of slight severity was
- 2.6.3 Within the 5-year period, 2 collisions of slight severity occurred at the Lows Ln/Ilkeston Road junction referenced 1600545 and 1701525. The first accident occurred due to driver error where Vehicle 1 (driver at fault) failed to stop at the give way line and proceeded to Lows Lane, causing a collision with Vehicle 2, who intended to turn right onto Sowbrook lane from Ilkeston Road.

- 2.6.4 The second accident occurred due to dangerous driving/poor lane discipline. Vehicle 2 (driver at fault) travelled from Lowes Lane to Ilkeston Road and cut the corner on the junction, causing Vehicle 1 to swerve around and collide to the front.
- 2.6.5 Reference 2101276 – Slight severity. The driver for vehicle 1 choked on chewing gum, momentarily lost control, and collided with vehicle 2 which was stationary at the junction.
- 2.6.6 Reference 1900512 – Slight severity, Vehicle 1 started to pull out of Littlewell Lane but stopped after Vehicle 3 drove past the junction. Vehicle 2 did not anticipate this and ran into the rear of vehicle 1.
- 2.6.7 Reference 1600690 – Serious, Vehicle 1 is turning right onto lows In and travels across the oncoming carriageway causing collision with Vehicle 2 approaching from the East.
- 2.6.8 At Lows In / Ilkeston Road / Sowbrook Lane junction, 2 collisions of slight severity were recorded. The collisions are summarised below in **Table 2.4**. A review of the accidents indicates driver error and poor lane discipline to be the common cause.

Table 2.4: Accident Summary - Lows Lane / Sowbrook Lane / Ilkeston Road.

Reference	Severity	Location / Direction of travel	Dry / Wet	Description
1600545	Slight	Sowbrook Ln, E	Wet	V1 failed to stop at the give-way line resulting in a collision with V2.
1701525	Slight	Lows Ln, NW to Ilkeston Rd	Dry	V2 cut to the nearside corner at the junction, causing V1 to swerve around and then colliding with V2.

- 2.6.9 A further 3 Collisions (2 slight severity and 1 serious severity) were recorded at lows In / Littlewell Ln junction. A review of the collision data shows driver error to be the common cause. The collision records are summarised below in **Table 2.5**.

Table 2.5: Accident Summary - Lows Lane / Littlewell Lane

Reference	Severity	Location / Direction of travel	Dry / Wet	Description
2101276	Slight	Lows In, E	Dry	Driver for V1 choked on chewing gum, momentarily lost control, and collided with V2 which was stationary at the junction.
1900512	Slight	Littlewell Ln, N	Dry	V1 started to pull out of Littlewell Lane but made an emergency stop after V3 drove past the junction. V2 did not anticipate this and struck V1 in the rear.
1600690	Serious	Lows In, W	Dry	V1 is turning right onto lows In and travels across the oncoming carriageway causing collision with V2 approaching from the East.

2.7 Traffic Data

- 2.7.1 Traffic surveys were undertaken during October 2021. Classified Turning Counts (CTCs) were undertaken at junctions along the Lows Lane, Ilkeston Road and Quarry Hill Road corridor, including a queue length survey at the Quarry Hill Road/Little Hallam Hill junction. Automatic Traffic Counts (ATCs) were also carried out on Ilkeston Road and Sowbrook Lane over a seven-day period between the 15th October to 21st October 2021. The traffic survey information and a junction reference plan are provided within **Appendix G**.

3.0 National & Local Transportation Planning Policy

3.1.1 The relevant transportation policies are set out in the following National and Local documents:

- National Planning Policy Framework (NPPF) (February 2021)
- Derbyshire County Council Local Transport Plan 3 (LTP3) 2011-2026 (April 2011)

3.2 National Planning Policy Framework

3.2.1 The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how these should be applied. It provides a framework within which locally prepared plans for housing and other development can be produced. Planning law requires that applications for planning permission be determined in accordance with local development plans and that the NPPF must be taken into account when preparing the development plan and is therefore a material consideration in planning decisions. The main objective of the NPPF is to achieve sustainable development.

3.2.2 The original NPPF was adopted in March 2012, however, a revised NPPF was published in July 2018 which has replaced the 2012 version. The revised NPPF was updated in February 2019.

3.2.3 The 2012 NPPF superseded PPG13 (Transport), which was formerly used as a basis for national transport policy. Whilst no longer policy, there are two key aspects within PPG13 which are still of relevance when determining a Site's level of sustainable travel access, as stated below:

"Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly under two kilometres. Walking also forms an often-forgotten part of all longer journeys by public transport and car."

"Cycling also has potential to substitute for short car trips, particularly those under five kilometres, and to form part of a longer journey by public transport".

3.2.4 It is considered that the walking and cycling distances referred to in PPG13 remain valid and should not be overlooked when determining the walking and cycling accessibility of development Sites.

3.2.5 The current NPPF, reaffirms the main policy elements within the original NPPF, streamlining the definition of what may constitute as development generating severe impact, amongst other issues.

3.2.6 With regard to transport policy, the revised NPPF includes a chapter on 'Promoting Sustainable Transport' which includes the following text, relevant to this proposal:

Paragraph 104

“Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:

a) the potential impacts of development on transport networks can be addressed.

b) opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated.

c) opportunities to promote walking, cycling and public transport use are identified and pursued;

d) the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and

e) patterns of movement, streets, parking and other transport considerations are integral to the design of schemes and contribute to making high quality places.”

- 3.2.7 The Site accords with the NPPF in providing sustainable travel opportunities, minimising negative impacts generated by the development.

Paragraph 105

“The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making.”

- 3.2.8 As required within Paragraph 105, the Site being based on an existing bus route, the development will support the economic viability of the existing bus services on Lows Lane, through the provision of increased potential patronage.

- 3.2.9 The Site is also in line with Paragraph 110 in that access is to be made safe and it would not generate significant impacts on the local highway network.

Paragraph 110

“In assessing Sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;

b) safe and suitable access to the Site can be achieved for all users; and

c) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.”

3.2.10 As outlined in Section 5, impacts on the local highway network are unlikely to be significant, and certainly cannot be considered as severe.

Paragraph 111

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

Paragraph 112

“Within this context, applications for development should:

a) give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;

b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;

c) create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;

d) allow for the efficient delivery of goods, and access by service and emergency vehicles; and

e) be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.

Paragraph 113

All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed.

3.3 Planning Practice Guidance

3.3.1 Planning Practice Guidance provides advice for Travel Plans, Transport Assessments and Transport Statements and Travel in decision-taking. They are required for all development which generate significant amounts of movements.

3.3.2 Paragraph 15 sets out what information should be included in Transport Assessments and Statements:

- *information about the proposed development, Site layout, (particularly proposed transport access and layout across all modes of transport)*
- *information about neighbouring uses, amenity and character, existing functional classification of the nearby road network;*
- *data about existing public transport provision, including provision/ frequency of services and proposed public transport changes;*
- *a qualitative and quantitative description of the travel characteristics of the proposed development, including movements across all modes of transport that would result from the development and in the vicinity of the Site;*
- *an assessment of trips from all directly relevant committed development in the area (i.e. development that there is a reasonable degree of certainty will proceed within the next 3 years);*
- *data about current traffic flows on links and at junctions (including by different modes of transport and the volume and type of vehicles) within the study area and identification of critical links and junctions on the highways network;*
- *an analysis of the injury accident records on the public highway in the vicinity of the Site access for the most recent 3-year period, or 5-year period if the proposed Site has been identified as within a high accident area;*
- *an assessment of the likely associated environmental impacts of transport related to the development, particularly in relation to proximity to environmentally sensitive areas (such as air quality management areas or noise sensitive areas);*
- *measures to improve the accessibility of the location (such as provision/enhancement of nearby footpath and cycle path linkages) where these are necessary to make the development acceptable in planning terms;*
- *a description of parking facilities in the area and the parking strategy of the development;*
- *ways of encouraging environmental sustainability by reducing the need to travel; and,*

- *measures to mitigate the residual impacts of development (such as improvements to the public transport network, introducing walking and cycling facilities, physical improvements to existing roads.*

3.3.3 Given that the development is unlikely to generate significant amount of movements, this report has been prepared with due consideration to the above guidance.

3.4 Derbyshire County Council Local Transport Plan 3 (LTP3) 2011-2026

3.4.1 Derbyshire County Council is the main authority responsible in managing the local highway network. The Derbyshire Local Transport Plan is applicable to development on the Site. The Local Transport Plan states that its main goals and challenges facing the region include:

- *Supporting a resilient local economy;*
- *Tackling climate change;*
- *Contributing to better safety, security and health;*
- *Promoting equality of opportunity; and*
- *Improving quality of life and promoting a healthy natural environment.*

3.4.2 The Plan identifies major projects that “must entail careful consideration of their relative performances in terms of the LTP outcomes in order to achieve value for money.” The plan goes on to state its key transport and investment priorities are:

Well maintained roads and rights of way:

- *Improving resilience to and reducing disruption caused by climate change; and*
- *Carbon reduction.*

Efficient transport network management:

- *Reducing congestion and delays for all road users;*
- *On street parking, loading and waiting control, and*
- *Travel information.*

Improving local accessibility and achieving healthier travel habits:

- *Community transport services;*
- *Rail, including community rail initiatives;*
- *Minimising disruption from public transport service cuts;*

- *Personalised travel advice for disadvantaged people;*
- *Rural accessibility;*
- *Independent travel training; and*
- *Public transport (bus and rail) information.*

Better safety and security:

- *Reducing vulnerable road user casualties (child, pedestrians, pedal cyclists);*
- *Reducing motorcyclist casualties; and*
- *Small-scale community safety improvements.*

A considered approach to new infrastructure:

- *Infrastructure and services linked with new land use developments;*
- *Walking and cycling provision;*
- *Public transport and freight provision;*
- *Environmental assessment, mitigation and enhancement measures; and*
- *Liaison between spatial and transport planning on an ongoing basis.*

4.0 Accessibility

4.1 Opportunities for Walking

- 4.1.1 Guidance on walking distances to local amenities is provided in the Chartered Institution of Highways and Transportation (CIHT) document, "Providing for Journeys on Foot" (2000). The Guidelines indicate that a walking distance of 400m is acceptable for trips within town centres and that a distance of 800m is acceptable elsewhere. The corresponding walking distances for commuting trips or to/from schools are given as 500m and 1km respectively. A "preferred maximum" walking distance of 2km is identified.
- 4.1.2 As highlighted in Section 2.0, the 2km walking distance was subsequently adopted in central government guidance and was incorporated into the former PPG13 advice note, which stated that:
- "Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly those under two kilometres".*
- 4.1.3 Current guidance within the Manual for Streets (MfS) continues to adopt this guidance. Paragraph 4.4.1 of 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. However, this is not an upper limit and PPS13 states that walking offers the greatest potential to replace short car trips, particularly those under 2 km.*
- 4.1.4 These guideline distances remain in use by many local authorities to determine access to facilities by walking. The CIHT Guidance advises that the 400m distance is equivalent to an approximate walking time of 5 minutes and this standard is typically adopted as the desirable maximum walking distance to local bus services. The corresponding walking distances of 1km and 2km are equivalent to approximately a 12-minute and a 25-minute walk times, respectively. It is also important to recognise that two thirds of all trips that cover a maximum distance of 1 mile (1.6km) are completed on foot (National Travel Survey)
- 4.1.5 The local facilities, amenities and education in the vicinity of the Site within Kirk Hallam are shown on the plan provided within **Appendix H**. The plan illustrates indicative walk distance isochrones of 1km and 2km from the Site (1.4km to the nearest local centre in Kirk Hallam). Facilities lying within these distances offer the greatest scope to attract trips on foot.
- 4.1.6 The Site would be connected to the existing pedestrian footway via proposed access points along Sowbrook Lane.

- 4.1.7 Maintainable highway boundary information has been investigated along Sowbrook Lane and the opportunity exists to increase the width of the existing footway between the Site and Kirk Hallam. The plan provided within **Appendix I** illustrates the existing footway dimensions along Sowbrook Road and indicates areas for potential improvement through localised narrowing of the carriageway to provide a continuous footway link along Sowbrook Lane of 1.8-2.0m.

4.2 Opportunities for Cycling

- 4.2.1 It is commonly accepted that cycling offers the potential to replace car trips for many journeys under 5km, which is equivalent to a typical cycling time of 15-20 minutes.
- 4.2.2 National Cycle Network (NCN) route number 67 is located to the north of the Site and comprises a traffic free route between Long Eaton and Heanor. From the Site, access to NCN 67 is achieved adjacent to Nut Brook Bridge via a connection from Quarry Hill Road via the adjacent industrial estate located approximately 500m north from the Site.
- 4.2.3 It is considered that there are opportunities for local trips generated by the Site to be made by cycle.

4.3 Opportunities for Bus Use

- 4.3.1 The nearest bus stops served by the route number 14 summarised in **Table 2.1** operate along Lows Lane and Ilkeston Road within 400m from the centre of the Site. The plan provided within **Appendix D** shows the location of the existing bus route and stops on Lows Lane.
- 4.3.2 The existing bus services would provide access to employment, leisure, education and retail facilities in Ilkeston. The bus services operating along Lows Lane provide access to the centre of Ilkeston where the opportunity exists for further connections to other services.
- 4.3.3 The existing timetable information for bus service number 14 has been investigated and there is potential to extend the frequency of this service during the peak periods to ensure it is further attractive to existing users and future residents associated with the Site and the wider Stanton Regeneration Site. In addition, the existing bus stops in proximity to the Site could also be improved to include new shelters, raised kerbs, electronic passenger information, seating and lighting.

4.4 Opportunities for Rail Use

- 4.4.1 Ilkeston rail station is located within 5km from the Site and provides hourly services to Nottingham, Sheffield and Leeds, with average travel times of 13 minutes, 44 minutes and 1-hour 40 minutes respectively, where interchange is possible to a number of other destinations.

4.4.2 Access to the rail station is therefore considered to be feasible and services provide a realistic travel option for commuter trips from the Site to major employment areas.

4.5 Opportunities for Access

4.5.1 Vehicular access to the Site can be achieved off Sowbrook Lane and Ilkeston Road. The proposed access arrangement could provide a priority junction arrangement with a width of 5.5m bound by 2no. 2m wide footways which connect with Sowbrook Lane and Ilkeston Road. The access can be designed in accordance with the required highway design standards.

4.5.2 Across the Site frontage Sowbrook Lane and Ilkeston Road are subject to a 40mph speed limit. The required inter-visibility splays of 120m are achievable. The Site access arrangement drawing is provided within **Appendix J**.

4.5.3 Pedestrian and cycle access would be provided along both sides of the internal estate road and these would connect the Site with the existing footway along Sowbrook Lane via uncontrolled crossing points.

4.6 Opportunities for Sustainable Travel Measures

4.6.1 In combination with the opportunities for sustainable travel by non-car modes for the Site there are further sustainable travel measures that could be provided through the implementation of a Travel Plan:

- Cycle parking for each property;
- Electric vehicle charging facilities;
- The provision of a Car Club (hybrid and/or electric vehicles only);
- Travel information and welcome packs for new residents;
- Travel information via a development webpage and communal notice boards;
- Season tickets/vouches (for buses and rail) for new residents;
- Bicycle maintenance and training vouchers;
- Establishing a car share database;
- Offering new residents with personal travel planning.

4.7 Summary

4.7.1 The Site is shown to be served for pedestrian, cycle and public transport users.

- 4.7.2 The footway provision between the Site and the local facilities is adequate for purpose and would allow pedestrians from the Site to access the local facilities in Kirk Hallam. From a desktop review of the existing pedestrian facilities, and in considering the potential for localised improvements, there are no deficiencies in the footway network which would prevent or significantly reduce the likelihood of residents walking to / from the Site.
- 4.7.3 The Site is shown to be served by existing bus services to key destinations within Ilkeston and surrounding areas. There is also the opportunity for rail use by the Site.

5.0 Proposed Development

5.1 Type and Scale

- 5.1.1 The proposed development comprises up to 196 dwellings. A plan showing the proposed development layout is enclosed in **Appendix B**.

5.2 Access

- 5.2.1 The proposed development will be accessed off Ilkeston Road and Sowbrook Lane which provides the principal pedestrian and cycle access.
- 5.2.2 The access from Ilkeston Road provides a ghost island right turn junction serving a development road with a width of 5.5m bound by 2no. 2m wide footways. Access from Sowbrook Lane also provides a ghost island right turn junction. The proposed Site access arrangement is shown on MAC drawing no 450-TA10 within **Appendix J**.
- 5.2.3 The proposed Site accesses are located within the 40mph speed limit along the sections of Ilkeston Road and Sowbrook Lane. Visibility splays of 2.4m x 120m are shown on the proposed Site access in accordance with the permitted speed limit.
- 5.2.4 As outlined in Section 2.7, ATC volume and speed data has been recorded for both Ilkeston Road and Sowbrook Lane. The recorded 85%ile speeds are 44mph in both the northbound and southbound directions on Ilkeston Road. The recorded 85%ile speeds are 39mph in both the northbound and southbound directions on Sowbrook Lane. The ATC data is provided within **Appendix G**. Therefore, the 2.4m x 120m visibility splays shown on the Site access drawings are therefore appropriate.
- 5.2.5 The splays from the proposed Site accesses are achievable within the maintainable highway boundary along Ilkeston Road and Sowbrook Lane. A plan showing the extent of the maintainable highway boundary is also provided within **Appendix K**.
- 5.2.6 A further pedestrian footway connection will be provided within the Site towards the west in order to provide direct access to the existing bus stop on the northern and southern sides of Lows Lane.
- 5.2.7 Whilst this is an outline planning application it is proposed that the internal highway arrangement will typically comprise a 5.5m wide estate road with 2m wide footways on either side of the carriageway.

5.3 Parking

- 5.3.1 Parking within the development will be provided in line with current parking guidance requirements at the time of a future reserved matters planning application. This will be based on a provision of a minimum of 3 spaces for dwellings with 4 or more bedrooms and a minimum of 2 spaces for dwellings with 3 or less bedrooms.

- 5.3.2 Parking for bicycles will be incorporated within individual property plots through the provision of garages and sheds.

5.4 Servicing and Refuse Collection

- 5.4.1 The internal layout would be finalised once a Reserved Matters application is made. As part of the Reserved Matters application the applicant would submit vehicle tracking to demonstrate that a 4-axle refuse vehicle can access and egress the Site safely in forward gear. The layout of the Site would be designed so that a refuse vehicle would be able to get within 25m of all bin collection points.

5.5 Residential Travel Plan

- 5.5.1 The development is of sufficient size to require a Travel Plan which is likely to be required through a planning condition, in combination with Travel Packs and bus passes. A framework Travel Plan has also been prepared to accompany the planning application.

6.0 Development Trip Generation

6.1 Trip Generation

- 6.1.1 Person trip rates have been obtained from the TRICS database. The person trip selection criteria are set out in **Table 6.1** below. The full TRICS data is enclosed in **Appendix L**.

Table 6.1: TRICS Parameters

Parameter	Selection
Version	7.7.4
Main land use	Residential A
Sub land use	Houses Privately Owned
Regions	All of England except Greater London
Locations	Edge of Town

- 6.1.2 From the TRICS database the predicted person trip rates are set out in **Table 6.2** below.

Table 6.2: Person Trip Rates - Mean

Use	AM Peak (0800-0900)			PM Peak (1700-1800)		
	Arr	Dep	Total	Arr	Dep	Total
Residential	0.260	0.926	1.186	0.741	0.269	1.010

- 6.1.3 Using the above person trip rates from the TRICS database it is possible to calculate the number of person trips likely to be generated by the Site. The below calculations are based on the quantum of development specified in **Section 5**.

Table 6.3: Person Trip Generation – 196 Dwellings

Use	AM Peak (0800-0900)			PM Peak (1700-1800)		
	Arr	Dep	Total	Arr	Dep	Total
Residential	51	181	232	145	53	198

- 6.1.4 As demonstrated in **Table 6.3** the likely level of *person* trips (trips by all modes) generated by a development of 196 dwellings on the Site would be 232 and 198 two-way trips in the AM and PM peak hours respectively.

- 6.1.5 To understand the number of trips generated by the development by mode there is a need to establish the likely modal split for a development in this location. The 2011 Census includes the 'Method of Travel to Work' (MTW) dataset which defines mode choice for all local authority wards. MTW data has been extracted from the 2011 Census for the Erewash 007 ward adjacent the Site. The 'Method of Travel to Work' data is summarised in **Table 6.4** below.

Table 6.4: Method of Travel to Work - 2011 Census – Erewash 007 ward

Mode	Number	Proportion
Train	10	0.4%
Bus, minibus or coach	246	10.0%
Taxi	14	0.6%
Motorcycle, scooter or moped	35	1.4%
Driving a car or van	1651	66.8%
Passenger in a car or van	186	7.5%
Bicycle	61	2.5%
On foot	269	10.9%

6.1.6 The Census information presented in **Table 6.4** demonstrates that the dominant mode of transport is by the private car, which is consistent with the district as a whole. However, **Table 6.4** indicates that 33% of journeys to work are made through sustainable modes in the adjacent ward. Of this total some 11% of journeys to work are noted to be undertaken on foot, and 10% using the bus. It should be noted the proportion of trips by train were low in 2011 due to Ilkeston Rail Station re-opening in 2017.

6.1.7 Using the above mode splits in **Table 6.4** it is possible to calculate the predicted number of trips generated by each mode. The proposed trips by mode are shown in **Table 6.5** below.

Table 6.5: Trip Numbers by Mode

Mode	AM Peak (0800-0900)			PM Peak (1700-1800)		
	Arr	Dep	Total	Arr	Dep	Total
Train	0	1	1	1	0	1
Bus, minibus or coach	5	18	23	14	5	20
Taxi	0	1	1	1	0	1
Motorcycle	1	3	3	2	1	3
Driving a car or van	34	121	155	97	35	132
Passenger in a car or van	4	14	17	11	4	15
Bicycle	1	4	6	4	1	5
On foot	6	20	25	16	6	22
Total	51	181	232	145	53	198

6.1.8 Based on Census JTW data the Site is predicted to generate 155 vehicle trips in the AM peak and 132 trips in the PM peak.

6.2 Distribution & Assignment

6.2.1 Vehicle trip distribution data has been obtained from the 2011 Census using the Location of usual residence and place of work by Method of Travel to Work (MSOA level)' dataset. The 2011 Census data has been extracted using the following parameters:

- Method of Travel to Work – Driving a car or van
- Place of Work – All
- Usual Residence – Erewash 007

6.2.2 The proposed vehicle trips have been assigned onto the highway network using online route planning software and ONS geography data.

6.2.3 The key route destinations are:

- | | |
|-------------------------|-----|
| • Ilkeston Road North | 43% |
| • Lows Lane East | 24% |
| • Littlewell Lane South | 20% |
| • Sowbrook Lane West | 13% |

6.2.4 Plans of the local highway network distribution and assignment is shown within **Appendix M**.

7.0 Junction Impact Assessment

7.1 Introduction

7.1.1 This section presents a capacity assessment of the development proposals currently based on recent traffic survey data in the locality of the Site.

7.2 Area of Assessment

7.2.1 Proposed vehicle movement diagrams, based on the above assignment, for the development is shown on the plans enclosed in **Appendix M**. Junctions where the combined impact from development of more than 30 vehicles in any peak hour are listed below:

- A1: Access / Ilkeston Road
- A2: Access/Sowbrook Lane
- J1: Ilkeston Road/Sowbrook Lane/Lows Lane
- J2: Lows Lane/Littlewell Lane
- J3: Quarry Hill Road/Merlin Way
- J4: Quarry Hill Road/Elka Road
- J5: Quarry Hill Road/Longfield Lane
- J6: Quarry Hill Road/Little Hallam Hill

7.3 Permitted Development

7.3.1 We are not aware of any permitted developments within the locality of the proposal Site.

7.4 Assessment Year

7.4.1 Junction capacity analysis will be undertaken for an assessment year of 2026 when the proposed development Site is expected to be fully occupied.

7.4.2 To growth traffic counts to the future year assessment year TEMpro growth factors will be applied utilising the following inputs for 2021-2026:

Table 7.1: Local Traffic Growth Factors – Erewash 007

Period	2021-2026
AM Peak	1.0764
PM Peak	1.0780

7.4.3 The junction assessments have been undertaken using TRL Junctions 9 PICADY for Priority junctions and ARCADY for roundabout junctions.

7.4.4 A junction is considered to be operating within capacity if the RFC (Ratio of Flow Capacity) value is less than or equal to 0.85. An RFC value of 1.0 represents absolute capacity, however, the lower value of 0.85 is used to reflect the practical capacity of the junction.

7.5 A1: Access / Ilkeston Road

7.5.1 This junction is a new three arm ghost island priority junction and will comprise the new access for the development Site. The arms are labelled thus:

Arm A – Ilkeston Road (S)

Arm B – Access

Arm C – Ilkeston Road (N)

7.5.2 The full junction input data and results can be found in **Appendix N**. The results of the assessment are summarised below.

Table 7.2: A1 Access / Ilkeston Road – AM Peak 0800-0900

Opening Year 2026 + Development		
	Max RFC	Max Queue
B-C	0.13	0
B-A	0.12	0
C-AB	0.03	0

Table 7.3: A1 Access / Ilkeston Road – PM Peak 1700-1800

Opening Year 2026 + Development		
	Max RFC	Max Queue
B-C	0.04	0
B-A	0.05	0
C-AB	0.10	0

7.5.3 The proposed Site access is shown to operate within capacity in the future year scenario.

7.6 A2: Access / Sowbrook Lane

7.6.1 This junction is a new three ghost island priority junction and will comprise the new access for the development Site. The arms are labelled thus:

Arm A – Sowbrook Lane (W)

Arm B – Access

Arm C – Sowbrook Lane (E)

7.6.2 The full junction input data and results can be found in **Appendix O**. The results of the assessment are summarised below.

Table 7.4: A2 Access / Sowbrook Lane – AM Peak 0800-0900

Opening Year 2026 + Development		
	Max RFC	Max Queue
B-C	0.05	0
B-A	0.04	0
C-AB	0.01	0

Table 7.5: A2 Access / Sowbrook Lane – PM Peak 1700-1800

Opening Year 2026 + Development		
	Max RFC	Max Queue
B-C	0.02	0
B-A	0.01	0
C-AB	0.04	0

7.6.3 The proposed Site access is shown to operate within capacity in the future year scenario.

7.7 J1: Ilkeston Road / Sowbrook Lane / Lows Lane

7.7.1 This junction is an existing three arm simple priority junction. The arms are labelled thus:

Arm A – Lows Lane (E)

Arm B – Sowbrook Lane

Arm C – Ilkeston Road (N)

7.7.2 The full junction input data and results can be found in **Appendix P**. The results of the assessment are summarised below.

Table 7.6: J1 Ilkeston Road/Sowbrook Lane/Lows Lane – AM Peak 0800-0900

	2021 Base		2026 Forecast		2026 + Development	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
B-C	0.13	0	0.16	0	0.26	0
B-A	0.56	1	0.65	2	0.79	3
C-AB	0.04	0	0.05	0	0.05	0

Table 7.7: J1 Ilkeston Road/Sowbrook Lane/Lows Lane – PM Peak 1700-1800

	2021 Base		2026 Forecast		2026 + Development	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
B-C	0.18	0	0.24	0	0.29	0
B-A	0.49	1	0.61	2	0.70	2
C-AB	0.35	1	0.41	2	0.43	2

7.7.3 The junction is shown to operate within capacity in the future year scenarios.

7.8 J2: Lows Lane / Littlewell Lane

7.8.1 This junction is an existing three arm simple priority junction. The arms are labelled thus:

Arm A – Lows Lane (E)

Arm B – Littlewell Lane (S)

Arm C – Lows Lane (W)

7.8.2 The full junction input data and results can be found in **Appendix Q**. The results of the assessment are summarised below.

Table 7.8: J2 Lows Lane/Littlewell Lane – AM Peak 0800-0900

	2021 Base		2026 Forecast		2026 + Development	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
B-C	0.48	1	0.56	1	0.65	2
B-A	0.36	1	0.49	1	0.63	1
C-AB	1.00	25	1.09	53	1.16	84

Table 7.9: J2 Lows Lane/Littlewell Lane– PM Peak 1700-1800

	2021 Base		2026 Forecast		2026 + Development	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
B-C	0.68	2	0.78	3	0.86	5
B-A	0.35	1	0.50	1	0.64	1
C-AB	0.84	7	0.96	17	0.99	24

7.8.3 The junction is shown to operate beyond its capacity in the 2021 base year during the AM peak on the Lows Lane approach arm. In the 2026 forecast year, and the 2026 forecast year plus the development, the Lows Lane approach arm is shown to operate beyond its capacity during both AM and PM peak hour periods. The Littlewell Lane approach arm during the 2026 + Development PM peak marginally exceeds its operational capacity with a maximum queue of 5 pcu's.

7.8.4 A proposed ghost island right turn arrangement has been examined at the junction in order to improve its current operation in the base year and in the 2026 forecast year plus the development to achieve a nil-detriment scenario. The proposed junction improvement is shown on **Drawing TA12** provided within **Appendix R**. The results of the assessment are summarised below.

Table 7.10: J2 Lows Lane/Littlewell Lane – AM Peak 0800-0900

	2021 Base		2026 Forecast		2026 + Development	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
B-C	0.40	1	0.52	1	0.45	1
B-A	0.14	0	0.37	1	0.18	0
C-AB	0.51	1	0.60	2	0.60	2

Table 8.11: J2 Lows Lane/Littlewell Lane – PM Peak 1700-1800

	2021 Base		2026 Forecast		2026 + Development	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
B-C	0.65	2	0.74	3	0.73	3
B-A	0.30	1	0.40	1	0.33	1
C-AB	0.49	1	0.55	1	0.54	1

- 7.8.5 The proposed improvement at the Lows Lane/Littlewell Lane junction provides a significant improvement to its overall operational capacity in all scenarios during both the AM and PM peak periods.

7.9 J3: Quarry Hill Road / Merlin Way

- 7.9.1 This junction is an existing three arm ghost island priority junction. The arms are labelled thus:

Arm A – Quarry Hill Road (N)

Arm B – Merlin Way

Arm C – Quarry Hill Road (S)

- 7.9.2 The full junction input data and results can be found in **Appendix S**. The results of the assessment are summarised below.

Table 7.12: J3 Quarry Hill Road/Merlin Way – AM Peak 0800-0900

	2021 Base		2026 Forecast		2026 + Development	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
B-C	0.70	2	1.02	10	1.08	14
B-A	0.72	2	0.97	6	1.04	8
C-B	0.55	1	0.62	2	0.62	2

Table 7.13: J3 Quarry Hill Road/Merlin Way – PM Peak 1700-1800

	2021 Base		2026 Forecast		2026 + Development	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
B-C	0.82	4	1.08	21	1.13	28
B-A	0.82	3	1.04	10	1.10	13
C-B	0.57	1	0.63	2	0.64	2

- 7.9.3 The junction is shown to operate within its capacity during the 2021 base year during both AM and PM peak periods.
- 7.9.4 In the 2026 forecast year during both AM and PM peak periods the Merlin Way minor approach is shown to operate beyond its operational capacity with vehicle queues of between 6 to 21 pcu's. With the addition of development traffic these queues increase on the Merlin Way by 2 to 7 pcu's during the AM and PM peak periods. The Quarry Hill Road corridor arm remains within its operational capacity during all modelled scenarios.
- 7.9.5 Merlin Way forms the main access road through the Quarry Hill Industrial Estate and connects with Crompton Road to the east of the estate and joins Hallam Field Road to the north before connecting with Longfield Lane to the east with Quarry Hill Road. It is understood that Merlin Way is a private estate road and is unadopted highway. The availability of alternative access routes into the industrial estate from the local highway network provides opportunity for the reassignment of trips during the peak periods.
- 7.9.6 Furthermore, it is considered that the proposed development will result in minor impacts at the junction with an increase in total traffic flow of some 4.4% in the AM and 3.6% in the PM peaks.

7.10 J4: Quarry Hill Road / Elka Road

- 7.10.1 This junction is an existing three arm ghost island priority junction and currently serves the built-out Persimmon Homes development comprising some 350 dwellings. The arms are labelled thus:

Arm A – Quarry Hill Road (N)

Arm B – Elka Road

Arm C – Quarry Hill Road (S)

- 7.10.2 The full junction input data and results can be found in **Appendix T**. The results of the assessment are summarised below.

Table 7.14: J4 Quarry Hill Road/Elka Road – AM Peak 0800-0900

	2021 Base		2026 Forecast		2026 + Development	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
B-C	0.10	0	0.11	0	0.12	0
B-A	0.24	0	0.28	0	0.30	0
C-AB	0.04	0	0.05	0	0.05	0

Table 7.15: J4 Quarry Hill Road/Elka Road – PM Peak 1700-1800

	2021 Base		2026 Forecast		2026 + Development	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
B-C	0.09	0	0.10	0	0.10	0
B-A	0.10	0	0.12	0	0.12	0
C-AB	0.12	0	0.13	0	0.13	0

- 7.10.3 The junction is shown to operate well within its capacity during both AM and PM peak periods for all modelled scenarios.

7.11 J5: Quarry Hill Road / Longfield Lane

- 7.11.1 This junction is an existing three arm priority junction. The arms are labelled thus:

Arm A – Quarry Hill Road (N)
 Arm B – Longfield Lane
 Arm C – Quarry Hill Road (S)

- 7.11.2 The full junction input data and results can be found in **Appendix U**. The results of the assessment are summarised below.

Table 7.16: J5 Quarry Hill Road/Longfield Lane – AM Peak 0800-0900

	2021 Base		2026 Forecast		2026 + Development	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
B-C	0.14	0	0.16	0	0.16	0
B-A	0.28	0	0.33	1	0.35	1
C-AB	0.08	0	0.09	0	0.10	0

Table 7.17: J5 Quarry Hill Road/Longfield Lane – PM Peak 1700-1800

	2021 Base		2026 Forecast		2026 + Development	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
B-C	0.06	0	0.06	0	0.07	0
B-A	0.15	0	0.17	0	0.18	0
C-AB	0.16	0	0.18	1	0.18	1

- 7.11.3 The junction is shown to operate well within its capacity during both AM and PM peak periods for all modelled scenarios.

7.12 J6: Quarry Hill Road / Little Hallam Hill

- 7.12.1 This junction is an existing three arm mini-roundabout junction. The arms are labelled thus:

Arm A – Little Hallam Hill (E)
 Arm B – Quarry Hill Road
 Arm C – Little Hallam Hill (W)

- 7.12.2 The full junction input data and results can be found in **Appendix V**. The results of the assessment are summarised below.

Table 7.18: J6 Quarry Hill Road/Little Hallam Hill – AM Peak 0800-0900

	2021 Base		2026 Forecast		2026 + Development	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
A	1.23	135	1.32	214	1.33	225
B	0.80	4	0.86	6	0.96	12
C	1.09	36	1.20	69	1.27	86

Table 7.19: J6 Quarry Hill Road/Little Hallam Hill – PM Peak 1700-1800

	2021 Base		2026 Forecast		2026 + Development	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
A	1.00	22	1.08	53	1.12	74
B	0.98	14	1.07	31	1.08	33
C	1.10	38	1.19	68	1.21	72

- 7.12.3 The junction is shown to currently operate beyond its capacity in the 2021 base year during both the AM and PM peak periods without the proposed development in place. The Little Hallam Hill east arm is shown to be operating with an RFC value of 1.23 and with a maximum queue of 135 pcu's. In the PM the arm is shown to be operating with an RFC value of 1.00 and with a maximum queue of 22 pcu's.
- 7.12.4 The junction has been identified for reconfiguration associated with the Persimmon Homes (Elka's Rise) built-out development for circa 350 dwellings off Quarry Hill Road to the south (planning application reference ERE/0614/0030). An agreed improvement scheme was required as part of the development's Section 106 agreement which will see the signalisation of the junction, with two approach lanes from the town centre (straight on and left turn) and a small filter lane to hold eastbound traffic turning right onto Quarry Hill Road. The scheme is identified in DCC Highways Capital Programme for 2022-23.
- 7.12.5 Due to the junction being landlocked it is not possible to design a fully comprehensive traffic signal-controlled junction with pedestrian facilities on each arm. It is understood the design of the junction was undertaken with consideration given to the following key criteria:
- Maximising opportunity for safe pedestrian and cycle movement across the junction;
 - Providing sufficient capacity to enable efficient traffic through flow; and
 - Keeping the junction footprint to a minimum to minimise future maintenance costs.
- 7.12.6 Furthermore, it is considered that the proposed development will result in minor impacts at the junction with an increase in total traffic flow of some 3.0% in the AM and 2.6% in the PM peaks. The committed off-Site highway improvements proposed at the junction are therefore likely to mitigate impacts at the junction, which would achieve a nil-detriment scenario.

8.0 Summary & Conclusion

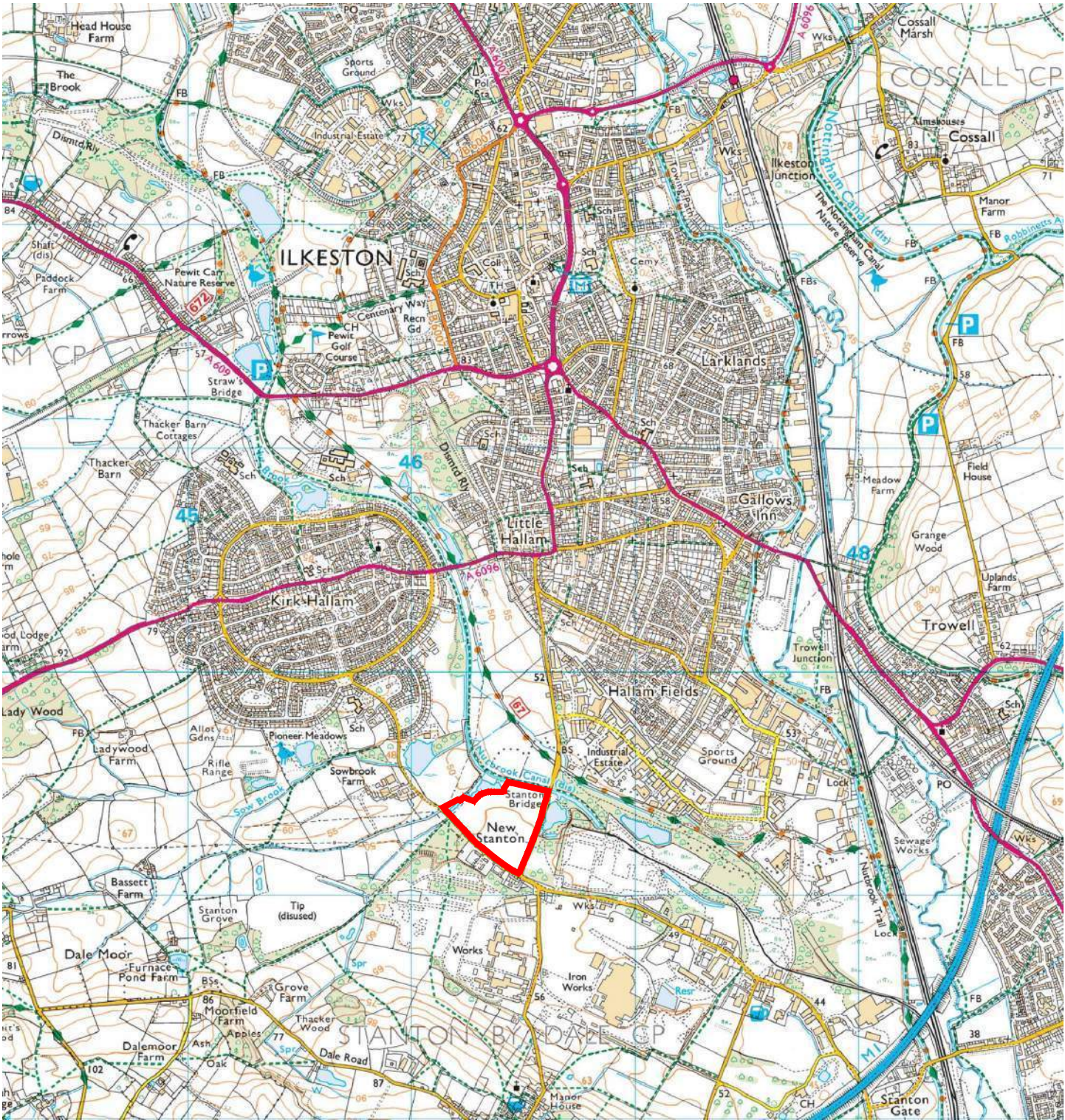
8.1 Summary

- 8.1.1 MAC Ltd have been appointed by Wulff Asset Management Limited to undertake a Transport Assessment in relation to the residential development of Land at Ilkeston Road/Sowbrook Lane.
- 8.1.2 The Site extends to approximately 10ha and has the capacity to provide around 196 dwellings.
- 8.1.3 The Site is connected by several Public Rights of Way and a National Cycle Route.
- 8.1.4 There is potential to improve the width of the existing footway along Sowbrook Lane between the Site and Kirk Hallam.
- 8.1.5 The Site is located within 400m of an existing bus service and stops connecting Ilkeston.
- 8.1.6 Ilkeston rail station is located within 5km from the Site which provides services to Nottingham, Sheffield and Leeds, and provides a realistic travel option for commuter trips from the Site to major employment areas.
- 8.1.7 Vehicular access from Sowbrook Lane and Ilkeston Road are achievable and provides inter-visibility requirements in accordance with current highway design standards.
- 8.1.8 Opportunities for sustainable travel by non-car modes for the Site could be provided through the implementation of a Travel Plan.
- 8.1.9 The Site providing 196 dwellings is predicted to generate 155 vehicle trips in the AM peak and 132 trips in the PM peak.

8.2 Conclusion

- 8.2.1 It is therefore concluded that residential development on the Site accords with guiding principles of National Planning Policy Framework (NPPF). Accordingly, it is considered that the development traffic will result in a minor impact on the surrounding highway network.
- 8.2.2 In accordance with NPPF, the impact of traffic generated by the development could not be viewed as severe, and therefore does should not constitute grounds for the development to be prevented or refused.

