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Transport Assessment

Axis 50, near Willington, South Derbyshire

For Brackley Property Development Ltd

Project: 18-0054

Date: 25-06-19

By: MM

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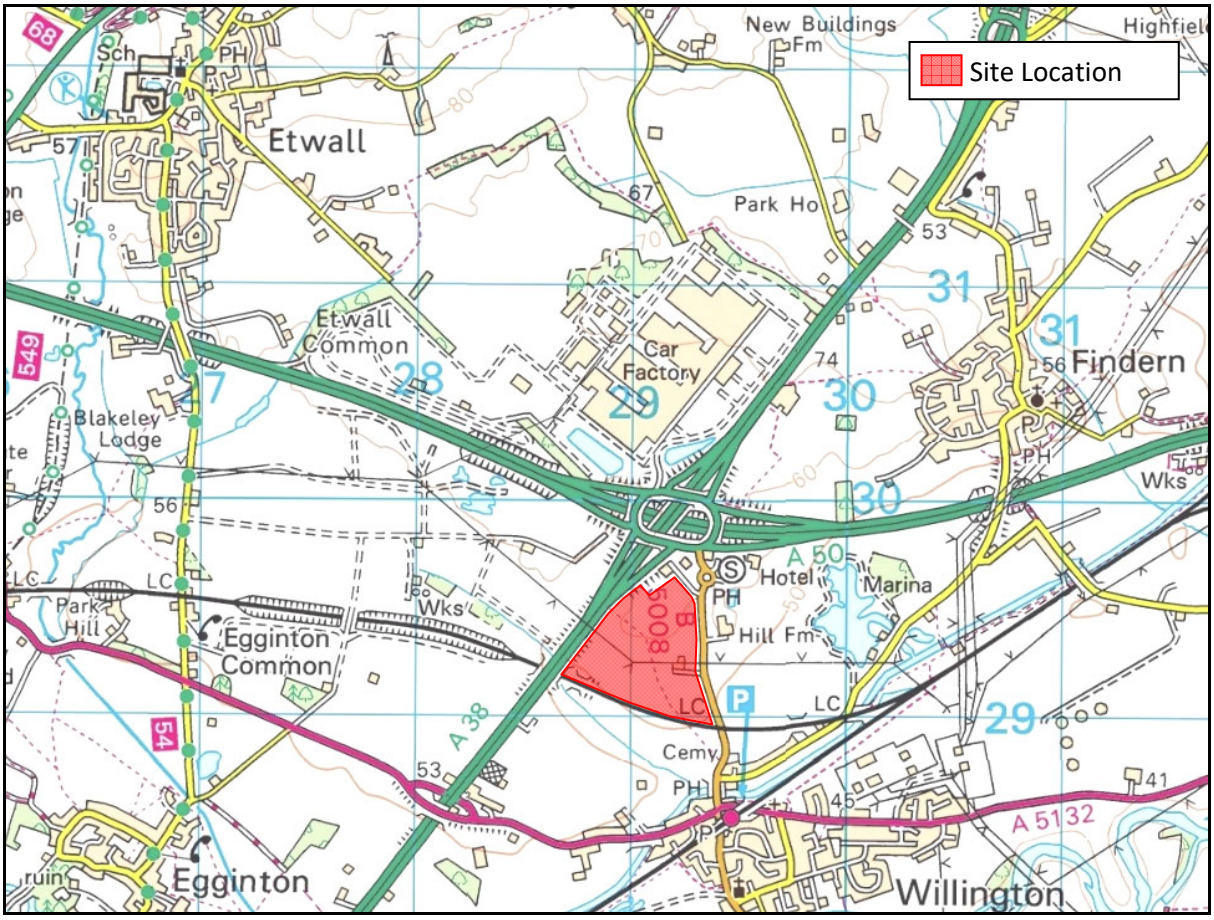
1.0 Introduction

1.1 This Transport Assessment (TA) has been prepared on behalf of Brackley Property Developments, in respect of their planning application for an industrial development on land to the west of the B5008 Etwall Road, at Burnaston Cross, Derbyshire.

1.2 The development site is situated just south of junction 4 of the A50 where it meets the A38, known as Toyota Island. The Toyota factory is on the opposite side of the A50. The site is approximately 500m north of the village of Willington. The site location is shown in the context of the surrounding area within **Figure 1.1**.

Figure 1.1: Site Location Plan



1.3 The proposed development site was the subject of a planning application (ref: 9/2007/1470) at the end of 2007. The 2007 application was for a B8 land uses with ancillary uses which would have provided a total GEA of 114,100m^2. As part of the planning application a site access in the form of a new roundabout along the B5008 was agreed in principle with the local highway authority and a signalisation scheme

and some minor reconfiguration to road geometry was agreed with the Highways Agency. The 2007 application was subsequently dismissed at appeal in 2010 on the grounds that impacts on landscape, views and heritage could not be adequately mitigated.

1.4 The new proposals, considered within this TA, involve the development of commercial uses providing a combined floor area of up to 100,000m^2. The proposed floor area will be split with at least 75% (75,000m^2) of the floor area being for B8 land uses and no more than 25% (25,000m^2) of the floor area being B1c/B2 land uses. The same access arrangement as agreed in principle as part of the 2007 application, via a new roundabout along the B5008, has been adopted as part of the new proposals with some modifications to the design and location. The indicative site layout proposals are included as **Appendix A**.

1.5 Derbyshire County Council (DCC) are the local highway authority, whilst South Derbyshire District Council (SDDC) is the local planning authority. Highways England (HE) are responsible for the strategic highway network (A50 and A38). Scoping discussions have been held with DCC and HE to agree the scope of this TA, and we also contacted SDDC and Derby City Council Highways. Correspondence relating to these scoping discussions are included as **Appendix B**.

1.6 The structure of this report is presented as follows:

- Section 2.0 provides a review of the local and national policy context.
- Section 3.0 establishes the site location, describing the local area, local highway network, traffic flows and provides an analysis of recent injury accident records.
- Section 4.0 outlines the development proposals, including the site access arrangements.
- Sections 5.0 sets out the existing sustainable travel facilities available within the vicinity of the site.
- Section 6.0 quantifies the amount of traffic likely to be generated by the development proposals and distributes the trips on the local highway network.

- Section 7.0 assesses off-site impacts likely to result from the development proposals, including capacity assessments and a road safety assessment, setting out any mitigation measures deemed necessary.
- Section 8.0 summarises the key findings of the report, highlighting the transport implications of the proposals.

2.0 Policy Context

National Planning Policy Framework (NPPF) (2019)

2.1 This Transport Assessment has been prepared in accordance with the revised National Planning Policy Framework (NPPF) (MHCLG, 2019) which states the following (paragraph 111):

> 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.

2.2 For considering planning applications for development, in relation to Promoting Sustainable Transport, the NPPF (2019) states (paragraphs 108 and 109) that 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.
>
> **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.**

2.3 This Transport Assessment and the accompanying Framework Travel Plan include proposals to improve accessibility for pedestrians and cyclists, with physical infrastructural measures and promotional measures, it also improves public transport opportunities and access to these options, that are appropriate for the type of development and location (see Sections 4.0 and 5.0 of this report, and also the Framework Travel Plan). The proposed access arrangements for all users have been set out in accordance with relevant highway design standards and guidance (see

Section 4.0).

2.4 The impact assessment (Section 7.0) concludes that, based on the levels of trip generation and small percentage increases in traffic predicted, the impact is minimal and there are only operational issues at two junctions that are already over capacity in the reference case scenario. There is a physical solution to improve capacity at the A50/A38 junction, that would more than mitigate the development traffic, and , given land constraints, sustainable transport mitigation solutions are proposed to address the impact at the double mini-roundabouts in the centre of Willington. Whilst this does also form part of generally managing the impact of the development, a number of the Travel Plan measures are specifically focused on reducing the vehicular traffic flows through Willington. These include improving the attractiveness of walking and cycling routes and facilities for those who live within a walking or cycling distance, providing a new public bus service between the site and Swadlincote, that will connect to existing public transport services, and a site-specific car share scheme. There will also be routing agreements during the construction phases and for ongoing commercial/HGV journeys, visitors and employees will also be encouraged, through the Travel Plan, to use the classified road network rather than routes via Willington.

2.5 At other locations, the proposed development has an insignificant impact on the road network or highway safety, and therefore no further off-site capacity or road safety schemes are considered to be warranted.

2.6 It is also stated in the NPPF (2019) (paragraph 103) that:

> 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.

2.7 This acknowledges that transport choices will be more limited in rural locations, as previously recognised in the NPPF (2012) (paragraph 29) and therefore the rural context of the application must be considered. It this case, there is good access to

local services and amenities, including a train station, within Willington and at the Derby-Burton Services, and access to these will be improved with the proposed pedestrian and cycle facilities, rerouting an existing bus service to directly serve the site from Derby and Burton on Trent, and a new bus service from Swadlincote. The new bus service will also serve rural villages with no existing public transport and provide links to other bus and rail services. The location of the site, adjacent to the strategic highway network, will minimise the impact of the commercial traffic on the local highway network.