Appendix A
Site Location Plan



T: 01604 340544 Northampton Office E: info@mac-ltd.co.uk W: mac-ltd.co.uk Martin Andrews Consulting Ltd	Client: Wulff Asset Management Limite		Project: Sowbrook Lane Ilkeston	Date: 22/11/21
	Title: Location Plan			Drw: AN
				Chk: AN
				Scale: 1:25,000
				Size: A4
Drawing No. 450-FRA01		Revision -	• Transport Assessments • Flood Risk Assessments • Highway Advice • Drainage Strategies	



NOTE: CAD BASE FOR COMMENTS PRIOR TO PRESENTATION DRAWING

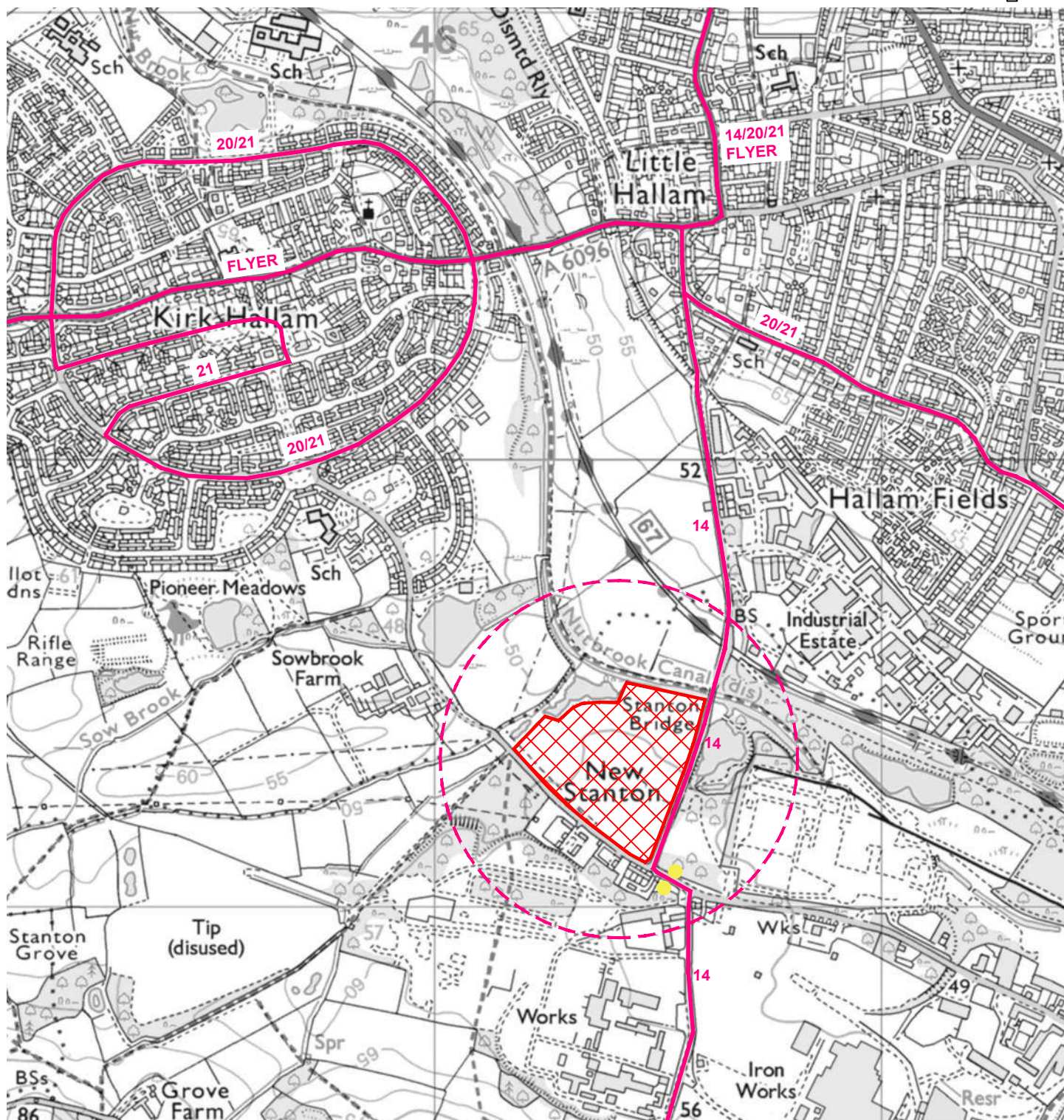
Appendix C
Derbyshire Cycle Map





Appendix D

Bus Timetables and Routes



Key:

- Bus Route
- 400m cordon
- Bus Stops



T: 01604 340544 Northampton Office
E: info@mac-ltd.co.uk W: mac-ltd.co.uk
Martin Andrews Consulting Ltd

Client: Wulff Asset Management Limited

Project: Sowbrook Lane Ilkeston

Date: 20/01/21

Drw: MJA

Chk: MJA

Scale: 1:12,500

Size: A4

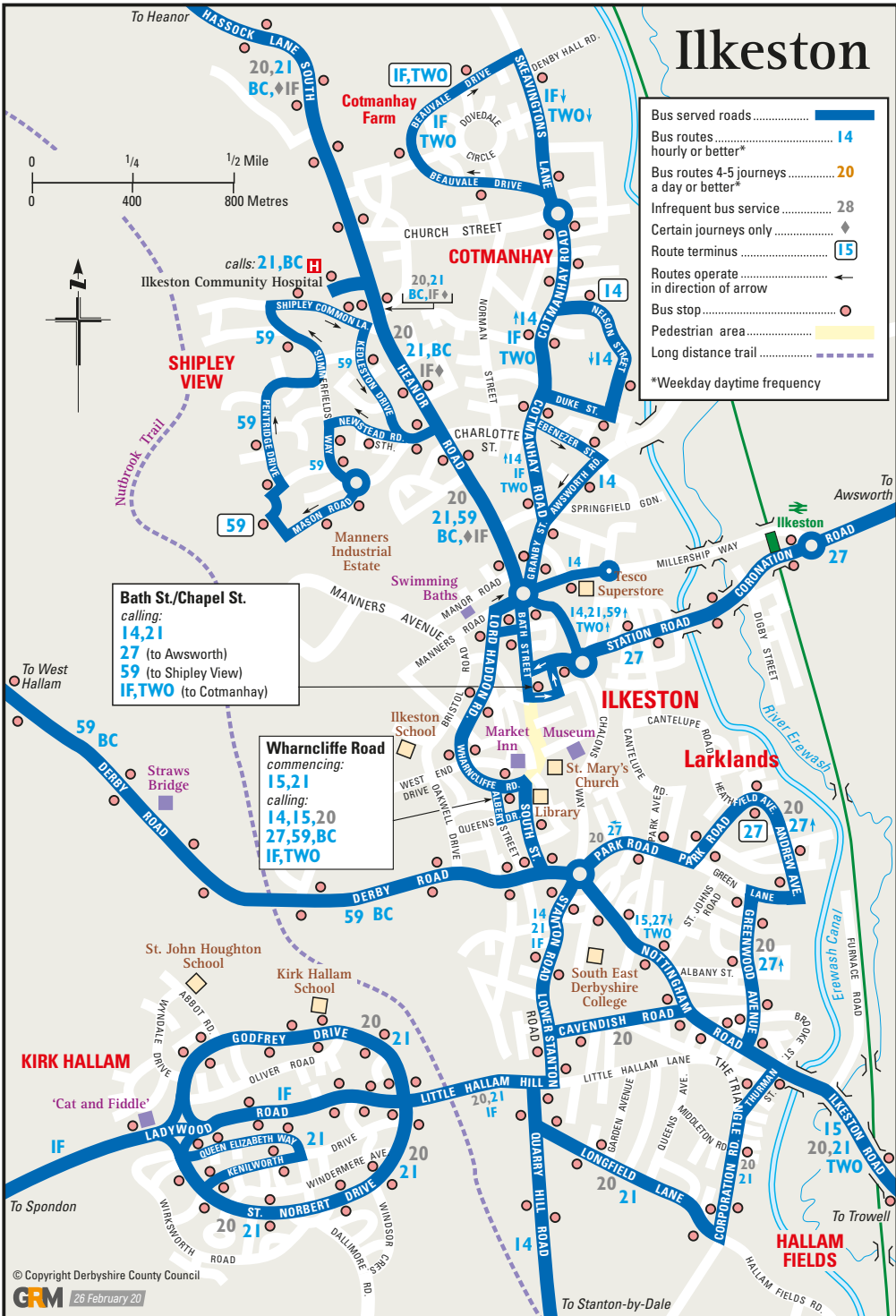
Title: Local Bus Services

Drawing No. 450-TA04

Revision -

- Transport Assessments
- Flood Risk Assessments
- Highway Advice
- Drainage Strategies

Ilkeston



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Service 14
Ilkeston, Stanton-by-Dale, Sandiacre

CT4N

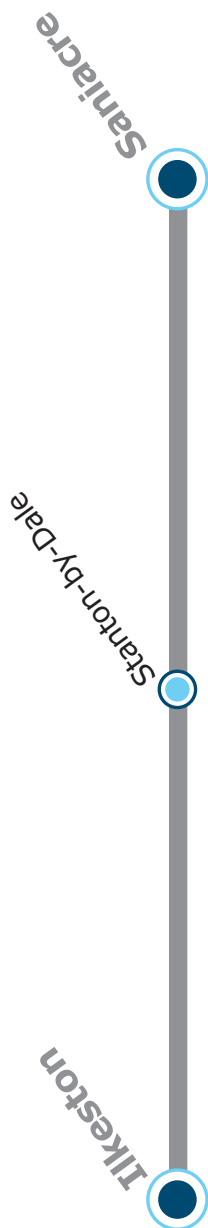
From Monday 7th June 2021

14



route destinations
14

where does this bus stop?



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CT4N

Buses towards Stanton-by-Dale, Sandiacre

Monday to Saturday

Nelson Street	09:34	10:32	11:32	12:32	13:32	14:32	15:32	16:32
Ebenezer Street	09:36	10:34	11:34	12:34	13:34	14:34	15:34	16:34
Ilkeston, Tesco	09:40	10:40	11:40	12:40	13:40	14:40	15:40	16:40
Ilkeston, Bath Street (stop 4)	09:43	10:43	11:43	12:43	13:43	14:43	15:43	16:43
Ilkeston, Wharncliffe Road (stop 2)	09:47	10:47	11:47	12:47	13:47	14:47	15:47	16:47
Twelve Houses	09:55	10:55	11:55	12:55	13:55	14:55	15:55	16:55
Stanton-by-Dale	09:57	10:57	11:57	12:57	13:57	14:57	15:57	16:57
Sandiacre, White Lion	10:05	11:05	12:05	13:05	14:05	15:05	16:05	17:05

Buses towards Stanton-by-Dale, Ilkeston

Monday to Saturday

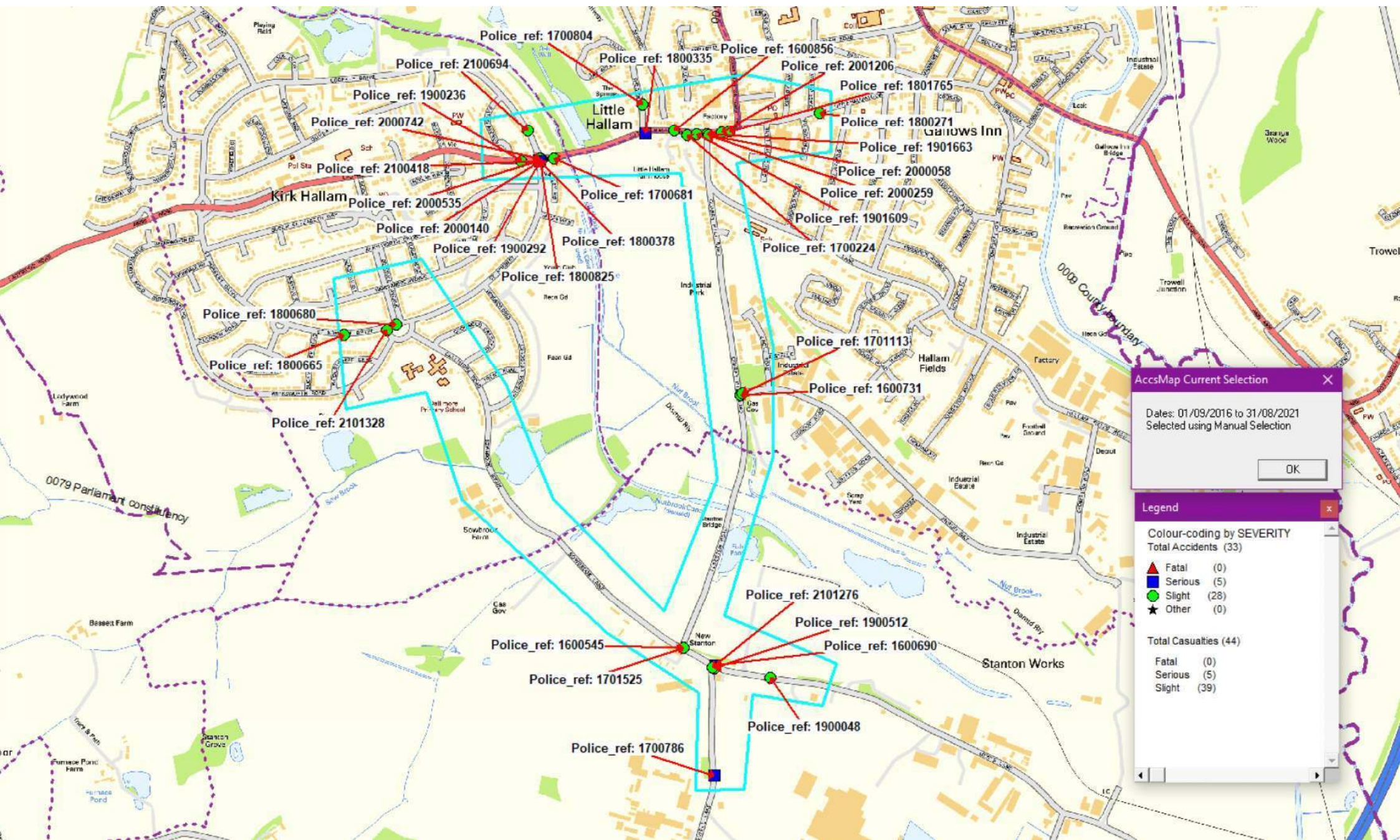
Sandiacre, White Lion	-	10:05	11:05	12:05	13:05	14:05	15:05	-	16:05	17:05
Stanton-by-Dale	-	10:13	11:13	12:13	13:13	14:13	15:13	-	16:13	17:13
Twelve Houses	-	10:15	11:15	12:15	13:15	14:15	15:15	-	16:15	17:15
Ilkeston, Wharncliffe Road (stop 2)	09:26	10:24	11:24	12:24	13:24	14:24	15:24	16:24	16:24	17:24
Ilkeston, Bath Street (stop 4)	09:28	10:26	11:26	12:26	13:26	14:26	15:26	16:26	16:26	-
Ilkeston, Tesco	09:34	10:32	11:32	12:32	13:32	14:32	15:32	16:32	16:32	-
Ebenezer Street	09:36	10:34	11:34	12:34	13:34	14:34	15:34	16:34	16:34	-
Nelson Street	09:40	10:38	11:38	12:38	13:38	14:38	15:38	16:38	16:38	-

Appendix E
Rail Timetables and Routes

Rail Routes Serving Derbyshire



Appendix F
Collision Data



AccsMap Current Selection

Dates: 01/09/2016 to 31/08/2021
Selected using Manual Selection

OK

Legend

Colour-coding by SEVERITY

Total Accidents (33)

- Fatal (0)
- Serious (5)
- Slight (28)
- Other (0)

Total Casualties (44)

- Fatal (0)
- Serious (5)
- Slight (39)

Details of Personal Injury Accidents for Period - 01/09/2016 to 31/08/2021 (60) months

Selection: Notes:

Selected using Manual Selection

Police Ref.	Day	Location Description	Vehicles					Casualties	
			Veh No	Type	Manv	Dir	Class	Sev	
Road No.	Date								
2nd Road No.	Time								
Grid Ref.	D/L								
	R.S.C								
	Weather								
	Speed								
	Account of Accident								

1600545 Friday STANTON BY DALE (C6) ILKESTON Veh 1 Car Going ahead NW^{to} SE Dri Slight
14/10/2016 RD J/W SOWBROOK LANE (IPQA) Veh 2 Car Turning right NE to NW
2130hrs
R1: C Darkness: street lights present a
R2: U Wet/Damp
E 446,487
N 339,087 Other
40 mph

V1 TRAVELLING ALONG SOWBROOK LANE TOWARDS LOWS LANE. V2 TURNING RIGHT FROM ILKESTON RD INTO SOWBROOK LANE. V1 PROCEEDED ONTO LOWS LANE. VEH 2 SUDDENLY APPEARED IN FRONT OF VEH 1 AND A COLLISION OCCURRED. (IPQA)

1600690 Wednesday STANTON BY DALE (C6) LOWS LANE Veh 1 Goods < 3.5t Turning right NW^{to} S
16/11/2016 J/W (C164) LITTLEWELL LANE (IPQA) Veh 2 M/C > 500 cc Going ahead RH bend E to NW Dri Serious
1430hrs
R1: C Daylight:street lights present
R2: C Dry
E 446,574
N 339,036 Fine without high winds
40 mph

VEHICLE 1 IS TURNING RIGHT AND TRAVELS ACROSS THE ONCOMING CARRIAGEWAY IN FRONT OF VEHICLE 2 (IPQA)

1600731 Friday ILKESTON (C6) QUARRY HILL RD Veh 1 Car Going ahead S to N
18/11/2016 J/W MERLIN WAY (IPQA) Veh 2 Pedal cycle Stopping S to E Dri Slight
2130hrs
R1: C Darkness: street lights present a
R2: U Dry
E 446,646
N 339,791 Fine without high winds
40 mph

PEDAL CYCLE SLOWS TO TURN RIGHT INTO MERLIN WAY, V1 RUNS INTO BACK OF PEDAL CYCLE. (IPQA)

Details of Personal Injury Accidents for Period - 01/09/2016 to 31/08/2021 (60) months

Selection: Notes:
Selected using Manual Selection

Police Ref.	Day	Location Description	Vehicles					Casualties	
			Veh No	Type	Manv	Dir	Class	Sev	
Road No.	Date								
2nd Road No.	Time								
Grid Ref.	D/L								
	R.S.C								
	Weather								
	Speed								
	Account of Accident								

1600856 Friday ILKESTON A6096 LITTLE HALLAM Veh 1 Car Going ahead W to E Ped Slight
 16/12/2016 HILL
 0840hrs
 Daylight:street lights present
 Dry
 Fine without high winds
 30 mph

VEHICLE 1 IS TRAVELLING UP LITTLE HALLAM LANE, ILKESTON. INJURED PEDESTRIAN IS WALKING DOWN LITTLE HALLAM LAN ON THE PAVEMENT AT THE SAME SIDE OF THE ROAD AS VEHICLE 1. VEHICLE 1 MOUNTS THE PAVEMENT FOR UNKNOWN REASON AND RUNS OVER PEDESTRIANS FOOT

1700224 Thursday ILKESTON A6096 LITTLE HALLAM Veh 1 Car O/take s/veh o/side E to W Dri Slight
 09/02/2017 HILL - O/S LEADERVILLE Veh 2 Car Parked 0 to 0
 1526hrs
 Daylight:street lights present
 Dry
 Fine without high winds
 30 mph

VEHICLE 1 TRAVELLING DOWN HILL TOWARDS VEHICLE 2 WHICH IS PARKED STATIONARY FACING TRAFFIC UNATTENDED HALF ON AND OFF THE KERB. VEHICLE 1 FAILED TO NOTICE VEHICLE 2 OR MIS JUDGED THE MANOUVER AND COLLIDED NEARSIDE FRONT TO NEARSIDE FRONT WITH VEHICLE

1700681 Friday KIRK HALLAM A6096 LADYWOOD Veh 1 Car Going ahead E to W
 03/03/2017 RD (IPQA) Veh 2 Car Going ahead W to E Dri Slight
 1855hrs
 Darkness: street lights present a
 Wet/Damp
 Raining without high winds
 30 mph

VEH 1 CROSSED OVER THE WHITYE LINE COLLIDING WITH VEH 2 TRAVELLING THE OTHER DIRECTION , DUE TO THE DRIVER OF VEH 1 BEING DRUNK AND A NON LICENCSE HOLDER (IPQA)

Details of Personal Injury Accidents for Period - 01/09/2016 to 31/08/2021 (60) months

Selection: Notes:

Selected using Manual Selection

Police Ref.	Day	Location Description	Vehicles					Casualties	
			Veh No	Type	Manv	Dir	Class	Sev	
Road No.	Date								
2nd Road No.	Time								
Grid Ref.	D/L								
	R.S.C								
	Weather								
	Speed								
	Account of Accident								

1700804 Sunday ILKESTON - THE SPINNEY - NEAR Veh 1 M/C < 50 cc Going ahead N to S Ped Slight
09/04/2017 BOLLARDS - IPQA
R1: U 0010hrs
Darkness: street lights present a
E 446,371 Dry
N 340,604 Unknown
30 mph

MOPED HITS PEDESTRIAN CAUSING INJURY.

1700786 Monday STANTON BY DALE C164 Veh 1 Going ahead RH bend N to SW Dri Serious
10/04/2017 LITTLEWELL LANE
R1: C 0455hrs
Darkness: no street lighting
E 446,572 Dry
N 338,729 Fine without high winds
40 mph

DUSTCART TRAVELLING NORTHBOUND ALONG LITTLEWELL LANE, STANTON BY DALE. UPON TAKING A RIGHT HAND BEND THE DRIVER LOSES CONTROL OF THE VEHICLE CAUSING IT TO COLLIDE WITH A TREE.

1701113 Tuesday KIRK HALLAM - C6 QUARRY HILL Veh 1 Car Going ahead N to S Dri Slight
13/06/2017 ROAD J/W MERLIN WAY - IPQA Veh 2 Car Going ahead E to N
R1: C 1540hrs Veh 3 Car Turning right S to E
R2: U Daylight:street lights present
E 446,650 Dry
N 339,798 Fine without high winds
40 mph

VEHICLE 3 TURNED RIGHT INTO JUNCTION FAILING TO JUDGE THE SPEED OF V1 WHICH COLLIDED WITH V3 TO THE NEAR SIDE, CAUSING V3 TO IMPACT VEHICLE 2 WHICH WAS LEAVING JUNCTION INTENDING TO TURN RIGHT TOWARD ILKESTON

Details of Personal Injury Accidents for Period - 01/09/2016 to 31/08/2021 (60) months

Selection: Notes:

Selected using Manual Selection

Police Ref.	Day	Location Description	Vehicles				Casualties	
			Veh No	Type	Manv	Dir	Class	Sev
Road No.	Date							
2nd Road No.	Time							
Grid Ref.	D/L							
	R.S.C							
	Weather							
	Speed							
	Account of Accident							

1701525 Saturday Ilkeston - Ilkeston Road/Lows Lane Veh 1 Car Wait to turn right NE to NW
 16/09/2017 (IPQA) Veh 2 Car Turning right SE to NE Dri Slight
 R1: U 1544hrs
 R2: C Daylight:street lights present
 E 446,487 Dry
 N 339,085 Fine without high winds
 40 mph

V2 TURNING INTO RIGHT JUNCTION ON NEAR SIDE BEND AND CUT THE CORNER ON JUNCTION MAKING V1 SWERVE AROUND COLLIDING TO THE FRONT (IPQA)

1800271 Tuesday ILKESTON - LITTLE HALLAM LANE Veh 1 Goods < 3.5t Parked 0 to 0
 27/02/2018 NR J/W LOWER WHITWORTH ROAD - Veh 2 Car Parked 0 to 0
 R1: C 1715hrs O/S#151 - IPQA Veh 3 Car Parked 0 to 0
 R2: U Daylight:street lights present Veh 4 Car Going ahead E to W Dri Slight
 E 446,867 Dry
 N 340,579 Unknown
 30 mph

RTC -V4 DROVE INTO VEHICLE ONE, THEN BOUNCED OFF INTO VEHICLE TWO, BEFORE HITTING VEHICLE THREE.

1800335 Thursday Ilkeston - Little Hallam Hill junction with Veh 1 Car Going ahead W to E Ped Serious
 22/03/2018 The Spinney
 0800hrs
 R1: A 6096
 R2: U Daylight:street lights present
 E 446,380 Dry
 N 340,523 Fine without high winds
 30 mph

Participant: Confidence:

Casualty 1 Very Likely

Casualty 1 Possible

VEHICLE ONE TRAVELLING ALONG LITTLE HALLAM HILL EAST TOWARDS ILKESTON TOWN CENTRE. C1 RUNS ONTO ROAD FROM THE SPINNEY SIDE INTO PATH OF VEHICLE 1 WHERE THEY COLLIDE IN CENTRE OF ROAD.

Details of Personal Injury Accidents for Period - 01/09/2016 to 31/08/2021 (60) months

Selection: Notes:

Selected using Manual Selection

Police Ref.	Day	Location Description	Vehicles				Casualties	
			Veh No	Type	Manv	Dir	Class	Sev
Road No.	Date							
2nd Road No.	Time							
Grid Ref.	D/L							
	R.S.C							
	Weather							
	Speed							
	Account of Accident							

1800378 Thursday KIRK HALLAM A6096 LADYWOOD Veh 1 Car Going ahead S to N
05/04/2018 RD J/W ST NORBERT DR/GODFREY Veh 2 M/C < 50 cc Going ahead W to E Dri Slight
R1: A 6096 2140hrs DR (IPQA-5144)
R2: U Darkness: street lights present a
E 446,084 Dry
N 340,448 Fine without high winds
30 mph

V1 PULLS OUT OF JUNCTION, COLLIDES WITH V2 (MOPED) CAUSING RIDER TO FALL FROM MOPED. V1 DRIVES AWAY WITHOUT EXCHANGING DETAILS. (IPQA-5144). .

1800665 Wednesday KIRK HALLAM ST NORBERT DRIVE Veh 1 Car O/take s/veh o/side E to W Dri Slight
09/05/2018 LOC N/V (iPQA-5144) Veh 2 Car O/take s/veh o/side W to E Dri Slight
R1: U 0930hrs Veh 3 Parked 0 to 0
Daylight:street lights present Veh 4 Car Parked 0 to 0
E 445,538 Dry
N 339,961 Unknown
30 mph

V2 O/TAKING BIN LORRY AT SAME TIME AS V1 O/TAKING PARKED VEHICLE IN OPPOSITE DIRECTION. COLLISION OCCURS. (IPQA-5144)

1800680 Sunday KIRK HALLAM ST NORBERT DRIVE Veh 1 Goods < 3.5t Turning left N to E
13/05/2018 J/W DEEPDALE AVENUE (IPQA-5144) Veh 2 Pedal cycle Going ahead W to E Dri Slight
R1: U 2025hrs
R2: U Daylight:street lights present
E 445,685 Dry
N 339,989 Fine without high winds
30 mph

VEH 2 TRAVELLING ALONG ROAD. VEH 1 TURNED LEFT OUT OF JUNCTION STRAIGHT INTO PATH OF VEH 2 (IPQA-5144)

Details of Personal Injury Accidents for Period - 01/09/2016 to 31/08/2021 (60) months

Selection: Notes:
Selected using Manual Selection

Police Ref.	Day	Location Description	Vehicles					Casualties	
			Veh No	Type	Manv	Dir	Class	Sev	
Road No.	Date								
2nd Road No.	Time								
Grid Ref.	D/L								
	R.S.C								
	Weather								
	Speed								
	Account of Accident								

1800825 Thursday KIRK HALLAM A6096 LADYWOOD Veh 1 Car Turning right E to N
14/06/2018 RD J/W GODFREY DRIVE (IPQA-5144) Veh 2 Pedal cycle Going ahead W to E Dri Slight
1939hrs
R1: A 6096 Daylight:street lights present
R2: U Dry
E 446,084 Fine without high winds
N 340,451 30 mph

CYCLIST HEADING TWDS ILKESTON WHEN V1 TURNS RIGHT ONTO GODFREY DRIVE, SUN WAS IN HIS EYES AND HE DID NOT SEE THE CYCLIST. (IPQA-5144)

1801765 Wednesday ILKESTON A6096 LITTLE HALLAM Veh 1 Car Stopping W to E Dri Slight
12/12/2018 HILL APPROX 50 MTRS EAST BULLS Veh 2 Car Wait go ahead held W to E Dri Slight
1640hrs HEAD PUB R/BT (IPQA-5144) Veh 3 Car Wait go ahead held W to E
Darkness: street lighting unkno
E 446,613 Dry
N 340,527 Fine without high winds
30 mph

V1 SEES VEHICLES IN FRONT BRAKE AND COME TO A STOP. V1 APPLIES THE BRAKES BUT THIS HAS NO EFFECT ON THE VEHICLE AND IT REAR-ENDS V2 WHICH IN TURN HITS V3 (IPQA-5144)

1900048 Tuesday STANTON BY DALE (C6) LOWS LANE Veh 1 Car Going ahead E to W Dri Slight
08/01/2019 LOC N/V (IPQA-5144) Veh 2 Car Going ahead W to E Dri Slight
1400hrs
R1: C Daylight:street lights present
E 446,727 Dry
N 339,003 Fine without high winds
40 mph

COLLISION BETWEEN V1 AND V2 (IPQA-5144)

Details of Personal Injury Accidents for Period - 01/09/2016 to 31/08/2021 (60) months

Selection: Notes:
Selected using Manual Selection

Police Ref.	Day	Location Description	Vehicles					Casualties	
			Veh No	Type	Manv	Dir	Class	Sev	
Road No.	Date								
2nd Road No.	Time								
Grid Ref.	D/L								
	R.S.C								
	Weather								
	Speed								
	Account of Accident								

1900236 Thursday KIRK HALLAM A6096 LADYWOOD Veh 1 Car Going ahead E to W Ped Slight
28/02/2019 ROAD LOC N/V (IPQA-5144)
R1: A 6096 1600hrs
Daylight:street lights present
E 446,033 Dry
N 340,444 Fine without high winds
30 mph

PEDESTRIAN WAS CROSSING ROAD WHEN HIT BY V1 (IPQA-5144)

1900292 Monday KIRK HALLAM A6096 LADYWOOD Veh 1 Car Going ahead E to W FSP Slight
04/03/2019 RD J/W GODFREY DRIVE/ST Veh 1 Car Going ahead E to W RSP Slight
R1: A 6096 1700hrs NORBERT DRIVE (IPQA-5144) Veh 2 Car Going ahead N to S
R2: U Daylight:street lights present
E 446,091 Dry
N 340,449 Fine without high winds
30 mph

V1 WAS TRAVELLING FROM ILKESTON WHEN V2 PULLED OUT OF GODFREY DRIVE HEADING STRAIGHT ONTO ST NORBERTS DRIVE. (IPQA-5144)

1900512 Saturday STANTON BY DALE (C164) Veh 1 Car Turning left S to NW Dri Slight
13/04/2019 LITTLEWELL LANE J/W (C6) LOWS Veh 2 Car Turning left S to NW
R1: C 1114hrs LANE (IPQA-5144) Veh 3 Car Going ahead RH bend E to NW
R2: C Daylight:street lights present
E 446,571 Dry
N 339,030 Fine without high winds
40 mph

V1 STARTED PULLING OUT OF LITTLEWELL LANE WHEN V3 ON EMERGENCY DROVE PAST JTN. V1 STOPPED AND V2 DID NOT ANTICIPATE THIS AND RAN INTO REAR OF V1 (IPQA-5144)

Details of Personal Injury Accidents for Period - 01/09/2016 to 31/08/2021 (60) months

Selection: Notes:
Selected using Manual Selection

Police Ref.	Day	Location Description	Vehicles					Casualties	
			Veh No	Type	Manv	Dir	Class	Sev	
Road No.	Date								
2nd Road No.	Time								
Grid Ref.	D/L								
	R.S.C								
	Weather								
	Speed								
	Account of Accident								

1901609 Saturday ILKESTON - A6096 LITTLE HALLAM Hill - (IPQA).
R1: A 6096 09/11/2019
2045hrs
Darkness: no street lighting
E 446,522 Dry
N 340,520 Fine without high winds
30 mph

Veh 1 Car Going ahead W to E
Veh 2 Car Going ahead RH bend E to W Dri Slight
Veh 2 Car Going ahead RH bend E to W FSP Slight
Veh 2 Car Going ahead RH bend E to W RSP Slight

V1 VEERS TO WRONG SIDE OFF CARRIAGEWAY AND COLLIDES HEAD ON WITH V2 - (IPQA).

1901663 Monday Ilkeston - Little Hallam hill jct (IPQA)
25/11/2019
0715hrs
R1: A 6096
R2: C Darkness: street lighting unkno
E 446,551 Wet/Damp
N 340,521 Raining without high winds
30 mph

Veh 1 Car Turning right S to E
Veh 2 Pedal cycle Going ahead E to W Dri Slight

CAR PULLS ONTO JUNCTION AS CYCLE APPROACHES AND THEY COLLIDE (IPQA)

2000058 Friday ILKESTON-A6096 LITTLE HALLAM Hill J/W QUARRY HILL RD MINI
17/01/2020 R/BT O/S BULLS HEAD(5894)
1440hrs
R1: A 6096
R2: C Daylight:street lights present
E 446,556 Wet/Damp
N 340,519 Raining without high winds
30 mph

Veh 1 M/C < 50 cc Starting E to W Dri Slight
Veh 2 Car Going ahead S to E

V1 FAILS TO NEGOTIATE MINI R/BT ON LITTLE HALLAM HILL COLLIDING WITH V2 TRAVELLING IN OPP. DIRECTION(5894)

Details of Personal Injury Accidents for Period - 01/09/2016 to 31/08/2021 (60) months

Selection: Notes:
Selected using Manual Selection

Police Ref.	Day	Location Description	Vehicles					Casualties	
			Veh No	Type	Manv	Dir	Class	Sev	
Road No.	Date								
2nd Road No.	Time								
Grid Ref.	D/L								
	R.S.C								
	Weather								
	Speed								
	Account of Accident								

2000140 Friday ILKESTON-A6096 LADYWOOD RD Veh 1 Car Starting NW^{to} S Dri Slight
17/01/2020 J/W GODFREY DRIVE (5894) Veh 2 Car Going ahead E to W Dri Slight
R1: A 6096 1145hrs
R2: U Daylight:street lights present
E 446,087 Wet/Damp
N 340,447 Fine without high winds
30 mph

DRIVER OF V1 FAILS TO GIVE WAY AT JCT, PULLS OUT AND COLLIDES WITH FRONT O/SIDE OF V2 TRAVELLING ALONG A6096 (5894)

2000259 Sunday ILKESTON-Quarry Hill Road R/W Little Veh 1 Car Going ahead W to E
19/01/2020 Hallam Lane (2022) Veh 2 Pedal cycle Turning right S to E Dri Slight
R1: A 6096 1548hrs
R2: C Daylight:street lights present
E 446,556 Dry
N 340,518 Unknown
30 mph

P/CYCLE RIDING FROM QUARRY HILL ROAD ENTERS ROUNDABOUT AS V1 ENTERS ROUNDABOUT MAKING CONTACT WITH P/CYCLE (16779)

2000535 Wednesday ILKESTON-A6096 LADYWOOD RD Veh 1 Car Going ahead S to NW Dri Serious
06/05/2020 J/W GODFREY DR, ST NORBERT DR Veh 2 Car Going ahead W to NE Dri Slight
R1: A 6096 1715hrs & LITTLE HALLAM HILL (5894) Veh 2 Car Going ahead W to NE FSP Slight
R2: U Daylight:street lights present
E 446,083 Dry
N 340,447 Fine without high winds
30 mph

V1 PULLED OUT OF ST NORBERT DR TO DRIVE STRAIGHT ONTO GODFREY DR AND WHILST CROSSING LADYWOOD RD COLLIDED WITH V2 (5894)

Details of Personal Injury Accidents for Period - 01/09/2016 to 31/08/2021 (60) months

Selection: Notes:
Selected using Manual Selection

Police Ref.	Day	Location Description	Vehicles				Casualties	
			Veh No	Type	Manv	Dir	Class	Sev
Road No.	Date							
2nd Road No.	Time							
Grid Ref.	D/L							
	R.S.C							
	Weather							
	Speed							
	Account of Accident							

2000742 Monday ILKESTON-LADYWOOD RD JW Veh 1 Car Starting N to S
13/07/2020 GODREY DR (17706) Veh 2 M/C > 500 cc Going ahead E to W Dri Slight
R1: A 6096 1944hrs
R2: C Daylight:street lights present
E 446,085 Dry
N 340,454 Fine without high winds
30 mph

V2 (M/BIKE) COLLIDED WITH NEARSIDE OF V1 WHILST TRAVELLING UP LADYWOOD ROAD AWAY FROM ILKESTON, TOWARDS OCKBROOK. (17706)

2001206 Wednesday ILKESTON-A6096 LITTLE HALLAM Veh 1 Car Going ahead W to E
28/10/2020 HILL(5894) Veh 2 Car Stopping W to E Dri Slight
R1: A 6096 1115hrs Veh 2 Car Stopping W to E RSP Slight
Daylight:street lights present Veh 2 Car Stopping W to E RSP Slight
E 446,592 Wet/Damp
N 340,526 Unknown
30 mph

V2 WAS TRAVELLING ALONG A6096 TWDS ILKESTON AND HAD SLOWED BEHIND QUEUING TRAFFIC WHEN V1 COLLIDED WITH REAR OF V2 (5894)

2100418 Monday ILKESTON-A6096 J/W GODFREY DR Veh 1 M/C < 125 cc Going ahead E to W Dri Serious
29/03/2021 (17706) Veh 2 Car Turning right S to E
R1: A 6096 1630hrs
R2: U Daylight:street lights present
E 446,085 Dry
N 340,445 Fine without high winds
30 mph

V1 COLLIDES WITH V2 AS IT PULLS OUT INTO MAIN C/WAY TO TURN RIGHT. (17706)

Details of Personal Injury Accidents for Period - 01/09/2016 to 31/08/2021 (60) months

Selection: Notes:

Selected using Manual Selection

Police Ref.	Day	Location Description	Vehicles					Casualties	
			Veh No	Type	Manv	Dir	Class	Sev	
Road No.	Date								
2nd Road No.	Time								
Grid Ref.	D/L								
	R.S.C								
	Weather								
	Speed								
	Account of Accident								

2100694 Thursday ILKESTON-GODFREY DRIVE (17706) Veh 1 Car Going ahead NW^{to} SE Dri Slight
13/05/2021 Veh 2 Car O/take s/veh o/side SE ^{to} NW
R1: U 1850hrs Veh 3 Car Parked 0 ^{to} 0
Daylight:street lights present
E 446,051 Dry
N 340,530 Unknown
30 mph

V2 OVERTOOK V3 (PARKED) AND CROSSED OVER ONTO THE SIDE OF THE RD WHICH V1 WAS TRAVELLING IN THE OPP. DIRECTION; V2 COLLIDED WITH V1 AND FAILED TO STOP AT THE SCENCE (17706)

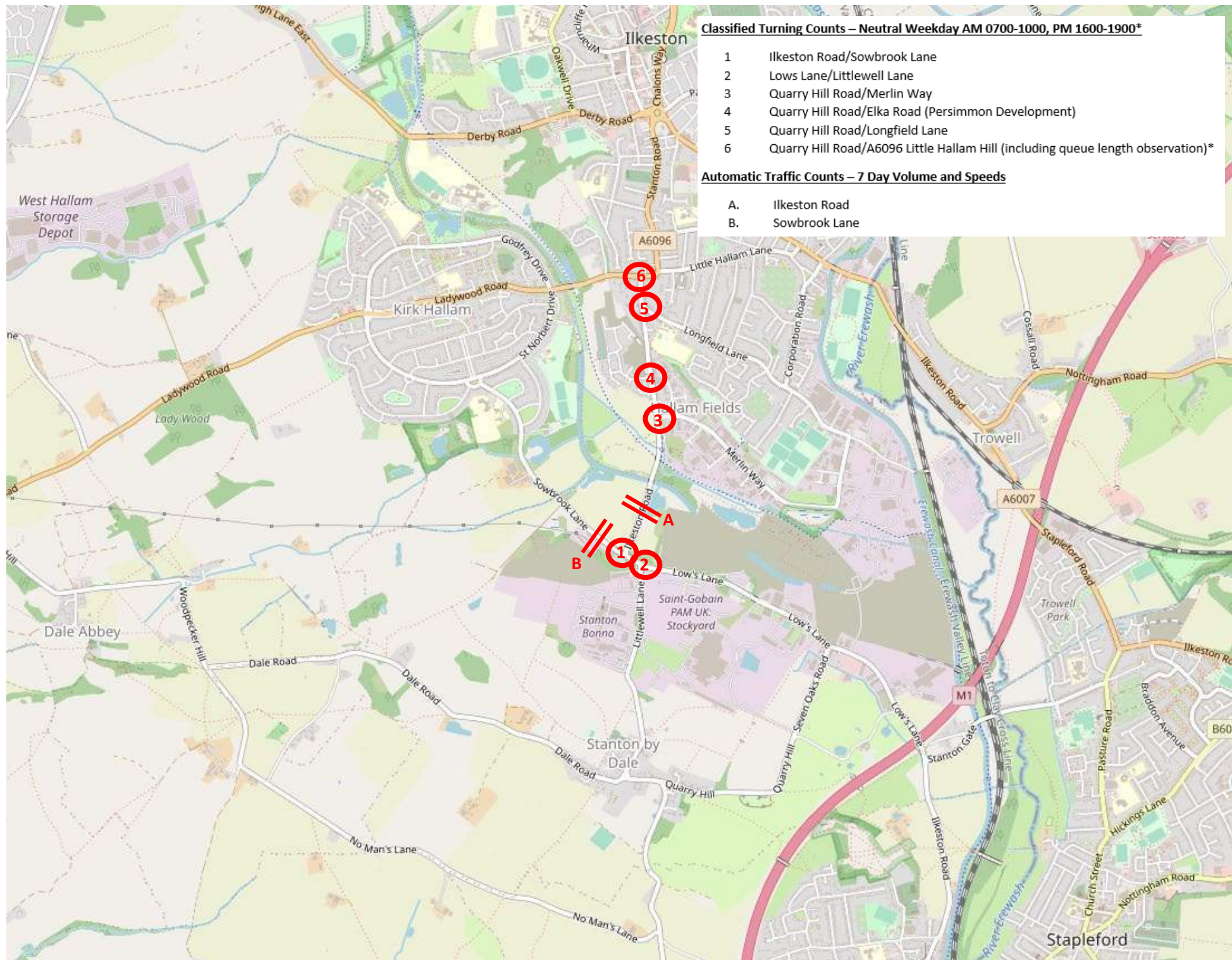
2101328 Tuesday ILKESTON-NUTBROOK CRES J/W ST Veh 1 Car Starting SE ^{to} NE
24/08/2021 NORBERT DR (17706) Veh 2 Car Wait to turn left SE ^{to} SW Dri Slight
R1: U 1730hrs
R2: U Daylight:street lights present
E 445,657 Dry
N 339,973 Fine without high winds
30 mph

V2 AT JCT WAITING TO TURN LEFT BUT HELD UP DUE TO APPROACHING AMBULANCE ON ""BLUES""; V1 MOVED FORWARD THINKING V2 WAS MOVING OFF AND COLLIDED WITH REAR (17706)

2101276 Thursday STANTON-BY-DALE-LITTLEWELL LN Veh 1 Car Going ahead NW^{to} SE
26/08/2021 J/W LOWS LN (5894) Veh 2 Car Wait to turn right SW ^{to} SE Dri Slight
R1: U 0809hrs
R2: U Daylight:street lights present
E 446,566 Dry
N 339,032 Fine without high winds
40 mph

DRIVER OF V1 WAS CHOKING ON CHEWING GUM AND CLOSED HIS EYES FOR A SPLIT SECOND, STIRRED TO THE RIGHT AND COLLIDED WITH V2 WHICH WAS STATIONARY AT JCT (5894)

Appendix G
Traffic Survey Data





ATC A Ilkeston Rd, Stanton by Dale

Site No. 562001

Site Ref. 562001

Site 1

Vehicle Count Report

Week Begin: 15 October 2021

Channel: Northbound

	Fri Oct 15	Sat Oct 16	Sun Oct 17	Mon Oct 18	Tue Oct 19	Wed Oct 20	Thu Oct 21	5-Day Ave.	7-Day Ave.
00:00	28	39	31	17	19	20	21	21	25
01:00	16	26	20	15	13	18	13	15	17
02:00	17	23	21	11	16	19	15	16	17
03:00	17	18	9	21	22	24	20	21	19
04:00	33	24	7	34	32	38	37	35	29
05:00	132	56	30	130	141	142	144	138	111
06:00	233	79	40	217	251	262	254	243	191
07:00	438	91	56	444	421	412	397	422	323
08:00	549	206	94	482	537	496	439	501	400
09:00	368	270	183	361	367	334	356	357	320
10:00	361	357	234	352	381	386	392	374	352
11:00	369	395	228	344	442	462	442	412	383
12:00	441	382	327	422	398	247	282	358	357
13:00	482	362	278	367	384	392	415	408	383
14:00	553	342	274	454	475	504	486	494	441
15:00	665	323	249	568	578	648	580	608	516
16:00	543	273	238	596	637	694	555	605	505
17:00	484	268	246	477	563	572	566	532	454
18:00	341	241	218	303	406	334	416	360	323
19:00	212	137	151	218	186	192	206	203	186
20:00	148	115	112	128	134	138	140	138	131
21:00	136	104	72	94	117	109	127	117	108
22:00	86	83	42	71	82	101	90	86	79
23:00	63	63	32	26	38	54	42	45	45
Total									
12H(7-19)	5594	3510	2625	5170	5589	5481	5326	5432	4756
16H(6-22)	6323	3945	3000	5827	6277	6182	6053	6132	5372
18H(6-24)	6472	4091	3074	5924	6397	6337	6185	6263	5497
24H(0-24)	6715	4277	3192	6152	6640	6598	6435	6508	5716
AM Peak	08:00 549	11:00 395	10:00 234	08:00 482	08:00 537	08:00 496	11:00 442	08:00 501	08:00 400
PM Peak	15:00 665	12:00 382	12:00 327	16:00 596	16:00 637	16:00 694	15:00 580	15:00 608	15:00 516

Site No. 562001

Site Ref. 562001

Site 1

Vehicle Count Report

Week Begin: 15 October 2021

Channel: Southbound

	Fri Oct 15	Sat Oct 16	Sun Oct 17	Mon Oct 18	Tue Oct 19	Wed Oct 20	Thu Oct 21	5-Day Ave.	7-Day Ave.
00:00	13	22	30	9	19	26	21	18	20
01:00	8	17	17	14	14	17	12	13	14
02:00	4	16	15	2	8	7	7	6	8
03:00	17	13	10	18	15	12	13	15	14
04:00	56	35	23	78	66	69	70	68	57
05:00	221	89	49	245	235	217	239	231	185
06:00	403	93	47	415	410	408	426	412	315
07:00	614	153	88	609	570	518	519	566	439
08:00	508	252	116	515	520	469	466	496	407
09:00	362	347	220	388	414	454	501	424	384
10:00	375	365	243	326	377	398	374	370	351
11:00	410	356	262	367	384	436	388	397	372
12:00	428	404	278	361	370	277	314	350	347
13:00	434	305	273	351	398	361	365	382	355
14:00	468	285	254	396	418	471	447	440	391
15:00	537	251	280	444	503	500	512	499	432
16:00	609	250	229	563	617	701	597	617	509
17:00	465	234	201	516	515	541	521	512	428
18:00	300	219	190	250	348	375	348	324	290
19:00	207	147	118	174	174	165	178	180	166
20:00	104	110	100	122	125	105	128	117	113
21:00	91	85	72	79	81	80	84	83	82
22:00	59	54	47	47	45	43	47	48	49
23:00	30	41	29	12	21	22	25	22	26
Total									
12H(7-19)	5510	3421	2634	5086	5434	5501	5352	5377	4705
16H(6-22)	6315	3856	2971	5876	6224	6259	6168	6168	5381
18H(6-24)	6404	3951	3047	5935	6290	6324	6240	6239	5456
24H(0-24)	6723	4143	3191	6301	6647	6672	6602	6589	5754
AM Peak	07:00 614	10:00 365	11:00 262	07:00 609	07:00 570	07:00 518	07:00 519	07:00 566	07:00 439
PM Peak	16:00 609	12:00 404	15:00 280	16:00 563	16:00 617	16:00 701	16:00 597	16:00 617	16:00 509

PCC Traffic Information Consultancy Ltd.

Site No. 562001

Site Ref. 562001

Site 1

Vehicle Count Report

Week Begin: 15 October 2021

Channel: Total Flow

	Fri Oct 15	Sat Oct 16	Sun Oct 17	Mon Oct 18	Tue Oct 19	Wed Oct 20	Thu Oct 21	5-Day Ave.	7-Day Ave.
00:00	41	61	61	26	38	46	42	39	45
01:00	24	43	37	29	27	35	25	28	31
02:00	21	39	36	13	24	26	22	21	26
03:00	34	31	19	39	37	36	33	36	33
04:00	89	59	30	112	98	107	107	103	86
05:00	353	145	79	375	376	359	383	369	296
06:00	636	172	87	632	661	670	680	656	505
07:00	1052	244	144	1053	991	930	916	988	761
08:00	1057	458	210	997	1057	965	905	996	807
09:00	730	617	403	749	781	788	857	781	704
10:00	736	722	477	678	758	784	766	744	703
11:00	779	751	490	711	826	898	830	809	755
12:00	869	786	605	783	768	524	596	708	704
13:00	916	667	551	718	782	753	780	790	738
14:00	1021	627	528	850	893	975	933	934	832
15:00	1202	574	529	1012	1081	1148	1092	1107	948
16:00	1152	523	467	1159	1254	1395	1152	1222	1015
17:00	949	502	447	993	1078	1113	1087	1044	881
18:00	641	460	408	553	754	709	764	684	613
19:00	419	284	269	392	360	357	384	382	352
20:00	252	225	212	250	259	243	268	254	244
21:00	227	189	144	173	198	189	211	200	190
22:00	145	137	89	118	127	144	137	134	128
23:00	93	104	61	38	59	76	67	67	71
Total									
12H(7-19)	11104	6931	5259	10256	11023	10982	10678	10809	9462
16H(6-22)	12638	7801	5971	11703	12501	12441	12221	12301	10754
18H(6-24)	12876	8042	6121	11859	12687	12661	12425	12502	10953
24H(0-24)	13438	8420	6383	12453	13287	13270	13037	13097	11470
AM Peak	08:00 1057	11:00 751	11:00 490	07:00 1053	08:00 1057	08:00 965	07:00 916	08:00 996	08:00 807
PM Peak	15:00 1202	12:00 786	12:00 605	16:00 1159	16:00 1254	16:00 1395	16:00 1152	16:00 1222	16:00 1015

PCC Traffic Information Consultancy Ltd.



ATC A Ilkeston Rd, Stanton by Dale

Site No. 562001

Site Ref. 562001

Site 1

Classification Report

Week Begin: 15 October 2021

Channel: Northbound

	Total Volume	Bin 1 M/Cycle	Bin 2 Car/Van	Bin 3 LGV	Bin 4 HGV	Bin 5 Bus
Fri 15 Oct	6715	79	5448	851	310	27
Sat 16 Oct	4277	47	3847	330	52	1
Sun 17 Oct	3192	31	2971	163	26	1
Mon 18 Oct	6152	51	4880	881	318	22
Tue 19 Oct	6640	58	5300	879	378	25
Wed 20 Oct	6598	54	5287	854	373	30
Thu 21 Oct	6435	64	5177	814	358	22
5 Day Ave.	6508	61	5218	856	347	25
7 Day Ave.	5716	55	4701	682	259	18

PCC Traffic Information Consultancy Ltd.

Site No. 562001

Site Ref. 562001

Site 1

Classification Report

Week Begin: 15 October 2021

Channel: Southbound

	Total Volume	Bin 1 M/Cycle	Bin 2 Car/Van	Bin 3 LGV	Bin 4 HGV	Bin 5 Bus
Fri 15 Oct	6723	68	5516	862	259	18
Sat 16 Oct	4143	54	3745	310	34	0
Sun 17 Oct	3191	23	2968	177	23	0
Mon 18 Oct	6301	41	5046	891	296	27
Tue 19 Oct	6647	49	5358	875	346	19
Wed 20 Oct	6672	56	5340	878	366	32
Thu 21 Oct	6602	52	5317	871	335	27
5 Day Ave.	6589	53	5315	875	320	25
7 Day Ave.	5754	49	4756	695	237	18

PCC Traffic Information Consultancy Ltd.

Site No. 562001

Site Ref. 562001

Site 1

Classification F Site No.

Week Begin: 15 October 2021

Channel: Total Flow

	Total Volume	Bin 1 M/Cycle	Bin 2 Car/Van	Bin 3 LGV	Bin 4 HGV	Bin 5 Bus
Fri 15 Oct	13438	147	10964	1713	569	45
Sat 16 Oct	8420	101	7592	640	86	1
Sun 17 Oct	6383	54	5939	340	49	1
Mon 18 Oct	12453	92	9926	1772	614	49
Tue 19 Oct	13287	107	10658	1754	724	44
Wed 20 Oct	13270	110	10627	1732	739	62
Thu 21 Oct	13037	116	10494	1685	693	49
5 Day Ave.	13097	114	10534	1731	668	50
7 Day Ave.	11470	104	9457	1377	496	36

PCC Traffic Information Consultancy Ltd.

ATC A Ilkeston Rd, Stanton by Dale

Site No. 562001 Site Ref. 562001

Site 1

Speed Report (Speed Limit 60 Mph)

Week Begin: 15 October 2021

Channel: Northbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10-<15	Bin 3 15-<20	Bin 4 20-<25	Bin 5 25-<30	Bin 6 30-<35	Bin 7 35-<40	Bin 8 40-<45	Bin 9 45-<50	Bin 10 50-<55	Bin 11 55-<60	Bin 12 60-<65	Bin 13 =>65
Fri 15 Oct	6715	44	39	5	1	4	22	40	203	1171	2779	1804	513	115	39	7	17
Sat 16 Oct	4277	46	40	5	1	5	12	25	52	402	1642	1453	478	131	38	23	15
Sun 17 Oct	3192	46	40	6	0	2	9	28	35	337	1195	1005	400	117	43	11	10
Mon 18 Oct	6152	44	38	6	2	10	41	54	235	1256	2559	1462	379	110	28	11	5
Tue 19 Oct	6640	43	38	6	1	19	27	45	321	1426	2804	1472	385	95	26	13	6
Wed 20 Oct	6598	44	38	6	3	21	37	47	309	1391	2755	1508	362	104	39	20	2
Thu 21 Oct	6435	44	38	6	1	19	24	41	315	1403	2661	1467	367	90	29	13	5
5 Day Ave.	6508	44	38	6	2	15	30	45	277	1329	2712	1543	401	103	32	13	7
7 Day Ave.	5716	44	39	6	1	11	25	40	210	1055	2342	1453	412	109	35	14	9

PCC Traffic Information Consultancy Ltd.

Site No. 562001 Site Ref. 562001
 Site 1

Speed Report (Speed Limit 60 Mph)

Week Begin: 15 October 2021

Channel: Southbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10Mph	Bin 2 10-<15	Bin 3 15-<20	Bin 4 20-<25	Bin 5 25-<30	Bin 6 30-<35	Bin 7 35-<40	Bin 8 40-<45	Bin 9 45-<50	Bin 10 50-<55	Bin 11 55-<60	Bin 12 60-<65	Bin 13 =>65
Fri 15 Oct	6723	44	39	5	0	5	17	25	187	1078	2850	1796	561	144	36	10	14
Sat 16 Oct	4143	45	40	5	0	6	20	23	42	477	1638	1315	413	140	37	13	19
Sun 17 Oct	3191	46	40	6	0	4	11	8	28	360	1236	988	367	132	34	16	7
Mon 18 Oct	6301	44	39	6	3	6	27	40	199	1178	2605	1585	485	124	27	11	11
Tue 19 Oct	6647	44	38	6	8	26	33	54	302	1388	2747	1488	447	110	31	7	6
Wed 20 Oct	6672	44	38	6	10	29	38	63	290	1398	2820	1479	389	100	37	12	7
Thu 21 Oct	6602	44	38	6	8	27	36	59	292	1432	2708	1479	415	105	27	7	7
5 Day Ave.	6589	44	38	6	6	19	30	48	254	1295	2746	1565	459	117	32	9	9
7 Day Ave.	5754	44	39	6	4	15	26	39	191	1044	2372	1447	440	122	33	11	10

PCC Traffic Information Consultancy Ltd.

Site No. 562001 Site Ref. 562001
 Site 1

Speed Report (Speed Limit 60 Mph)

Week Begin: 15 October 2021

Channel: Total Flow

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10Mph	Bin 2 10-<15	Bin 3 15-<20	Bin 4 20-<25	Bin 5 25-<30	Bin 6 30-<35	Bin 7 35-<40	Bin 8 40-<45	Bin 9 45-<50	Bin 10 50-<55	Bin 11 55-<60	Bin 12 60-<65	Bin 13 =>65
Fri 15 Oct	13438	44	39	5	1	9	39	65	390	2249	5629	3600	1074	259	75	17	31
Sat 16 Oct	8420	45	40	5	1	11	32	48	94	879	3280	2768	891	271	75	36	34
Sun 17 Oct	6383	46	40	6	0	6	20	36	63	697	2431	1993	767	249	77	27	17
Mon 18 Oct	12453	44	38	6	5	16	68	94	434	2434	5164	3047	864	234	55	22	16
Tue 19 Oct	13287	44	38	6	9	45	60	99	623	2814	5551	2960	832	205	57	20	12
Wed 20 Oct	13270	44	38	6	13	50	75	110	599	2789	5575	2987	751	204	76	32	9
Thu 21 Oct	13037	44	38	6	9	46	60	100	607	2835	5369	2946	782	195	56	20	12
5 Day Ave.	13097	44	38	6	7	33	60	94	531	2624	5458	3108	861	219	64	22	16
7 Day Ave.	11470	44	39	6	5	26	51	79	401	2100	4714	2900	852	231	67	25	19

PCC Traffic Information Consultancy Ltd.



ATC B Sowbrook Lane, Stanton by Dale

Site No. 562002

Site Ref. 562002

Site 2

Vehicle Count Report

Week Begin: 15 October 2021

Channel: Northbound

	Fri Oct 15	Sat Oct 16	Sun Oct 17	Mon Oct 18	Tue Oct 19	Wed Oct 20	Thu Oct 21	5-Day Ave.	7-Day Ave.
00:00	2	10	12	3	6	4	4	4	6
01:00	4	7	8	1	2	2	1	2	4
02:00	2	2	5	2	1	4	4	3	3
03:00	6	1	1	6	4	9	6	6	5
04:00	8	9	1	12	7	6	9	8	7
05:00	20	8	6	26	29	26	27	26	20
06:00	28	18	11	40	56	56	59	48	38
07:00	70	21	10	107	128	91	103	100	76
08:00	118	46	28	158	194	165	176	162	126
09:00	65	62	42	79	85	80	84	79	71
10:00	60	81	71	73	86	60	54	67	69
11:00	99	81	83	99	100	103	86	97	93
12:00	121	121	120	100	116	98	97	106	110
13:00	160	107	82	99	114	123	107	121	113
14:00	188	115	84	146	176	177	168	171	151
15:00	209	91	89	189	231	226	210	213	178
16:00	234	101	76	278	303	296	275	277	223
17:00	200	87	81	208	246	241	251	229	188
18:00	118	75	77	74	121	162	116	118	106
19:00	80	53	52	64	57	64	70	67	63
20:00	47	42	28	35	43	62	48	47	44
21:00	34	35	20	33	37	34	31	34	32
22:00	36	34	18	17	26	40	26	29	28
23:00	21	12	10	7	11	15	9	13	12
Total									
12H(7-19)	1642	988	843	1610	1900	1822	1727	1740	1505
16H(6-22)	1831	1136	954	1782	2093	2038	1935	1936	1681
18H(6-24)	1888	1182	982	1806	2130	2093	1970	1977	1722
24H(0-24)	1930	1219	1015	1856	2179	2144	2021	2026	1766
AM Peak	08:00 118	11:00 81	11:00 83	08:00 158	08:00 194	08:00 165	08:00 176	08:00 162	08:00 126
PM Peak	16:00 234	12:00 121	12:00 120	16:00 278	16:00 303	16:00 296	16:00 275	16:00 277	16:00 223

Site No. 562002

Site Ref. 562002

Site 32

Vehicle Count Report

Week Begin: 15 October 2021

Channel: Southbound

	Fri Oct 15	Sat Oct 16	Sun Oct 17	Mon Oct 18	Tue Oct 19	Wed Oct 20	Thu Oct 21	5-Day Ave.	7-Day Ave.
00:00	5	3	5	1	1	1	3	2	3
01:00	0	1	0	2	1	1	1	1	1
02:00	3	4	2	4	3	5	4	4	4
03:00	7	7	6	6	6	6	6	6	6
04:00	13	15	6	23	19	18	24	19	17
05:00	66	30	17	77	74	79	76	74	60
06:00	99	26	14	113	109	117	100	108	83
07:00	191	51	24	187	171	185	190	185	143
08:00	285	81	38	268	305	293	250	280	217
09:00	111	80	66	126	133	102	113	117	104
10:00	91	116	69	67	86	99	81	85	87
11:00	72	92	90	84	86	80	79	80	83
12:00	98	95	94	91	92	74	98	91	92
13:00	120	89	76	98	98	99	93	102	96
14:00	176	83	68	99	102	99	103	116	104
15:00	246	59	77	175	192	199	178	198	161
16:00	157	73	58	185	177	203	204	185	151
17:00	122	66	56	99	137	151	114	125	106
18:00	79	64	50	66	90	135	91	92	82
19:00	55	36	35	45	42	55	56	51	46
20:00	30	31	12	27	31	43	38	34	30
21:00	23	31	14	16	14	27	23	21	21
22:00	19	15	5	8	15	25	24	18	16
23:00	9	14	9	5	7	7	7	7	8
Total									
12H(7-19)	1748	949	766	1545	1669	1719	1594	1655	1427
16H(6-22)	1955	1073	841	1746	1865	1961	1811	1868	1607
18H(6-24)	1983	1102	855	1759	1887	1993	1842	1893	1632
24H(0-24)	2077	1162	891	1872	1991	2103	1956	2000	1722
AM Peak	08:00 285	10:00 116	11:00 90	08:00 268	08:00 305	08:00 293	08:00 250	08:00 280	08:00 217
PM Peak	15:00 246	12:00 95	12:00 94	16:00 185	15:00 192	16:00 203	16:00 204	15:00 198	15:00 161

PCC Traffic Information Consultancy Ltd.

Site No. 562002

Site Ref. 562002

Site 32

Vehicle Count Report

Week Begin: 15 October 2021

Channel: Total Flow

	Fri Oct 15	Sat Oct 16	Sun Oct 17	Mon Oct 18	Tue Oct 19	Wed Oct 20	Thu Oct 21	5-Day Ave.	7-Day Ave.
00:00	7	13	17	4	7	5	7	6	9
01:00	4	8	8	3	3	3	2	3	4
02:00	5	6	7	6	4	9	8	6	6
03:00	13	8	7	12	10	15	12	12	11
04:00	21	24	7	35	26	24	33	28	24
05:00	86	38	23	103	103	105	103	100	80
06:00	127	44	25	153	165	173	159	155	121
07:00	261	72	34	294	299	276	293	285	218
08:00	403	127	66	426	499	458	426	442	344
09:00	176	142	108	205	218	182	197	196	175
10:00	151	197	140	140	172	159	135	151	156
11:00	171	173	173	183	186	183	165	178	176
12:00	219	216	214	191	208	172	195	197	202
13:00	280	196	158	197	212	222	200	222	209
14:00	364	198	152	245	278	276	271	287	255
15:00	455	150	166	364	423	425	388	411	339
16:00	391	174	134	463	480	499	479	462	374
17:00	322	153	137	307	383	392	365	354	294
18:00	197	139	127	140	211	297	207	210	188
19:00	135	89	87	109	99	119	126	118	109
20:00	77	73	40	62	74	105	86	81	74
21:00	57	66	34	49	51	61	54	54	53
22:00	55	49	23	25	41	65	50	47	44
23:00	30	26	19	12	18	22	16	20	20
Total									
12H(7-19)	3390	1937	1609	3155	3569	3541	3321	3395	2932
16H(6-22)	3786	2209	1795	3528	3958	3999	3746	3803	3289
18H(6-24)	3871	2284	1837	3565	4017	4086	3812	3870	3353
24H(0-24)	4007	2381	1906	3728	4170	4247	3977	4026	3488
AM Peak	08:00 403	10:00 197	11:00 173	08:00 426	08:00 499	08:00 458	08:00 426	08:00 442	08:00 344
PM Peak	15:00 455	12:00 216	12:00 214	16:00 463	16:00 480	16:00 499	16:00 479	16:00 462	16:00 374

PCC Traffic Information Consultancy Ltd.



ATC B Sowbrook Lane, Stanton by Dale

Site No. 562002

Site Ref. 562002

Site 2

Classification Report

Week Begin: 15 October 2021

Channel: Northbound

	Total Volume	Bin 1 M/Cycle	Bin 2 Car/Van	Bin 3 LGV	Bin 4 HGV	Bin 5 Bus
Fri 15 Oct	1930	29	1697	183	21	0
Sat 16 Oct	1219	10	1117	81	11	0
Sun 17 Oct	1015	7	936	52	20	0
Mon 18 Oct	1856	7	1667	146	36	0
Tue 19 Oct	2179	17	1915	186	59	2
Wed 20 Oct	2144	9	1875	192	68	0
Thu 21 Oct	2021	20	1799	181	21	0
5 Day Ave.	2026	16	1791	178	41	0
7 Day Ave.	1766	14	1572	146	34	0

PCC Traffic Information Consultancy Ltd.

Site No. 562002

Site Ref. 562002

Site 32

Classification Report

Week Begin: 15 October 2021

Channel: Southbound

	Total Volume	Bin 1 M/Cycle	Bin 2 Car/Van	Bin 3 LGV	Bin 4 HGV	Bin 5 Bus
Fri 15 Oct	2077	35	1816	190	34	2
Sat 16 Oct	1162	16	1046	74	26	0
Sun 17 Oct	891	10	817	37	27	0
Mon 18 Oct	1872	17	1649	140	66	0
Tue 19 Oct	1991	13	1764	150	63	1
Wed 20 Oct	2103	10	1848	149	96	0
Thu 21 Oct	1956	20	1736	147	53	0
5 Day Ave.	2000	19	1763	155	62	1
7 Day Ave.	1722	17	1525	127	52	0

PCC Traffic Information Consultancy Ltd.

Site No. 562002

Site Ref. 562002

Site 32

Classification F Site No.

Week Begin: 15 October 2021

Channel: Total Flow

	Total Volume	Bin 1 M/Cycle	Bin 2 Car/Van	Bin 3 LGV	Bin 4 HGV	Bin 5 Bus
Fri 15 Oct	4007	64	3513	373	55	2
Sat 16 Oct	2381	26	2163	155	37	0
Sun 17 Oct	1906	17	1753	89	47	0
Mon 18 Oct	3728	24	3316	286	102	0
Tue 19 Oct	4170	30	3679	336	122	3
Wed 20 Oct	4247	19	3723	341	164	0
Thu 21 Oct	3977	40	3535	328	74	0
5 Day Ave.	4026	35	3553	333	103	1
7 Day Ave.	3488	31	3097	273	86	1

PCC Traffic Information Consultancy Ltd.



ATC B Sowbrook Lane, Stanton by Dale

Site No.

562002

Site Ref.

562002

Site 2

Speed Report (Speed Limit 40 Mph)

Week Begin: 15 October 2021

Channel: Northbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10Mph	Bin 2 10-<15	Bin 3 15-<20	Bin 4 20-<25	Bin 5 25-<30	Bin 6 30-<35	Bin 7 35-<40	Bin 8 40-<45	Bin 9 45-<50	Bin 10 50-<55	Bin 11 55-<60	Bin 12 60-<65	Bin 13 =>65
Fri 15 Oct	1930	39	34	6	2	3	13	55	367	774	513	154	30	17	1	0	1
Sat 16 Oct	1219	39	34	5	1	1	12	38	186	495	351	97	19	14	3	1	1
Sun 17 Oct	1015	40	35	5	0	1	3	28	120	387	330	106	20	13	3	2	2
Mon 18 Oct	1856	39	34	5	2	6	5	43	299	861	500	101	31	5	3	0	0
Tue 19 Oct	2179	38	33	5	1	8	11	82	439	1040	458	105	28	6	1	0	0
Wed 20 Oct	2144	38	33	5	1	3	10	54	431	1052	458	101	24	5	2	2	1
Thu 21 Oct	2021	39	33	5	0	3	6	51	422	895	488	112	31	13	0	0	0
5 Day Ave.	2026	39	33	5	1	5	9	57	392	924	483	115	29	9	1	0	0
7 Day Ave.	1766	39	34	5	1	4	9	50	323	786	443	111	26	10	2	1	1

PCC Traffic Information Consultancy Ltd.

Site No. 562002

Site Ref. 562002

Site 32

Speed Report (Speed Limit 40 Mph)

Week Begin: 15 October 2021

Channel: Southbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10Mph	Bin 2 10-<15	Bin 3 15-<20	Bin 4 20-<25	Bin 5 25-<30	Bin 6 30-<35	Bin 7 35-<40	Bin 8 40-<45	Bin 9 45-<50	Bin 10 50-<55	Bin 11 55-<60	Bin 12 60-<65	Bin 13 =>65
Fri 15 Oct	2077	38	31	7	58	61	84	140	364	745	471	118	27	6	3	0	0
Sat 16 Oct	1162	40	34	5	12	9	12	31	104	471	394	112	14	2	1	0	0
Sun 17 Oct	891	40	35	5	1	3	14	18	65	352	327	92	12	6	1	0	0
Mon 18 Oct	1872	39	32	6	6	15	65	144	220	774	530	100	15	2	1	0	0
Tue 19 Oct	1991	37	30	7	56	43	112	208	240	876	377	65	13	1	0	0	0
Wed 20 Oct	2103	38	31	7	92	39	95	165	248	842	520	88	10	3	1	0	0
Thu 21 Oct	1956	39	32	7	45	35	60	137	246	781	502	115	30	4	1	0	0
5 Day Ave.	2000	38	31	7	51	39	83	159	264	804	480	97	19	3	1	0	0
7 Day Ave.	1722	39	32	6	39	29	63	120	212	692	446	99	17	3	1	0	0

PCC Traffic Information Consultancy Ltd.

Site No. 562002

Site Ref. 562002

Site 32

Speed Report (Speed Limit 40 Mph)

Week Begin: 15 October 2021

Channel: Total Flow

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10Mph	Bin 2 10-<15	Bin 3 15-<20	Bin 4 20-<25	Bin 5 25-<30	Bin 6 30-<35	Bin 7 35-<40	Bin 8 40-<45	Bin 9 45-<50	Bin 10 50-<55	Bin 11 55-<60	Bin 12 60-<65	Bin 13 =>65
Fri 15 Oct	4007	39	32	6	60	64	97	195	731	1519	984	272	57	23	4	0	1
Sat 16 Oct	2381	39	34	5	13	10	24	69	290	966	745	209	33	16	4	1	1
Sun 17 Oct	1906	40	35	5	1	4	17	46	185	739	657	198	32	19	4	2	2
Mon 18 Oct	3728	39	33	6	8	21	70	187	519	1635	1030	201	46	7	4	0	0
Tue 19 Oct	4170	38	32	6	57	51	123	290	679	1916	835	170	41	7	1	0	0
Wed 20 Oct	4247	38	32	6	93	42	105	219	679	1894	978	189	34	8	3	2	1
Thu 21 Oct	3977	39	33	6	45	38	66	188	668	1676	990	227	61	17	1	0	0
5 Day Ave.	4026	39	32	6	53	43	92	216	655	1728	963	212	48	12	3	0	0
7 Day Ave.	3488	39	33	6	40	33	72	171	536	1478	888	209	43	14	3	1	1

PCC Traffic Information Consultancy Ltd.

Junction: 1

Approach: Ilkeston Road

TIME	To Lows Lane								To Sowbrook Road							
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
07:00 - 07:15	0	0	80	21	3	4	0	108	0	0	0	0	0	0	0	0
07:15 - 07:30	0	0	95	26	4	5	0	130	0	0	0	0	0	0	0	0
07:30 - 07:45	0	1	138	19	7	4	1	170	0	0	0	3	0	0	0	3
07:45 - 08:00	1	1	124	29	3	6	0	164	0	0	0	2	0	0	0	2
Hourly Total	1	2	437	95	17	19	1	572	0	0	0	5	0	0	0	5
08:00 - 08:15	0	0	135	25	3	4	0	167	0	0	1	1	0	0	0	2
08:15 - 08:30	0	2	85	19	5	6	0	117	0	0	2	1	0	0	0	3
08:30 - 08:45	0	1	72	21	3	6	0	103	0	0	6	4	0	0	0	10
08:45 - 09:00	0	0	85	23	10	12	0	130	0	0	2	0	0	0	0	2
Hourly Total	0	3	377	88	21	28	0	517	0	0	11	6	0	0	0	17
09:00 - 09:15	0	1	59	19	6	12	1	98	0	0	1	0	0	0	0	1
09:15 - 09:30	0	0	61	21	5	11	1	99	0	0	3	1	0	0	0	4
09:30 - 09:45	0	0	70	16	3	5	0	94	0	0	1	0	0	0	0	1
09:45 - 10:00	0	0	51	21	3	9	1	85	0	0	1	1	0	0	0	2
Hourly Total	0	1	241	77	17	37	3	376	0	0	6	2	0	0	0	8
TOTAL	1	6	1055	260	55	84	4	1465	0	0	17	13	0	0	0	30
16:00 - 16:15	0	1	103	21	2	8	0	135	0	0	26	1	0	0	0	27
16:15 - 16:30	1	2	102	19	4	0	0	128	0	0	12	1	0	0	0	13
16:30 - 16:45	0	2	114	21	6	5	0	148	0	0	15	6	0	0	0	21
16:45 - 17:00	0	0	91	23	0	5	1	120	0	0	15	0	0	0	0	15
Hourly Total	1	5	410	84	12	18	1	531	0	0	68	8	0	0	0	76
17:00 - 17:15	0	2	140	29	1	1	0	173	0	0	32	2	0	0	0	34
17:15 - 17:30	1	0	102	13	0	4	0	120	0	0	16	2	0	0	0	18
17:30 - 17:45	0	3	93	11	0	0	0	107	0	0	11	1	0	0	0	12
17:45 - 18:00	0	0	73	4	0	1	0	78	0	0	6	0	0	0	0	6
Hourly Total	1	5	408	57	1	6	0	478	0	0	65	5	0	0	0	70
18:00 - 18:15	1	1	89	8	1	1	0	101	0	0	5	0	0	0	0	5
18:15 - 18:30	0	1	67	5	0	0	0	73	0	0	8	0	0	0	0	8
18:30 - 18:45	0	1	64	5	0	0	0	70	0	0	4	0	0	0	0	4
18:45 - 19:00	0	0	60	1	0	0	0	61	0	0	5	0	0	0	0	5
Hourly Total	1	3	280	19	1	1	0	305	0	0	22	0	0	0	0	22
TOTAL	3	13	1098	160	14	25	1	1314	0	0	155	13	0	0	0	168

Junction: 1

Approach: Lows Lane

TIME	To Sowbrook Road								To Ilkeston Road							
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
07:00 - 07:15	0	0	14	0	0	0	0	14	0	0	54	18	1	6	0	79
07:15 - 07:30	0	0	8	1	0	0	0	9	0	0	57	20	1	7	0	85
07:30 - 07:45	0	0	11	2	0	0	0	13	0	0	62	27	7	5	1	102
07:45 - 08:00	0	0	16	3	0	0	0	19	0	2	83	26	5	3	0	119
Hourly Total	0	0	49	6	0	0	0	55	0	2	256	91	14	21	1	385
08:00 - 08:15	0	0	18	3	1	0	1	23	1	0	72	21	4	4	0	102
08:15 - 08:30	0	0	18	5	0	0	0	23	0	2	86	21	4	3	1	117
08:30 - 08:45	0	0	21	9	0	0	0	30	0	0	80	28	4	10	0	122
08:45 - 09:00	0	0	19	4	0	0	0	23	0	1	51	20	1	6	0	79
Hourly Total	0	0	76	21	1	0	1	99	1	3	289	90	13	23	1	420
09:00 - 09:15	0	0	9	5	0	0	0	14	0	0	52	18	4	8	0	82
09:15 - 09:30	0	0	15	3	0	0	0	18	0	0	49	16	2	5	0	72
09:30 - 09:45	0	0	7	5	1	0	0	13	0	0	41	15	4	6	0	66
09:45 - 10:00	0	1	13	3	0	0	0	17	0	0	40	12	5	6	0	63
Hourly Total	0	1	44	16	1	0	0	62	0	0	182	61	15	25	0	283
TOTAL	0	1	169	43	2	0	1	216	1	5	727	242	42	69	2	1088
16:00 - 16:15	0	0	39	4	0	0	0	43	0	1	81	33	3	6	1	125
16:15 - 16:30	1	1	33	10	0	0	0	45	0	2	114	17	6	5	0	144
16:30 - 16:45	1	1	41	11	0	0	0	54	0	1	107	24	5	2	0	139
16:45 - 17:00	1	0	44	10	0	0	0	55	1	0	104	16	4	9	0	134
Hourly Total	3	2	157	35	0	0	0	197	1	4	406	90	18	22	1	542
17:00 - 17:15	0	0	57	9	0	0	0	66	0	1	108	19	2	1	0	131
17:15 - 17:30	0	0	38	11	0	0	0	49	0	1	109	14	1	0	1	126
17:30 - 17:45	0	0	28	6	0	0	0	34	2	1	113	16	3	2	0	137
17:45 - 18:00	0	1	27	3	0	0	0	31	0	4	106	11	1	0	0	122
Hourly Total	0	1	150	29	0	0	0	180	2	7	436	60	7	3	1	516
18:00 - 18:15	0	0	36	2	0	0	0	38	0	0	97	14	2	3	0	116
18:15 - 18:30	0	0	26	4	0	0	0	30	0	1	130	7	3	4	0	145
18:30 - 18:45	0	0	25	1	0	0	0	26	0	0	92	7	0	1	0	100
18:45 - 19:00	0	0	21	3	0	0	0	24	0	2	76	2	2	2	0	84
Hourly Total	0	0	108	10	0	0	0	118	0	3	395	30	7	10	0	445
TOTAL	3	3	415	74	0	0	0	495	3	14	1237	180	32	35	2	1503

Junction: 1

Approach: Sowbrook Road

TIME	To Ilkeston Road								To Lows Lane							
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
07:00 - 07:15	0	1	9	1	0	0	0	11	0	0	24	4	0	0	0	28
07:15 - 07:30	0	0	4	0	0	0	0	4	1	0	26	3	0	0	0	30
07:30 - 07:45	0	0	7	1	0	0	0	8	0	0	30	7	0	0	0	37
07:45 - 08:00	0	0	8	4	0	0	0	12	0	0	35	9	0	0	0	44
Hourly Total	0	1	28	6	0	0	0	35	1	0	115	23	0	0	0	139
08:00 - 08:15	0	0	5	1	0	0	0	6	0	0	32	3	0	0	0	35
08:15 - 08:30	0	0	15	1	1	0	0	17	0	0	31	2	0	0	0	33
08:30 - 08:45	0	0	16	5	0	0	0	21	0	0	29	4	0	0	0	33
08:45 - 09:00	0	0	42	2	0	0	0	44	0	0	47	5	0	0	0	52
Hourly Total	0	0	78	9	1	0	0	88	0	0	139	14	0	0	0	153
09:00 - 09:15	0	0	10	3	0	0	0	13	0	0	26	3	0	0	0	29
09:15 - 09:30	0	1	0	0	0	0	0	1	0	1	24	4	0	0	0	29
09:30 - 09:45	0	0	3	1	0	0	0	4	0	0	20	5	0	0	0	25
09:45 - 10:00	0	0	6	1	0	0	0	7	0	0	15	6	1	0	0	22
Hourly Total	0	1	19	5	0	0	0	25	0	1	85	18	1	0	0	105
TOTAL	0	2	125	20	1	0	0	148	1	1	339	55	1	0	0	397
16:00 - 16:15	0	0	11	3	0	0	0	14	0	0	29	2	0	0	0	31
16:15 - 16:30	0	0	29	3	1	0	0	33	0	0	31	3	0	0	0	34
16:30 - 16:45	0	2	9	0	0	0	0	11	0	0	19	3	0	0	0	22
16:45 - 17:00	0	0	10	0	0	0	0	10	0	0	24	6	0	0	0	30
Hourly Total	0	2	59	6	1	0	0	68	0	0	103	14	0	0	0	117
17:00 - 17:15	0	0	12	2	0	0	0	14	0	0	12	4	0	0	0	16
17:15 - 17:30	0	0	8	0	0	0	0	8	0	0	20	2	0	0	0	22
17:30 - 17:45	0	0	14	1	0	0	0	15	0	0	16	3	0	0	0	19
17:45 - 18:00	0	0	5	1	0	0	0	6	0	0	21	3	0	0	0	24
Hourly Total	0	0	39	4	0	0	0	43	0	0	69	12	0	0	0	81
18:00 - 18:15	0	0	34	3	0	0	0	37	0	0	15	4	0	0	0	19
18:15 - 18:30	0	0	15	3	0	0	0	18	0	0	19	1	0	0	0	20
18:30 - 18:45	0	0	15	0	0	0	0	15	0	0	15	2	0	0	0	17
18:45 - 19:00	0	0	6	0	0	0	0	6	0	0	14	2	0	0	0	16
Hourly Total	0	0	70	6	0	0	0	76	0	0	63	9	0	0	0	72
TOTAL	0	2	168	16	1	0	0	187	0	0	235	35	0	0	0	270

Junction: 1

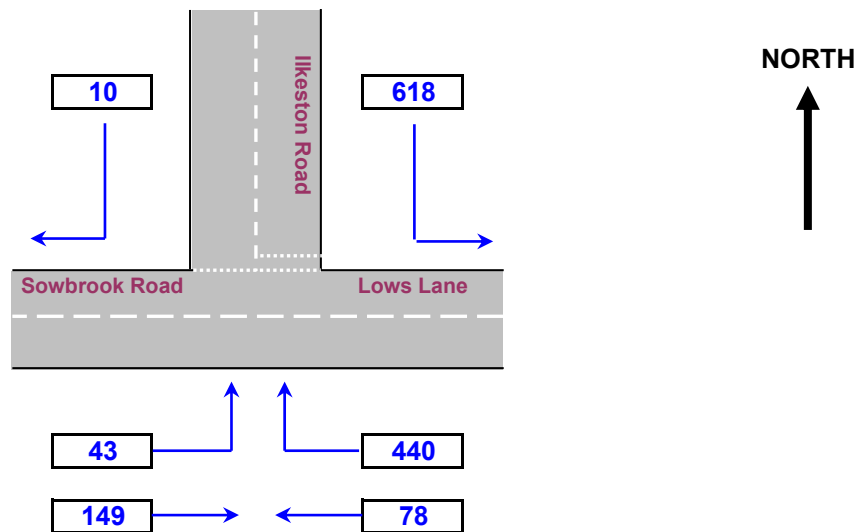
Vehicle Class: All Vehicles

Show Peak Hour: ☒

Start Time: 1) 07:30

End Time: 1) 08:30

Show Session 2



Junction: 2

Approach: Lows Lane East

TIME	To Littlewell Lane								To Lows Lane (W)							
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
07:00 - 07:15	0	0	1	2	0	2	0	5	0	0	45	8	1	6	0	60
07:15 - 07:30	0	0	2	0	0	0	0	2	0	0	36	10	1	6	0	53
07:30 - 07:45	0	1	1	2	0	3	0	7	0	0	44	17	5	5	1	72
07:45 - 08:00	0	0	2	0	1	0	0	3	0	2	51	14	4	3	0	74
Hourly Total	0	1	6	4	1	5	0	17	0	2	176	49	11	20	1	259
08:00 - 08:15	0	0	5	0	1	3	0	9	1	0	52	14	4	3	1	75
08:15 - 08:30	0	0	2	0	1	1	0	4	0	1	58	17	4	2	1	83
08:30 - 08:45	0	0	4	1	1	1	0	7	0	0	58	17	3	9	0	87
08:45 - 09:00	0	0	4	0	1	3	0	8	0	1	40	13	1	6	0	61
Hourly Total	0	0	15	1	4	8	0	28	1	2	208	61	12	20	2	306
09:00 - 09:15	0	0	2	2	0	1	0	5	0	0	35	7	4	7	0	53
09:15 - 09:30	0	0	1	1	1	0	0	3	0	0	34	11	2	4	0	51
09:30 - 09:45	0	0	1	1	2	0	0	4	0	0	24	12	3	5	0	44
09:45 - 10:00	0	0	2	0	1	1	1	5	0	1	39	9	3	6	0	58
Hourly Total	0	0	6	4	4	2	1	17	0	1	132	39	12	22	0	206
TOTAL	0	1	27	9	9	15	1	62	1	5	516	149	35	62	3	771
16:00 - 16:15	0	0	0	1	1	2	0	4	0	1	78	20	3	6	0	108
16:15 - 16:30	0	0	1	2	0	0	0	3	0	2	83	14	6	5	0	110
16:30 - 16:45	0	0	1	0	0	0	0	1	1	2	92	17	4	2	0	118
16:45 - 17:00	0	0	1	1	2	0	0	4	0	0	77	9	4	9	0	99
Hourly Total	0	0	3	4	3	2	0	12	1	5	330	60	17	22	0	435
17:00 - 17:15	0	0	3	2	0	1	0	6	0	1	97	15	2	0	0	115
17:15 - 17:30	0	0	1	1	0	1	0	3	0	1	87	10	1	0	0	99
17:30 - 17:45	0	0	2	1	0	0	0	3	1	1	83	7	3	2	0	97
17:45 - 18:00	0	0	2	1	0	1	0	4	0	4	86	8	0	0	0	98
Hourly Total	0	0	8	5	0	3	0	16	1	7	353	40	6	2	0	409
18:00 - 18:15	0	0	0	0	0	1	0	1	0	0	81	8	2	2	0	93
18:15 - 18:30	0	0	2	0	0	0	0	2	0	1	82	3	2	4	0	92
18:30 - 18:45	0	0	3	1	0	1	0	5	0	0	68	4	0	1	0	73
18:45 - 19:00	0	0	0	0	0	1	0	1	0	1	59	3	2	2	0	67
Hourly Total	0	0	5	1	0	3	0	9	0	2	290	18	6	9	0	325
TOTAL	0	0	16	10	3	8	0	37	2	14	973	118	29	33	0	1169

Junction: 2
Approach: Littlewell Lane

TIME	To Lows Lane (W)								To Lows Lane (E)								U-Turn							
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
07:00 - 07:15	0	0	23	10	0	0	0	33	0	0	0	2	4	4	0	10	0	0	1	0	0	0	0	1
07:15 - 07:30	0	0	28	11	0	1	0	40	0	0	1	1	1	2	0	5	0	0	0	0	0	0	0	0
07:30 - 07:45	0	0	29	13	2	0	0	44	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0
07:45 - 08:00	0	0	45	15	2	0	0	62	0	0	2	0	3	3	0	8	0	0	0	0	0	0	0	0
Hourly Total	0	0	125	49	4	1	0	179	0	0	3	3	8	11	0	25	0	0	1	0	0	0	0	1
08:00 - 08:15	0	0	39	10	0	1	0	50	0	0	0	0	1	3	0	4	0	0	0	0	0	0	0	0
08:15 - 08:30	0	1	50	10	0	1	0	62	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0
08:30 - 08:45	0	0	41	19	1	1	0	62	0	0	1	0	1	1	0	3	0	0	0	0	0	0	0	0
08:45 - 09:00	0	0	28	11	0	0	0	39	0	0	2	1	0	1	0	4	0	0	0	0	0	0	0	0
Hourly Total	0	1	158	50	1	3	0	213	0	0	3	2	2	5	0	12	0	0	0	0	0	0	0	0
09:00 - 09:15	0	0	25	14	0	1	0	40	0	0	1	1	0	1	0	3	0	0	0	0	0	0	0	0
09:15 - 09:30	0	0	32	6	0	2	0	40	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0
09:30 - 09:45	0	0	23	9	2	0	0	34	0	0	1	2	1	0	0	4	0	0	0	0	0	0	0	0
09:45 - 10:00	0	0	17	5	2	0	0	24	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0
Hourly Total	0	0	97	34	4	3	0	138	0	0	2	3	1	6	0	12	0	0	0	0	0	0	0	0
TOTAL	0	1	380	133	9	7	0	530	0	0	8	8	11	22	0	49	0	0	1	0	0	0	0	1
16:00 - 16:15	0	0	45	17	0	0	1	63	0	0	1	2	0	0	0	3	0	0	0	0	0	0	0	0
16:15 - 16:30	1	1	64	8	1	0	0	75	2	1	3	3	0	0	0	9	0	0	0	0	0	0	0	0
16:30 - 16:45	0	0	55	20	0	0	0	75	0	0	7	3	0	1	0	11	0	0	0	0	0	0	0	0
16:45 - 17:00	1	0	73	16	0	0	0	90	0	0	3	2	1	1	0	7	0	0	0	0	0	0	0	0
Hourly Total	2	1	237	61	1	0	1	303	2	1	14	10	1	2	0	30	0	0	0	0	0	0	0	0
17:00 - 17:15	0	0	65	15	0	1	0	81	0	0	14	0	0	0	0	14	0	0	0	0	0	0	0	0
17:15 - 17:30	0	0	61	16	0	0	1	78	0	0	7	0	0	1	0	8	0	0	0	0	0	0	0	0
17:30 - 17:45	1	0	55	13	0	0	0	69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45 - 18:00	0	1	47	6	1	0	0	55	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0
Hourly Total	1	1	228	50	1	1	1	283	0	0	22	0	0	1	0	23	0	0	0	0	0	0	0	0
18:00 - 18:15	0	0	53	9	0	1	0	63	0	0	2	0	0	1	0	3	0	0	0	0	0	0	0	0
18:15 - 18:30	0	0	70	8	1	0	0	79	0	0	4	1	0	0	0	5	0	0	0	0	0	0	0	0
18:30 - 18:45	0	0	48	4	0	0	0	52	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
18:45 - 19:00	0	1	41	3	0	0	0	45	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0
Hourly Total	0	1	212	24	1	1	0	239	0	0	7	1	0	3	0	11	0	0	0	0	0	0	0	0
TOTAL	3	3	677	135	3	2	2	825	2	1	43	11	1	6	0	64	0	0	0	0	0	0	0	0

Junction: 2

Approach: Lows Lane West

TIME	To Lows Lane (E)								To Littlewell Lane							
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
07:00 - 07:15	0	0	55	12	2	3	0	72	0	0	48	14	1	1	0	64
07:15 - 07:30	1	0	75	13	4	4	0	97	0	0	46	17	1	0	0	64
07:30 - 07:45	0	0	102	11	6	5	1	125	0	0	64	14	0	0	0	78
07:45 - 08:00	1	2	91	25	3	5	0	127	0	0	67	14	0	1	0	82
Hourly Total	2	2	323	61	15	17	1	421	0	0	225	59	2	2	0	288
08:00 - 08:15	0	0	81	16	1	4	0	102	0	0	86	13	2	0	0	101
08:15 - 08:30	0	0	78	12	4	5	0	99	0	2	36	9	1	1	0	49
08:30 - 08:45	0	1	62	15	3	6	0	87	0	0	38	12	0	0	0	50
08:45 - 09:00	0	0	87	16	8	12	0	123	0	0	47	12	2	0	0	61
Hourly Total	0	1	308	59	16	27	0	411	0	2	207	46	5	1	0	261
09:00 - 09:15	0	0	54	6	4	10	1	75	0	1	31	15	2	2	0	51
09:15 - 09:30	0	0	53	13	4	11	1	82	0	1	32	12	1	0	0	46
09:30 - 09:45	0	0	58	10	3	5	0	76	0	0	33	12	0	0	0	45
09:45 - 10:00	0	0	42	15	2	8	1	68	0	0	24	12	2	1	0	39
Hourly Total	0	0	207	44	13	34	3	301	0	2	120	51	5	3	0	181
TOTAL	2	3	838	164	44	78	4	1133	0	4	552	156	12	6	0	730
16:00 - 16:15	0	0	87	15	0	8	0	110	0	1	42	8	2	0	0	53
16:15 - 16:30	1	1	77	12	4	0	0	95	0	1	61	9	0	0	0	71
16:30 - 16:45	0	1	86	14	5	5	0	111	0	1	47	12	1	0	0	61
16:45 - 17:00	0	0	76	13	0	4	0	93	0	0	40	16	0	1	1	58
Hourly Total	1	2	326	54	9	17	0	409	0	3	190	45	3	1	1	243
17:00 - 17:15	0	2	85	15	1	1	0	104	0	0	65	17	0	0	0	82
17:15 - 17:30	1	0	72	5	0	4	0	82	0	0	51	10	0	0	0	61
17:30 - 17:45	0	3	66	8	0	0	0	77	0	0	39	6	0	0	0	45
17:45 - 18:00	0	0	55	6	0	1	0	62	0	0	42	1	0	0	0	43
Hourly Total	1	5	278	34	1	6	0	325	0	0	197	34	0	0	0	231
18:00 - 18:15	1	1	70	6	1	1	0	80	0	0	34	6	0	0	0	40
18:15 - 18:30	0	0	57	2	0	0	0	59	0	1	29	4	0	0	0	34
18:30 - 18:45	0	0	49	4	0	0	0	53	0	1	30	4	0	0	0	35
18:45 - 19:00	0	0	53	1	0	0	0	54	0	0	20	2	0	0	0	22
Hourly Total	1	1	229	13	1	1	0	246	0	2	113	16	0	0	0	131
TOTAL	3	8	833	101	11	24	0	980	0	5	500	95	3	1	1	605