2.8 NPPF (2019) paragraph 110 states that applications for development should demonstrate the following:

> 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.

2.9 This Transport Assessment and Framework Travel Plan includes details of proposals to improve accessibility for pedestrians and cyclists, with physical infrastructural measures and promotional measures, it also improves public transport opportunities and access to these options which will also be promoted. Suitable access for all road users, including pedestrians, cyclists, delivery, service and emergency vehicles has

been provided, and is set out in Section 4.0, with further on-site details to be provided at the detailed design stage. The needs of different user groups, including those with reduced mobility and disabilities, will be accommodated through design of the internal layout and access arrangements. Safety measures for all road users within the site and at the site access will be incorporated with full details provided at the detailed design stage. The provision of charging of plug-in and other ultra-low emission vehicles will be provided to meet the requirements of the local planning and highway authorities.

Derbyshire Local Transport Plan (LTP3)

2.10 DCC's Third Local Transport Plan (LTP) was published in 2011 setting out an integrated transport strategy for the area and outlining proposals to 2026. The LTP has adopted 2 key principles:

- To adopt sustainable development as the common purpose of our transport strategy; and
- To take a holistic approach in all we do, integrating economic, social and environmental needs.

2.11 The LTP will work towards the following list of transport goals throughout the plan period:

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

South Derbyshire Local Plan

2.12 The SDDC Local Plan covers the period 2011 to 2028 and was adopted during 2016 and 2017. The Local Plan sets out the long-term vision, objectives and strategy for the spatial development of the district, setting out the amount of housing and employment development required over the plan period, providing policies and allocating strategic sites.

2.13 The Local Plan sets out 14 strategic objectives, including:

- To ensure future development is locally distinctive and environmentally, socially and economically sustainable through the achievement of design excellence, addressing the causes and effects of climate change and reducing waste and pollution.
- To enable, support and promote a robust and diverse economy, resistant to downturns and providing a strong base for sustainable growth which respects environmental limits and safeguards natural resources.
- To ensure the District's housing stock is decent, suitable and affordable, meets community need and is balanced with access to employment opportunities.
- To ensure sustainable living and working in urban and rural communities.
- To reduce the need to travel and to encourage necessary travel to be by sustainable modes of transport, providing access to jobs, shopping, leisure, services and facilities from all parts of the District.
- To ensure the social, physical and green infrastructure needed to support strong growth levels is provided at an appropriate time and made accessible to our communities.
- To make the most of the economic, social and environmental opportunities presented by the District's central location within the National Forest and promote the continued growth of local tourism and leisure offer across the whole of the District.
- To ensure growth in South Derbyshire is co-ordinated with development in adjoining areas both within and outside the Derby HMA.

2.14 The Local Plan states that '*the District has benefited from good communications and the creation of new employment along the A50 corridor*'. The development of employment opportunities on the site will add to the existing employment sites along the A50 corridor, providing a site in close proximity and with excellent transport links, along the A38 and A50, to strategic housing sites situated within the district and within the Derby City Council area.

2.15 In relation to Sustainable Transport, Policy INF2 closely reflects NPPF and states:

i) Planning permission will be granted for development where:

a) travel generated by development, including goods vehicle movement, should have no undue detrimental impact upon local amenity, the environment, highway safety, the efficiency of transport infrastructure and the efficiency and availability of public transport services; and

b) appropriate provision is made for safe and convenient access to and within the development for pedestrians, cyclists, public transport users and the private car; and

c) car travel generated by the development is minimised relative to the needs of the development.

ii) In order to achieve this, the Council will secure, through negotiation, the provision by developers of contributions towards off-site works where needed.

iii) In implementing this policy account will be taken of the fact that in more remote rural areas there is often less scope to minimise journey lengths and for the use of non-car modes.

iv) Planning applications for development with significant transport implications should be accompanied by a Transport Assessment and Travel Plan identifying the transport impacts of the proposal and measures needed to meet the criteria set out in Part 1 of this policy. Travel Plan measures should be funded by developer contributions appropriate to the impacts on the transport network caused by the development. For development that is expected to have less significant transport implications, planning applications shall be accompanied by a Transport Statement.

2.16 As set out above, in reference to the NPPF, the content of this Transport Assessment and accompanying Framework Travel Plan have been prepared to set out how the development proposals comply with this policy, including the following sections.