Junction: 2

U-Turn

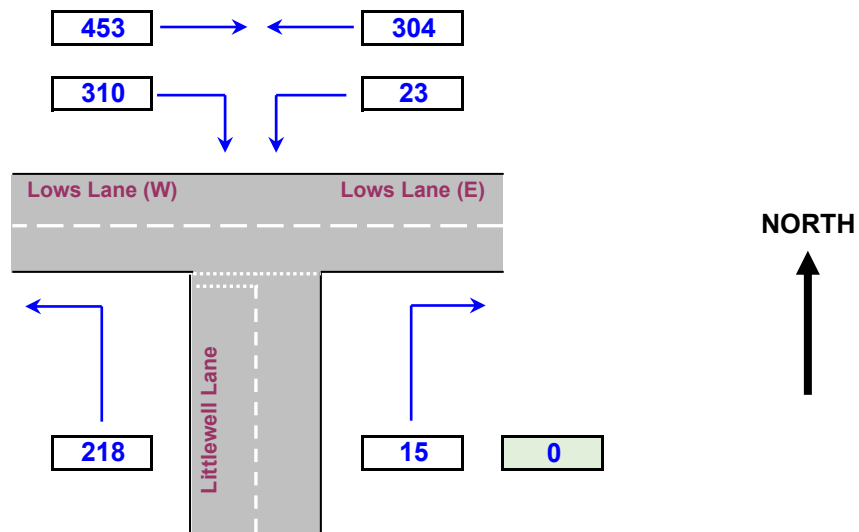
Vehicle Class: **All Vehicles**

Show Peak Hour: ☒

Start Time: **1) 07:30**

End Time: **1) 08:30**

Show Session 2



Junction: 3

Approach: Quarry Hill Road North

TIME	To Merlins Way								To Quarry Hill Road (S)							
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
07:00 - 07:15	0	2	23	12	1	2	0	40	0	0	63	20	2	2	0	87
07:15 - 07:30	0	1	44	16	1	3	0	65	0	0	94	26	1	2	0	123
07:30 - 07:45	2	2	46	11	2	2	0	65	0	1	116	17	1	2	0	137
07:45 - 08:00	2	1	42	11	3	2	0	61	0	1	111	20	1	0	0	133
Hourly Total	4	6	155	50	7	9	0	231	0	2	384	83	5	6	0	480
08:00 - 08:15	0	1	22	7	2	4	0	36	0	0	119	17	1	1	0	138
08:15 - 08:30	0	0	17	7	2	4	0	30	0	2	81	8	1	3	0	95
08:30 - 08:45	0	0	13	9	7	7	0	36	0	1	68	13	1	0	0	83
08:45 - 09:00	0	0	22	9	2	6	0	39	0	0	81	14	2	3	0	100
Hourly Total	0	1	74	32	13	21	0	141	0	3	349	52	5	7	0	416
09:00 - 09:15	0	0	25	7	1	3	0	36	0	0	52	12	2	2	0	68
09:15 - 09:30	0	0	9	7	3	6	0	25	0	0	60	10	3	2	1	76
09:30 - 09:45	0	0	9	9	1	5	0	24	0	0	59	9	1	4	0	73
09:45 - 10:00	0	0	10	10	4	4	0	28	0	0	43	15	1	5	1	65
Hourly Total	0	0	53	33	9	18	0	113	0	0	214	46	7	13	2	282
TOTAL	4	7	282	115	29	48	0	485	0	5	947	181	17	26	2	1178
16:00 - 16:15	0	0	6	4	1	2	0	13	1	1	54	8	1	1	0	66
16:15 - 16:30	0	0	12	3	2	0	0	17	0	2	72	13	0	0	0	87
16:30 - 16:45	0	0	7	8	3	1	1	20	0	0	65	6	0	0	0	71
16:45 - 17:00	0	0	6	5	0	4	0	15	0	0	72	17	0	0	1	90
Hourly Total	0	0	31	20	6	7	1	65	1	3	263	44	1	1	1	314
17:00 - 17:15	0	0	8	2	0	1	0	11	0	0	78	11	1	0	0	90
17:15 - 17:30	0	0	6	0	0	1	0	7	0	0	72	6	0	0	0	78
17:30 - 17:45	0	0	5	0	1	2	0	8	0	2	77	8	0	0	0	87
17:45 - 18:00	0	0	6	1	0	0	0	7	0	0	51	5	0	0	0	56
Hourly Total	0	0	25	3	1	4	0	33	0	2	278	30	1	0	0	311
18:00 - 18:15	0	0	5	0	0	1	0	6	1	1	67	4	0	0	0	73
18:15 - 18:30	0	0	6	0	0	0	0	6	0	1	58	5	0	0	0	64
18:30 - 18:45	0	0	11	1	0	0	0	12	0	1	50	6	0	0	0	57
18:45 - 19:00	0	0	7	2	1	0	0	10	2	0	58	1	0	0	0	61
Hourly Total	0	0	29	3	1	1	0	34	3	3	233	16	0	0	0	255
TOTAL	0	0	85	26	8	12	1	132	4	8	774	90	2	1	1	880

Junction: 3

Approach: Merlin Way

TIME	To Quarry Hill Road (S)								To Quarry Hill Road (N)								U-Turn							
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
07:00 - 07:15	0	0	9	3	0	5	0	17	0	0	1	2	6	5	0	14	0	0	0	0	0	0	0	0
07:15 - 07:30	0	0	4	3	3	3	0	13	0	0	4	6	3	0	0	13	0	0	0	0	0	0	0	0
07:30 - 07:45	0	0	12	10	5	3	1	31	0	0	3	4	3	4	1	15	0	0	0	0	0	0	0	0
07:45 - 08:00	1	0	13	16	3	5	0	38	0	0	4	6	2	4	0	16	0	0	0	0	0	0	0	0
Hourly Total	1	0	38	32	11	16	1	99	0	0	12	18	14	13	1	58	0	0	0	0	0	0	0	0
08:00 - 08:15	0	0	16	13	2	5	0	36	0	1	6	2	2	2	0	13	0	0	0	0	0	0	0	0
08:15 - 08:30	0	0	11	11	4	7	0	33	0	0	3	14	2	0	0	19	0	0	0	0	0	0	0	0
08:30 - 08:45	0	0	14	12	1	5	0	32	0	0	5	10	4	4	0	23	0	0	0	0	0	0	0	0
08:45 - 09:00	0	0	6	9	9	8	0	32	0	0	6	8	2	4	0	20	0	0	0	0	0	0	0	0
Hourly Total	0	0	47	45	16	25	0	133	0	1	20	34	10	10	0	75	0	0	0	0	0	0	0	0
09:00 - 09:15	0	0	4	10	2	10	1	27	0	0	5	9	2	6	0	22	0	0	0	0	0	0	0	0
09:15 - 09:30	0	0	9	12	3	10	0	34	0	0	6	8	0	5	0	19	0	0	0	0	0	0	0	0
09:30 - 09:45	0	0	10	8	2	6	0	26	0	0	5	6	2	2	0	15	0	0	0	0	0	0	0	0
09:45 - 10:00	0	1	9	8	2	7	0	27	0	0	9	8	1	3	0	21	0	0	0	0	0	0	0	0
Hourly Total	0	1	32	38	9	33	1	114	0	0	25	31	5	16	0	77	0	0	0	0	0	0	0	0
TOTAL	1	1	117	115	36	74	2	346	0	1	57	83	29	39	1	210	0	0	0	0	0	0	0	0
16:00 - 16:15	0	0	74	15	1	5	0	95	0	0	22	9	0	2	0	33	0	0	0	0	0	0	0	0
16:15 - 16:30	0	1	40	12	4	0	0	57	0	0	18	5	1	3	0	27	0	0	0	0	0	0	0	0
16:30 - 16:45	0	1	59	26	6	5	0	97	0	1	24	1	0	3	0	29	0	0	0	0	0	0	0	0
16:45 - 17:00	0	0	41	7	0	3	0	51	0	0	28	4	0	1	0	33	0	0	0	0	0	0	0	0
Hourly Total	0	2	214	60	11	13	0	300	0	1	92	19	1	9	0	122	0	0	0	0	0	0	0	0
17:00 - 17:15	1	2	81	17	0	1	0	102	0	1	33	3	1	0	0	38	0	0	1	0	0	0	0	1
17:15 - 17:30	0	1	46	7	0	3	0	57	0	1	21	0	0	0	0	22	0	0	0	0	0	0	0	0
17:30 - 17:45	0	0	28	4	0	0	0	32	0	0	19	3	1	0	0	23	0	0	0	0	0	0	0	0
17:45 - 18:00	0	0	22	0	0	1	0	23	0	0	13	2	0	0	0	15	0	0	0	0	0	1	0	1
Hourly Total	1	3	177	28	0	5	0	214	0	2	86	8	2	0	0	98	0	0	1	0	0	1	0	2
18:00 - 18:15	0	0	26	4	1	1	0	32	0	0	12	1	0	0	0	13	0	0	0	0	0	0	0	0
18:15 - 18:30	0	0	19	0	0	0	0	19	0	0	5	0	0	2	0	7	0	0	0	0	0	0	0	0
18:30 - 18:45	0	0	9	2	0	0	0	11	0	0	5	0	0	0	0	5	0	0	0	0	0	0	0	0
18:45 - 19:00	1	0	9	1	0	0	0	11	0	0	8	1	0	0	0	9	0	0	0	0	0	0	0	0
Hourly Total	1	0	63	7	1	1	0	73	0	0	30	2	0	2	0	34	0	0	0	0	0	0	0	0
TOTAL	2	5	454	95	12	19	0	587	0	3	208	29	3	11	0	254	0	0	1	0	0	1	0	2

Junction: 3

Approach: Quarry Hill Road South

TIME	To Quarry Hill Road (N)								To Merlin Way								U-Turn							
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
07:00 - 07:15	0	0	35	10	1	2	1	49	0	0	22	9	1	4	0	36	0	0	0	0	0	0	0	0
07:15 - 07:30	0	0	39	10	1	3	0	53	0	0	22	10	0	4	0	36	0	0	0	0	0	0	0	0
07:30 - 07:45	0	0	42	19	3	1	1	66	0	0	29	9	3	4	0	45	0	0	0	0	0	0	0	0
07:45 - 08:00	0	0	42	12	3	0	0	57	0	2	50	17	2	2	0	73	0	0	0	0	0	0	0	0
Hourly Total	0	0	158	51	8	6	2	225	0	2	123	45	6	14	0	190	0	0	0	0	0	0	0	0
08:00 - 08:15	0	0	46	13	2	0	0	61	1	0	35	8	2	4	0	50	0	0	0	0	0	0	0	0
08:15 - 08:30	0	1	68	12	2	0	0	83	0	1	34	9	3	3	1	51	0	0	0	0	0	0	0	0
08:30 - 08:45	0	0	60	14	0	3	0	77	0	0	37	19	4	7	0	67	0	0	0	0	0	0	0	0
08:45 - 09:00	0	1	55	13	1	0	0	70	0	0	32	6	0	6	0	44	0	0	0	0	0	0	0	0
Hourly Total	0	2	229	52	5	3	0	291	1	1	138	42	9	20	1	212	0	0	0	0	0	0	0	0
09:00 - 09:15	0	0	47	16	3	2	0	68	0	0	18	10	1	2	0	31	0	0	0	0	0	1	0	1
09:15 - 09:30	0	0	40	9	1	1	0	51	0	0	13	8	1	6	0	28	0	0	0	0	0	0	0	0
09:30 - 09:45	0	0	39	9	1	0	0	49	0	0	5	7	3	6	0	21	0	0	0	0	0	0	0	0
09:45 - 10:00	0	0	34	6	3	2	0	45	0	0	11	7	2	5	0	25	0	0	0	0	0	0	0	0
Hourly Total	0	0	160	40	8	5	0	213	0	0	47	32	7	19	0	105	0	0	0	0	0	1	0	1
TOTAL	0	2	547	143	21	14	2	729	1	3	308	119	22	53	1	507	0	0	0	0	0	1	0	1
16:00 - 16:15	0	1	65	18	1	0	0	85	0	0	29	17	2	8	1	57	0	0	0	0	0	0	0	0
16:15 - 16:30	0	2	96	8	1	0	0	107	0	2	49	17	6	5	0	79	0	0	0	0	0	0	0	0
16:30 - 16:45	0	1	72	15	1	0	0	89	0	2	46	9	4	2	0	63	0	0	0	0	0	0	0	0
16:45 - 17:00	0	0	89	9	0	0	0	98	0	0	31	3	4	11	0	49	0	0	0	0	0	0	0	0
Hourly Total	0	4	322	50	3	0	0	379	0	4	155	46	16	26	1	248	0	0	0	0	0	0	0	0
17:00 - 17:15	0	1	80	11	0	1	0	93	0	0	41	14	2	3	0	60	0	0	1	0	0	0	0	1
17:15 - 17:30	0	2	104	12	0	0	1	119	0	0	20	2	0	2	0	24	0	0	0	0	0	0	0	0
17:30 - 17:45	2	1	101	17	0	0	0	121	1	0	21	4	4	2	0	32	0	0	0	0	0	0	0	0
17:45 - 18:00	0	2	90	8	1	0	0	101	0	1	21	3	0	0	0	25	0	0	0	0	0	0	0	0
Hourly Total	2	6	375	48	1	1	1	434	1	1	103	23	6	7	0	141	0	0	1	0	0	0	0	1
18:00 - 18:15	0	1	94	14	2	0	0	111	0	0	31	4	1	2	0	38	0	0	0	0	0	0	0	0
18:15 - 18:30	0	0	125	9	2	0	0	136	0	0	24	5	1	4	0	34	0	0	0	0	0	0	0	0
18:30 - 18:45	0	1	77	5	0	0	0	83	0	0	25	8	0	1	0	34	0	0	0	0	0	0	0	0
18:45 - 19:00	0	1	62	3	2	1	0	69	0	1	21	1	0	1	0	24	0	0	0	0	0	0	0	0
Hourly Total	0	3	358	31	6	1	0	399	0	1	101	18	2	8	0	130	0	0	0	0	0	0	0	0
TOTAL	2	13	1055	129	10	2	1	1212	1	6	359	87	24	41	1	519	0	0	1	0	0	0	0	1

Junction: 3

U-Turn

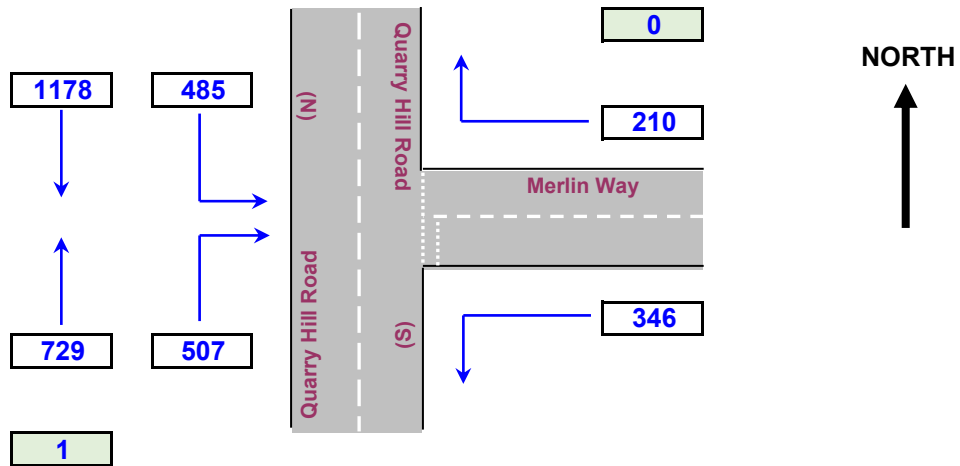
Vehicle Class: All Vehicles ▼

Show Peak Hour: ☐

Start Time: 1) 07:00 ▼

End Time: 1) 10:00 ▼

Show Session 2



Junction: 4

Approach: Quarry Hill Road North

TIME	To Quarry Hill Road (S)								To Elka Road							
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
07:00 - 07:15	0	2	81	29	3	4	0	119	0	0	2	3	0	0	0	5
07:15 - 07:30	0	1	125	42	2	5	0	175	0	0	7	0	0	0	0	7
07:30 - 07:45	2	2	146	28	3	4	0	185	0	0	3	3	0	0	0	6
07:45 - 08:00	2	2	138	28	4	2	0	176	0	0	3	6	0	0	0	9
Hourly Total	4	7	490	127	12	15	0	655	0	0	15	12	0	0	0	27
08:00 - 08:15	0	1	124	22	3	6	0	156	0	0	2	0	0	0	0	2
08:15 - 08:30	0	2	79	16	3	6	0	106	0	0	4	0	1	0	0	5
08:30 - 08:45	0	1	71	21	8	7	0	108	0	0	3	0	0	0	0	3
08:45 - 09:00	0	0	97	22	5	9	0	133	0	0	3	1	0	0	0	4
Hourly Total	0	4	371	81	19	28	0	503	0	0	12	1	1	0	0	14
09:00 - 09:15	0	0	65	17	2	5	0	89	0	0	4	3	0	0	0	7
09:15 - 09:30	0	0	58	18	6	8	1	91	0	0	1	1	0	0	0	2
09:30 - 09:45	0	0	64	17	2	9	0	92	0	0	2	1	0	0	0	3
09:45 - 10:00	0	0	46	24	5	9	1	85	0	0	3	0	0	0	0	3
Hourly Total	0	0	233	76	15	31	2	357	0	0	10	5	0	0	0	15
TOTAL	4	11	1094	284	46	74	2	1515	0	0	37	18	1	0	0	56
16:00 - 16:15	1	1	56	11	2	3	0	74	0	0	7	1	0	0	0	8
16:15 - 16:30	0	2	75	15	2	0	0	94	0	1	8	1	0	0	0	10
16:30 - 16:45	0	0	62	11	3	1	1	78	0	0	16	5	0	0	0	21
16:45 - 17:00	0	0	72	21	0	4	1	98	0	0	14	4	0	0	0	18
Hourly Total	1	3	265	58	7	8	2	344	0	1	45	11	0	0	0	57
17:00 - 17:15	0	0	78	12	1	1	0	92	0	0	8	1	0	0	0	9
17:15 - 17:30	0	0	71	5	0	1	0	77	0	0	19	1	0	0	0	20
17:30 - 17:45	0	2	73	8	1	2	0	86	0	0	12	0	0	0	0	12
17:45 - 18:00	0	0	52	6	0	0	0	58	0	0	14	2	0	0	0	16
Hourly Total	0	2	274	31	2	4	0	313	0	0	53	4	0	0	0	57
18:00 - 18:15	1	1	67	4	0	1	0	74	0	0	14	0	0	0	0	14
18:15 - 18:30	0	1	55	4	0	0	0	60	0	0	17	0	0	0	0	17
18:30 - 18:45	0	1	56	8	0	0	0	65	0	0	11	0	0	0	0	11
18:45 - 19:00	2	0	57	3	1	0	0	63	0	0	17	1	0	0	0	18
Hourly Total	3	3	235	19	1	1	0	262	0	0	59	1	0	0	0	60
TOTAL	4	8	774	108	10	13	2	919	0	1	157	16	0	0	0	174

Junction: 4

Approach: Quarry Hill Road South

TIME	To Eika Road								To Quarry Hill Road (N)								U-Turn							
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
07:00 - 07:15	0	0	1	1	0	0	0	2	0	0	34	14	7	7	1	63	0	0	0	0	0	0	0	0
07:15 - 07:30	0	0	2	2	0	0	0	4	0	0	40	14	4	3	0	61	0	0	0	0	0	0	0	0
07:30 - 07:45	0	0	2	2	0	0	0	4	0	0	42	21	6	5	2	76	0	0	0	0	0	0	0	0
07:45 - 08:00	0	0	0	2	0	0	0	2	0	0	48	17	5	4	0	74	0	0	0	0	0	0	0	0
Hourly Total	0	0	5	7	0	0	0	12	0	0	164	66	22	19	3	274	0	0	0	0	0	0	0	0
08:00 - 08:15	0	0	1	3	0	0	0	4	0	1	50	13	4	2	0	70	0	0	0	0	0	0	0	0
08:15 - 08:30	0	0	4	0	1	0	0	5	0	1	66	27	3	1	0	98	0	0	0	0	0	0	0	0
08:30 - 08:45	0	0	2	1	0	0	0	3	0	0	64	18	5	6	0	93	0	0	0	0	0	0	0	0
08:45 - 09:00	0	0	4	1	0	0	0	5	0	1	57	20	2	4	0	84	0	0	0	0	0	0	0	0
Hourly Total	0	0	11	5	1	0	0	17	0	3	237	76	14	13	0	345	0	0	0	0	0	0	0	0
09:00 - 09:15	0	0	2	0	0	0	0	2	0	0	50	25	5	8	0	88	0	0	0	0	0	0	0	0
09:15 - 09:30	0	0	5	1	0	0	0	6	0	0	43	17	1	6	0	67	0	0	0	0	0	0	0	0
09:30 - 09:45	0	0	1	1	0	0	0	2	0	0	42	13	3	2	0	60	0	0	0	0	0	0	0	0
09:45 - 10:00	0	0	2	0	0	0	0	2	0	0	40	14	4	4	0	62	0	0	0	0	0	0	0	0
Hourly Total	0	0	10	2	0	0	0	12	0	0	175	69	13	20	0	277	0	0	0	0	0	0	0	0
TOTAL	0	0	26	14	1	0	0	41	0	3	576	213	49	52	3	896	0	0	0	0	0	0	0	0
16:00 - 16:15	0	0	4	2	0	0	0	6	0	1	82	25	1	2	0	111	0	0	0	0	0	0	0	0
16:15 - 16:30	0	0	15	2	0	0	0	17	0	2	98	11	2	3	0	116	0	0	1	0	0	0	0	1
16:30 - 16:45	0	0	11	4	0	0	0	15	0	2	83	12	1	3	0	101	0	0	2	0	0	0	0	2
16:45 - 17:00	0	0	5	1	0	0	0	6	0	0	113	12	0	1	0	126	0	0	0	0	0	0	0	0
Hourly Total	0	0	35	9	0	0	0	44	0	5	376	60	4	9	0	454	0	0	3	0	0	0	0	3
17:00 - 17:15	0	1	12	3	0	0	0	16	0	1	99	11	1	1	0	113	0	0	1	0	0	0	0	1
17:15 - 17:30	0	0	14	1	0	0	0	15	0	3	109	11	0	0	1	124	0	0	0	0	0	0	0	0
17:30 - 17:45	0	0	8	1	0	0	0	9	2	1	113	18	1	0	0	135	0	0	0	0	0	0	0	0
17:45 - 18:00	0	0	14	1	0	0	0	15	0	2	90	10	1	0	0	103	0	0	0	0	0	0	0	0
Hourly Total	0	1	48	6	0	0	0	55	2	7	411	50	3	1	1	475	0	0	1	0	0	0	0	1
18:00 - 18:15	0	0	16	1	0	0	0	17	0	1	91	14	2	0	0	108	0	0	0	0	0	0	0	0
18:15 - 18:30	0	0	16	0	0	0	0	16	0	0	114	9	2	0	0	127	0	0	0	0	0	0	0	0
18:30 - 18:45	0	0	9	0	0	0	0	9	0	1	76	5	0	0	0	82	0	0	0	0	0	0	0	0
18:45 - 19:00	0	0	4	0	0	0	0	4	0	1	65	4	2	1	0	73	0	0	0	0	0	0	0	0
Hourly Total	0	0	45	1	0	0	0	46	0	3	346	32	6	3	0	390	0	0	0	0	0	0	0	0
TOTAL	0	1	128	16	0	0	0	145	2	15	1133	142	13	13	1	1319	0	0	4	0	0	0	0	4

Junction: 4

Approach: Elka Road

TIME	To Quarry Hill Road (N)								To Quarry Hill Road (S)							
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
07:00 - 07:15	0	0	6	4	0	0	0	10	0	0	6	3	0	0	0	9
07:15 - 07:30	0	0	11	4	0	0	0	15	0	0	11	0	0	0	0	11
07:30 - 07:45	0	0	8	3	0	0	0	11	0	1	16	1	0	0	0	18
07:45 - 08:00	0	0	13	1	0	0	0	14	0	0	15	3	0	0	0	18
Hourly Total	0	0	38	12	0	0	0	50	0	1	48	7	0	0	0	56
08:00 - 08:15	0	0	9	3	0	0	0	12	0	0	16	2	0	0	0	18
08:15 - 08:30	0	0	13	3	0	0	0	16	0	0	19	0	0	0	0	19
08:30 - 08:45	0	0	15	2	1	0	0	18	0	0	11	0	0	0	0	11
08:45 - 09:00	0	0	13	1	0	0	0	14	0	0	7	1	0	0	0	8
Hourly Total	0	0	50	9	1	0	0	60	0	0	53	3	0	0	0	56
09:00 - 09:15	0	0	9	2	0	0	0	11	0	0	13	1	0	0	0	14
09:15 - 09:30	0	0	11	1	0	0	0	12	0	0	10	0	0	0	0	10
09:30 - 09:45	0	0	6	1	0	0	0	7	0	0	4	1	0	0	0	5
09:45 - 10:00	0	0	12	1	0	0	0	13	0	0	7	1	0	0	0	8
Hourly Total	0	0	38	5	0	0	0	43	0	0	34	3	0	0	0	37
TOTAL	0	0	126	26	1	0	0	153	0	1	135	13	0	0	0	149
16:00 - 16:15	0	0	2	1	0	0	0	3	0	0	4	1	0	0	0	5
16:15 - 16:30	0	0	6	0	0	0	0	6	0	0	8	1	0	0	0	9
16:30 - 16:45	0	0	10	1	0	0	0	11	0	0	11	2	0	0	0	13
16:45 - 17:00	0	0	3	2	0	0	0	5	0	0	5	2	0	0	0	7
Hourly Total	0	0	21	4	0	0	0	25	0	0	28	6	0	0	0	34
17:00 - 17:15	0	0	12	1	0	0	0	13	0	0	6	1	0	0	0	7
17:15 - 17:30	0	0	13	1	0	0	0	14	0	0	6	1	0	0	0	7
17:30 - 17:45	0	0	8	2	0	0	0	10	0	0	10	0	0	0	0	10
17:45 - 18:00	0	0	16	1	0	0	0	17	0	0	5	0	0	0	0	5
Hourly Total	0	0	49	5	0	0	0	54	0	0	27	2	0	0	0	29
18:00 - 18:15	0	0	5	0	0	0	0	5	0	0	5	0	0	0	0	5
18:15 - 18:30	0	0	17	2	0	0	0	19	0	0	9	1	0	0	0	10
18:30 - 18:45	0	0	12	0	0	0	0	12	0	0	5	0	0	0	0	5
18:45 - 19:00	0	0	13	1	0	0	0	14	0	0	8	0	0	0	0	8
Hourly Total	0	0	47	3	0	0	0	50	0	0	27	1	0	0	0	28
TOTAL	0	0	117	12	0	0	0	129	0	0	82	9	0	0	0	91

Junction: 4

U-Turn

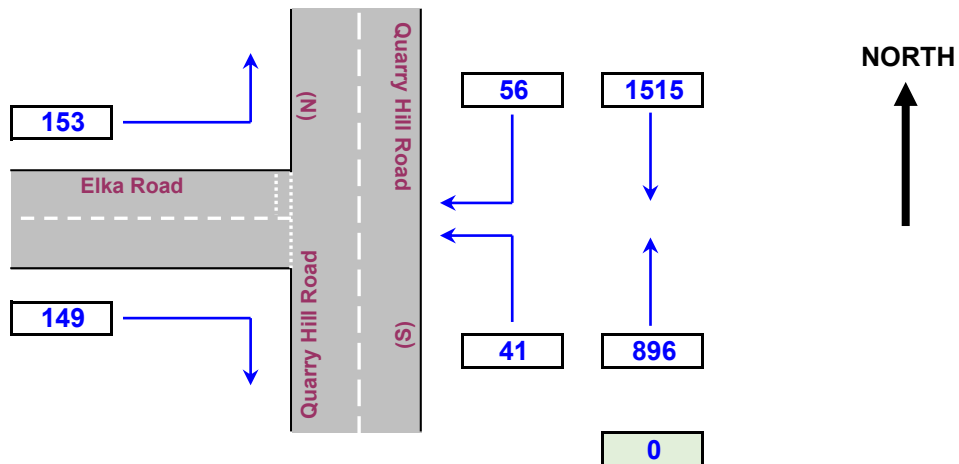
Vehicle Class: All Vehicles

Show Peak Hour: ☐

Start Time: 1) 07:00

End Time: 1) 10:00

Show Session 2



Junction: 5

Approach: Quarry Hill Road North

TIME	To Longfield Lane								To Quarry Hill Road (S)							
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
07:00 - 07:15	0	0	10	1	0	0	0	11	0	2	78	33	3	4	0	120
07:15 - 07:30	0	0	8	4	1	0	0	13	0	1	123	41	3	4	0	172
07:30 - 07:45	0	0	10	2	0	0	1	13	1	2	136	31	2	5	0	177
07:45 - 08:00	0	0	12	1	0	0	0	13	2	2	133	30	4	2	0	173
Hourly Total	0	0	40	8	1	0	1	50	3	7	470	135	12	15	0	642
08:00 - 08:15	0	0	10	3	0	0	0	13	0	1	107	23	3	6	0	140
08:15 - 08:30	0	0	24	5	0	0	0	29	0	2	62	17	4	6	0	91
08:30 - 08:45	0	0	18	0	0	0	1	19	0	1	69	19	8	7	0	104
08:45 - 09:00	0	0	13	4	0	0	0	17	0	0	89	23	5	9	0	126
Hourly Total	0	0	65	12	0	0	1	78	0	4	327	82	20	28	0	461
09:00 - 09:15	0	0	15	1	0	0	0	16	0	0	64	18	2	5	1	90
09:15 - 09:30	0	0	12	5	0	0	0	17	0	0	48	17	6	8	0	79
09:30 - 09:45	0	0	13	0	1	0	0	14	0	0	58	18	2	9	0	87
09:45 - 10:00	0	1	8	3	0	0	1	13	0	0	47	21	6	9	1	84
Hourly Total	0	1	48	9	1	0	1	60	0	0	217	74	16	31	2	340
TOTAL	0	1	153	29	2	0	3	188	3	11	1014	291	48	74	2	1443
16:00 - 16:15	0	0	23	2	0	0	1	26	1	1	58	11	2	3	0	76
16:15 - 16:30	0	0	17	3	1	0	0	21	0	3	77	18	2	0	1	101
16:30 - 16:45	0	0	13	4	0	0	0	17	0	0	72	10	3	1	0	86
16:45 - 17:00	0	1	14	2	0	0	1	18	0	0	81	22	0	4	1	108
Hourly Total	0	1	67	11	1	0	2	82	1	4	288	61	7	8	2	371
17:00 - 17:15	0	0	17	7	0	0	0	24	0	0	79	11	1	1	0	92
17:15 - 17:30	0	0	19	5	0	0	0	24	0	0	85	6	0	1	0	92
17:30 - 17:45	0	0	18	2	0	0	0	20	0	2	80	7	1	2	0	92
17:45 - 18:00	0	0	17	3	0	0	0	20	0	0	61	6	0	0	0	67
Hourly Total	0	0	71	17	0	0	0	88	0	2	305	30	2	4	0	343
18:00 - 18:15	0	0	17	2	0	0	2	21	1	1	74	2	0	1	0	79
18:15 - 18:30	0	0	21	1	0	0	0	22	0	2	66	4	0	0	0	72
18:30 - 18:45	0	0	29	1	0	0	0	30	0	0	51	6	0	0	0	57
18:45 - 19:00	0	0	19	0	0	0	0	19	2	1	72	4	1	0	0	80
Hourly Total	0	0	86	4	0	0	2	92	3	4	263	16	1	1	0	288
TOTAL	0	1	224	32	1	0	4	262	4	10	856	107	10	13	2	1002

Junction: 5

Approach: Longfield Lane

TIME	To Quarry Hill Road (S)								To Quarry Hill Road (N)							
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
07:00 - 07:15	0	0	4	0	0	0	0	4	0	0	5	2	0	0	0	7
07:15 - 07:30	0	0	9	0	0	0	0	9	0	0	14	2	0	0	0	16
07:30 - 07:45	1	0	14	2	0	0	0	17	0	0	6	2	1	0	1	10
07:45 - 08:00	0	0	7	3	0	0	0	10	0	0	8	5	0	0	0	13
Hourly Total	1	0	34	5	0	0	0	40	0	0	33	11	1	0	1	46
08:00 - 08:15	0	0	18	2	0	0	0	20	0	1	22	2	0	0	0	25
08:15 - 08:30	0	0	22	1	0	0	0	23	0	0	13	2	0	0	0	15
08:30 - 08:45	0	0	7	1	0	0	0	8	0	0	11	1	1	0	0	13
08:45 - 09:00	0	0	11	0	0	0	0	11	0	0	13	3	0	0	0	16
Hourly Total	0	0	58	4	0	0	0	62	0	1	59	8	1	0	0	69
09:00 - 09:15	0	0	10	2	0	0	0	12	0	0	13	2	0	0	1	16
09:15 - 09:30	0	0	10	1	0	0	0	11	0	0	11	1	0	0	0	12
09:30 - 09:45	0	0	8	0	0	0	0	8	0	1	9	2	0	0	0	12
09:45 - 10:00	0	0	2	0	0	0	0	2	0	0	7	2	0	0	0	9
Hourly Total	0	0	30	3	0	0	0	33	0	1	40	7	0	0	1	49
TOTAL	1	0	122	12	0	0	0	135	0	2	132	26	2	0	2	164
16:00 - 16:15	0	0	7	0	0	0	0	7	0	0	21	4	0	0	0	25
16:15 - 16:30	0	0	6	0	0	0	0	6	0	0	8	4	1	0	1	14
16:30 - 16:45	0	0	5	4	0	0	0	9	0	0	14	2	0	0	0	16
16:45 - 17:00	0	0	8	3	0	0	0	11	0	0	7	3	0	0	0	10
Hourly Total	0	0	26	7	0	0	0	33	0	0	50	13	1	0	1	65
17:00 - 17:15	0	0	4	0	0	0	0	4	0	1	11	1	0	0	0	13
17:15 - 17:30	0	0	3	0	0	0	0	3	0	0	7	1	0	0	0	8
17:30 - 17:45	0	0	9	1	0	0	0	10	0	1	8	3	0	0	1	13
17:45 - 18:00	0	0	7	1	0	0	0	8	0	0	13	0	0	0	0	13
Hourly Total	0	0	23	2	0	0	0	25	0	2	39	5	0	0	1	47
18:00 - 18:15	0	0	8	3	0	0	0	11	0	0	15	2	0	0	0	17
18:15 - 18:30	0	0	7	0	0	0	0	7	0	0	12	2	0	0	1	15
18:30 - 18:45	0	0	7	1	0	0	0	8	0	0	16	2	0	0	0	18
18:45 - 19:00	0	0	2	0	0	0	0	2	0	1	10	2	0	0	0	13
Hourly Total	0	0	24	4	0	0	0	28	0	1	53	8	0	0	1	63
TOTAL	0	0	73	13	0	0	0	86	0	3	142	26	1	0	3	175

Junction: 5

Approach: Quarry Hill Road South

TIME	To Quarry Hill Road (N)								To Longfield Lane							
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
07:00 - 07:15	0	0	38	18	7	7	1	71	0	1	2	0	0	0	0	3
07:15 - 07:30	0	0	47	17	4	4	0	72	0	0	4	1	0	0	0	5
07:30 - 07:45	0	0	48	25	6	4	2	85	0	0	2	1	0	0	0	3
07:45 - 08:00	0	0	57	16	5	4	0	82	0	0	4	1	0	0	0	5
Hourly Total	0	0	190	76	22	19	3	310	0	1	12	3	0	0	0	16
08:00 - 08:15	0	1	56	13	4	1	0	75	0	0	3	3	0	1	0	7
08:15 - 08:30	0	1	70	29	1	1	0	102	0	0	10	1	1	0	0	12
08:30 - 08:45	0	0	72	19	6	7	0	104	0	0	5	1	0	0	0	6
08:45 - 09:00	0	1	62	18	3	3	0	87	0	0	5	2	0	0	0	7
Hourly Total	0	3	260	79	14	12	0	368	0	0	23	7	1	1	0	32
09:00 - 09:15	0	0	54	26	5	7	0	92	0	0	4	1	0	0	0	5
09:15 - 09:30	0	0	54	18	2	8	0	82	0	0	2	0	0	0	0	2
09:30 - 09:45	0	0	49	11	2	2	0	64	0	0	1	3	0	0	0	4
09:45 - 10:00	0	0	48	14	4	4	0	70	0	0	1	1	0	0	0	2
Hourly Total	0	0	205	69	13	21	0	308	0	0	8	5	0	0	0	13
TOTAL	0	3	655	224	49	52	3	986	0	1	43	15	1	1	0	61
16:00 - 16:15	0	1	76	20	1	2	0	100	0	0	9	2	0	0	0	11
16:15 - 16:30	0	2	92	12	2	1	0	109	0	0	10	3	0	0	0	13
16:30 - 16:45	0	2	92	10	1	4	0	109	0	0	6	1	0	0	0	7
16:45 - 17:00	0	0	99	15	0	2	0	116	0	0	12	1	0	0	0	13
Hourly Total	0	5	359	57	4	9	0	434	0	0	37	7	0	0	0	44
17:00 - 17:15	0	1	112	12	0	1	0	126	0	0	6	2	0	0	0	8
17:15 - 17:30	0	3	103	10	1	0	1	118	0	0	16	1	0	0	0	17
17:30 - 17:45	1	1	107	18	1	0	0	128	0	0	9	4	0	0	0	13
17:45 - 18:00	1	2	95	11	1	0	0	110	0	0	12	1	0	0	0	13
Hourly Total	2	7	417	51	3	1	1	482	0	0	43	8	0	0	0	51
18:00 - 18:15	0	1	86	12	2	0	0	101	0	0	10	2	0	0	0	12
18:15 - 18:30	0	0	121	8	2	1	0	132	0	0	10	1	0	0	0	11
18:30 - 18:45	0	1	78	4	0	1	0	84	0	0	13	3	0	0	0	16
18:45 - 19:00	0	1	70	5	2	1	0	79	0	0	7	0	0	0	0	7
Hourly Total	0	3	355	29	6	3	0	396	0	0	40	6	0	0	0	46
TOTAL	2	15	1131	137	13	13	1	1312	0	0	120	21	0	0	0	141

Junction: 5

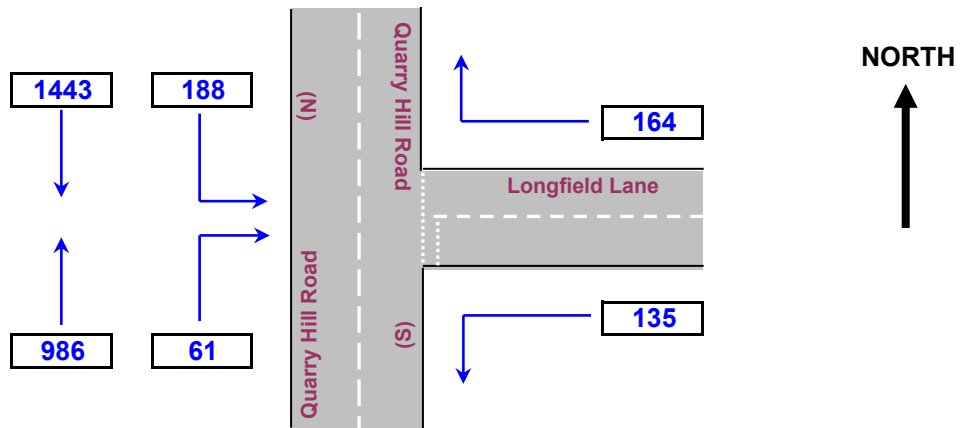
Vehicle Class: All Vehicles

Show Peak Hour: ☐

Start Time: 1) 07:00

End Time: 1) 10:00

Show Session 2



Junction: 6

Approach: Little Hallam Hill East

TIME	To Quarry Hill Road								To Little Hallam Hill (W)								U-Turn							
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
07:00 - 07:15	0	1	73	29	3	3	0	109	0	0	72	20	1	0	1	94	0	0	0	0	0	0	0	0
07:15 - 07:30	0	1	103	38	3	4	0	149	0	2	83	21	0	1	2	109	0	0	0	0	0	0	0	0
07:30 - 07:45	0	0	124	27	1	4	0	156	0	1	109	20	2	0	1	133	0	0	0	0	0	0	0	0
07:45 - 08:00	2	2	121	26	3	2	0	156	0	1	84	24	2	1	1	113	0	0	0	0	0	0	0	0
Hourly Total	2	4	421	120	10	13	0	570	0	4	348	85	5	2	5	449	0	0	0	0	0	0	0	0
08:00 - 08:15	0	2	99	21	1	3	0	126	1	1	121	24	0	0	0	147	0	0	0	0	0	0	0	0
08:15 - 08:30	0	1	61	16	3	5	0	86	0	2	149	28	0	0	5	184	0	0	0	0	0	0	0	0
08:30 - 08:45	0	1	68	17	6	5	0	97	0	1	114	14	1	0	1	131	0	0	0	0	0	0	0	0
08:45 - 09:00	0	0	86	26	5	7	0	124	0	1	90	15	1	2	0	109	0	0	0	0	0	0	0	0
Hourly Total	0	4	314	80	15	20	0	433	1	5	474	81	2	2	6	571	0	0	0	0	0	0	0	0
09:00 - 09:15	0	0	71	16	3	4	1	95	0	0	81	16	3	0	3	103	0	0	0	0	0	0	0	0
09:15 - 09:30	0	0	46	15	3	8	0	72	0	0	78	24	4	1	0	107	0	0	0	0	0	0	0	0
09:30 - 09:45	0	0	57	14	2	9	0	82	0	0	75	17	2	1	2	97	0	0	0	0	0	0	0	0
09:45 - 10:00	0	0	46	21	5	9	1	82	0	0	58	12	2	2	0	74	0	0	0	0	0	0	0	0
Hourly Total	0	0	220	66	13	30	2	331	0	0	292	69	11	4	5	381	0	0	0	0	0	0	0	0
TOTAL	2	8	955	266	38	63	2	1334	1	9	1114	235	18	8	16	1401	0	0	0	0	0	0	0	0
16:00 - 16:15	1	1	58	11	2	2	0	75	0	0	118	24	1	1	1	145	0	0	0	0	0	0	0	0
16:15 - 16:30	0	3	81	17	1	0	0	102	0	3	133	18	0	1	1	156	0	0	0	0	0	0	0	0
16:30 - 16:45	0	0	74	13	2	1	0	90	0	2	138	14	0	2	1	157	0	0	0	0	0	0	0	0
16:45 - 17:00	0	0	81	21	1	3	1	107	0	2	111	19	1	0	3	136	0	0	0	1	0	0	0	1
Hourly Total	1	4	294	62	6	6	1	374	0	7	500	75	2	4	6	594	0	0	0	1	0	0	0	1
17:00 - 17:15	0	0	80	11	0	0	0	91	1	0	126	15	0	0	1	143	0	0	0	0	0	0	0	0
17:15 - 17:30	0	0	80	10	0	1	0	91	0	3	129	22	0	1	1	156	0	0	0	0	0	0	0	0
17:30 - 17:45	0	2	81	4	0	2	0	89	0	4	129	14	0	0	1	145	0	0	0	0	0	0	0	0
17:45 - 18:00	0	0	67	6	0	0	0	73	0	0	121	15	0	0	2	138	0	0	0	0	0	0	0	0
Hourly Total	0	2	308	31	0	3	0	344	1	7	505	66	0	1	5	585	0	0	0	0	0	0	0	0
18:00 - 18:15	1	1	79	5	0	1	0	87	0	0	111	12	0	1	0	124	0	0	0	0	0	0	0	0
18:15 - 18:30	0	2	67	4	0	0	0	73	0	0	109	9	0	0	0	118	0	0	0	0	0	0	0	0
18:30 - 18:45	0	0	57	6	0	0	0	63	0	1	90	6	0	2	0	99	0	0	0	0	0	0	0	0
18:45 - 19:00	2	0	70	3	0	0	0	75	0	0	85	8	1	1	2	97	0	0	0	0	0	0	0	0
Hourly Total	3	3	273	18	0	1	0	298	0	1	395	35	1	4	2	438	0	0	0	0	0	0	0	0
TOTAL	4	9	875	111	6	10	1	1016	1	15	1400	176	3	9	13	1617	0	0	0	1	0	0	0	1

Junction: 6

Approach: Quarry Hill Road

TIME	To Little Hallam Hill (W)								To Little Hallam Hill (E)								U-Turn							
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
07:00 - 07:15	0	0	7	5	1	0	1	14	0	0	34	15	6	7	0	62	0	0	0	0	0	0	0	0
07:15 - 07:30	0	0	16	2	0	1	0	19	0	0	51	18	3	3	0	75	0	0	1	0	0	0	0	1
07:30 - 07:45	0	0	8	3	2	0	2	15	0	0	46	22	7	4	1	80	0	0	0	0	0	0	0	0
07:45 - 08:00	0	0	9	2	0	0	0	11	0	0	53	21	5	4	0	83	0	0	0	0	0	0	0	0
Hourly Total	0	0	40	12	3	1	3	59	0	0	184	76	21	18	1	300	0	0	1	0	0	0	0	1
08:00 - 08:15	0	0	21	3	1	0	0	25	0	1	57	12	3	1	0	74	0	0	0	0	0	0	0	0
08:15 - 08:30	0	0	15	8	0	0	0	23	0	1	66	22	1	1	0	91	0	0	0	0	0	0	0	0
08:30 - 08:45	0	0	18	9	2	1	0	30	0	0	70	12	5	6	0	93	0	0	0	0	0	0	0	0
08:45 - 09:00	0	0	11	5	1	0	0	17	0	1	69	15	2	3	0	90	0	0	0	0	0	0	0	0
Hourly Total	0	0	65	25	4	1	0	95	0	3	262	61	11	11	0	348	0	0	0	0	0	0	0	0
09:00 - 09:15	0	0	12	3	0	2	1	18	0	0	53	24	4	5	0	86	0	0	0	0	0	0	0	0
09:15 - 09:30	0	0	5	3	1	1	0	10	0	0	63	16	2	7	0	88	0	0	0	0	0	0	0	0
09:30 - 09:45	0	0	10	3	1	1	0	15	0	1	47	12	1	0	0	61	0	0	0	0	0	0	0	0
09:45 - 10:00	0	0	7	3	1	3	0	14	0	0	50	11	2	2	0	65	0	0	0	0	0	0	0	0
Hourly Total	0	0	34	12	3	7	1	57	0	1	213	63	9	14	0	300	0	0	0	0	0	0	0	0
TOTAL	0	0	139	49	10	9	4	211	0	4	689	200	41	43	1	948	0	0	1	0	0	0	0	1
16:00 - 16:15	0	0	18	7	0	0	0	25	0	1	78	16	1	3	0	99	0	0	0	0	0	0	0	0
16:15 - 16:30	0	0	7	5	1	0	1	14	0	3	89	13	2	1	0	108	0	0	0	0	0	0	0	0
16:30 - 16:45	0	0	13	2	0	1	0	16	0	2	99	9	1	3	0	114	0	0	0	0	0	0	0	0
16:45 - 17:00	0	0	12	4	0	0	0	16	0	0	94	17	0	2	0	113	0	0	0	0	0	0	0	0
Hourly Total	0	0	50	18	1	1	1	71	0	6	360	55	4	9	0	434	0	0	0	0	0	0	0	0
17:00 - 17:15	0	0	19	1	0	0	0	20	0	2	104	12	0	1	0	119	0	0	0	0	0	0	0	0
17:15 - 17:30	0	0	18	2	0	0	0	20	0	3	95	9	1	0	1	109	0	0	0	0	0	0	0	0
17:30 - 17:45	0	1	17	6	0	0	1	25	1	1	97	15	1	0	0	115	0	0	0	0	0	0	0	0
17:45 - 18:00	0	0	17	2	0	0	0	19	1	2	88	9	1	0	0	101	0	0	1	0	0	0	0	1
Hourly Total	0	1	71	11	0	0	1	84	2	8	384	45	3	1	1	444	0	0	1	0	0	0	0	1
18:00 - 18:15	0	0	20	3	0	0	0	23	0	1	83	11	2	0	0	97	0	0	0	0	0	0	0	0
18:15 - 18:30	0	0	15	3	1	0	1	20	0	0	111	7	1	1	0	120	0	0	1	0	0	0	0	1
18:30 - 18:45	0	0	24	1	0	1	0	26	0	1	75	6	0	0	0	82	0	0	1	0	0	0	0	1
18:45 - 19:00	0	2	20	1	1	0	0	24	0	0	61	5	1	1	0	68	0	0	0	0	0	0	0	0
Hourly Total	0	2	79	8	2	1	1	93	0	2	330	29	4	2	0	367	0	0	2	0	0	0	0	2
TOTAL	0	3	200	37	3	2	3	248	2	16	1074	129	11	12	1	1245	0	0	3	0	0	0	0	3

Junction: 6

Approach: Little Hallam Hill West

TIME	To Little Hallam Hill (E)								To Quarry Hill Road							
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
07:00 - 07:15	0	2	50	19	0	0	1	72	0	0	15	5	0	1	0	21
07:15 - 07:30	0	0	72	18	1	1	1	93	0	0	27	6	1	0	0	34
07:30 - 07:45	0	1	76	33	0	1	1	112	0	2	21	6	1	1	1	32
07:45 - 08:00	0	0	84	16	5	1	2	108	0	0	24	5	1	0	0	30
Hourly Total	0	3	282	86	6	3	5	385	0	2	87	22	3	2	1	117
08:00 - 08:15	0	0	74	13	2	1	1	91	0	0	14	6	2	3	0	25
08:15 - 08:30	0	1	126	21	2	0	2	152	0	0	25	6	1	1	0	33
08:30 - 08:45	0	0	110	13	2	1	3	129	0	0	19	2	2	1	1	25
08:45 - 09:00	0	0	117	14	2	0	1	134	0	0	16	1	0	2	0	19
Hourly Total	0	1	427	61	8	2	7	506	0	0	74	15	5	7	1	102
09:00 - 09:15	0	0	82	18	1	2	0	103	0	0	10	3	0	0	0	13
09:15 - 09:30	0	0	65	12	2	0	2	81	0	0	15	7	2	1	0	25
09:30 - 09:45	0	0	72	16	1	0	1	90	0	0	12	3	1	0	0	16
09:45 - 10:00	0	0	90	16	5	1	1	113	0	1	10	3	1	0	1	16
Hourly Total	0	0	309	62	9	3	4	387	0	1	47	16	4	1	1	70
TOTAL	0	4	1018	209	23	8	16	1278	0	3	208	53	12	10	3	289
16:00 - 16:15	0	1	97	19	2	0	2	121	0	0	19	3	0	0	1	23
16:15 - 16:30	0	0	108	19	1	2	1	131	0	0	16	2	2	0	1	21
16:30 - 16:45	0	2	103	18	1	0	2	126	0	0	11	2	1	0	0	14
16:45 - 17:00	0	0	108	20	2	1	1	132	0	1	17	2	0	1	1	22
Hourly Total	0	3	416	76	6	3	6	510	0	1	63	9	3	1	3	80
17:00 - 17:15	0	4	95	14	0	0	1	114	0	0	17	7	0	1	0	25
17:15 - 17:30	0	0	124	8	0	1	1	134	0	0	23	3	0	0	0	26
17:30 - 17:45	0	0	124	8	0	0	0	132	0	0	18	6	1	0	0	25
17:45 - 18:00	0	1	76	8	2	1	2	90	0	0	10	2	0	0	0	12
Hourly Total	0	5	419	38	2	2	4	470	0	0	68	18	1	1	0	88
18:00 - 18:15	0	2	117	9	0	1	1	130	0	0	12	0	0	0	2	14
18:15 - 18:30	0	2	93	6	0	0	1	102	0	0	18	1	0	0	0	19
18:30 - 18:45	0	2	104	13	0	0	3	122	0	0	21	2	1	0	0	24
18:45 - 19:00	0	1	85	6	0	0	0	92	0	1	22	1	0	0	0	24
Hourly Total	0	7	399	34	0	1	5	446	0	1	73	4	1	0	2	81
TOTAL	0	15	1234	148	8	6	15	1426	0	2	204	31	5	2	5	249

Junction: 6

U-Turn

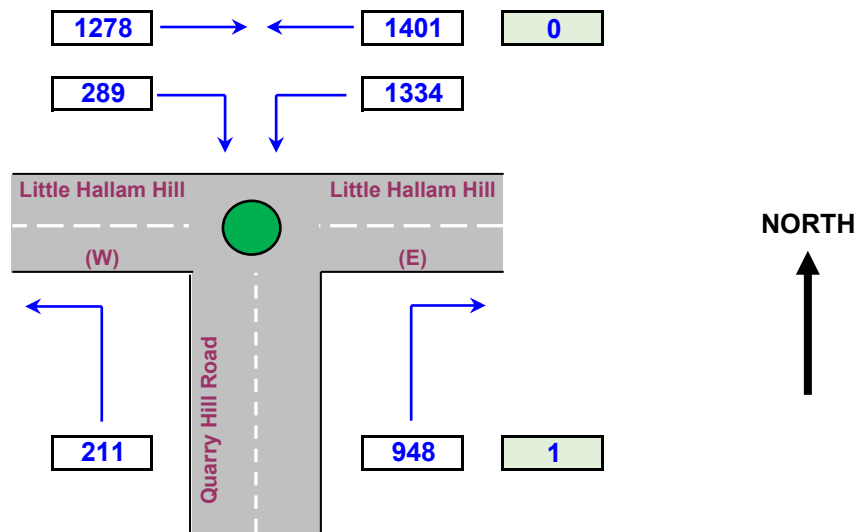
Vehicle Class: All Vehicles

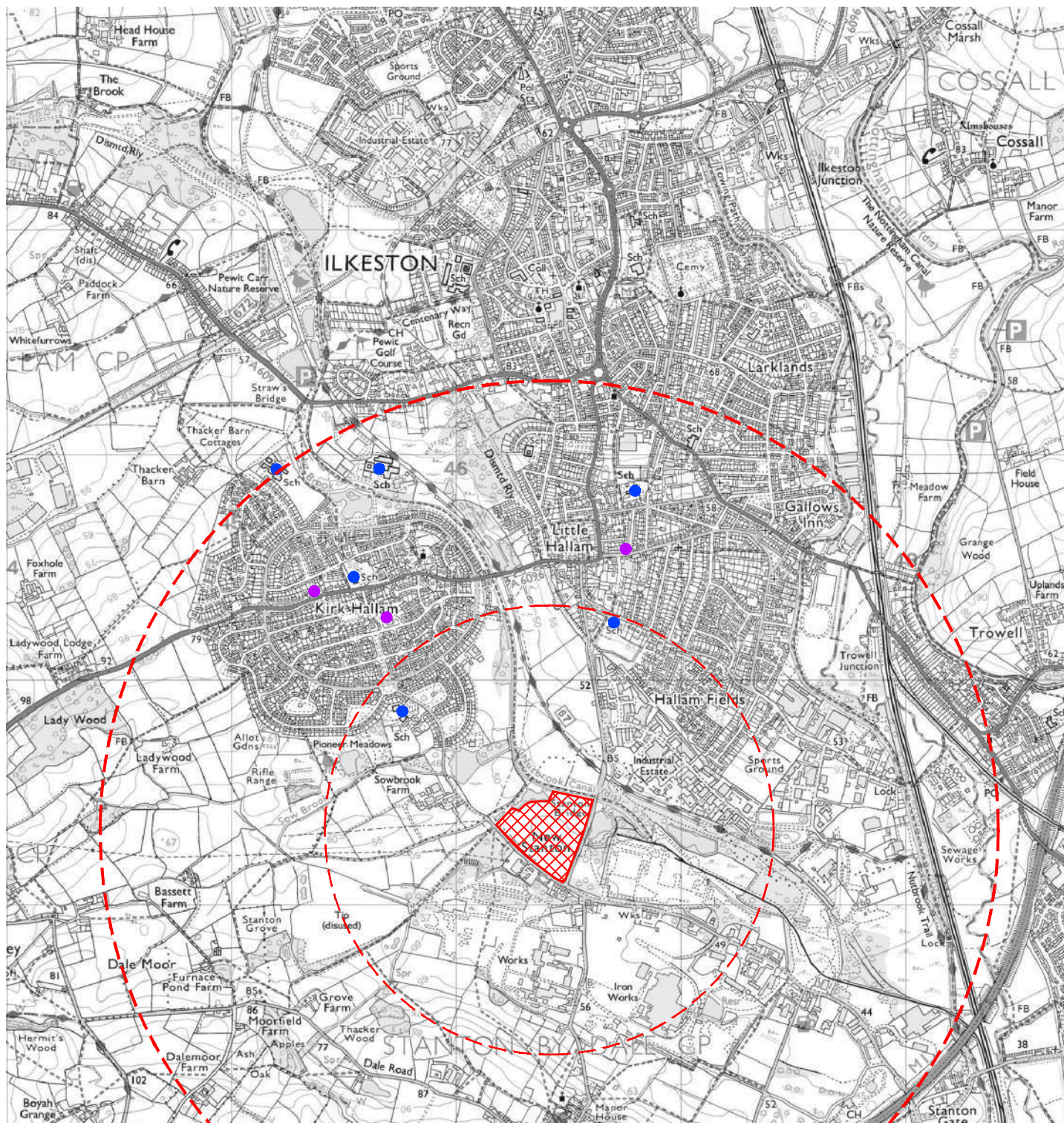
Show Peak Hour: ☐

Start Time: 1) 07:00

End Time: 1) 10:00

Show Session 2





Key:

- Education
- Local Centre



T: 01604 340544 Northampton Office
E: info@mac-ltd.co.uk W: mac-ltd.co.uk
Martin Andrews Consulting Ltd

Client: Wulff Asset Management Limited

Project: Sowbrook Lane Ilkeston

Date: 20/01/21

Drw: MJA

Chk: MJA

Scale: 1:12,500

Size: A4

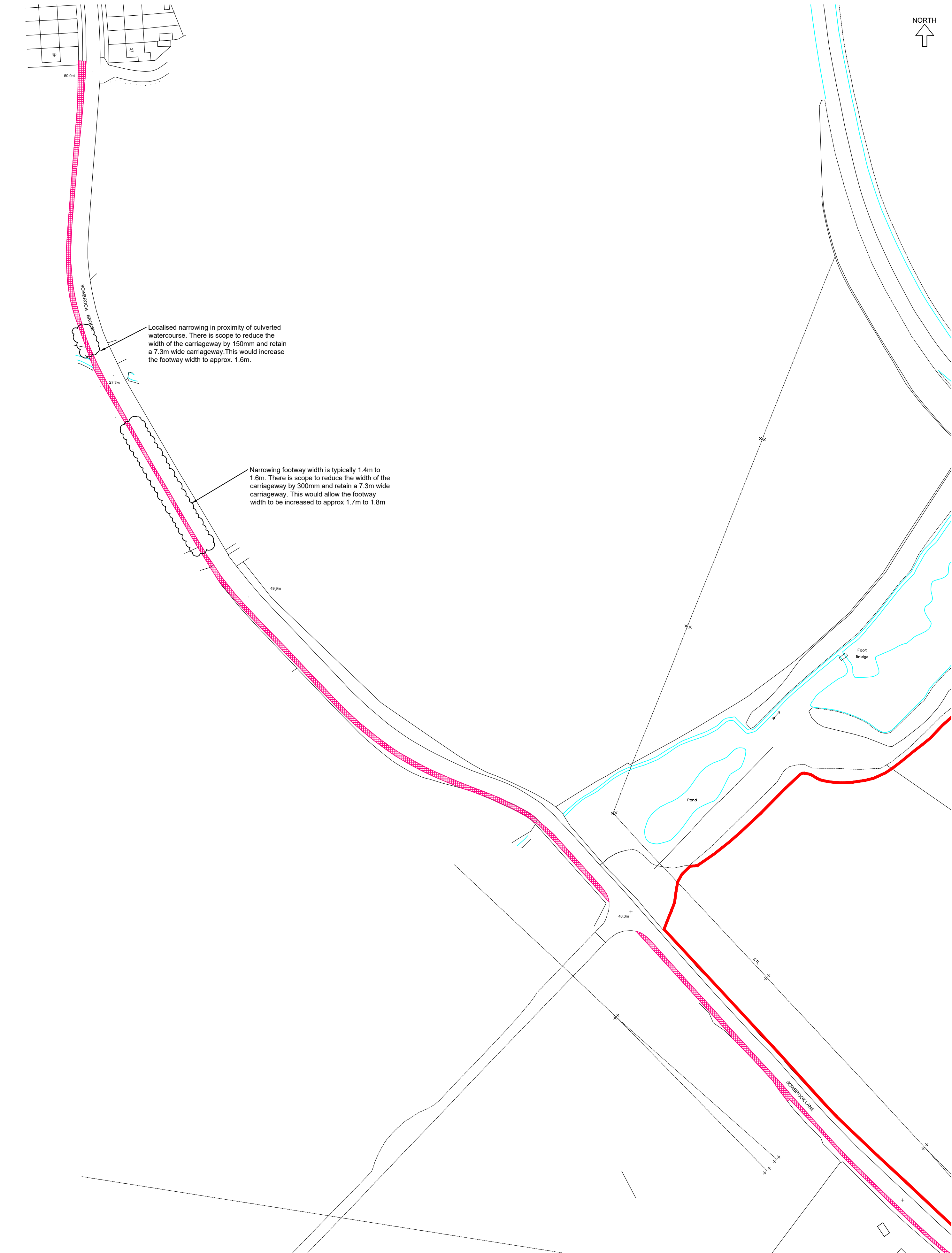
Title: Local Facilities and Amenities

Drawing No. 450-TA05

Revision -

- Transport Assessments
- Flood Risk Assessments
- Highway Advice
- Drainage Strategies

Appendix I
Sowbrook Lane Footway Dimensions



Notes:

1. Based on Ordnance Survey mapping ©Crown Copyright and database rights 2020 OS Licence no. 100019980

Key:

— Site Boundary

Footway connection to Kirk Hallam - width ranges from 1.4m to 2m though typically 1.7/1.8m plus.
Based on OS dimensions and assumed highway boundary.



T: 01604 340544 Northampton Office
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Martin Andrews Consulting Ltd

- Transport Assessments
- Flood Risk Assessments
- Highway Advice
- Access Design
- Drainage Strategies
- Vehicle tracking

Client: Wulff Asset Management Ltd

Project: Sowbrook Lane Ilkeston

Title: Existing Footway Dimensions

Date: 22/01/21

Drw: MJA

Chk: MJA

Drawing No: 248-TA10

Revision: -

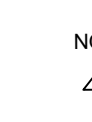
Scale: 1:1000

Size: A2



Appendix J

MAC Drawing no. 450-TA10 Proposed Site Access



 T: 01604 340544 Northampton Office E: info@mac-uk.co.uk W: mac-uk.co.uk Martin.Andrews@conaulting1 Ltd	• Transport Assessments • Flood Risk Assessments • Highway Advice • Access Design • Drainage Strategies • Vehicle tracking	Client: Wulff Asset Management Limited	Project: Sowbrook Lane Ilkerton
		Title: Proposed Access	
		Date: 29/04/22 Drw: SH Chk: MJA	
		Drawing No: 450-TA10	Revision: - Scale: 1:500 Size: A0

Appendix K
Maintainable Highway Boundary



Green Indicates Extent of
Publicly Maintainable Highway
Sowbrook Lane/Ilkeston Road

Date: 28/01/2021

Tim Gregory
Interim Strategic Director - Economy,
Transport & Environment

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Ordnance Survey 100023251.

metres
0 25 50

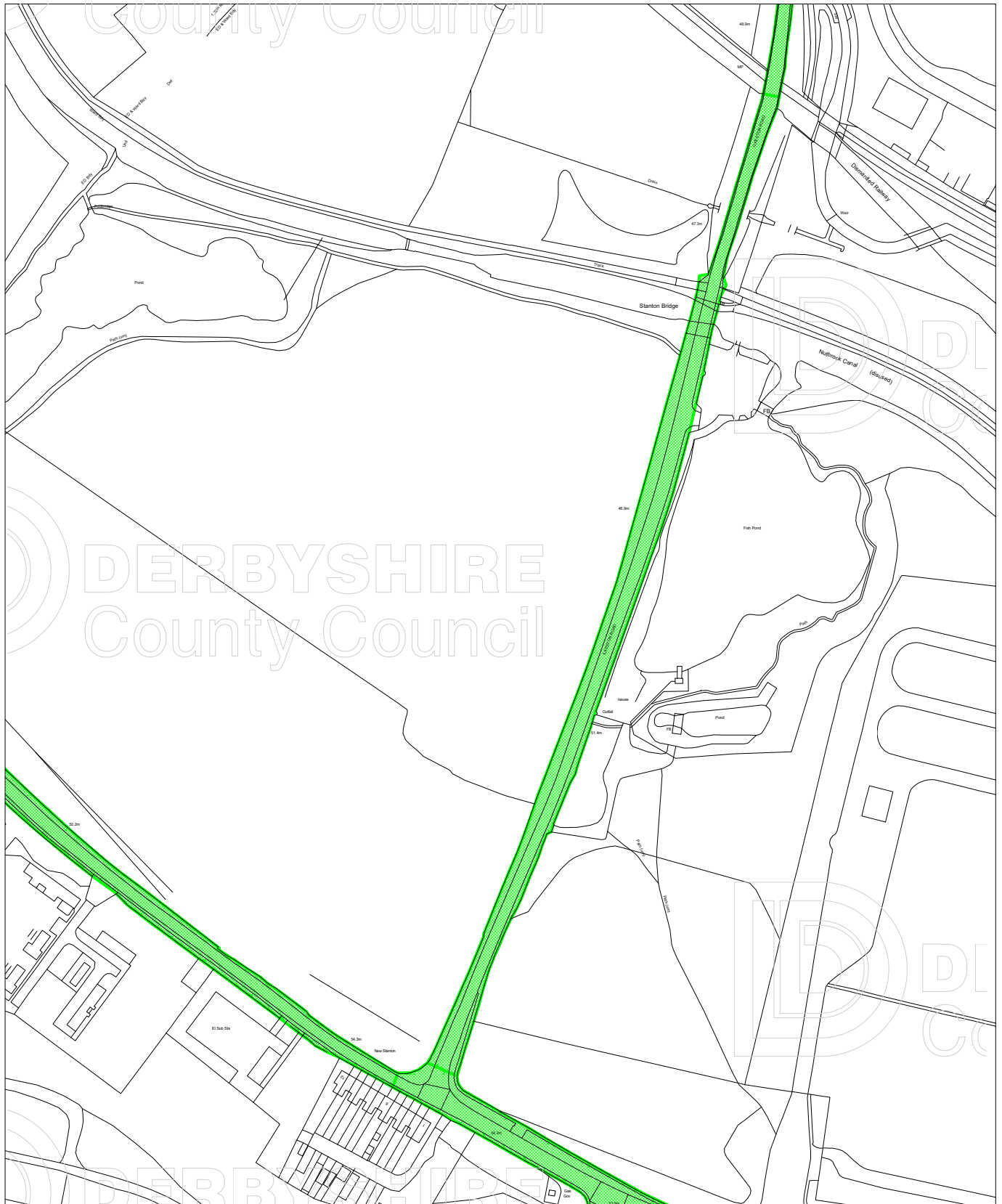
Scale 1 : 2500

Project: Project xxxx

Drawn By: The Operator

Reference: Ref 82008189

Sheet Ref: SK4639SW



Green Indicates Extent of
Publicly Maintainable Highway
Sowbrook Lane/Ilkeston Road

Date: 28/01/2021

Tim Gregory
Interim Strategic Director - Economy,
Transport & Environment

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Ordnance Survey 100023251.

metres
0 25 50

Scale 1 : 2700

Project: Project xxxx

Drawn By: The Operator

Reference: Ref 82008189

Sheet Ref: SK4639SE



Appendix L

TRICS output

Calculation Reference: AUDIT-864401-210120-0153

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	2 days
	KC KENT	2 days
06	WEST MIDLANDS	
	ST STAFFORDSHIRE	1 days

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

Primary Filtering selection:

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

Parameter: No of Dwellings
Actual Range: 110 to 288 (units:)
Range Selected by User: 100 to 300 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/12 to 08/10/20

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

Selected survey days:

Monday	1 days
Wednesday	2 days
Friday	2 days

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

Selected survey types:

Manual count	5 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:

Edge of Town	5
--------------	---

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	5
------------------	---

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

Secondary Filtering selection:

Use Class:

C3	5 days
----	--------

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

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,000 or Less	1 days
5,001 to 10,000	1 days
10,001 to 15,000	2 days
15,001 to 20,000	1 days

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

Population within 5 miles:

5,001 to 25,000	1 days
50,001 to 75,000	1 days
75,001 to 100,000	1 days
125,001 to 250,000	2 days

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

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	4 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	5 days
----	--------

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

PTAL Rating:

No PTAL Present	5 days
-----------------	--------

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

LIST OF SITES relevant to selection parameters

1	ES-03-A-03 SHEPHAM LANE POLEGATE	MIXED HOUSES & FLATS	EAST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings: 212 Survey date: MONDAY 11/07/16		Survey Type: MANUAL
2	ES-03-A-04 NEW LYDD ROAD CAMBER	MIXED HOUSES & FLATS	EAST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings: 134 Survey date: FRIDAY 15/07/16		Survey Type: MANUAL
3	KC-03-A-04 KILN BARN ROAD AYLESFORD DITTON	SEMI-DETACHED & TERRACED	KENT
	Edge of Town Residential Zone Total No of Dwellings: 110 Survey date: FRIDAY 22/09/17		Survey Type: MANUAL
4	KC-03-A-07 RECULVER ROAD HERNE BAY	MIXED HOUSES	KENT
	Edge of Town Residential Zone Total No of Dwellings: 288 Survey date: WEDNESDAY 27/09/17		Survey Type: MANUAL
5	ST-03-A-07 BEACONSIDE STAFFORD MARSTON GATE	DETACHED & SEMI-DETACHED	STAFFORDSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 248 Survey date: WEDNESDAY 22/11/17		Survey Type: MANUAL

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	198	0.102	5	198	0.266	5	198	0.368
08:00 - 09:00	5	198	0.152	5	198	0.377	5	198	0.529
09:00 - 10:00	5	198	0.126	5	198	0.160	5	198	0.286
10:00 - 11:00	5	198	0.119	5	198	0.138	5	198	0.257
11:00 - 12:00	5	198	0.126	5	198	0.163	5	198	0.289
12:00 - 13:00	5	198	0.146	5	198	0.140	5	198	0.286
13:00 - 14:00	5	198	0.168	5	198	0.145	5	198	0.313
14:00 - 15:00	5	198	0.196	5	198	0.167	5	198	0.363
15:00 - 16:00	5	198	0.259	5	198	0.173	5	198	0.432
16:00 - 17:00	5	198	0.277	5	198	0.195	5	198	0.472
17:00 - 18:00	5	198	0.353	5	198	0.143	5	198	0.496
18:00 - 19:00	5	198	0.283	5	198	0.185	5	198	0.468
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		2.307			2.252			4.559	

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

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

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Parameter summary

Trip rate parameter range selected: 110 - 288 (units:)
Survey date range: 01/01/12 - 08/10/20
Number of weekdays (Monday-Friday): 5
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 0

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

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	5	198	0.154	5	198	0.528	5	198	0.682
08:00 - 09:00	5	198	0.260	5	198	0.926	5	198	1.186
09:00 - 10:00	5	198	0.237	5	198	0.322	5	198	0.559
10:00 - 11:00	5	198	0.223	5	198	0.294	5	198	0.517
11:00 - 12:00	5	198	0.222	5	198	0.332	5	198	0.554
12:00 - 13:00	5	198	0.274	5	198	0.271	5	198	0.545
13:00 - 14:00	5	198	0.322	5	198	0.269	5	198	0.591
14:00 - 15:00	5	198	0.346	5	198	0.308	5	198	0.654
15:00 - 16:00	5	198	0.635	5	198	0.373	5	198	1.008
16:00 - 17:00	5	198	0.641	5	198	0.389	5	198	1.030
17:00 - 18:00	5	198	0.741	5	198	0.269	5	198	1.010
18:00 - 19:00	5	198	0.605	5	198	0.419	5	198	1.024
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:	4.660			4.700			9.360		

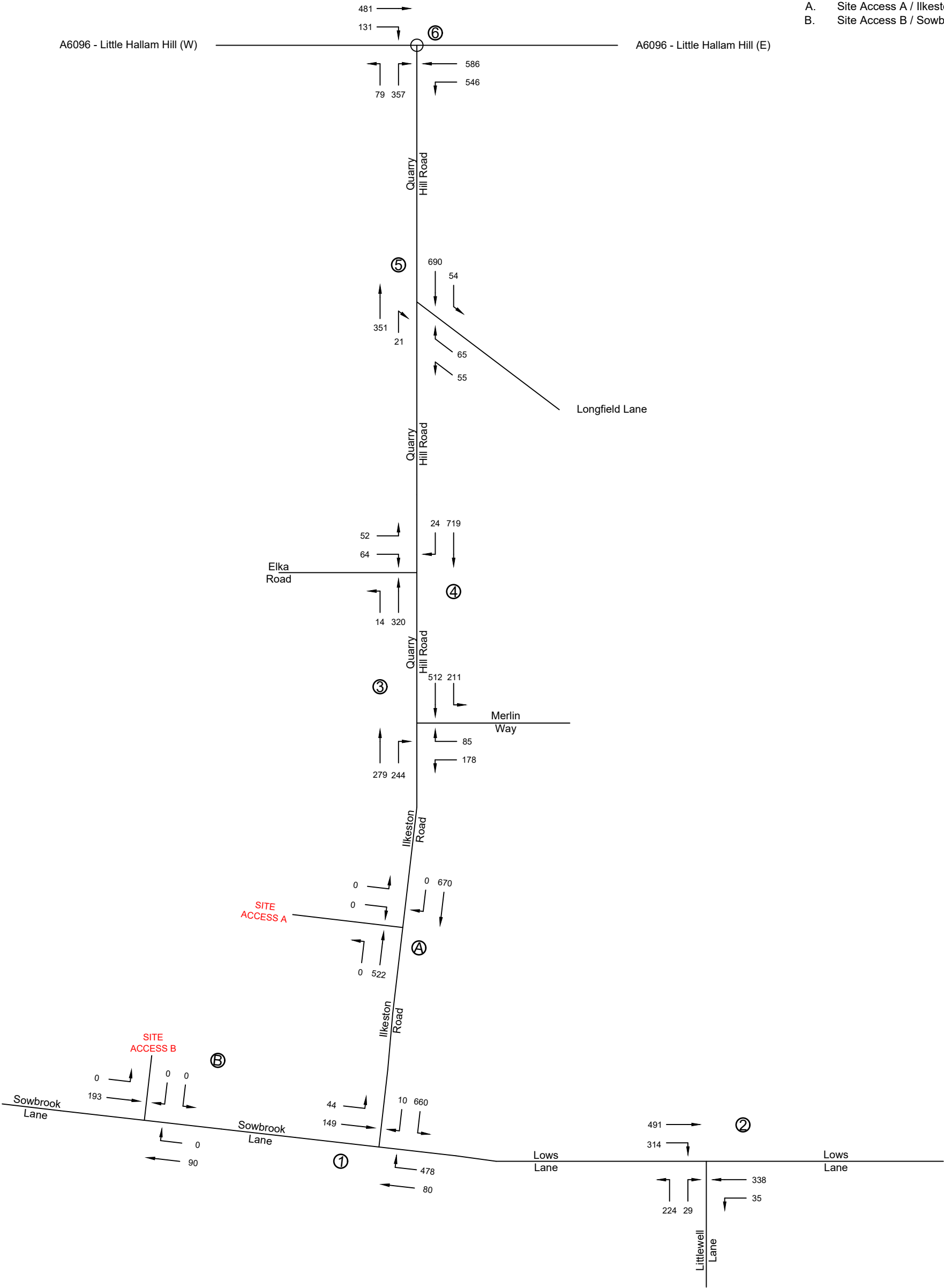
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are 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.



- Junctions:
- 1. Lows Lane / Sowbrook Lane / Ilkeston Road
 - 2. Lows Lane / Littlewell Lane
 - 3. Quarry Hill Road / Merlin Way
 - 4. Quarry Hill Road / Elka Road
 - 5. Quarry Hill Road / Longfield Lane
 - 6. Quarry Hill Road / Little Hallam Hill (A6096)

- A. Site Access A / Ilkeston Road
B. Site Access B / Sowbrook Lane



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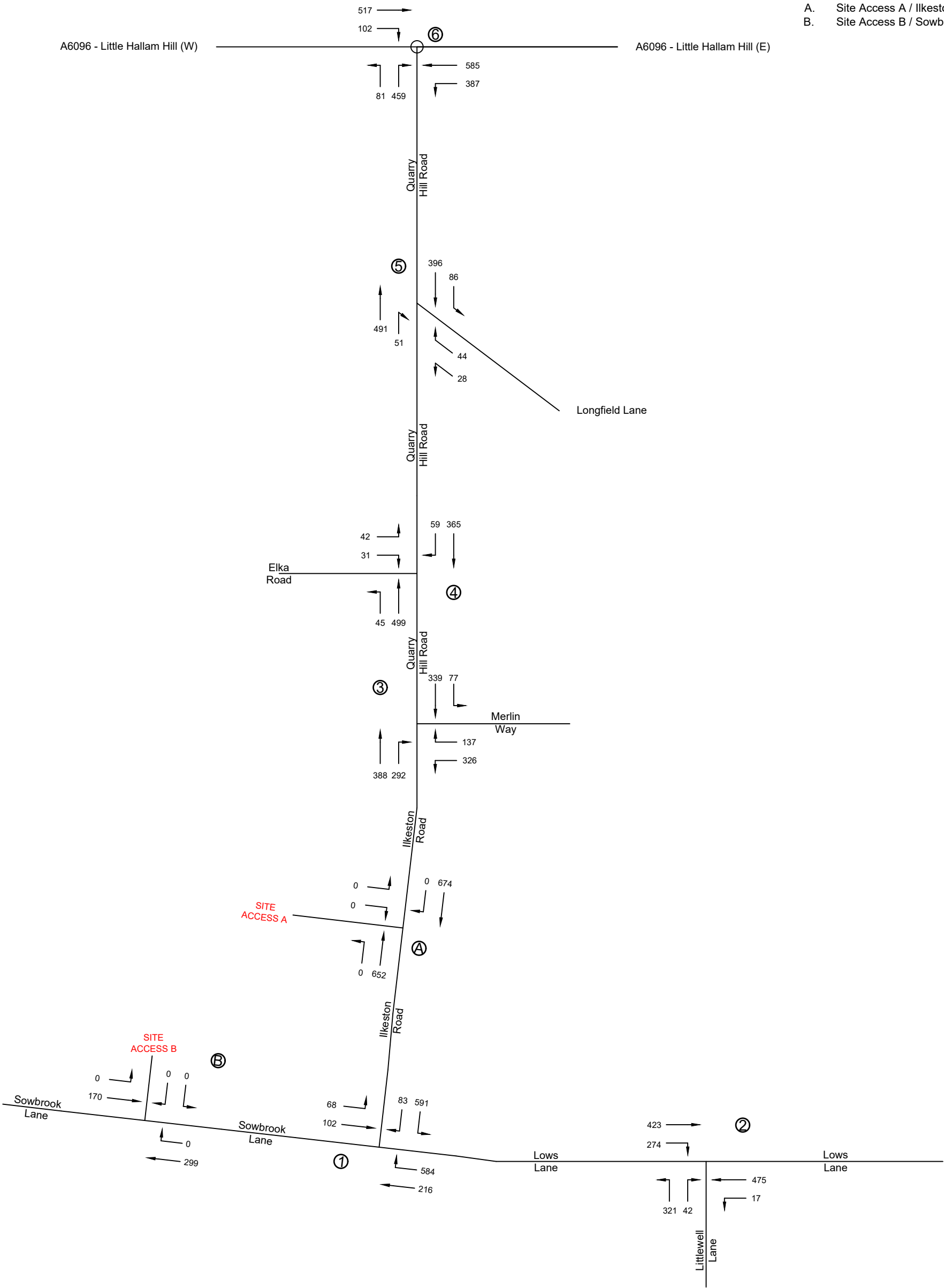
- Transport Assessments
- Flood Risk Assessments
- Highway Advice
- Access Design
- Drainage Strategies
- Vehicle tracking

Client: Wulff Asset Management Limited		Project: Sowbrook Lane Ilkeston	
Title: Base Year - Vehicle Distribution AM Peak 08:00-09:00		Date: 08/04/22	
		Drw: SH	
		Chk: DB	
Drawing No: 450-TA50		Revision: A	
		Scale: NTS	
		Size: A3	



- Junctions:
- 1. Lows Lane / Sowbrook Lane / Ilkeston Road
 - 2. Lows Lane / Littlewell Lane
 - 3. Quarry Hill Road / Merlin Way
 - 4. Quarry Hill Road / Elka Road
 - 5. Quarry Hill Road / Longfield Lane
 - 6. Quarry Hill Road / Little Hallam Hill (A6096)

- A. Site Access A / Ilkeston Road
B. Site Access B / Sowbrook Lane



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- Highway Advice
- Access Design
- Drainage Strategies
- Vehicle tracking

Client: Wulff Asset Management Limited

Project: Sowbrook Lane Ilkeston

Title: Base Year - Vehicle Distribution PM Peak 17:00-18:00

Date: 08/04/22

Drw: SH

Chk: DB

Drawing No: 450-TA51

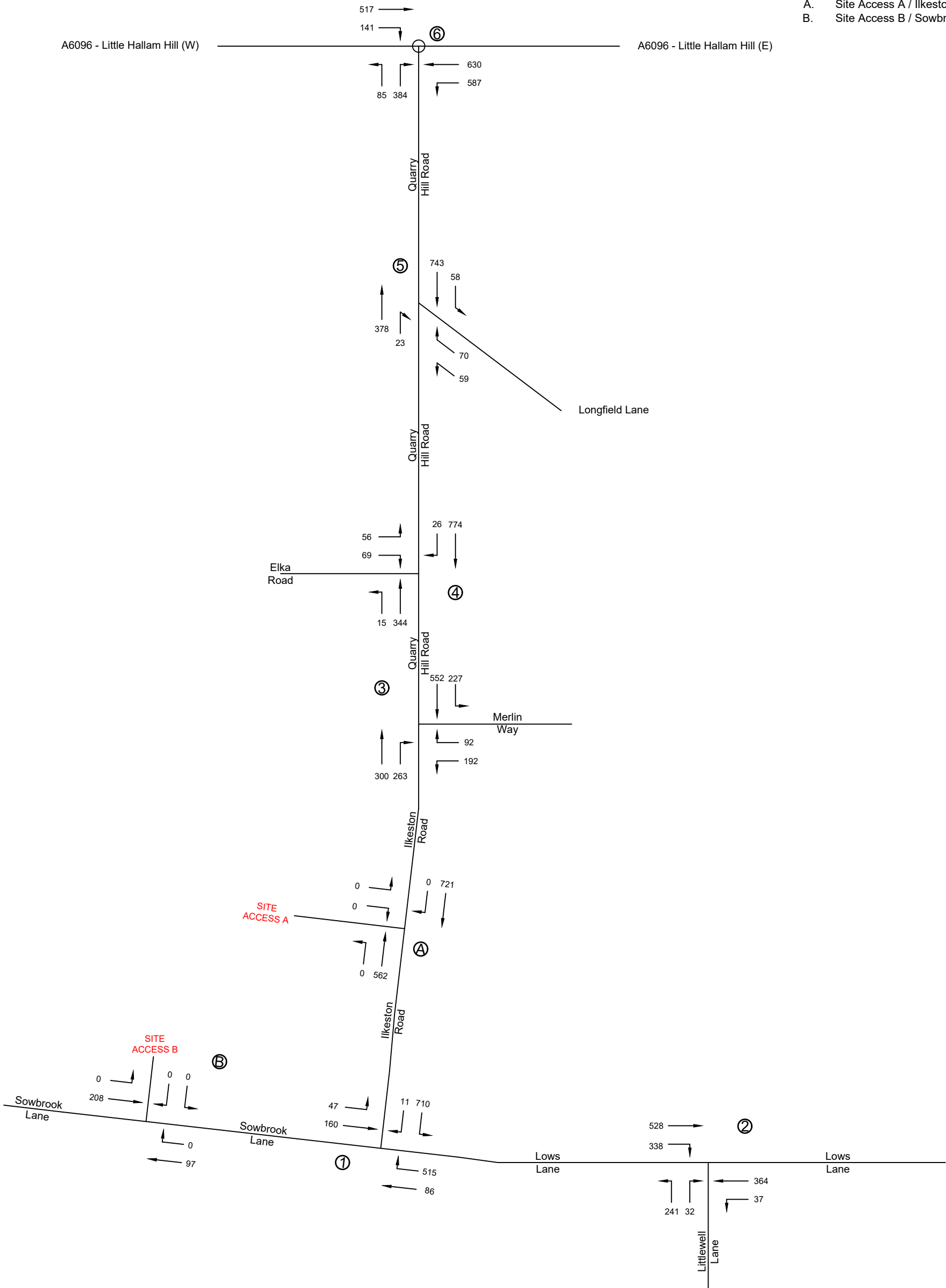
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Scale: NTS

Size: A3



- Junctions:
- 1. Lows Lane / Sowbrook Lane / Ilkeston Road
 - 2. Lows Lane / Littlewell Lane
 - 3. Quarry Hill Road / Merlin Way
 - 4. Quarry Hill Road / Elka Road
 - 5. Quarry Hill Road / Longfield Lane
 - 6. Quarry Hill Road / Little Hallam Hill (A6096)
- A. Site Access A / Ilkeston Road
B. Site Access B / Sowbrook Lane



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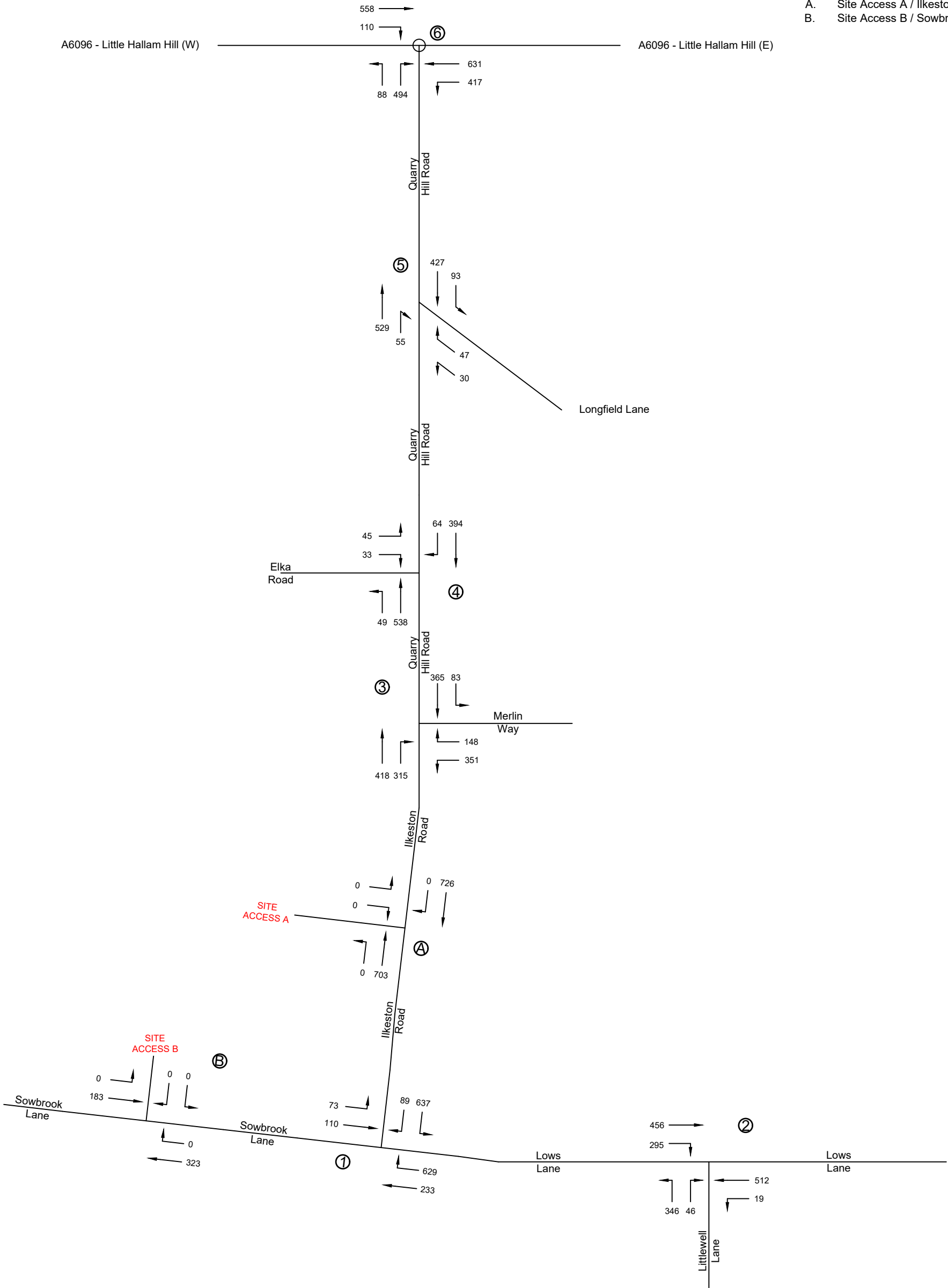
- Transport Assessments
- Flood Risk Assessments
- Highway Advice
- Access Design
- Drainage Strategies
- Vehicle tracking

Client: Wulff Asset Management Limited		Project: Sowbrook Lane Ilkeston	
Title: 2026 Forecast - Vehicle Distribution AM Peak 08:00-09:00		Date: 08/04/22	
		Drw: SH	
		Chk: DB	
Drawing No: 450-TA52		Revision: A	
		Scale: NTS Size: A3	



- Junctions:
- 1. Lows Lane / Sowbrook Lane / Ilkeston Road
 - 2. Lows Lane / Littlewell Lane
 - 3. Quarry Hill Road / Merlin Way
 - 4. Quarry Hill Road / Elka Road
 - 5. Quarry Hill Road / Longfield Lane
 - 6. Quarry Hill Road / Little Hallam Hill (A6096)

- A. Site Access A / Ilkeston Road
B. Site Access B / Sowbrook Lane



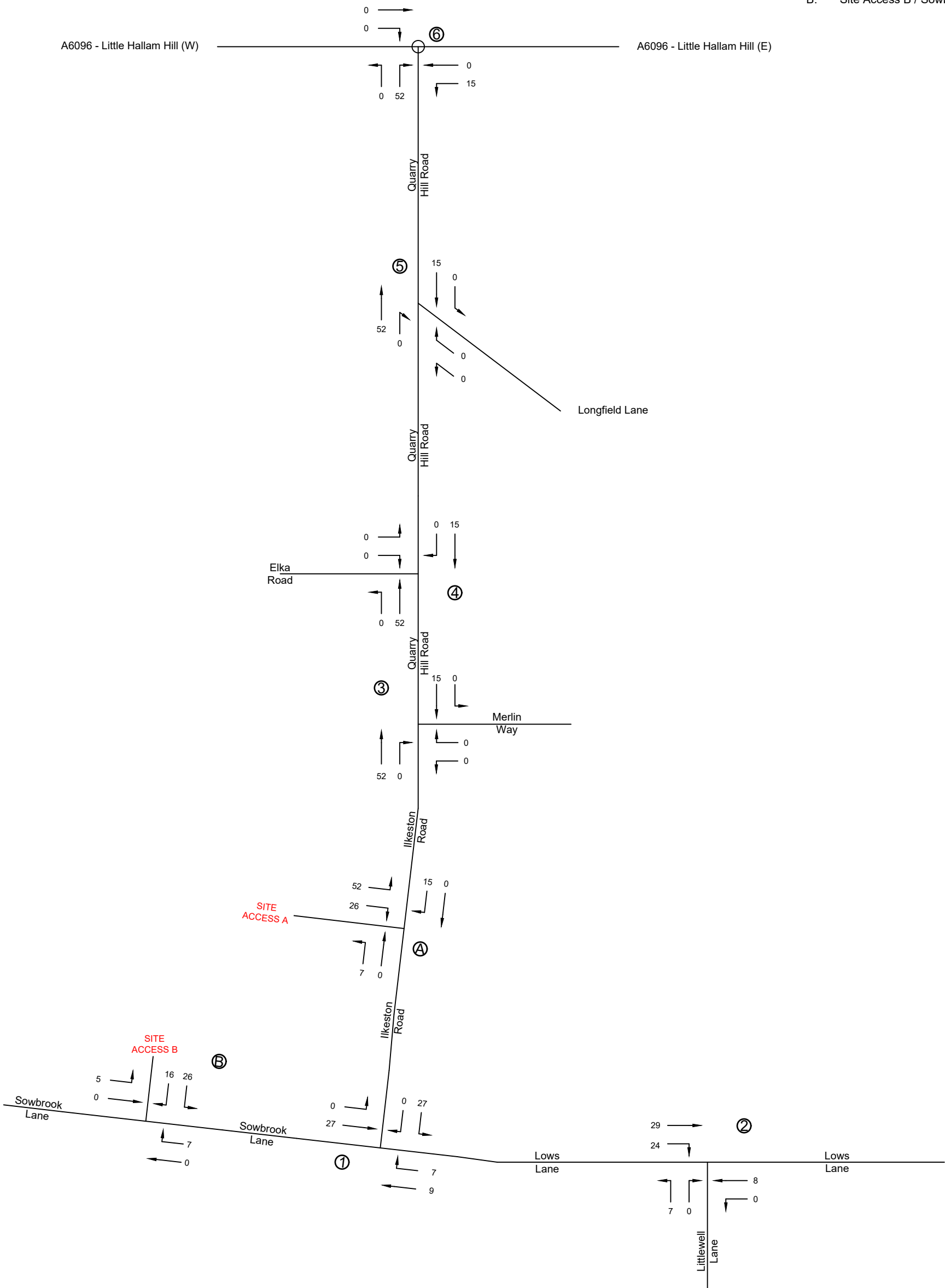
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- Highway Advice
- Access Design
- Drainage Strategies
- Vehicle tracking

Client: Wulff Asset Management Limited		Project: Sowbrook Lane Ilkeston	
Title: 2026 Forecast - Vehicle Distribution PM Peak 17:00-18:00		Date: 08/04/22	
		Drw: SH	
		Chk: DB	
Drawing No: 450-TA53		Scale: NTS	
		Size: A3	
Revision: A			



- Junctions:
- 1. Lows Lane / Sowbrook Lane / Ilkeston Road
 - 2. Lows Lane / Littlewell Lane
 - 3. Quarry Hill Road / Merlin Way
 - 4. Quarry Hill Road / Elka Road
 - 5. Quarry Hill Road / Longfield Lane
 - 6. Quarry Hill Road / Little Hallam Hill (A6096)
- A. Site Access A / Ilkeston Road
B. Site Access B / Sowbrook Lane



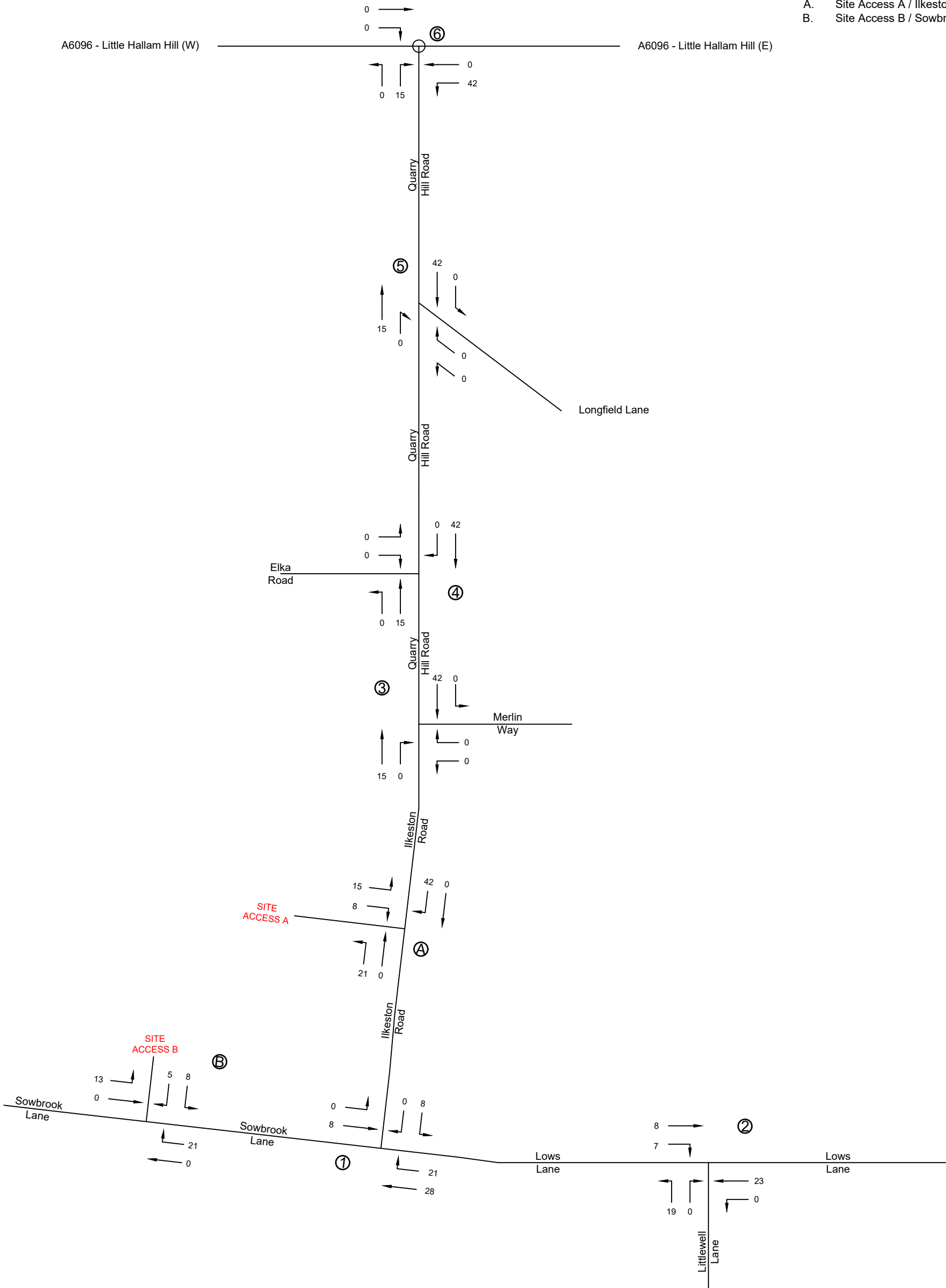
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- Flood Risk Assessments
- Highway Advice
- Access Design
- Drainage Strategies
- Vehicle tracking

Client: Wulff Asset Management Limited		Project: Sowbrook Lane Ilkeston	
Title: Proposed Development Vehicle Distribution AM Peak 08:00-09:00		Date: 08/04/22	
		Drw: SH	
		Chk: DB	
Drawing No: 450-TA54		Revision: A	
		Scale: NTS Size: A3	



- Junctions:
- 1. Lows Lane / Sowbrook Lane / Ilkeston Road
 - 2. Lows Lane / Littlewell Lane
 - 3. Quarry Hill Road / Merlin Way
 - 4. Quarry Hill Road / Elka Road
 - 5. Quarry Hill Road / Longfield Lane
 - 6. Quarry Hill Road / Little Hallam Hill (A6096)
- A. Site Access A / Ilkeston Road
- B. Site Access B / Sowbrook Lane



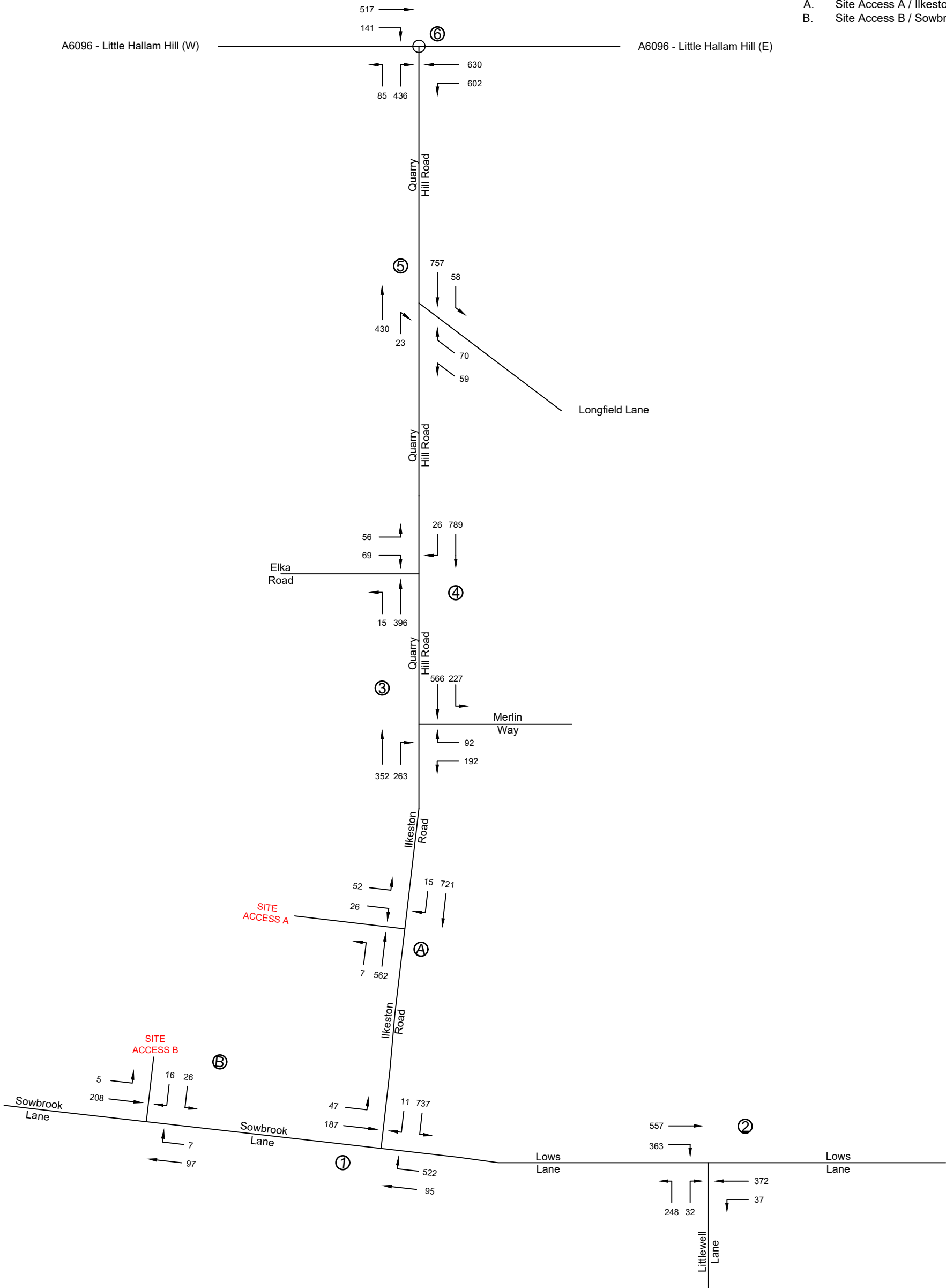
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- Highway Advice
- Access Design
- Drainage Strategies
- Vehicle tracking

Client: Wulff Asset Management Limited		Project: Sowbrook Lane Ilkeston	
Title: Proposed Development Vehicle Distribution PM Peak 17:00-18:00		Date: 08/04/22	
		Drw: SH	
Drawing No: 450-TA55		Chk: DB	
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		Revision: A	
		Size: A3	



- Junctions:
- 1. Lows Lane / Sowbrook Lane / Ilkeston Road
 - 2. Lows Lane / Littlewell Lane
 - 3. Quarry Hill Road / Merlin Way
 - 4. Quarry Hill Road / Elka Road
 - 5. Quarry Hill Road / Longfield Lane
 - 6. Quarry Hill Road / Little Hallam Hill (A6096)
- A. Site Access A / Ilkeston Road
B. Site Access B / Sowbrook Lane



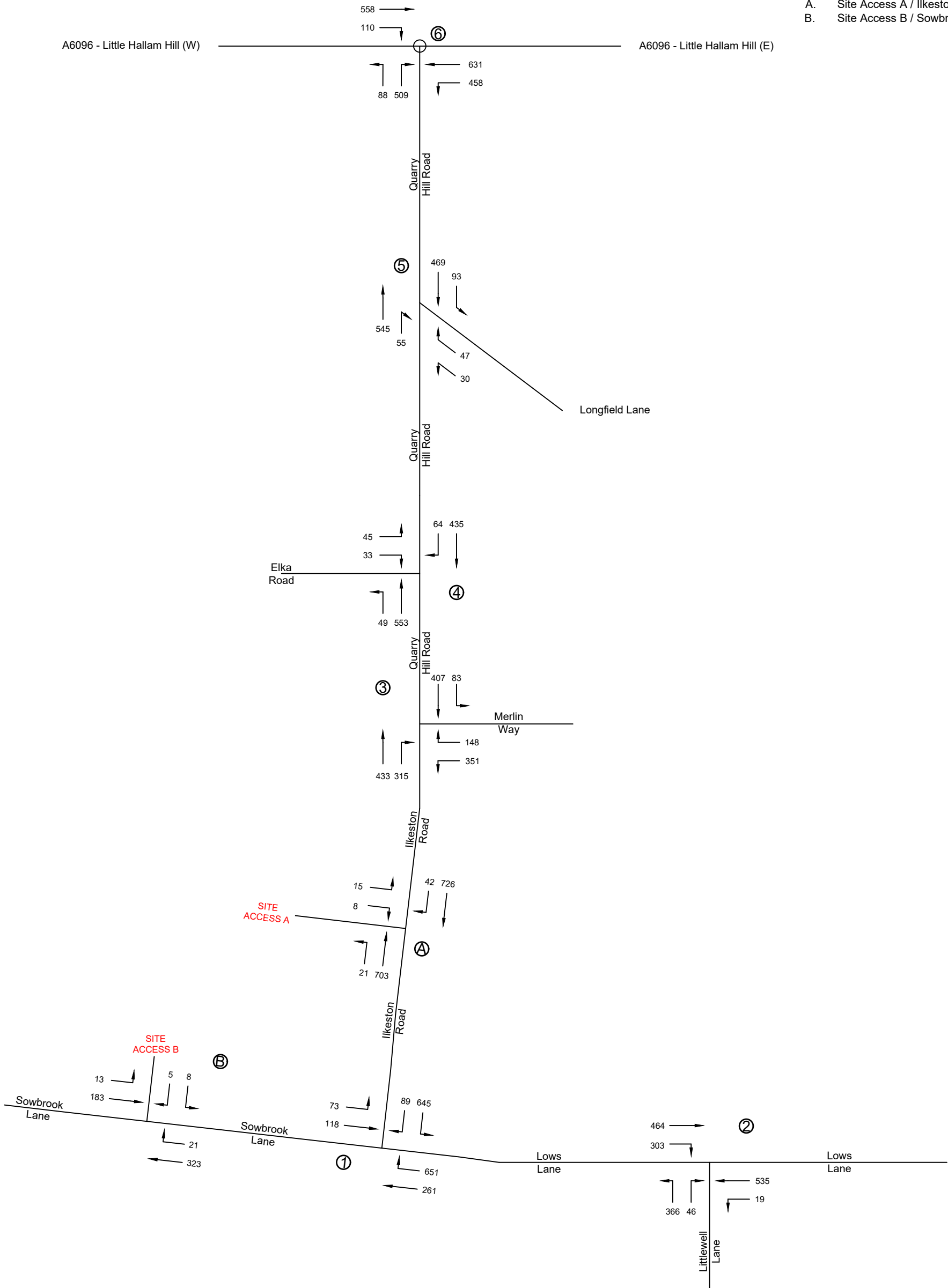
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- Access Design
- Drainage Strategies
- Vehicle tracking

Client: Wulff Asset Management Limited		Project: Sowbrook Lane Ilkeston	
Title: 2026 Forecast + Development Vehicle Distribution AM Peak 08:00-09:00		Date: 08/04/22	
		Drw: SH	
		Chk: DB	
Drawing No: 450-TA56		Revision: A	Scale: NTS
			Size: A3



- Junctions:
- 1. Lows Lane / Sowbrook Lane / Ilkeston Road
 - 2. Lows Lane / Littlewell Lane
 - 3. Quarry Hill Road / Merlin Way
 - 4. Quarry Hill Road / Elka Road
 - 5. Quarry Hill Road / Longfield Lane
 - 6. Quarry Hill Road / Little Hallam Hill (A6096)
- A. Site Access A / Ilkeston Road
B. Site Access B / Sowbrook Lane



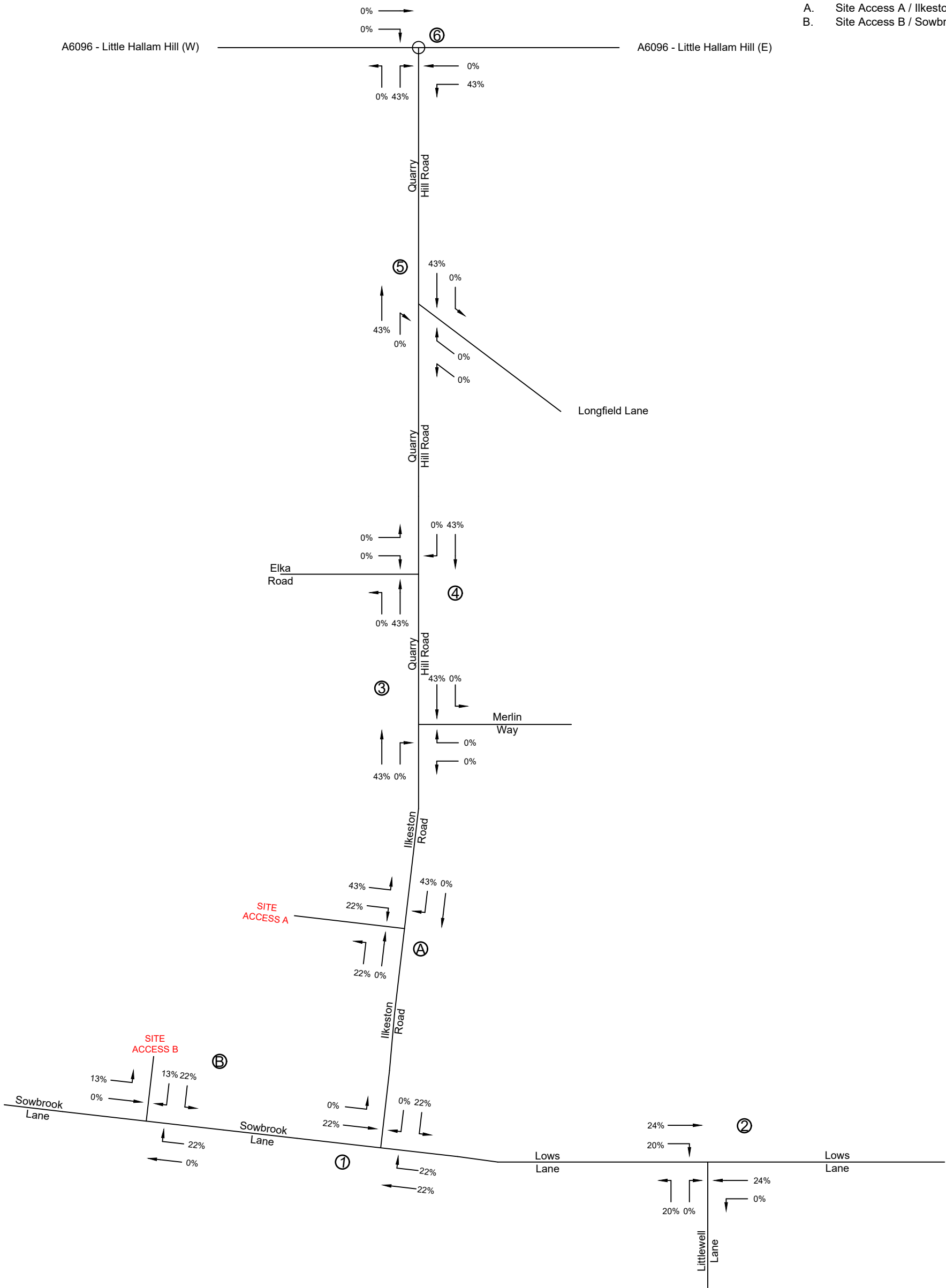
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- Highway Advice
- Access Design
- Drainage Strategies
- Vehicle tracking

Client: Wulff Asset Management Limited		Project: Sowbrook Lane Ilkeston	
Title: 2026 Forecast + Development Vehicle Distribution PM Peak 17:00-18:00		Date: 08/04/22	
		Drw: SH	
		Chk: DB	
Drawing No: 450-TA57		Scale: NTS	
		Size: A3	
Revision: A			



- Junctions:
- 1. Lows Lane / Sowbrook Lane / Ilkeston Road
 - 2. Lows Lane / Littlewell Lane
 - 3. Quarry Hill Road / Merlin Way
 - 4. Quarry Hill Road / Elka Road
 - 5. Quarry Hill Road / Longfield Lane
 - 6. Quarry Hill Road / Little Hallam Hill (A6096)
- A. Site Access A / Ilkeston Road
- B. Site Access B / Sowbrook Lane



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- Transport Assessments
- Flood Risk Assessments
- Highway Advice
- Access Design
- Drainage Strategies
- Vehicle tracking

Client: Wulff Asset Management Limited		Project: Sowbrook Lane Ilkeston	
Title: 2026 Forecast + Development Vehicle Distribution AM and PM Peak		Date: 08/04/22	
		Drw: SH	
		Chk: DB	
Drawing No: 450-TA58		Scale: NTS	
		Size: A3	
Revision: A			

Appendix N

A1: Site Access Ilkeston Road PICADY Report

Junctions 9						
PICADY 9 - Priority Intersection Module						
Version: 9.5.0.6896						
© Copyright TRL Limited, 2018						
For sales and distribution information, program advice and maintenance, contact TRL:						
+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk						
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution						

Filename: 450-Access A.j9

Path: C:\Users\Administrator\Martin Andrews Consulting Ltd\Projects 400 - 499 - Documents\450 - Sowbrook Lane, Ilkeston\Design\TA\Junction 9-PICADY (196 Dev)

Report generation date: 08/04/2022 13:52:48

»2026 Proposed Plus Development , AM

»2026 Proposed Plus Development , PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2026 Proposed Plus Development						
Stream B-C	0.1	9.46	0.13	0.0	9.21	0.04
Stream B-A	0.1	17.01	0.12	0.0	20.25	0.05
Stream C-AB	0.0	7.28	0.03	0.1	8.64	0.10

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

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

File summary

File Description

Title	
Location	
Site number	
Date	03/12/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MAC-13096B\Administrator
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026 Proposed Plus Development	AM	ONE HOUR	08:00	09:30	15	✓
D2	2026 Proposed Plus Development	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

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

2026 Proposed Plus Development , AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.75	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Ilkeston Road (S)		Major
B	Access A		Minor
C	Ilkeston Road (N)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.00		✓	3.00	207.6	✓	6.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	4.08	2.75	2.75	2.75	✓	1.00	25	21

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	595	0.104	0.262	0.165	0.374
1	B-C	667	0.098	0.247	-	-
1	C-B	755	0.280	0.280	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026 Proposed Plus Development	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	569	100.000
B		ONE HOUR	✓	78	100.000
C		ONE HOUR	✓	736	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
From		A	B	C
	A	0	7	562
	B	26	0	52
	C	721	15	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A	B	C
	A	10	10	10
	B	10	10	10
	C	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.13	9.46	0.1	A	48	72
B-A	0.12	17.01	0.1	C	24	36
C-AB	0.03	7.28	0.0	A	14	21
C-A					662	992
A-B					6	10
A-C					516	774

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	39	10	494	0.079	39	0.0	0.1	7.911	A
B-A	20	5	336	0.058	19	0.0	0.1	11.369	B
C-AB	11	3	566	0.020	11	0.0	0.0	6.486	A
C-A	543	136			543				
A-B	5	1			5				
A-C	423	106			423				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	47	12	471	0.099	47	0.1	0.1	8.488	A
B-A	23	6	296	0.079	23	0.1	0.1	13.209	B
C-AB	13	3	543	0.025	13	0.0	0.0	6.798	A
C-A	648	162			648				
A-B	6	2			6				
A-C	505	126			505				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	57	14	438	0.131	57	0.1	0.1	9.454	A
B-A	29	7	240	0.119	28	0.1	0.1	16.976	C
C-AB	17	4	511	0.032	16	0.0	0.0	7.282	A
C-A	794	198			794				
A-B	8	2			8				
A-C	619	155			619				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	57	14	438	0.131	57	0.1	0.1	9.464	A
B-A	29	7	240	0.119	29	0.1	0.1	17.006	C
C-AB	17	4	511	0.032	17	0.0	0.0	7.282	A
C-A	794	198			794				
A-B	8	2			8				
A-C	619	155			619				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	47	12	471	0.099	47	0.1	0.1	8.502	A
B-A	23	6	296	0.079	24	0.1	0.1	13.236	B
C-AB	13	3	543	0.025	14	0.0	0.0	6.801	A
C-A	648	162			648				
A-B	6	2			6				
A-C	505	126			505				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	39	10	493	0.079	39	0.1	0.1	7.928	A
B-A	20	5	336	0.058	20	0.1	0.1	11.395	B
C-AB	11	3	566	0.020	11	0.0	0.0	6.489	A
C-A	543	136			543				
A-B	5	1			5				
A-C	423	106			423				

2026 Proposed Plus Development , PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.44	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2026 Proposed Plus Development	PM	ONE HOUR	17:00	18:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	724	100.000
B		ONE HOUR	✓	23	100.000
C		ONE HOUR	✓	768	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	21	703
	B	8	0	15
	C	726	42	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	10	10	10
	B	10	10	10
	C	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.04	9.21	0.0	A	14	21
B-A	0.05	20.25	0.0	C	7	11
C-AB	0.10	8.64	0.1	A	39	58
C-A					666	999
A-B					19	29
A-C					645	968

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	11	3	471	0.024	11	0.0	0.0	7.821	A
B-A	6	2	299	0.020	6	0.0	0.0	12.289	B
C-AB	32	8	534	0.059	31	0.0	0.1	7.165	A
C-A	547	137			547				
A-B	16	4			16				
A-C	529	132			529				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	13	3	445	0.030	13	0.0	0.0	8.345	A
B-A	7	2	252	0.029	7	0.0	0.0	14.720	B
C-AB	38	9	504	0.075	38	0.1	0.1	7.719	A
C-A	653	163			653				
A-B	19	5			19				
A-C	632	158			632				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	17	4	408	0.041	16	0.0	0.0	9.203	A
B-A	9	2	187	0.047	9	0.0	0.0	20.229	C
C-AB	46	12	463	0.100	46	0.1	0.1	8.632	A
C-A	799	200			799				
A-B	23	6			23				
A-C	774	194			774				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	17	4	408	0.041	17	0.0	0.0	9.206	A
B-A	9	2	187	0.047	9	0.0	0.0	20.252	C
C-AB	46	12	463	0.100	46	0.1	0.1	8.635	A
C-A	799	200			799				
A-B	23	6			23				
A-C	774	194			774				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	13	3	445	0.030	14	0.0	0.0	8.348	A
B-A	7	2	252	0.029	7	0.0	0.0	14.736	B
C-AB	38	9	504	0.075	38	0.1	0.1	7.724	A
C-A	653	163			653				
A-B	19	5			19				
A-C	632	158			632				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	11	3	471	0.024	11	0.0	0.0	7.827	A
B-A	6	2	299	0.020	6	0.0	0.0	12.302	B
C-AB	32	8	534	0.059	32	0.1	0.1	7.172	A
C-A	547	137			547				
A-B	16	4			16				
A-C	529	132			529				

Appendix O

A2: Site Access Sowbrook Lane PICADY Report

Junctions 9						
PICADY 9 - Priority Intersection Module						
Version: 9.5.0.6896 © Copyright TRL Limited, 2018						
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Filename: 450-Access B.j9

Path: C:\Users\Administrator\Martin Andrews Consulting Ltd\Projects 400 - 499 - Documents\450 - Sowbrook Lane, Ilkeston\Design\TA\Junction 9-PICADY (196 Dev)

Report generation date: 08/04/2022 13:54:11

»2026 Proposed Plus Development , AM

»2026 Proposed Plus Development , PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2026 Proposed Plus Development						
Stream B-C	0.1	7.00	0.05	0.0	6.63	0.02
Stream B-A	0.0	8.14	0.04	0.0	8.69	0.01
Stream C-AB	0.0	6.23	0.01	0.0	6.34	0.04

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

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

File summary

File Description

Title	
Location	
Site number	
Date	03/12/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MAC-13096B\Administrator
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026 Proposed Plus Development	AM	ONE HOUR	08:00	09:30	15	✓
D2	2026 Proposed Plus Development	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

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

2026 Proposed Plus Development , AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.99	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Sowbrook Lane (N)		Major
B	Access B		Minor
C	Access A		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.00		✓	3.00	140.1	✓	6.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	3.97	2.75	2.75	2.75	✓	1.00	25	21

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	595	0.104	0.262	0.165	0.374
1	B-C	665	0.098	0.247	-	-
1	C-B	712	0.264	0.264	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026 Proposed Plus Development	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	213	100.000
B		ONE HOUR	✓	42	100.000
C		ONE HOUR	✓	104	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
From		A	B	C
	A	0	5	208
	B	16	0	26
	C	97	7	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A	B	C
	A	10	10	10
	B	10	10	10
	C	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.05	7.00	0.1	A	24	36
B-A	0.04	8.14	0.0	A	15	22
C-AB	0.01	6.23	0.0	A	6	10
C-A					89	134
A-B					5	7
A-C					191	286

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	20	5	562	0.035	19	0.0	0.0	6.629	A
B-A	12	3	486	0.025	12	0.0	0.0	7.596	A
C-AB	5	1	605	0.009	5	0.0	0.0	6.001	A
C-A	73	18			73				
A-B	4	1			4				
A-C	157	39			157				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	23	6	554	0.042	23	0.0	0.0	6.783	A
B-A	14	4	475	0.030	14	0.0	0.0	7.816	A
C-AB	6	2	597	0.011	6	0.0	0.0	6.095	A
C-A	87	22			87				
A-B	4	1			4				
A-C	187	47			187				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	29	7	542	0.053	29	0.0	0.1	7.005	A
B-A	18	4	460	0.038	18	0.0	0.0	8.137	A
C-AB	8	2	586	0.013	8	0.0	0.0	6.229	A
C-A	107	27			107				
A-B	6	1			6				
A-C	229	57			229				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	29	7	542	0.053	29	0.1	0.1	7.005	A
B-A	18	4	460	0.038	18	0.0	0.0	8.137	A
C-AB	8	2	586	0.013	8	0.0	0.0	6.229	A
C-A	107	27			107				
A-B	6	1			6				
A-C	229	57			229				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	23	6	554	0.042	23	0.1	0.0	6.785	A
B-A	14	4	475	0.030	14	0.0	0.0	7.819	A
C-AB	6	2	597	0.011	6	0.0	0.0	6.095	A
C-A	87	22			87				
A-B	4	1			4				
A-C	187	47			187				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	20	5	562	0.035	20	0.0	0.0	6.633	A
B-A	12	3	486	0.025	12	0.0	0.0	7.603	A
C-AB	5	1	605	0.009	5	0.0	0.0	6.001	A
C-A	73	18			73				
AB	4	1			4				
AC	157	39			157				

2026 Proposed Plus Development , PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.42	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2026 Proposed Plus Development	PM	ONE HOUR	17:00	18:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	196	100.000
B		ONE HOUR	✓	13	100.000
C		ONE HOUR	✓	344	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	13	183
	B	5	0	8
	C	323	21	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	10	10	10
	B	10	10	10
	C	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.02	6.63	0.0	A	7	11
B-A	0.01	8.69	0.0	A	5	7
C-AB	0.04	6.34	0.0	A	19	29
C-A					296	445
A-B					12	18
A-C					168	252

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	6	2	569	0.011	6	0.0	0.0	6.397	A
B-A	4	1	458	0.008	4	0.0	0.0	7.924	A
C-AB	16	4	608	0.026	16	0.0	0.0	6.073	A
C-A	243	61			243				
A-B	10	2			10				
A-C	138	34			138				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	7	2	562	0.013	7	0.0	0.0	6.491	A
B-A	4	1	442	0.010	4	0.0	0.0	8.230	A
C-AB	19	5	601	0.031	19	0.0	0.0	6.184	A
C-A	290	73			290				
A-B	12	3			12				
A-C	165	41			165				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	9	2	552	0.016	9	0.0	0.0	6.627	A
B-A	6	1	420	0.013	5	0.0	0.0	8.694	A
C-AB	23	6	590	0.039	23	0.0	0.0	6.344	A
C-A	356	89			356				
A-B	14	4			14				
A-C	201	50			201				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	9	2	552	0.016	9	0.0	0.0	6.628	A
B-A	6	1	420	0.013	6	0.0	0.0	8.694	A
C-AB	23	6	590	0.039	23	0.0	0.0	6.344	A
C-A	356	89			356				
A-B	14	4			14				
A-C	201	50			201				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	7	2	562	0.013	7	0.0	0.0	6.494	A
B-A	4	1	442	0.010	5	0.0	0.0	8.233	A
C-AB	19	5	601	0.031	19	0.0	0.0	6.185	A
C-A	290	73			290				
A-B	12	3			12				
A-C	165	41			165				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	6	2	569	0.011	6	0.0	0.0	6.397	A
B-A	4	1	458	0.008	4	0.0	0.0	7.927	A
C-AB	16	4	608	0.026	16	0.0	0.0	6.074	A
C-A	243	61			243				
A-B	10	2			10				
A-C	138	34			138				

Appendix P

J1: Ilkeston Road/Lows Lane/Sowbrook Lane PICADY Report

Junctions 9						
PICADY 9 - Priority Intersection Module						
Version: 9.5.0.6896						
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Filename: 450-J1-2 Access.j9

Path: C:\Users\Administrator\Martin Andrews Consulting Ltd\Projects 400 - 499 - Documents\450 - Sowbrook Lane, Ilkeston\Design\TA\Junction 9-PICADY (196 Dev)

Report generation date: 08/04/2022 10:07:42

»2021, AM

»2021, PM

»2026 Forecast, AM

»2026 Forecast, PM

»2026 Forecast Plus Proposed Dev, AM

»2026 Forecast Plus Proposed Dev, PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2021						
Stream B-C	0.1	10.71	0.13	0.2	10.56	0.18
Stream B-A	1.2	27.46	0.56	0.9	30.81	0.49
Stream C-AB	0.1	4.00	0.04	1.2	6.04	0.35
2026 Forecast						
Stream B-C	0.2	13.64	0.16	0.3	13.84	0.24
Stream B-A	1.8	38.21	0.65	1.5	46.01	0.61
Stream C-AB	0.1	3.92	0.05	1.7	6.52	0.41
2026 Forecast Plus Proposed Dev						
Stream B-C	0.3	24.46	0.26	0.4	18.63	0.29
Stream B-A	3.3	62.24	0.79	2.1	62.40	0.70
Stream C-AB	0.1	3.87	0.05	1.9	6.76	0.43

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

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

File summary

File Description

Title	
Location	
Site number	
Date	23/11/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MAC-13096B\Administrator
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2021	AM	ONE HOUR	07:15	08:45	15	✓	✓
D2	2021	PM	ONE HOUR	16:00	17:30	15	✓	✓
D3	2026 Forecast	AM	ONE HOUR	07:15	08:45	15	✓	✓
D4	2026 Forecast	PM	ONE HOUR	16:00	17:30	15	✓	✓
D5	2026 Forecast Plus Proposed Dev	AM	ONE HOUR	07:15	08:45	15	✓	✓
D6	2026 Forecast Plus Proposed Dev	PM	ONE HOUR	16:00	17:30	15	✓	✓

Analysis Set Details

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

2021, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D1 - 2021, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.99	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Lows Lane		Major
B	Sowbrook Lane		Minor
C	Ilkeston Road		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.80			189.2	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	6.07	3.40	3.06	2.92	✓	1.00	42	166

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	620	0.109	0.275	0.173	0.393
1	B-C	744	0.110	0.278	-	-
1	C-B	684	0.256	0.256	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2021	AM	ONE HOUR	07:15	08:45	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	558	100.000
B		ONE HOUR	✓	193	100.000
C		ONE HOUR	✓	670	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
From	A	0	80	478
	B	149	0	44
	C	660	10	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
From	A	0	3	16
	B	0	0	5
	C	12	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.13	10.71	0.1	B	44	44
B-A	0.56	27.46	1.2	D	149	149
C-AB	0.04	4.00	0.1	A	32	32
C-A					637	637
A-B					80	80
A-C					478	478

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	40	10	491	0.081	39	0.1	0.1	7.971	A
B-A	134	33	355	0.377	133	0.4	0.6	16.165	C
C-AB	25	6	932	0.027	25	0.0	0.0	3.955	A
C-A	577	144			577				
A-B	72	18			72				
A-C	430	107			430				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	48	12	389	0.125	48	0.1	0.1	10.558	B
B-A	164	41	295	0.557	162	0.6	1.2	26.602	D
C-AB	40	10	1002	0.040	40	0.0	0.1	3.725	A
C-A	697	174			697				
A-B	88	22			88				
A-C	527	132			527				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	48	12	385	0.126	48	0.1	0.1	10.705	B
B-A	164	41	295	0.557	164	1.2	1.2	27.457	D
C-AB	40	10	1002	0.040	40	0.1	0.1	3.744	A
C-A	697	174			697				
A-B	88	22			88				
A-C	527	132			527				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	40	10	487	0.081	40	0.1	0.1	8.048	A
B-A	134	33	355	0.377	136	1.2	0.6	16.631	C
C-AB	25	6	932	0.027	25	0.1	0.0	3.996	A
C-A	577	144			577				
A-B	72	18			72				
A-C	430	107			430				

2021, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D2 - 2021, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.12	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D2	2021	PM	ONE HOUR	16:00	17:30	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	800	100.000
B		ONE HOUR	✓	170	100.000
C		ONE HOUR	✓	674	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	216	584
	B	102	0	68
	C	591	83	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	0	13
	B	0	0	1
	C	8	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.18	10.56	0.2	B	68	68
B-A	0.49	30.81	0.9	D	102	102
C-AB	0.35	6.04	1.2	A	257	257
C-A					417	417
A-B					216	216
A-C					584	584

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	61	15	520	0.117	61	0.1	0.1	7.839	A
B-A	92	23	300	0.306	91	0.3	0.4	17.186	C
C-AB	196	49	861	0.228	195	0.4	0.6	5.407	A
C-A	409	102			409				
A-B	195	49			195				
A-C	525	131			525				

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	75	19	420	0.178	74	0.1	0.2	10.413	B
B-A	112	28	229	0.490	110	0.4	0.9	29.826	D
C-AB	317	79	919	0.345	314	0.6	1.2	5.968	A
C-A	425	106			425				
A-B	238	60			238				
A-C	643	161			643				

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	75	19	415	0.180	75	0.2	0.2	10.561	B
B-A	112	28	229	0.491	112	0.9	0.9	30.811	D
C-AB	318	80	920	0.346	318	1.2	1.2	6.039	A
C-A	424	106			424				
A-B	238	60			238				
A-C	643	161			643				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	61	15	517	0.118	61	0.2	0.1	7.912	A
B-A	92	23	299	0.306	94	0.9	0.5	17.662	C
C-AB	198	49	862	0.229	200	1.2	0.7	5.506	A
C-A	408	102			408				
A-B	195	49			195				
A-C	525	131			525				

2026 Forecast, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D3 - 2026 Forecast, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		4.09	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D3	2026 Forecast	AM	ONE HOUR	07:15	08:45	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	601	100.000
B		ONE HOUR	✓	207	100.000
C		ONE HOUR	✓	721	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	86	515
	B	160	0	47
	C	710	11	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	3	16
	B	0	0	5
	C	12	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.16	13.64	0.2	B	47	47
B-A	0.65	38.21	1.8	E	160	160
C-AB	0.05	3.92	0.1	A	40	40
C-A					681	681
A-B					86	86
A-C					515	515

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	42	11	462	0.091	42	0.1	0.1	8.567	A
B-A	144	36	335	0.430	143	0.5	0.7	18.659	C
C-AB	30	7	955	0.031	30	0.0	0.0	3.877	A
C-A	618	155			618				
A-B	77	19			77				
A-C	463	116			463				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	52	13	325	0.159	51	0.1	0.2	13.149	B
B-A	176	44	269	0.654	172	0.7	1.7	35.777	E
C-AB	50	12	1033	0.048	50	0.0	0.1	3.646	A
C-A	744	186			744				
A-B	95	24			95				
A-C	567	142			567				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	52	13	316	0.164	52	0.2	0.2	13.639	B
B-A	176	44	269	0.655	176	1.7	1.8	38.211	E
C-AB	50	12	1033	0.048	50	0.1	0.1	3.661	A
C-A	744	186			744				
A-B	95	24			95				
A-C	567	142			567				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	42	11	455	0.093	43	0.2	0.1	8.730	A
B-A	144	36	335	0.430	148	1.8	0.8	19.666	C
C-AB	30	7	955	0.031	30	0.1	0.0	3.920	A
C-A	618	155			618				
A-B	77	19			77				
A-C	463	116			463				

2026 Forecast, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D4 - 2026 Forecast, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		4.32	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D4	2026 Forecast	PM	ONE HOUR	16:00	17:30	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	862	100.000
B		ONE HOUR	✓	183	100.000
C		ONE HOUR	✓	726	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	233	629
	B	110	0	73
	C	637	89	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	0	13
	B	0	0	1
	C	8	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.24	13.84	0.3	B	73	73
B-A	0.61	46.01	1.5	E	110	110
C-AB	0.41	6.52	1.7	A	309	309
C-A					417	417
A-B					233	233
A-C					629	629

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	66	16	491	0.134	65	0.1	0.2	8.455	A
B-A	99	25	276	0.358	98	0.3	0.5	20.147	C
C-AB	231	58	880	0.262	230	0.5	0.8	5.534	A
C-A	422	105			422				
A-B	209	52			209				
A-C	565	141			565				

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	80	20	351	0.229	80	0.2	0.3	13.248	B
B-A	121	30	199	0.608	118	0.5	1.4	42.620	E
C-AB	385	96	945	0.407	382	0.8	1.6	6.404	A
C-A	414	104			414				
A-B	257	64			257				
A-C	693	173			693				

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	80	20	340	0.236	80	0.3	0.3	13.838	B
B-A	121	30	198	0.611	121	1.4	1.5	46.010	E
C-AB	388	97	947	0.409	387	1.6	1.7	6.516	A
C-A	412	103			412				
A-B	257	64			257				
A-C	693	173			693				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	66	16	484	0.136	66	0.3	0.2	8.622	A
B-A	99	25	275	0.360	102	1.5	0.6	21.273	C
C-AB	233	58	883	0.264	237	1.7	0.8	5.663	A
C-A	419	105			419				
A-B	209	52			209				
A-C	565	141			565				

2026 Forecast Plus Proposed Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D5 - 2026 Forecast Plus Proposed Dev, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		7.33	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D5	2026 Forecast Plus Proposed Dev	AM	ONE HOUR	07:15	08:45	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	617	100.000
B		ONE HOUR	✓	234	100.000
C		ONE HOUR	✓	748	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
From	A	0	95	522
	B	187	0	47
	C	737	11	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
From	A	0	3	16
	B	0	0	5
	C	12	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.26	24.46	0.3	C	47	47
B-A	0.79	62.24	3.3	F	187	187
C-AB	0.05	3.87	0.1	A	42	42
C-A					706	706
A-B					95	95
A-C					522	522

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	42	11	420	0.101	42	0.1	0.1	9.527	A
B-A	168	42	328	0.513	166	0.6	1.0	22.097	C
C-AB	31	8	969	0.032	31	0.0	0.0	3.825	A
C-A	641	160			641				
A-B	85	21			85				
A-C	469	117			469				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	52	13	223	0.232	51	0.1	0.3	20.870	C
B-A	206	51	260	0.792	198	1.0	3.0	52.672	F
C-AB	53	13	1051	0.051	53	0.0	0.1	3.592	A
C-A	770	193			770				
A-B	105	26			105				
A-C	575	144			575				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	52	13	199	0.261	52	0.3	0.3	24.457	C
B-A	206	51	260	0.793	205	3.0	3.3	62.241	F
C-AB	53	13	1051	0.051	53	0.1	0.1	3.609	A
C-A	770	193			770				
A-B	105	26			105				
A-C	575	144			575				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	42	11	403	0.105	43	0.3	0.1	10.033	B
B-A	168	42	328	0.513	177	3.3	1.1	25.124	D
C-AB	31	8	969	0.032	32	0.1	0.0	3.866	A
C-A	641	160			641				
A-B	85	21			85				
A-C	469	117			469				

2026 Forecast Plus Proposed Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D6 - 2026 Forecast Plus Proposed Dev, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		5.60	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D6	2026 Forecast Plus Proposed Dev	PM	ONE HOUR	16:00	17:30	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	912	100.000
B		ONE HOUR	✓	191	100.000
C		ONE HOUR	✓	734	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	261	651
	B	118	0	73
	C	645	89	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	13
	B	0	0	1
	C	8	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.29	18.63	0.4	C	73	73
B-A	0.70	62.40	2.1	F	118	118
C-AB	0.43	6.76	1.9	A	322	322
C-A					412	412
A-B					261	261
A-C					651	651

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	66	16	468	0.140	65	0.1	0.2	8.949	A
B-A	106	27	266	0.399	105	0.4	0.6	22.198	C
C-AB	238	60	877	0.271	237	0.5	0.8	5.621	A
C-A	422	105			422				
A-B	235	59			235				
A-C	585	146			585				

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	80	20	293	0.275	80	0.2	0.4	16.828	C
B-A	130	32	186	0.697	125	0.6	1.9	54.589	F
C-AB	402	101	944	0.426	398	0.8	1.8	6.628	A
C-A	406	101			406				
A-B	287	72			287				
A-C	717	179			717				

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	80	20	273	0.294	80	0.4	0.4	18.627	C
B-A	130	32	185	0.701	129	1.9	2.1	62.401	F
C-AB	405	101	946	0.428	405	1.8	1.8	6.760	A
C-A	403	101			403				
A-B	287	72			287				
A-C	717	179			717				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	66	16	456	0.144	67	0.4	0.2	9.256	A
B-A	106	27	265	0.400	112	2.1	0.7	24.263	C
C-AB	241	60	880	0.273	244	1.8	0.9	5.764	A
C-A	419	105			419				
A-B	235	59			235				
A-C	585	146			585				

Appendix Q

J2: Lows Lane/Littlewell Lane PICADY Report

Junctions 9		
PICADY 9 - Priority Intersection Module		
Version: 9.5.0.6896 © Copyright TRL Limited, 2018		
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Filename: 450-J2.j9

Path: C:\Users\Administrator\Martin Andrews Consulting Ltd\Projects 400 - 499 - Documents\450 - Sowbrook Lane, Ilkeston\Design\TA\Junction 9-PICADY (196 Dev)

Report generation date: 08/04/2022 09:35:41

- »2021 Base Year, AM
- »2021 Base Year, PM
- »2026 Forecast, AM
- »2026 Forecast, PM
- »2026 Forecast Plus Proposed Development, AM
- »2026 Forecast Plus Proposed Development, PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2021 Base Year						
Stream B-C	0.9	13.58	0.48	2.0	21.39	0.68
Stream B-A	0.5	61.74	0.36	0.5	40.67	0.35
Stream C-AB	25.4	94.98	1.00	7.2	28.10	0.84
2026 Forecast						
Stream B-C	1.3	17.44	0.56	3.3	32.59	0.78
Stream B-A	0.8	93.95	0.49	0.9	68.45	0.50
Stream C-AB	52.8	182.31	1.09	17.2	67.08	0.96
2026 Forecast Plus Proposed Development						
Stream B-C	1.7	23.90	0.65	5.0	48.35	0.86
Stream B-A	1.3	146.46	0.63	1.4	111.60	0.64
Stream C-AB	84.4	312.66	1.16	23.6	92.55	0.99

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

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

File summary

File Description

Title	
Location	
Site number	
Date	23/11/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MAC-13096B\Administrator
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2021 Base Year	AM	ONE HOUR	07:15	08:45	15	✓	✓
D2	2021 Base Year	PM	ONE HOUR	16:00	17:30	15	✓	✓
D3	2026 Forecast	AM	ONE HOUR	07:15	08:45	15	✓	✓
D4	2026 Forecast	PM	ONE HOUR	16:00	17:30	15	✓	✓
D5	2026 Forecast Plus Proposed Development	AM	ONE HOUR	07:15	08:45	15	✓	✓
D6	2026 Forecast Plus Proposed Development	PM	ONE HOUR	16:00	17:30	15	✓	✓

Analysis Set Details

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

2021 Base Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D1 - 2021 Base Year, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J1	Lows Lane / Littlewell Lane	T-Junction	Two-way		52.44	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Lows Lane (E)		Major
B	Littlewell Lane		Minor
C	Lows Lane (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.57			162.5	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	6.71	5.13	4.54	4.09	✓	2.00	68	24

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
J1	B-A	467	0.079	0.200	0.126	0.286
J1	B-C	732	0.105	0.264	-	-
J1	C-B	668	0.241	0.241	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2021 Base Year	AM	ONE HOUR	07:15	08:45	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	373	100.000
B		ONE HOUR	✓	253	100.000
C		ONE HOUR	✓	805	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
From		A	B	C
	A	0	35	338
	B	29	0	224
	C	491	314	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A	B	C
	A	0	64	19
	B	90	0	6
	C	15	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.48	13.58	0.9	B	224	224
B-A	0.36	61.74	0.5	F	29	29
C-AB	1.00	94.98	25.4	F	759	759
C-A					46	46
A-B					35	35
A-C					338	338

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	201	50	562	0.358	201	0.4	0.5	9.950	A
B-A	26	7	126	0.210	26	0.2	0.3	36.039	E
C-AB	602	151	840	0.717	595	1.7	3.5	14.651	B
C-A	122	30			122				
A-B	31	8			31				
A-C	304	76			304				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	247	62	518	0.476	245	0.5	0.9	13.120	B
B-A	32	8	96	0.337	32	0.3	0.5	55.014	F
C-AB	886	222	887	1.000	829	3.5	17.9	51.752	F
C-A	0	0			0				
A-B	38	9			38				
A-C	372	93			372				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	247	62	511	0.482	247	0.9	0.9	13.585	B
B-A	32	8	90	0.359	32	0.5	0.5	61.736	F
C-AB	886	222	888	0.998	857	17.9	25.4	94.983	F
C-A	0	0			0				
A-B	38	9			38				
A-C	372	93			372				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	201	50	556	0.362	203	0.9	0.6	10.230	B
B-A	26	7	116	0.228	27	0.5	0.3	41.049	E
C-AB	662	166	877	0.755	742	25.4	5.4	42.346	E
C-A	62	15			62				
A-B	31	8			31				
A-C	304	76			304				

2021 Base Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D2 - 2021 Base Year, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J1	Lows Lane / Littlewell Lane	T-Junction	Two-way		15.80	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D2	2021 Base Year	PM	ONE HOUR	16:00	17:30	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	492	100.000
B		ONE HOUR	✓	364	100.000
C		ONE HOUR	✓	697	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	17	475
	B	42	0	321
	C	423	274	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	36	14
	B	16	0	1
	C	10	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.68	21.39	2.0	C	321	321
B-A	0.35	40.67	0.5	E	42	42
C-AB	0.84	28.10	7.2	D	591	591
C-A					106	106
A-B					17	17
A-C					475	475

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	289	72	571	0.505	287	0.7	1.0	12.611	B
B-A	38	10	196	0.194	38	0.2	0.2	22.691	C
C-AB	477	119	793	0.601	473	1.2	2.1	11.222	B
C-A	150	37			150				
A-B	16	4			16				
A-C	427	107			427				

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	354	88	523	0.676	350	1.0	2.0	20.293	C
B-A	47	12	138	0.337	46	0.2	0.5	38.402	E
C-AB	694	174	833	0.834	678	2.1	6.3	22.770	C
C-A	73	18			73				
A-B	19	5			19				
A-C	523	131			523				

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	354	88	521	0.679	353	2.0	2.0	21.387	C
B-A	47	12	135	0.346	47	0.5	0.5	40.668	E
C-AB	706	177	840	0.841	703	6.3	7.1	28.099	D
C-A	61	15			61				
A-B	19	5			19				
A-C	523	131			523				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	289	72	569	0.507	293	2.0	1.1	13.186	B
B-A	38	10	192	0.199	39	0.5	0.3	23.771	C
C-AB	488	122	803	0.608	507	7.1	2.5	13.315	B
C-A	138	35			138				
A-B	16	4			16				
A-C	427	107			427				

2026 Forecast, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D3 - 2026 Forecast, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J1	Lows Lane / Littlewell Lane	T-Junction	Two-way		101.89	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D3	2026 Forecast	AM	ONE HOUR	07:15	08:45	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	401	100.000
B		ONE HOUR	✓	273	100.000
C		ONE HOUR	✓	866	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	37	364
	B	32	0	241
	C	528	338	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	64	19
	B	90	0	6
	C	15	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.56	17.44	1.3	C	241	241
B-A	0.49	93.95	0.8	F	32	32
C-AB	1.09	182.31	52.8	F	844	844
C-A					22	22
A-B					37	37
A-C					364	364

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	217	54	550	0.394	216	0.4	0.6	10.738	B
B-A	29	7	116	0.248	28	0.2	0.3	40.785	E
C-AB	692	173	856	0.808	679	2.2	5.5	20.088	C
C-A	86	22			86				
A-B	33	8			33				
A-C	327	82			327				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	265	66	493	0.538	263	0.6	1.1	15.542	C
B-A	35	9	83	0.424	34	0.3	0.7	71.363	F
C-AB	953	238	876	1.088	849	5.5	31.6	86.621	F
C-A	0	0			0				
A-B	41	10			41				
A-C	401	100			401				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	265	66	471	0.564	265	1.1	1.3	17.439	C
B-A	35	9	72	0.491	34	0.7	0.8	93.952	F
C-AB	953	238	877	1.087	869	31.6	52.7	182.314	F
C-A	0	0			0				
A-B	41	10			41				
A-C	401	100			401				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	217	54	533	0.406	219	1.3	0.7	11.532	B
B-A	29	7	95	0.303	30	0.8	0.5	56.889	F
C-AB	779	195	903	0.862	877	52.7	28.1	163.481	F
C-A	0	0			0				
A-B	33	8			33				
A-C	327	82			327				

2026 Forecast, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D4 - 2026 Forecast, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J1	Lows Lane / Littlewell Lane	T-Junction	Two-way		35.44	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D4	2026 Forecast	PM	ONE HOUR	16:00	17:30	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	531	100.000
B		ONE HOUR	✓	392	100.000
C		ONE HOUR	✓	751	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	19	512
	B	46	0	346
	C	456	295	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	36	14
	B	16	0	1
	C	10	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.78	32.59	3.3	D	346	346
B-A	0.50	68.45	0.9	F	46	46
C-AB	0.96	67.08	17.2	F	690	690
C-A					61	61
A-B					19	19
A-C					512	512

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	311	78	556	0.560	309	0.8	1.2	14.491	B
B-A	41	10	177	0.233	41	0.2	0.3	26.311	D
C-AB	544	136	807	0.675	539	1.5	2.9	13.410	B
C-A	131	33			131				
A-B	17	4			17				
A-C	460	115			460				

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	381	95	496	0.768	374	1.2	2.9	28.122	D
B-A	51	13	110	0.460	49	0.3	0.8	56.998	F
C-AB	808	202	851	0.949	769	2.9	12.7	40.033	E
C-A	19	5			19				
A-B	21	5			21				
A-C	564	141			564				

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	381	95	488	0.781	380	2.9	3.3	32.591	D
B-A	51	13	102	0.497	50	0.8	0.9	68.446	F
C-AB	827	207	861	0.960	809	12.7	17.2	67.081	F
C-A	0	0			0				
A-B	21	5			21				
A-C	564	141			564				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	311	78	550	0.566	319	3.3	1.4	16.043	C
B-A	41	10	166	0.250	44	0.9	0.3	29.968	D
C-AB	579	145	833	0.695	633	17.2	3.8	23.945	C
C-A	96	24			96				
A-B	17	4			17				
A-C	460	115			460				

2026 Forecast Plus Proposed Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D5 - 2026 Forecast Plus Proposed Development, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J1	Lows Lane / Littlewell Lane	T-Junction	Two-way		178.27	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D5	2026 Forecast Plus Proposed Development	AM	ONE HOUR	07:15	08:45	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	409	100.000
B		ONE HOUR	✓	280	100.000
C		ONE HOUR	✓	920	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	37	372
	B	32	0	248
	C	557	363	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	64	19
	B	90	0	6
	C	15	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.65	23.90	1.7	C	248	248
B-A	0.63	146.46	1.3	F	32	32
C-AB	1.16	312.66	84.4	F	908	908
C-A					12	12
A-B					37	37
A-C					372	372

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	223	56	546	0.408	222	0.5	0.7	11.088	B
B-A	29	7	109	0.264	28	0.2	0.3	44.238	E
C-AB	780	195	873	0.894	756	2.9	8.9	29.524	D
C-A	47	12			47				
A-B	33	8			33				
A-C	334	84			334				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	273	68	477	0.573	271	0.7	1.3	17.249	C
B-A	35	9	73	0.482	33	0.3	0.8	87.108	F
C-AB	1013	253	870	1.165	856	8.9	48.1	129.047	F
C-A	0	0			0				
A-B	41	10			41				
A-C	410	102			410				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	273	68	420	0.651	271	1.3	1.7	23.897	C
B-A	35	9	56	0.630	33	0.8	1.3	146.458	F
C-AB	1013	253	870	1.164	868	48.1	84.4	281.365	F
C-A	0	0			0				
A-B	41	10			41				
A-C	410	102			410				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	223	56	504	0.442	227	1.7	0.8	13.135	B
B-A	29	7	74	0.387	31	1.3	0.7	86.399	F
C-AB	827	207	897	0.922	881	84.4	71.0	312.665	F
C-A	0	0			0				
A-B	33	8			33				
A-C	334	84			334				

2026 Forecast Plus Proposed Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D6 - 2026 Forecast Plus Proposed Development, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J1	Lows Lane / Littlewell Lane	T-Junction	Two-way		50.49	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D6	2026 Forecast Plus Proposed Development	PM	ONE HOUR	16:00	17:30	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	554	100.000
B		ONE HOUR	✓	412	100.000
C		ONE HOUR	✓	767	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	19	535
	B	46	0	366
	C	464	303	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	36	14
	B	16	0	1
	C	10	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.86	48.35	5.0	E	366	366
B-A	0.64	111.60	1.4	F	46	46
C-AB	0.99	92.55	23.6	F	720	720
C-A					47	47
A-B					19	19
A-C					535	535

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	329	82	549	0.599	327	0.9	1.4	16.041	C
B-A	41	10	166	0.249	41	0.2	0.3	28.553	D
C-AB	569	142	808	0.705	562	1.6	3.3	14.652	B
C-A	120	30			120				
A-B	17	4			17				
A-C	481	120			481				

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	403	101	483	0.835	392	1.4	4.1	36.334	E
B-A	51	13	92	0.550	48	0.3	1.0	77.066	F
C-AB	844	211	850	0.993	790	3.3	16.9	51.217	F
C-A	0	0			0				
A-B	21	5			21				
A-C	589	147			589				

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	403	101	468	0.862	399	4.1	5.0	48.353	E
B-A	51	13	79	0.638	49	1.0	1.4	111.604	F
C-AB	844	211	852	0.992	818	16.9	23.5	92.548	F
C-A	0	0			0				
A-B	21	5			21				
A-C	589	147			589				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	329	82	539	0.611	343	5.0	1.6	19.509	C
B-A	41	10	149	0.277	45	1.4	0.4	35.910	E
C-AB	621	155	844	0.735	696	23.5	4.8	37.581	E
C-A	68	17			68				
A-B	17	4			17				
A-C	481	120			481				

Junctions 9			
PICADY 9 - Priority Intersection Module			
Version: 9.5.0.6896 © Copyright TRL Limited, 2018			
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Filename: 450-J2-Ghost Island.j9

Path: C:\Users\Administrator\Martin Andrews Consulting Ltd\Projects 400 - 499 - Documents\450 - Sowbrook Lane, Ilkeston\Design\TA\Junction 9-PICADY (196 Dev)

Report generation date: 08/04/2022 09:51:23

»2021, AM

»2021, PM

»2026 Forecast, AM

»2026 Forecast, PM

»2026 Forecast Plus Proposed Dev, AM

»2026 Forecast Plus Proposed Dev, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2021								
Stream B-C	0.6	9.56	0.40	A	1.8	18.77	0.65	C
Stream B-A	0.2	18.34	0.14	C	0.5	32.86	0.30	D
Stream C-AB	1.1	10.92	0.51	B	1.0	11.36	0.49	B
2026 Forecast								
Stream B-C	1.1	14.68	0.52	B	2.8	26.88	0.74	D
Stream B-A	1.1	59.94	0.37	F	0.7	47.94	0.40	E
Stream C-AB	1.6	14.24	0.60	B	1.2	13.17	0.55	B
2026 Forecast Plus Proposed Dev								
Stream B-C	0.9	11.39	0.45	B	2.6	24.54	0.73	C
Stream B-A	0.4	42.42	0.18	E	0.5	39.74	0.33	E
Stream C-AB	1.6	13.77	0.60	B	1.2	12.60	0.54	B

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

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

File summary

File Description

Title	
Location	
Site number	
Date	23/11/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MAC-13096B\Administrator
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2021	AM	ONE HOUR	07:15	08:45	15	✓	✓
D2	2021	PM	ONE HOUR	16:00	17:30	15	✓	✓
D3	2026 Forecast	AM	ONE HOUR	07:15	08:45	15	✓	✓
D4	2026 Forecast	PM	ONE HOUR	16:00	17:30	15	✓	✓
D5	2026 Forecast Plus Proposed Dev	AM	ONE HOUR	07:15	08:45	15	✓	✓
D6	2026 Forecast Plus Proposed Dev	PM	ONE HOUR	16:00	17:30	15	✓	✓

Analysis Set Details

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

2021, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D1 - 2021, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		4.28	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Lows Lane (E)		Major
B	Littlewell Lane		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	9.00		✓	3.00	250.0	✓	7.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	6.71	5.13	4.54	4.09	✓	2.00	68	24

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	458	0.073	0.183	0.115	0.262
1	B-C	744	0.099	0.251	-	-
1	C-B	781	0.263	0.263	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2021	AM	ONE HOUR	07:15	08:45	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	373	100.000
B		ONE HOUR	✓	253	100.000
C		ONE HOUR	✓	805	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	35	338
	B	29	0	224
	C	491	314	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.40	9.56	0.6	A	224	224
B-A	0.14	18.34	0.2	C	29	29
C-AB	0.51	10.92	1.1	B	316	316
C-A					489	489
A-B					35	35
A-C					338	338

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	201	50	648	0.311	201	0.3	0.4	8.040	A
B-A	26	7	273	0.097	26	0.1	0.1	14.606	B
C-AB	283	71	694	0.408	282	0.5	0.7	8.728	A
C-A	441	110			441				
A-B	31	8			31				
A-C	304	76			304				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	247	62	623	0.396	246	0.4	0.6	9.512	A
B-A	32	8	229	0.141	32	0.1	0.2	18.264	C
C-AB	349	87	678	0.514	347	0.7	1.0	10.827	B
C-A	538	134			538				
A-B	38	9			38				
A-C	372	93			372				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	247	62	623	0.396	247	0.6	0.6	9.556	A
B-A	32	8	229	0.142	32	0.2	0.2	18.341	C
C-AB	349	87	678	0.514	349	1.0	1.1	10.917	B
C-A	538	134			538				
A-B	38	9			38				
A-C	372	93			372				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	201	50	648	0.311	202	0.6	0.5	8.089	A
B-A	26	7	272	0.097	27	0.2	0.1	14.680	B
C-AB	283	71	694	0.408	284	1.1	0.7	8.821	A
C-A	441	110			441				
A-B	31	8			31				
A-C	304	76			304				

2021, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D2 - 2021, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		6.42	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D2	2021	PM	ONE HOUR	16:00	17:30	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	567	100.000
B		ONE HOUR	✓	370	100.000
C		ONE HOUR	✓	740	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	24	544
	B	49	0	321
	C	466	274	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	36	15
	B	16	0	0
	C	10	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.65	18.77	1.8	C	321	321
B-A	0.30	32.86	0.5	D	49	49
C-AB	0.49	11.36	1.0	B	275	275
C-A					465	465
A-B					24	24
A-C					544	544

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	289	72	589	0.490	287	0.6	0.9	11.894	B
B-A	44	11	244	0.181	44	0.2	0.2	20.789	C
C-AB	247	62	648	0.381	246	0.4	0.6	8.949	A
C-A	419	105			419				
A-B	21	5			21				
A-C	489	122			489				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	354	88	546	0.648	350	0.9	1.7	18.131	C
B-A	54	13	182	0.297	53	0.2	0.5	32.123	D
C-AB	303	76	620	0.489	302	0.6	0.9	11.272	B
C-A	511	128			511				
A-B	26	6			26				
A-C	599	150			599				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	354	88	545	0.649	353	1.7	1.8	18.772	C
B-A	54	13	180	0.299	54	0.5	0.5	32.860	D
C-AB	303	76	620	0.489	303	0.9	1.0	11.363	B
C-A	511	128			511				
A-B	26	6			26				
A-C	599	150			599				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	289	72	588	0.491	292	1.8	1.0	12.298	B
B-A	44	11	242	0.182	45	0.5	0.3	21.163	C
C-AB	247	62	648	0.381	248	1.0	0.6	9.039	A
C-A	419	105			419				
A-B	21	5			21				
A-C	489	122			489				

2026 Forecast, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D3 - 2026 Forecast, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		7.06	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D3	2026 Forecast	AM	ONE HOUR	07:15	08:45	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	494	100.000
B		ONE HOUR	✓	315	100.000
C		ONE HOUR	✓	955	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	61	433
	B	61	0	254
	C	605	349	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	64	19
	B	90	0	6
	C	15	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.52	14.68	1.1	B	254	254
B-A	0.37	59.94	1.1	F	61	61
C-AB	0.60	14.24	1.6	B	357	357
C-A					598	598
A-B					61	61
A-C					433	433

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	229	57	592	0.387	228	0.5	0.7	10.436	B
B-A	55	14	238	0.230	54	0.4	0.5	36.995	E
C-AB	316	79	668	0.473	315	0.6	0.9	10.508	B
C-A	542	136			542				
A-B	55	14			55				
A-C	389	97			389				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	280	70	542	0.517	278	0.7	1.1	14.327	B
B-A	67	17	181	0.369	65	0.5	1.0	57.910	F
C-AB	398	99	659	0.604	395	0.9	1.6	13.988	B
C-A	653	163			653				
A-B	67	17			67				
A-C	477	119			477				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	280	70	539	0.520	280	1.1	1.1	14.676	B
B-A	67	17	180	0.371	67	1.0	1.1	59.944	F
C-AB	398	99	660	0.603	398	1.6	1.6	14.241	B
C-A	653	163			653				
A-B	67	17			67				
A-C	477	119			477				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	229	57	588	0.389	231	1.1	0.7	10.672	B
B-A	55	14	237	0.230	56	1.1	0.6	38.225	E
C-AB	316	79	669	0.472	318	1.6	1.0	10.729	B
C-A	542	136			542				
A-B	55	14			55				
A-C	389	97			389				

2026 Forecast, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D4 - 2026 Forecast, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		8.77	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D4	2026 Forecast	PM	ONE HOUR	16:00	17:30	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	612	100.000
B		ONE HOUR	✓	404	100.000
C		ONE HOUR	✓	802	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	26	586
	B	53	0	350
	C	503	300	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	36	15
	B	16	0	1
	C	10	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.74	26.88	2.8	D	350	350
B-A	0.40	47.94	0.7	E	53	53
C-AB	0.55	13.17	1.2	B	302	302
C-A					500	500
A-B					26	26
A-C					586	586

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	315	79	574	0.549	313	0.8	1.2	13.884	B
B-A	48	12	221	0.216	47	0.2	0.3	23.889	C
C-AB	270	67	638	0.423	269	0.5	0.7	9.900	A
C-A	451	113			451				
A-B	23	6			23				
A-C	527	132			527				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	386	96	522	0.739	380	1.2	2.6	24.787	C
B-A	59	15	148	0.396	57	0.3	0.7	45.050	E
C-AB	335	84	612	0.547	333	0.7	1.2	13.006	B
C-A	549	137			549				
A-B	29	7			29				
A-C	645	161			645				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	386	96	520	0.743	385	2.6	2.8	26.879	D
B-A	59	15	145	0.404	58	0.7	0.7	47.944	E
C-AB	335	84	613	0.546	335	1.2	1.2	13.171	B
C-A	549	137			549				
A-B	29	7			29				
A-C	645	161			645				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	315	79	572	0.551	321	2.8	1.3	14.840	B
B-A	48	12	219	0.219	49	0.7	0.3	24.808	C
C-AB	270	67	638	0.423	272	1.2	0.8	10.047	B
C-A	451	113			451				
A-B	23	6			23				
A-C	527	132			527				

2026 Forecast Plus Proposed Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D5 - 2026 Forecast Plus Proposed Dev, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		5.76	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D5	2026 Forecast Plus Proposed Dev	AM	ONE HOUR	07:15	08:45	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	409	100.000
B		ONE HOUR	✓	280	100.000
C		ONE HOUR	✓	920	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	37	372
	B	32	0	248
	C	557	363	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	64	19
	B	90	0	6
	C	15	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.45	11.39	0.9	B	248	248
B-A	0.18	42.42	0.4	E	32	32
C-AB	0.60	13.77	1.6	B	370	370
C-A					550	550
A-B					37	37
A-C					372	372

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	223	56	637	0.350	222	0.4	0.6	9.152	A
B-A	29	7	247	0.116	28	0.2	0.2	31.203	D
C-AB	328	82	688	0.477	327	0.7	0.9	10.283	B
C-A	499	125			499				
A-B	33	8			33				
A-C	334	84			334				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	273	68	608	0.449	272	0.6	0.8	11.287	B
B-A	35	9	197	0.179	35	0.2	0.4	41.968	E
C-AB	412	103	682	0.604	409	0.9	1.6	13.532	B
C-A	601	150			601				
A-B	41	10			41				
A-C	410	102			410				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	273	68	607	0.450	273	0.8	0.9	11.388	B
B-A	35	9	196	0.180	35	0.4	0.4	42.419	E
C-AB	412	103	683	0.603	412	1.6	1.6	13.766	B
C-A	601	150			601				
A-B	41	10			41				
A-C	410	102			410				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	223	56	636	0.350	224	0.9	0.6	9.251	A
B-A	29	7	246	0.117	29	0.4	0.3	31.578	D
C-AB	328	82	689	0.476	330	1.6	1.0	10.488	B
C-A	499	125			499				
A-B	33	8			33				
A-C	334	84			334				

2026 Forecast Plus Proposed Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D6 - 2026 Forecast Plus Proposed Dev, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		8.46	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D6	2026 Forecast Plus Proposed Dev	PM	ONE HOUR	16:00	17:30	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	554	100.000
B		ONE HOUR	✓	412	100.000
C		ONE HOUR	✓	767	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	19	535
	B	46	0	366
	C	464	303	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	36	15
	B	16	0	1
	C	10	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.73	24.54	2.6	C	366	366
B-A	0.33	39.74	0.5	E	46	46
C-AB	0.54	12.60	1.2	B	305	305
C-A					462	462
A-B					19	19
A-C					535	535

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	329	82	595	0.553	327	0.8	1.2	13.554	B
B-A	41	10	230	0.180	41	0.2	0.2	22.001	C
C-AB	273	68	651	0.419	272	0.5	0.7	9.624	A
C-A	417	104			417				
A-B	17	4			17				
A-C	481	120			481				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	403	101	551	0.731	398	1.2	2.5	22.992	C
B-A	51	13	158	0.321	50	0.2	0.5	38.062	E
C-AB	337	84	628	0.538	336	0.7	1.2	12.456	B
C-A	507	127			507				
A-B	21	5			21				
A-C	589	147			589				

16:45 - 17:00

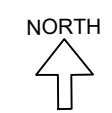
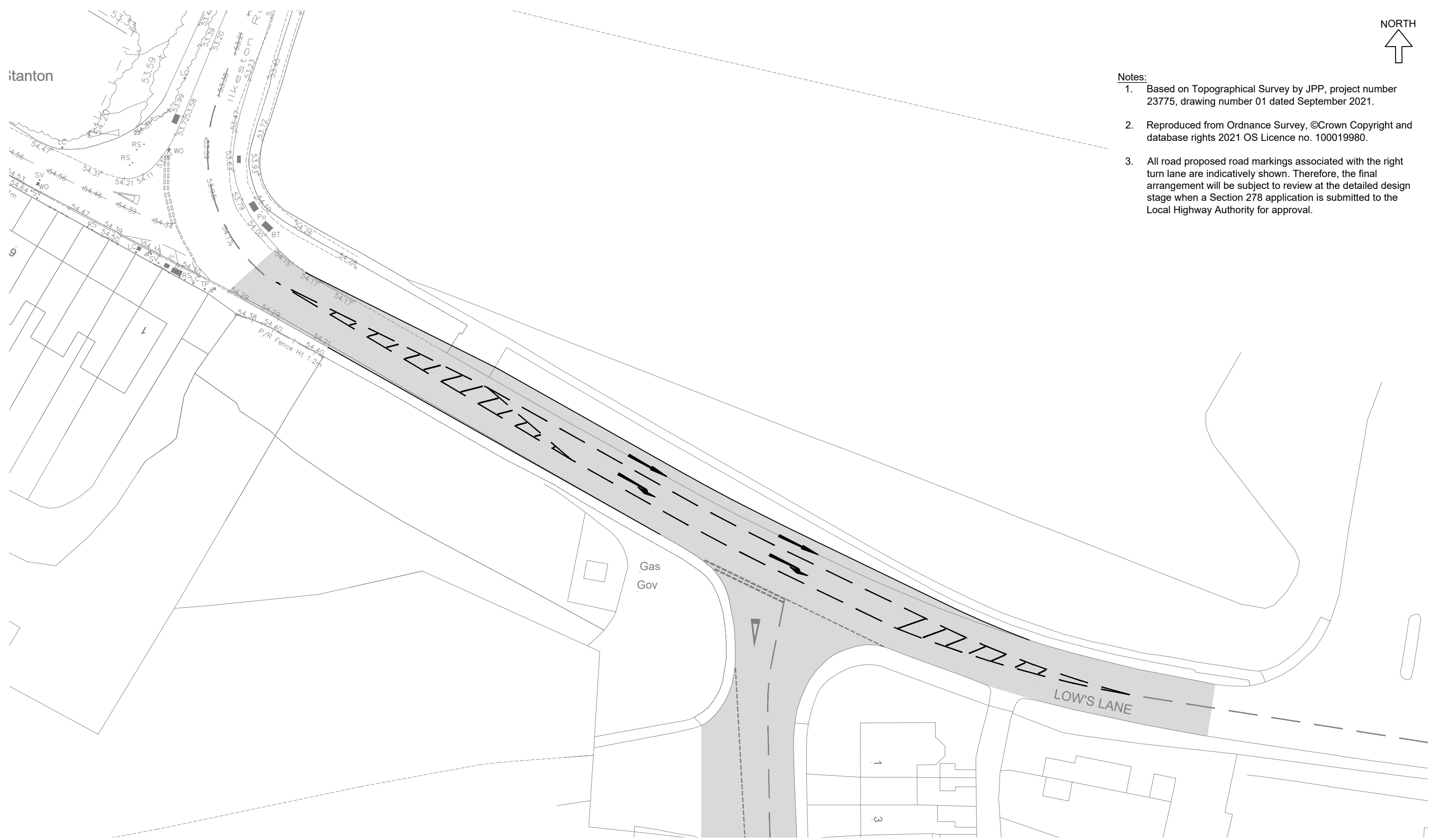
Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	403	101	550	0.733	402	2.5	2.6	24.544	C
B-A	51	13	155	0.327	51	0.5	0.5	39.745	E
C-AB	337	84	628	0.537	337	1.2	1.2	12.596	B
C-A	507	127			507				
A-B	21	5			21				
A-C	589	147			589				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	329	82	593	0.555	334	2.6	1.3	14.362	B
B-A	41	10	227	0.182	42	0.5	0.3	22.618	C
C-AB	273	68	652	0.419	275	1.2	0.7	9.755	A
C-A	417	104			417				
A-B	17	4			17				
A-C	481	120			481				

Appendix R

Mac Drawing no. Proposed Lows Lane/Littlewell Lane Junction improvement



Notes:

1. Based on Topographical Survey by JPP, project number 23775, drawing number 01 dated September 2021.
2. Reproduced from Ordnance Survey, ©Crown Copyright and database rights 2021 OS Licence no. 100019980.
3. All road proposed road markings associated with the right turn lane are indicatively shown. Therefore, the final arrangement will be subject to review at the detailed design stage when a Section 278 application is submitted to the Local Highway Authority for approval.

DRAFT

 T: 01604 340544 Northampton Office E: info@mac-ltd.co.uk W: mac-ltd.co.uk Martin Andrews Consulting Ltd	• Transport Assessments • Flood Risk Assessments • Highway Advice • Access Design • Drainage Strategies • Vehicle tracking	Client: Wulff Asset Management Limited		Project: Sowbrook Lane Ilkeston		
		Title: Junction 2 - Littleway Lane / Lows Lane Proposed Improvements Ghost Island (Right Turn Lane) Arrangement				
		Drawing No: 450-TA12		Revision: -		Date: 01/12/21
						Drw: AN
				Chk: AN		
				Scale: 1:500		
				Size: A3		



Appendix S

J3: Quarry Hill Road/Merlin Way PICADY Report

Junctions 9		
PICADY 9 - Priority Intersection Module		
Version: 9.5.0.6896 © Copyright TRL Limited, 2018		
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk		
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Filename: 450-J3.j9

Path: C:\Users\Administrator\Martin Andrews Consulting Ltd\Projects 400 - 499 - Documents\450 - Sowbrook Lane, Ilkeston\Design\TA\Junction 9-PICADY (196 Dev)

Report generation date: 08/04/2022 09:39:03

- »2021 Base Year, AM
- »2021 Base Year, PM
- »2026 Forecast, AM
- »2026 Forecast, PM
- »2026 Forecast Plus Development, AM
- »2026 Forecast Plus Development, PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2021 Base Year						
Stream B-C	2.1	40.76	0.70	3.9	41.40	0.82
Stream B-A	2.2	90.38	0.72	3.4	89.57	0.82
Stream C-B	1.2	16.51	0.55	1.3	15.05	0.57
2026 Forecast						
Stream B-C	10.1	171.40	1.02	20.5	180.48	1.08
Stream B-A	6.1	225.63	0.97	10.1	227.54	1.04
Stream C-B	1.6	20.11	0.62	1.7	17.64	0.63
2026 Forecast Plus Development						
Stream B-C	13.5	223.25	1.08	27.8	243.60	1.13
Stream B-A	7.6	277.06	1.04	12.9	288.78	1.10
Stream C-B	1.6	20.62	0.62	1.8	18.75	0.64

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

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

File summary

File Description

Title	
Location	
Site number	
Date	26/11/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MAC-13096B\Administrator
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2021 Base Year	AM	ONE HOUR	07:15	08:45	15	✓	✓
D2	2021 Base Year	PM	ONE HOUR	16:00	17:30	15	✓	✓
D3	2026 Forecast	AM	ONE HOUR	07:15	08:45	15	✓	✓
D4	2026 Forecast	PM	ONE HOUR	16:00	17:30	15	✓	✓
D5	2026 Forecast Plus Development	AM	ONE HOUR	07:15	08:45	15	✓	✓
D6	2026 Forecast Plus Development	PM	ONE HOUR	16:00	17:30	15	✓	✓

Analysis Set Details

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

2021 Base Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D1 - 2021 Base Year, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J3	Quarry Hill Road / Merlin Way	T-Junction	Two-way		15.05	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Quarry Hill Road (N)		Major
B	Merlin Way		Minor
C	Quarry Hill South (S)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.38		✓	4.22	250.0		-

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	8.71	5.78	4.79	4.36	✓	3.00	104	117

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
J3	B-A	574	0.103	0.260	0.164	0.371
J3	B-C	785	0.118	0.299	-	-
J3	C-B	877	0.334	0.334	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2021 Base Year	AM	ONE HOUR	07:15	08:45	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	723	100.000
B		ONE HOUR	✓	264	100.000
C		ONE HOUR	✓	523	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
From		A	B	C
	A	0	211	512
	B	85	0	178
	C	279	244	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A	B	C
	A	0	22	4
	B	48	0	42
	C	8	20	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.70	40.76	2.1	E	178	178
B-A	0.72	90.38	2.2	F	85	85
C-A					279	279
C-B	0.55	16.51	1.2	C	244	244
A-B					211	211
A-C					512	512

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	160	40	382	0.420	159	0.5	0.7	16.102	C
B-A	77	19	187	0.411	76	0.4	0.7	32.054	D
C-A	251	63			251				
C-B	220	55	531	0.414	219	0.5	0.7	11.501	B
A-B	190	47			190				
A-C	461	115			461				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	196	49	295	0.665	192	0.7	1.8	33.574	D
B-A	94	24	133	0.706	89	0.7	1.9	74.964	F
C-A	307	77			307				
C-B	269	67	487	0.553	267	0.7	1.2	16.246	C
A-B	232	58			232				
A-C	564	141			564				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	196	49	281	0.697	195	1.8	2.1	40.757	E
B-A	94	24	131	0.720	93	1.9	2.2	90.379	F
C-A	307	77			307				
C-B	269	67	487	0.553	269	1.2	1.2	16.508	C
A-B	232	58			232				
A-C	564	141			564				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	160	40	374	0.429	165	2.1	0.8	17.696	C
B-A	77	19	186	0.414	82	2.2	0.7	36.547	E
C-A	251	63			251				
C-B	220	55	531	0.414	222	1.2	0.7	11.713	B
A-B	190	47			190				
A-C	461	115			461				

2021 Base Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D2 - 2021 Base Year, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J3	Quarry Hill Road / Merlin Way	T-Junction	Two-way		19.66	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D2	2021 Base Year	PM	ONE HOUR	16:00	17:30	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	416	100.000
B		ONE HOUR	✓	462	100.000
C		ONE HOUR	✓	680	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	77	339
	B	137	0	326
	C	388	292	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	31	1
	B	15	0	1
	C	2	28	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.82	41.40	3.9	E	326	326
B-A	0.82	89.57	3.4	F	137	137
C-A					388	388
C-B	0.57	15.05	1.3	C	292	292
A-B					77	77
A-C					339	339

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	293	73	586	0.499	291	0.6	1.0	12.157	B
B-A	123	31	258	0.478	122	0.5	0.9	26.168	D
C-A	349	87			349				
C-B	262	66	584	0.450	261	0.6	0.8	11.139	B
A-B	69	17			69				
A-C	305	76			305				

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	358	90	463	0.774	350	1.0	3.0	30.061	D
B-A	151	38	189	0.796	143	0.9	2.8	68.551	F
C-A	427	107			427				
C-B	321	80	560	0.574	319	0.8	1.3	14.817	B
A-B	85	21			85				
A-C	373	93			373				

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	358	90	437	0.820	355	3.0	3.9	41.403	E
B-A	151	38	185	0.816	148	2.8	3.4	89.569	F
C-A	427	107			427				
C-B	321	80	560	0.574	321	1.3	1.3	15.047	C
A-B	85	21			85				
A-C	373	93			373				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	293	73	572	0.512	304	3.9	1.1	13.952	B
B-A	123	31	255	0.482	133	3.4	1.0	31.375	D
C-A	349	87			349				
C-B	262	66	584	0.450	264	1.3	0.8	11.343	B
A-B	69	17			69				
A-C	305	76			305				

2026 Forecast, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D3 - 2026 Forecast, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J3	Quarry Hill Road / Merlin Way	T-Junction	Two-way		44.02	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D3	2026 Forecast	AM	ONE HOUR	07:15	08:45	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	779	100.000
B		ONE HOUR	✓	284	100.000
C		ONE HOUR	✓	563	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	227	552
	B	92	0	192
	C	300	263	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	22	4
	B	48	0	42
	C	8	20	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	1.02	171.40	10.1	F	192	192
B-A	0.97	225.63	6.1	F	92	92
C-A					300	300
C-B	0.62	20.11	1.6	C	263	263
A-B					227	227
A-C					552	552

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	173	43	360	0.480	171	0.5	0.9	18.962	C
B-A	83	21	170	0.487	81	0.5	0.9	39.910	E
C-A	270	67			270				
C-B	236	59	516	0.458	235	0.6	0.8	12.788	B
A-B	204	51			204				
A-C	496	124			496				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	211	53	215	0.981	189	0.9	6.4	99.381	F
B-A	101	25	105	0.965	88	0.9	4.3	151.126	F
C-A	330	83			330				
C-B	290	72	468	0.619	287	0.8	1.5	19.551	C
A-B	250	62			250				
A-C	608	152			608				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	211	53	208	1.015	197	6.4	10.1	171.397	F
B-A	101	25	104	0.974	94	4.3	6.1	225.631	F
C-A	330	83			330				
C-B	290	72	468	0.619	289	1.5	1.6	20.110	C
A-B	250	62			250				
A-C	608	152			608				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	173	43	323	0.534	208	10.1	1.2	39.680	E
B-A	83	21	159	0.520	102	6.1	1.2	76.683	F
C-A	270	67			270				
C-B	236	59	516	0.458	239	1.6	0.9	13.152	B
A-B	204	51			204				
A-C	496	124			496				

2026 Forecast, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D4 - 2026 Forecast, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J3	Quarry Hill Road / Merlin Way	T-Junction	Two-way		60.12	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D4	2026 Forecast	PM	ONE HOUR	16:00	17:30	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	448	100.000
B		ONE HOUR	✓	499	100.000
C		ONE HOUR	✓	733	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	83	365
	B	148	0	351
	C	418	315	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	31	1
	B	15	0	1
	C	2	28	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	1.08	180.48	20.5	F	351	351
B-A	1.04	227.54	10.1	F	148	148
C-A					418	418
C-B	0.63	17.64	1.7	C	315	315
A-B					83	83
A-C					365	365

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	316	79	556	0.568	313	0.7	1.3	14.712	B
B-A	133	33	236	0.564	131	0.6	1.2	33.472	D
C-A	376	94			376				
C-B	283	71	576	0.492	282	0.7	0.9	12.214	B
A-B	75	19			75				
A-C	328	82			328				

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	386	97	369	1.046	344	1.3	11.8	91.288	F
B-A	163	41	158	1.030	141	1.2	6.7	137.795	F
C-A	460	115			460				
C-B	347	87	550	0.630	344	0.9	1.6	17.223	C
A-B	91	23			91				
A-C	402	100			402				

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	386	97	359	1.077	352	11.8	20.5	180.476	F
B-A	163	41	157	1.038	149	6.7	10.1	227.539	F
C-A	460	115			460				
C-B	347	87	550	0.630	347	1.6	1.7	17.637	C
A-B	91	23			91				
A-C	402	100			402				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	316	79	483	0.653	389	20.5	2.1	59.860	F
B-A	133	33	212	0.626	166	10.1	2.0	98.055	F
C-A	376	94			376				
C-B	283	71	576	0.492	286	1.7	1.0	12.540	B
A-B	75	19			75				
A-C	328	82			328				

2026 Forecast Plus Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D5 - 2026 Forecast Plus Development, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J3	Quarry Hill Road / Merlin Way	T-Junction	Two-way		53.22	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D5	2026 Forecast Plus Development	AM	ONE HOUR	07:15	08:45	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	793	100.000
B		ONE HOUR	✓	284	100.000
C		ONE HOUR	✓	615	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	227	566
	B	92	0	192
	C	352	263	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	22	4
	B	48	0	42
	C	8	20	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	1.08	223.25	13.5	F	192	192
B-A	1.04	277.06	7.6	F	92	92
C-A					352	352
C-B	0.62	20.62	1.6	C	263	263
A-B					227	227
A-C					566	566

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	173	43	352	0.490	171	0.5	0.9	19.708	C
B-A	83	21	162	0.512	81	0.5	1.0	43.596	E
C-A	316	79			316				
C-B	236	59	512	0.462	235	0.6	0.8	12.951	B
A-B	204	51			204				
A-C	509	127			509				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	211	53	202	1.046	183	0.9	8.1	121.447	F
B-A	101	25	99	1.025	85	1.0	5.0	176.178	F
C-A	388	97			388				
C-B	290	72	464	0.625	287	0.8	1.6	20.014	C
A-B	250	62			250				
A-C	623	156			623				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	211	53	196	1.077	190	8.1	13.5	223.245	F
B-A	101	25	98	1.036	91	5.0	7.6	277.064	F
C-A	388	97			388				
C-B	290	72	464	0.625	289	1.6	1.6	20.620	C
A-B	250	62			250				
A-C	623	156			623				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	173	43	297	0.581	221	13.5	1.5	67.608	F
B-A	83	21	145	0.571	107	7.6	1.6	115.918	F
C-A	316	79			316				
C-B	236	59	512	0.462	239	1.6	0.9	13.340	B
A-B	204	51			204				
A-C	509	127			509				

2026 Forecast Plus Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D6 - 2026 Forecast Plus Development, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J3	Quarry Hill Road / Merlin Way	T-Junction	Two-way		75.95	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D6	2026 Forecast Plus Development	PM	ONE HOUR	16:00	17:30	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	490	100.000
B		ONE HOUR	✓	499	100.000
C		ONE HOUR	✓	748	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	83	407
	B	148	0	351
	C	433	315	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	31	1
	B	15	0	1
	C	2	28	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	1.13	243.60	27.8	F	351	351
B-A	1.10	288.78	12.9	F	148	148
C-A					433	433
C-B	0.64	18.75	1.8	C	315	315
A-B					83	83
A-C					407	407

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	316	79	538	0.586	313	0.8	1.4	15.833	C
B-A	133	33	225	0.592	130	0.7	1.3	37.126	E
C-A	389	97			389				
C-B	283	71	566	0.501	282	0.7	1.0	12.634	B
A-B	75	19			75				
A-C	366	91			366				

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	386	97	347	1.114	330	1.4	15.6	116.208	F
B-A	163	41	149	1.094	136	1.3	8.1	164.587	F
C-A	477	119			477				
C-B	347	87	538	0.644	344	1.0	1.7	18.243	C
A-B	91	23			91				
A-C	448	112			448				

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	386	97	341	1.133	338	15.6	27.8	243.604	F
B-A	163	41	149	1.097	144	8.1	12.9	288.779	F
C-A	477	119			477				
C-B	347	87	538	0.644	347	1.7	1.8	18.750	C
A-B	91	23			91				
A-C	448	112			448				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	316	79	424	0.745	408	27.8	4.6	153.675	F
B-A	133	33	183	0.726	169	12.9	4.0	192.240	F
C-A	389	97			389				
C-B	283	71	566	0.501	286	1.8	1.0	13.013	B
A-B	75	19			75				
A-C	366	91			366				



Appendix T

J4: Quarry Hill Road/Elka Road PICADY Report

Junctions 9		
PICADY 9 - Priority Intersection Module		
Version: 9.5.0.6896 © Copyright TRL Limited, 2018		
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Filename: 450-J4.j9

Path: C:\Users\Administrator\Martin Andrews Consulting Ltd\Projects 400 - 499 - Documents\450 - Sowbrook Lane, Ilkeston\Design\TA\Junction 9-PICADY (196 Dev)

Report generation date: 08/04/2022 09:41:42

- »2021, AM
- »2021, PM
- »2026 Forecast, AM
- »2026 Forecast, PM
- »2026 Forecast Plus Proposed Development, AM
- »2026 Forecast Plus Proposed Development, PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2021						
Stream B-C	0.1	7.13	0.10	0.1	7.81	0.09
Stream B-A	0.3	16.28	0.24	0.1	12.00	0.10
Stream C-AB	0.0	6.34	0.04	0.1	7.45	0.12
2026 Forecast						
Stream B-C	0.1	7.47	0.11	0.1	8.11	0.10
Stream B-A	0.4	18.36	0.28	0.1	12.99	0.12
Stream C-AB	0.1	6.48	0.05	0.2	7.76	0.13
2026 Forecast Plus Proposed Development						
Stream B-C	0.1	7.87	0.12	0.1	8.20	0.10
Stream B-A	0.4	20.56	0.30	0.1	13.63	0.12
Stream C-AB	0.1	6.71	0.05	0.2	7.84	0.13

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

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

File summary

File Description

Title	
Location	
Site number	
Date	29/11/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MAC-13096B\Administrator
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2021	AM	ONE HOUR	07:00	08:30	15	✓	✓
D2	2021	PM	ONE HOUR	16:30	18:00	15	✓	✓
D3	2026 Forecast	AM	ONE HOUR	07:00	08:30	15	✓	✓
D4	2026 Forecast	PM	ONE HOUR	16:30	18:00	15	✓	✓
D5	2026 Forecast Plus Proposed Development	AM	ONE HOUR	07:00	08:30	15	✓	✓
D6	2026 Forecast Plus Proposed Development	PM	ONE HOUR	16:30	18:00	15	✓	✓

Analysis Set Details

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

2021, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Demand Sets	D1 - 2021, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	Quarry Hill Road / Elka Road	T-Junction	Two-way		1.18	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Quarry Hill Road (S)		Major
B	Elka Road		Minor
C	Quarry Hill Road (N)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	5.81			250.0	✓	6.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	9.43	3.41	3.34	3.30	3.28	✓	1.00	90	25

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
4	B-A	554	0.102	0.257	0.162	0.367
4	B-C	731	0.113	0.286	-	-
4	C-B	719	0.281	0.281	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2021	AM	ONE HOUR	07:00	08:30	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	334	100.000
B		ONE HOUR	✓	116	100.000
C		ONE HOUR	✓	743	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
From	A	0	14	320
	B	64	0	52
	C	719	24	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
From	A	0	0	22
	B	0	0	0
	C	9	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.10	7.13	0.1	A	52	52
B-A	0.24	16.28	0.3	C	64	64
C-AB	0.04	6.34	0.0	A	24	24
C-A					719	719
A-B					14	14
A-C					320	320

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	47	12	600	0.078	47	0.1	0.1	6.506	A
B-A	58	14	340	0.170	58	0.1	0.2	12.727	B
C-AB	22	5	617	0.035	22	0.0	0.0	6.047	A
C-A	647	162			647				
A-B	13	3			13				
A-C	287	72			287				

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	57	14	562	0.102	57	0.1	0.1	7.124	A
B-A	71	18	292	0.243	70	0.2	0.3	16.213	C
C-AB	26	7	594	0.045	26	0.0	0.0	6.343	A
C-A	792	198			792				
A-B	15	4			15				
A-C	352	88			352				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	57	14	562	0.102	57	0.1	0.1	7.132	A
B-A	71	18	292	0.243	71	0.3	0.3	16.276	C
C-AB	26	7	594	0.045	26	0.0	0.0	6.343	A
C-A	792	198			792				
A-B	15	4			15				
A-C	352	88			352				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	47	12	600	0.078	47	0.1	0.1	6.516	A
B-A	58	14	340	0.170	58	0.3	0.2	12.788	B
C-AB	22	5	617	0.035	22	0.0	0.0	6.050	A
C-A	647	162			647				
A-B	13	3			13				
A-C	287	72			287				

2021, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Demand Sets	D2 - 2021, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	Quarry Hill Road / Elka Road	T-Junction	Two-way		1.07	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D2	2021	PM	ONE HOUR	16:30	18:00	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	544	100.000
B		ONE HOUR	✓	73	100.000
C		ONE HOUR	✓	424	100.000

Origin-Destination Data

Demand (Veh/hr)

	To		
	A	B	C
From	A	0	45
	B	31	0
	C	365	59

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A	B	C	
	0	0	2	
	0	0	1	
	6	0	0	

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.09	7.81	0.1	A	42	42
B-A	0.10	12.00	0.1	B	31	31
C-AB	0.12	7.45	0.1	A	59	59
C-A					365	365
A-B					45	45
A-C					499	499

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	38	9	539	0.070	38	0.1	0.1	7.181	A
B-A	28	7	382	0.073	28	0.1	0.1	10.168	B
C-AB	53	13	579	0.092	53	0.1	0.1	6.841	A
C-A	328	82			328				
A-B	41	10			41				
A-C	449	112			449				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	46	12	507	0.091	46	0.1	0.1	7.804	A
B-A	34	9	334	0.102	34	0.1	0.1	11.992	B
C-AB	65	16	548	0.119	65	0.1	0.1	7.451	A
C-A	402	101			402				
A-B	50	12			50				
A-C	549	137			549				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	46	12	507	0.091	46	0.1	0.1	7.808	A
B-A	34	9	334	0.102	34	0.1	0.1	12.003	B
C-AB	65	16	548	0.119	65	0.1	0.1	7.454	A
C-A	402	101			402				
A-B	50	12			50				
A-C	549	137			549				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	38	9	539	0.070	38	0.1	0.1	7.188	A
B-A	28	7	382	0.073	28	0.1	0.1	10.184	B
C-AB	53	13	579	0.092	53	0.1	0.1	6.847	A
C-A	328	82			328				
A-B	41	10			41				
A-C	449	112			449				

2026 Forecast, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Demand Sets	D3 - 2026 Forecast, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	Quarry Hill Road / Elka Road	T-Junction	Two-way		1.30	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D3	2026 Forecast	AM	ONE HOUR	07:00	08:30	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	359	100.000
B		ONE HOUR	✓	125	100.000
C		ONE HOUR	✓	800	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	15	344
	B	69	0	56
	C	774	26	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A	B	C	
	0	0	22	
	0	0	0	
	9	0	0	

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.11	7.47	0.1	A	56	56
B-A	0.28	18.36	0.4	C	69	69
C-AB	0.05	6.48	0.1	A	26	26
C-A					774	774
AB					15	15
AC					344	344

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	50	13	588	0.086	50	0.1	0.1	6.693	A
B-A	62	16	324	0.192	62	0.2	0.2	13.719	B
C-AB	23	6	609	0.038	23	0.0	0.0	6.146	A
C-A	696	174			696				
AB	13	3			13				
AC	309	77			309				

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	62	15	544	0.113	62	0.1	0.1	7.455	A
B-A	76	19	272	0.279	75	0.2	0.4	18.262	C
C-AB	29	7	584	0.049	29	0.0	0.1	6.477	A
C-A	852	213			852				
AB	17	4			17				
AC	379	95			379				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	62	15	544	0.113	62	0.1	0.1	7.466	A
B-A	76	19	272	0.279	76	0.4	0.4	18.365	C
C-AB	29	7	584	0.049	29	0.1	0.1	6.477	A
C-A	852	213			852				
AB	17	4			17				
AC	379	95			379				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	50	13	588	0.086	50	0.1	0.1	6.703	A
B-A	62	16	324	0.192	63	0.4	0.2	13.810	B
C-AB	23	6	609	0.038	23	0.1	0.0	6.147	A
C-A	696	174			696				
A-B	13	3			13				
A-C	309	77			309				

2026 Forecast, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Demand Sets	D4 - 2026 Forecast, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	Quarry Hill Road / Elka Road	T-Junction	Two-way		1.12	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D4	2026 Forecast	PM	ONE HOUR	16:30	18:00	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	587	100.000
B		ONE HOUR	✓	78	100.000
C		ONE HOUR	✓	458	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	49	538
	B	33	0	45
	C	394	64	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A	B	C	
	0	0	2	
	0	0	1	
	6	0	0	

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.10	8.11	0.1	A	45	45
B-A	0.12	12.99	0.1	B	33	33
C-AB	0.13	7.76	0.2	A	64	64
C-A					394	394
A-B					49	49
A-C					538	538

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	40	10	528	0.077	40	0.1	0.1	7.379	A
B-A	30	7	365	0.081	30	0.1	0.1	10.730	B
C-AB	58	14	568	0.101	57	0.1	0.1	7.047	A
C-A	354	89			354				
A-B	44	11			44				
A-C	484	121			484				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	50	12	494	0.100	49	0.1	0.1	8.101	A
B-A	36	9	314	0.116	36	0.1	0.1	12.971	B
C-AB	70	18	534	0.132	70	0.1	0.2	7.754	A
C-A	434	108			434				
A-B	54	13			54				
A-C	592	148			592				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	50	12	494	0.100	50	0.1	0.1	8.105	A
B-A	36	9	313	0.116	36	0.1	0.1	12.990	B
C-AB	70	18	534	0.132	70	0.2	0.2	7.758	A
C-A	434	108			434				
A-B	54	13			54				
A-C	592	148			592				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	40	10	528	0.077	41	0.1	0.1	7.384	A
B-A	30	7	365	0.081	30	0.1	0.1	10.748	B
C-AB	58	14	568	0.101	58	0.2	0.1	7.054	A
C-A	354	89			354				
A-B	44	11			44				
A-C	484	121			484				

2026 Forecast Plus Proposed Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Demand Sets	D5 - 2026 Forecast Plus Proposed Development, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	Quarry Hill Road / Elka Road	T-Junction	Two-way		1.35	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D5	2026 Forecast Plus Proposed Development	AM	ONE HOUR	07:00	08:30	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	411	100.000
B		ONE HOUR	✓	125	100.000
C		ONE HOUR	✓	815	100.000

Origin-Destination Data

Demand (Veh/hr)

	To		
	A	B	C
From	A	0	15
	B	69	0
	C	789	26

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A	B	C
	0	0	22
	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.12	7.87	0.1	A	56	56
B-A	0.30	20.56	0.4	C	69	69
C-AB	0.05	6.71	0.1	A	26	26
C-A					789	789
A-B					15	15
A-C					396	396

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	50	13	570	0.088	50	0.1	0.1	6.920	A
B-A	62	16	307	0.202	62	0.2	0.2	14.669	B
C-AB	23	6	593	0.039	23	0.0	0.0	6.319	A
C-A	709	177			709				
A-B	13	3			13				
A-C	356	89			356				

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	62	15	520	0.119	62	0.1	0.1	7.850	A
B-A	76	19	251	0.303	75	0.2	0.4	20.408	C
C-AB	29	7	565	0.051	29	0.0	0.1	6.714	A
C-A	869	217			869				
A-B	17	4			17				
A-C	436	109			436				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	62	15	519	0.119	62	0.1	0.1	7.868	A
B-A	76	19	251	0.303	76	0.4	0.4	20.563	C
C-AB	29	7	565	0.051	29	0.1	0.1	6.714	A
C-A	869	217			869				
A-B	17	4			17				
A-C	436	109			436				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	50	13	570	0.088	50	0.1	0.1	6.934	A
B-A	62	16	307	0.202	63	0.4	0.3	14.787	B
C-AB	23	6	593	0.039	23	0.1	0.0	6.322	A
C-A	709	177			709				
A-B	13	3			13				
A-C	356	89			356				

2026 Forecast Plus Proposed Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Demand Sets	D6 - 2026 Forecast Plus Proposed Development, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	Quarry Hill Road / Elka Road	T-Junction	Two-way		1.09	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D6	2026 Forecast Plus Proposed Development	PM	ONE HOUR	16:30	18:00	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	602	100.000
B		ONE HOUR	✓	78	100.000
C		ONE HOUR	✓	499	100.000

Origin-Destination Data

Demand (Veh/hr)

	To		
	A	B	C
From	A	0	49
	B	33	0
	C	435	64

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A	B	C	
	0	0	2	
	0	0	1	
	6	0	0	

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.10	8.20	0.1	A	45	45
B-A	0.12	13.63	0.1	B	33	33
C-AB	0.13	7.84	0.2	A	64	64
C-A					435	435
A-B					49	49
A-C					553	553

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	40	10	524	0.077	40	0.1	0.1	7.439	A
B-A	30	7	354	0.084	30	0.1	0.1	11.077	B
C-AB	58	14	564	0.102	57	0.1	0.1	7.098	A
C-A	391	98			391				
A-B	44	11			44				
A-C	497	124			497				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	50	12	489	0.101	49	0.1	0.1	8.193	A
B-A	36	9	301	0.121	36	0.1	0.1	13.603	B
C-AB	70	18	530	0.133	70	0.1	0.2	7.833	A
C-A	479	120			479				
A-B	54	13			54				
A-C	609	152			609				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	50	12	489	0.101	50	0.1	0.1	8.198	A
B-A	36	9	301	0.121	36	0.1	0.1	13.625	B
C-AB	70	18	530	0.133	70	0.2	0.2	7.838	A
C-A	479	120			479				
A-B	54	13			54				
A-C	609	152			609				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	40	10	524	0.077	41	0.1	0.1	7.447	A
B-A	30	7	354	0.084	30	0.1	0.1	11.101	B
C-AB	58	14	564	0.102	58	0.2	0.1	7.108	A
C-A	391	98			391				
A-B	44	11			44				
A-C	497	124			497				

Appendix U

J5: Quarry Hill Road/Longfield Lane PICADY Report

Junctions 9						
PICADY 9 - Priority Intersection Module						
Version: 9.5.0.6896 © Copyright TRL Limited, 2018						
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Filename: 450-J5.j9

Path: C:\Users\Administrator\Martin Andrews Consulting Ltd\Projects 400 - 499 - Documents\450 - Sowbrook Lane, Ilkeston\Design\TA\Junction 9-PICADY (196 Dev)

Report generation date: 08/04/2022 09:43:37

»2021, AM

»2021, PM

»2026 Forecast, AM

»2026 Forecast, PM

»2026 Forecast Plus Development, AM

»2026 Forecast Plus Development, PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2021						
Stream B-C	0.2	9.50	0.14	0.1	7.30	0.06
Stream B-A	0.4	19.61	0.28	0.2	13.00	0.15
Stream C-AB	0.1	5.80	0.08	0.4	4.78	0.16
2026 Forecast						
Stream B-C	0.2	10.32	0.16	0.1	7.52	0.06
Stream B-A	0.5	22.78	0.33	0.2	14.03	0.17
Stream C-AB	0.2	5.79	0.09	0.5	4.76	0.18
2026 Forecast Plus Development						
Stream B-C	0.2	10.59	0.16	0.1	7.73	0.07
Stream B-A	0.5	24.88	0.35	0.2	14.84	0.18
Stream C-AB	0.2	5.54	0.10	0.5	4.77	0.18

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

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

File summary

File Description

Title	
Location	
Site number	
Date	26/11/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MAC-13096B\Administrator
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2021	AM	ONE HOUR	07:00	08:30	15	✓	✓
D2	2021	PM	ONE HOUR	16:30	18:00	15	✓	✓
D3	2026 Forecast	AM	ONE HOUR	07:00	08:30	15	✓	✓
D4	2026 Forecast	PM	ONE HOUR	16:30	18:00	15	✓	✓
D5	2026 Forecast Plus Development	AM	ONE HOUR	07:00	08:30	15	✓	✓
D6	2026 Forecast Plus Development	PM	ONE HOUR	16:30	18:00	15	✓	✓

Analysis Set Details

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

2021, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Demand Sets	D1 - 2021, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
5	Quarry Hill Road / Longfield Lane	T-Junction	Two-way		1.57	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Quarry Hill Road (N)		Major
B	Longfield Lane		Minor
C	Quarry Hill Road (S)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.59			138.5	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	8.37	3.74	3.33	3.19	3.15	✓	1.00	23	42

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
5	B-A	536	0.091	0.230	0.144	0.328
5	B-C	700	0.100	0.253	-	-
5	C-B	654	0.236	0.236	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2021	AM	ONE HOUR	07:00	08:30	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	744	100.000
B		ONE HOUR	✓	121	100.000
C		ONE HOUR	✓	373	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
From	A	0	54	690
	B	65	0	55
	C	351	21	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
From	A	0	4	9
	B	3	0	0
	C	19	11	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.14	9.50	0.2	A	55	55
B-A	0.28	19.61	0.4	C	65	65
C-AB	0.08	5.80	0.1	A	46	46
C-A					327	327
A-B					54	54
A-C					690	690

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	50	12	495	0.100	50	0.1	0.1	8.081	A
B-A	59	15	305	0.193	59	0.2	0.2	14.618	B
C-AB	37	9	660	0.056	37	0.1	0.1	5.761	A
C-A	298	75			298				
A-B	49	12			49				
A-C	620	155			620				

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	61	15	440	0.138	61	0.1	0.2	9.471	A
B-A	72	18	256	0.282	71	0.2	0.4	19.489	C
C-AB	54	14	685	0.079	54	0.1	0.1	5.693	A
C-A	356	89			356				
A-B	59	15			59				
A-C	760	190			760				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	61	15	440	0.138	61	0.2	0.2	9.503	A
B-A	72	18	256	0.282	72	0.4	0.4	19.607	C
C-AB	54	14	685	0.079	54	0.1	0.1	5.711	A
C-A	356	89			356				
A-B	59	15			59				
A-C	760	190			760				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	50	12	494	0.101	50	0.2	0.1	8.117	A
B-A	59	15	305	0.193	59	0.4	0.2	14.719	B
C-AB	37	9	660	0.056	37	0.1	0.1	5.803	A
C-A	298	75			298				
A-B	49	12			49				
A-C	620	155			620				

2021, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Demand Sets	D2 - 2021, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
5	Quarry Hill Road / Longfield Lane	T-Junction	Two-way		1.19	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D2	2021	PM	ONE HOUR	16:30	18:00	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	483	100.000
B		ONE HOUR	✓	72	100.000
C		ONE HOUR	✓	542	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	86	396
	B	44	0	28
	C	491	51	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	0	6
	B	0	0	1
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.06	7.30	0.1	A	28	28
B-A	0.15	13.00	0.2	B	44	44
C-AB	0.16	4.78	0.4	A	118	118
C-A					424	424
A-B					86	86
A-C					396	396

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	25	6	552	0.046	25	0.0	0.0	6.835	A
B-A	39	10	365	0.108	39	0.1	0.1	11.059	B
C-AB	96	24	852	0.112	95	0.2	0.2	4.760	A
C-A	392	98			392				
A-B	78	19			78				
A-C	356	89			356				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	31	8	524	0.059	31	0.0	0.1	7.300	A
B-A	48	12	325	0.148	48	0.1	0.2	12.979	B
C-AB	141	35	903	0.156	140	0.2	0.4	4.718	A
C-A	456	114			456				
A-B	95	24			95				
A-C	436	109			436				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	31	8	524	0.059	31	0.1	0.1	7.302	A
B-A	48	12	325	0.148	48	0.2	0.2	13.003	B
C-AB	141	35	904	0.156	141	0.4	0.4	4.731	A
C-A	456	114			456				
A-B	95	24			95				
A-C	436	109			436				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	25	6	552	0.046	25	0.1	0.0	6.841	A
B-A	39	10	364	0.108	40	0.2	0.1	11.086	B
C-AB	96	24	852	0.113	97	0.4	0.3	4.780	A
C-A	391	98			391				
A-B	78	19			78				
A-C	356	89			356				

2026 Forecast, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Demand Sets	D3 - 2026 Forecast, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
5	Quarry Hill Road / Longfield Lane	T-Junction	Two-way		1.76	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D3	2026 Forecast	AM	ONE HOUR	07:00	08:30	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	801	100.000
B		ONE HOUR	✓	129	100.000
C		ONE HOUR	✓	401	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	58	743
	B	70	0	59
	C	378	23	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	4	9
	B	3	0	0
	C	19	11	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.16	10.32	0.2	B	59	59
B-A	0.33	22.78	0.5	C	70	70
C-AB	0.09	5.79	0.2	A	53	53
C-A					348	348
A-B					58	58
A-C					743	743

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	53	13	477	0.111	53	0.1	0.1	8.479	A
B-A	63	16	288	0.219	63	0.2	0.3	15.951	C
C-AB	42	11	668	0.063	42	0.1	0.1	5.737	A
C-A	318	80			318				
A-B	52	13			52				
A-C	668	167			668				

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	65	16	415	0.157	65	0.1	0.2	10.269	B
B-A	77	19	235	0.328	76	0.3	0.5	22.566	C
C-AB	63	16	696	0.091	63	0.1	0.2	5.673	A
C-A	378	95			378				
A-B	64	16			64				
A-C	818	205			818				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	65	16	414	0.157	65	0.2	0.2	10.322	B
B-A	77	19	235	0.328	77	0.5	0.5	22.781	C
C-AB	63	16	696	0.091	63	0.2	0.2	5.697	A
C-A	378	95			378				
A-B	64	16			64				
A-C	818	205			818				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	53	13	476	0.112	53	0.2	0.1	8.531	A
B-A	63	16	288	0.219	64	0.5	0.3	16.109	C
C-AB	42	11	668	0.063	43	0.2	0.1	5.785	A
C-A	318	80			318				
A-B	52	13			52				
A-C	668	167			668				

2026 Forecast, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Demand Sets	D4 - 2026 Forecast, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
5	Quarry Hill Road / Longfield Lane	T-Junction	Two-way		1.27	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D4	2026 Forecast	PM	ONE HOUR	16:30	18:00	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	520	100.000
B		ONE HOUR	✓	77	100.000
C		ONE HOUR	✓	584	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	From A	0	93	427
	From B	47	0	30
	From C	529	55	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	From A	0	0	6
	From B	0	0	1
	From C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.06	7.52	0.1	A	30	30
B-A	0.17	14.03	0.2	B	47	47
C-AB	0.18	4.76	0.5	A	137	137
C-A					447	447
A-B					93	93
A-C					427	427

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	27	7	542	0.050	27	0.0	0.1	6.983	A
B-A	42	11	351	0.120	42	0.1	0.1	11.648	B
C-AB	110	27	869	0.126	109	0.2	0.3	4.739	A
C-A	415	104			415				
A-B	84	21			84				
A-C	384	96			384				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	33	8	512	0.065	33	0.1	0.1	7.520	A
B-A	52	13	308	0.168	51	0.1	0.2	13.994	B
C-AB	164	41	926	0.177	164	0.3	0.5	4.727	A
C-A	479	120			479				
A-B	102	26			102				
A-C	470	118			470				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	33	8	511	0.065	33	0.1	0.1	7.523	A
B-A	52	13	308	0.168	52	0.2	0.2	14.029	B
C-AB	165	41	926	0.178	165	0.5	0.5	4.739	A
C-A	478	120			478				
A-B	102	26			102				
A-C	470	118			470				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	27	7	542	0.050	27	0.1	0.1	6.990	A
B-A	42	11	351	0.120	42	0.2	0.1	11.686	B
C-AB	110	28	870	0.127	111	0.5	0.3	4.764	A
C-A	415	104			415				
A-B	84	21			84				
A-C	384	96			384				

2026 Forecast Plus Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Demand Sets	D5 - 2026 Forecast Plus Development, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
5	Quarry Hill Road / Longfield Lane	T-Junction	Two-way		1.80	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D5	2026 Forecast Plus Development	AM	ONE HOUR	07:00	08:30	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	815	100.000
B		ONE HOUR	✓	129	100.000
C		ONE HOUR	✓	453	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	58	757
	B	70	0	59
	C	430	23	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	4	9
	B	3	0	0
	C	19	11	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.16	10.59	0.2	B	59	59
B-A	0.35	24.88	0.5	C	70	70
C-AB	0.10	5.54	0.2	A	59	59
C-A					394	394
A-B					58	58
A-C					757	757

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	53	13	472	0.112	53	0.1	0.1	8.579	A
B-A	63	16	277	0.227	63	0.2	0.3	16.756	C
C-AB	46	12	700	0.066	46	0.1	0.1	5.497	A
C-A	361	90			361				
A-B	52	13			52				
A-C	681	170			681				

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	65	16	406	0.160	65	0.1	0.2	10.528	B
B-A	77	19	222	0.348	76	0.3	0.5	24.594	C
C-AB	71	18	736	0.097	71	0.1	0.2	5.399	A
C-A	427	107			427				
A-B	64	16			64				
A-C	833	208			833				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	65	16	405	0.160	65	0.2	0.2	10.592	B
B-A	77	19	222	0.348	77	0.5	0.5	24.884	C
C-AB	72	18	736	0.097	71	0.2	0.2	5.420	A
C-A	427	107			427				
A-B	64	16			64				
A-C	833	208			833				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	53	13	470	0.113	53	0.2	0.1	8.639	A
B-A	63	16	277	0.227	64	0.5	0.3	16.951	C
C-AB	47	12	700	0.067	47	0.2	0.1	5.542	A
C-A	361	90			361				
A-B	52	13			52				
A-C	681	170			681				

2026 Forecast Plus Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Demand Sets	D6 - 2026 Forecast Plus Development, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
5	Quarry Hill Road / Longfield Lane	T-Junction	Two-way		1.27	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D6	2026 Forecast Plus Development	PM	ONE HOUR	16:30	18:00	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	562	100.000
B		ONE HOUR	✓	77	100.000
C		ONE HOUR	✓	600	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	93	469
	B	47	0	30
	C	545	55	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	6
	B	0	0	1
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.07	7.73	0.1	A	30	30
B-A	0.18	14.84	0.2	B	47	47
C-AB	0.18	4.77	0.5	A	143	143
C-A					457	457
A-B					93	93
A-C					469	469

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	27	7	532	0.051	27	0.0	0.1	7.120	A
B-A	42	11	340	0.124	42	0.1	0.1	12.091	B
C-AB	113	28	872	0.130	113	0.2	0.3	4.742	A
C-A	426	106			426				
A-B	84	21			84				
A-C	422	105			422				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	33	8	499	0.066	33	0.1	0.1	7.722	A
B-A	52	13	295	0.176	51	0.1	0.2	14.796	B
C-AB	172	43	931	0.184	171	0.3	0.5	4.742	A
C-A	489	122			489				
A-B	102	26			102				
A-C	516	129			516				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	33	8	499	0.066	33	0.1	0.1	7.727	A
B-A	52	13	294	0.176	52	0.2	0.2	14.837	B
C-AB	172	43	931	0.185	172	0.5	0.5	4.755	A
C-A	489	122			489				
A-B	102	26			102				
A-C	516	129			516				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	27	7	532	0.051	27	0.1	0.1	7.128	A
B-A	42	11	339	0.124	43	0.2	0.1	12.135	B
C-AB	114	28	873	0.130	115	0.5	0.3	4.766	A
C-A	426	106			426				
A-B	84	21			84				
A-C	422	105			422				

Appendix V

J6: Quarry Hill Road/Little Hallam Hill ARCADY Report

Junctions 9		
ARCADY 9 - Roundabout Module		
Version: 9.5.0.6896 © Copyright TRL Limited, 2018		
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Filename: 450-J6.j9

Path: C:\Users\Administrator\Martin Andrews Consulting Ltd\Projects 400 - 499 - Documents\450 - Sowbrook Lane, Ilkeston\Design\TA\Junction 9-PICADY (196 Dev)

Report generation date: 08/04/2022 09:48:07

»2021 Base Year, AM

»2021 Base Year, PM

»2026 Forecast, AM

»2026 Forecast, PM

»2026 Forecast Plus Development, AM

»2026 Forecast Plus Development, PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2021 Base Year						
Arm A	134.6	478.64	1.23	22.2	75.63	1.00
Arm B	3.7	29.55	0.80	13.8	86.37	0.98
Arm C	36.0	180.83	1.09	38.1	189.09	1.10
2026 Forecast						
Arm A	213.6	731.20	1.32	52.8	152.07	1.08
Arm B	5.5	40.93	0.86	31.2	167.26	1.07
Arm C	68.8	356.18	1.20	67.8	387.52	1.19
2026 Forecast Plus Development						
Arm A	225.1	765.08	1.33	74.2	219.44	1.12
Arm B	11.5	76.73	0.96	32.9	171.83	1.08
Arm C	85.6	500.34	1.27	72.3	423.17	1.21

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

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

File summary

File Description

Title	
Location	
Site number	
Date	25/11/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MAC-13096B\Administrator
Description	

Units

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

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9	5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2021 Base Year	AM	ONE HOUR	07:15	08:45	15	✓	✓
D2	2021 Base Year	PM	ONE HOUR	16:45	18:15	15	✓	✓
D3	2026 Forecast	AM	ONE HOUR	07:15	08:45	15	✓	✓
D4	2026 Forecast	PM	ONE HOUR	16:45	18:15	15	✓	✓
D5	2026 Forecast Plus Development	AM	ONE HOUR	07:15	08:45	15	✓	✓
D6	2026 Forecast Plus Development	PM	ONE HOUR	16:45	18:15	15	✓	✓

Analysis Set Details

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

2021 Base Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D1 - 2021 Base Year, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
6	Quarry Hill Road / Little Hallam Hill	Mini-roundabout		A, B, C	299.87	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Name	Description
A	Little Hallam Hill (E)	
B	Quarry Hill Road	
C	Little Hallam Hill (W)	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.28	3.28	4.95	13.9	10.31	8.11	0.0	
B	3.55	3.55	5.23	2.4	8.94	7.09	0.0	
C	2.49	2.49	4.01	4.3	11.09	10.74	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.647	1165
B	0.631	1019
C	0.601	939

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2021 Base Year	AM	ONE HOUR	07:15	08:45	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1131	100.000
B		ONE HOUR	✓	436	100.000
C		ONE HOUR	✓	612	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	546	586
	B	357	0	79
	C	481	131	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	9	2
	B	15	0	8
	C	5	16	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	1.23	478.64	134.6	F	1131	1131
B	0.80	29.55	3.7	D	436	436
C	1.09	180.83	36.0	F	612	612

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1017	254	116	1024	0.993	973	744	4.1	15.2	47.783	E
B	392	98	503	610	0.642	389	585	1.0	1.7	16.053	C
C	550	138	318	668	0.824	541	574	1.8	4.0	26.707	D

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1245	311	130	1015	1.227	1011	862	15.2	73.7	169.124	F
B	480	120	523	599	0.801	473	618	1.7	3.5	26.991	D
C	674	168	387	624	1.080	605	609	4.0	21.3	93.068	F

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1245	311	132	1013	1.229	1013	875	73.7	131.9	373.337	F
B	480	120	524	599	0.802	479	620	3.5	3.7	29.548	D
C	674	168	392	620	1.086	615	611	21.3	36.0	180.826	F

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1017	254	138	1009	1.008	1006	833	131.9	134.6	478.636	F
B	392	98	521	600	0.652	399	624	3.7	2.0	18.430	C
C	550	138	327	663	0.830	645	593	36.0	12.3	141.450	F

2021 Base Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D2 - 2021 Base Year, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
6	Quarry Hill Road / Little Hallam Hill	Mini-roundabout		A, B, C	111.41	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D2	2021 Base Year	PM	ONE HOUR	16:45	18:15	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	972	100.000
B		ONE HOUR	✓	540	100.000
C		ONE HOUR	✓	619	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	387	585
	B	459	0	81
From	C	517	102	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	4	1
	B	2	0	1
From	C	2	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	1.00	75.63	22.2	F	972	972
B	0.98	86.37	13.8	F	540	540
C	1.10	189.09	38.1	F	619	619

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	874	218	90	1081	0.808	866	865	2.0	3.9	16.201	C
B	485	121	521	673	0.722	481	435	1.2	2.4	18.299	C
C	557	139	408	672	0.829	547	594	1.8	4.1	27.089	D

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1070	267	101	1074	0.997	1022	990	3.9	16.0	46.926	E
B	594	149	615	614	0.967	565	507	2.4	9.8	54.129	F
C	682	170	480	629	1.084	610	700	4.1	22.0	94.782	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1070	267	102	1073	0.997	1045	1007	16.0	22.2	75.633	F
B	594	149	629	606	0.981	578	517	9.8	13.8	86.372	F
C	682	170	491	622	1.096	617	716	22.0	38.1	189.094	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	874	218	104	1071	0.815	942	975	22.2	5.0	36.483	E
B	485	121	568	644	0.754	527	479	13.8	3.4	38.111	E
C	557	139	448	648	0.859	631	647	38.1	19.4	168.160	F

2026 Forecast, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D3 - 2026 Forecast, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
6	Quarry Hill Road / Little Hallam Hill	Mini-roundabout		A, B, C	479.66	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D3	2026 Forecast	AM	ONE HOUR	07:15	08:45	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1217	100.000
B		ONE HOUR	✓	469	100.000
C		ONE HOUR	✓	658	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	587	630
	B	384	0	85
	C	517	141	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	9	2
	B	15	0	8
	C	5	16	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	1.32	731.20	213.6	F	1217	1217
B	0.86	40.93	5.5	E	469	469
C	1.20	356.18	68.8	F	658	658

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1094	274	123	1019	1.073	999	794	6.3	30.0	78.850	F
B	422	105	517	603	0.700	418	605	1.2	2.2	19.079	C
C	592	148	342	653	0.906	575	593	2.4	6.6	39.438	E

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1340	335	128	1016	1.319	1015	885	30.0	111.4	259.850	F
B	516	129	525	598	0.864	505	618	2.2	5.0	35.048	E
C	724	181	414	607	1.194	600	617	6.6	37.8	150.574	F

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1340	335	129	1015	1.320	1015	893	111.4	192.6	546.239	F
B	516	129	526	598	0.864	514	618	5.0	5.5	40.928	E
C	724	181	421	602	1.204	601	619	37.8	68.8	326.721	F

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1094	274	136	1010	1.083	1010	854	192.6	213.6	731.196	F
B	422	105	523	599	0.703	433	623	5.5	2.5	23.014	C
C	592	148	355	644	0.918	635	601	68.8	57.9	356.184	F

2026 Forecast, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D4 - 2026 Forecast, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
6	Quarry Hill Road / Little Hallam Hill	Mini-roundabout		A, B, C	224.54	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D4	2026 Forecast	PM	ONE HOUR	16:45	18:15	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1048	100.000
B		ONE HOUR	✓	582	100.000
C		ONE HOUR	✓	668	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	417	631
	B	494	0	88
	C	558	110	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	4	1
	B	2	0	1
	C	2	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	1.08	152.07	52.8	F	1048	1048
B	1.07	167.26	31.2	F	582	582
C	1.19	387.52	67.8	F	668	668

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	942	236	96	1077	0.875	929	923	2.5	5.9	22.472	C
B	523	131	559	649	0.806	515	465	1.6	3.6	25.370	D
C	601	150	437	654	0.918	582	637	2.4	7.1	41.515	E

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1154	288	101	1073	1.075	1052	1006	5.9	31.3	76.552	F
B	641	160	634	603	1.063	581	520	3.6	18.6	86.955	F
C	735	184	493	621	1.185	614	721	7.1	37.6	148.248	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1154	288	101	1073	1.075	1068	1015	31.3	52.8	152.069	F
B	641	160	643	597	1.073	591	526	18.6	31.2	167.257	F
C	735	184	501	616	1.194	615	732	37.6	67.8	320.937	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	942	236	100	1074	0.878	1054	1005	52.8	24.9	136.378	F
B	523	131	634	602	0.869	584	520	31.2	16.1	150.388	F
C	601	150	495	619	0.970	610	723	67.8	65.4	387.518	F

2026 Forecast Plus Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D5 - 2026 Forecast Plus Development, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
6	Quarry Hill Road / Little Hallam Hill	Mini-roundabout		A, B, C	535.47	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D5	2026 Forecast Plus Development	AM	ONE HOUR	07:15	08:45	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1232	100.000
B		ONE HOUR	✓	521	100.000
C		ONE HOUR	✓	658	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	602	630
	B	436	0	85
	C	517	141	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	9	2
	B	15	0	8
	C	5	16	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	1.33	765.08	225.1	F	1232	1232
B	0.96	76.73	11.5	F	521	521
C	1.27	500.34	85.6	F	658	658

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1108	277	122	1020	1.086	1003	833	6.8	33.0	84.842	F
B	468	117	513	604	0.775	462	612	1.6	3.1	24.308	C
C	592	148	387	624	0.948	568	588	2.7	8.7	49.946	E

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1356	339	123	1019	1.331	1018	910	33.0	117.5	274.771	F
B	574	143	521	600	0.956	550	620	3.1	9.1	54.522	F
C	724	181	460	577	1.256	573	610	8.7	46.6	190.889	F

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1356	339	122	1020	1.330	1020	919	117.5	201.7	570.874	F
B	574	143	521	599	0.957	564	620	9.1	11.5	76.732	F
C	724	181	472	569	1.273	568	613	46.6	85.6	423.096	F

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1108	277	129	1014	1.092	1014	892	201.7	225.1	765.082	F
B	468	117	519	601	0.779	499	625	11.5	4.0	41.227	E
C	592	148	417	604	0.979	604	600	85.6	82.4	500.343	F

2026 Forecast Plus Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D6 - 2026 Forecast Plus Development, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
6	Quarry Hill Road / Little Hallam Hill	Mini-roundabout		A, B, C	265.31	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D6	2026 Forecast Plus Development	PM	ONE HOUR	16:45	18:15	15	✓	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1089	100.000
B		ONE HOUR	✓	597	100.000
C		ONE HOUR	✓	668	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	458	631
	B	509	0	88
	C	558	110	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	4	1
	B	2	0	1
	C	2	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	1.12	219.44	74.2	F	1089	1089
B	1.08	171.83	32.9	F	597	597
C	1.21	423.17	72.3	F	668	668

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	979	245	95	1076	0.910	960	934	2.9	7.6	27.392	D
B	537	134	556	651	0.825	527	499	1.7	4.0	27.253	D
C	601	150	450	647	0.929	580	634	2.5	7.6	44.102	E

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1199	300	100	1073	1.117	1061	1013	7.6	42.2	97.025	F
B	657	164	614	615	1.069	594	546	4.0	19.8	89.945	F
C	735	184	507	613	1.201	606	702	7.6	39.9	158.184	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1199	300	100	1073	1.117	1071	1022	42.2	74.2	204.942	F
B	657	164	620	611	1.076	605	550	19.8	32.9	171.829	F
C	735	184	516	607	1.212	606	710	39.9	72.3	345.040	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	979	245	99	1074	0.912	1060	1011	74.2	54.1	219.445	F
B	537	134	614	615	0.872	597	545	32.9	17.8	157.512	F
C	601	150	509	611	0.983	601	702	72.3	72.1	423.165	F