2.17 With specific focus on Walking and Cycling, Policy INF2 also states:

i) The Council will work in partnership with County Councils, neighbouring

local authorities, the National Forest Company, charitable organisations, landowners and developers to secure the expansion, improvement and protection of walking and cycling networks, including public rights of way, cycle routes, greenways and supporting infrastructure. Routes should be coherent, direct, continuous, safe, secure and attractive and should contribute to the wider green infrastructure network wherever possible.

ii) Where a need is identified in Part 1 of this policy, the Council will seek to negotiate the provision by developers of contributions toward new, or the enhancement of existing, walking and cycling routes and supporting infrastructure.

2.18 In terms of Public Transport, the relevant parts of the policy are as follows:

i) The Council will work in partnership with County Councils, neighbouring local authorities, public transport operators and community transport operators to improve public transport services, infrastructure and information provision in the district.

ii) Development should be designed and laid out in such a way as to ensure that, wherever possible, public transport services are within convenient walking distance of all site residents, staff and visitors.

iii) Where a need is identified under Part 1 of this policy, the Council will seek to negotiate the provision by developers of measures to encourage the use of public transport. These may include: a) bus shelters and laybys b) railway stations and public transport interchanges c) initial financial contributions toward the cost of running public transport services

2.19 In terms of Road & Rail Freight, the relevant parts of the policy are as follows:

i) Where appropriate development should make adequate provision for service vehicle access, manoeuvring and off-street parking.

ii) In order to ensure that nearby occupiers are not unduly adversely affected by the transfer of goods generated by development, the Council will give

consideration to the need for the control of hours of delivery and collection.

iii) Land at Tetron Point and the associated rail siding connecting to the Burton to Leicester railway line, is protected from development that would compromise its capacity to be used for rail freight purposes.

2.20 In terms of Parking the policy states that:

Development should include appropriate car parking provision having regard to:

a) parking standards, to be published as a Supplementary Planning Document;
b) the need to ensure that development would not have an undue detrimental impact on pedestrian and cyclist movement and highway safety;

c) the need to encourage travel on foot, by cycle and by public transport in preference to the private car by minimising parking provision;

d) the need to provide sufficient conveniently located spaces to meet the needs of people with impaired mobility;

e) the conclusions of any Transport Assessment undertaken in accordance with Part 2 of this policy;

f) the need to encourage the use of low emission vehicles.

2.21 Policy INF4 sets out SDDC's position on Transport Infrastructure Improvement Schemes. It is important to note that an improvement scheme at the A50/A38 junction is identified as a scheme to be delivered and that financial contributions from developer will be sought, however Highways England have confirmed that an interim mitigation scheme will need to be proposed as part of this development as the wider scheme is only in the initial stages of design.

A The Council will work with partners to deliver the following transport schemes:

i) Woodville - Swadlincote Regeneration Route

ii) South Derby Integrated Transport Link phases 1 and 2

iii) A50 junction with the A38 improvement scheme

iv) A50 junction with the A514 improvement scheme

v) Swarkestone Causeway Bypass

B Where required to mitigate the transport impacts of the development, the Council will seek to negotiate financial contributions toward these schemes. Proposals that would prejudice their implementation will not be permitted.

3.0 Local Context

Area

3.1 The site location is shown in the context of its immediate surrounds within **Figure 3.1**. The net developable total area of the site covers 57.53 acres.

Figure 3.1: Local Area Plan

3.2 As can be seen within **Figure 3.1**, the site is situated within a location which contains a mix of agricultural uses, the strategic and local highway network, employment uses (Toyota factory on the opposite side of the A38 / A50 island) and residential areas (Willington). A railway line also runs along the southern boundary of the site.

3.3 Existing gated access points to the site are provided along Etwall Road.

Local Highway Network

B5008 Etwall Road

3.4 The B5008 Etwall Road runs north-south between the A50 and A38 (to the north) and the A5132 The Castle Way / Twyford Road (to the south), over a distance of approximately 1.3km. The junction with the A50 and A38 is formed by way of a grade separated roundabout (not signalised) whilst the junction with the A5132 is formed by way of a double mini-roundabout.

3.5 Etwall Road is approximately 6m wide as it travels adjacent to the site and is subject to a speed limit of 40mph.

A38 & A50

3.6 The A38 and A50 are both part of the strategic highway network maintained by HE. Both roads are provided by way of dual carriageways, the majority of which are subject to the national speed limit. The A38 broadly travels north-south between Mansfield and the outskirts of Birmingham, travelling through western parts of Derby on route. The A50 travels between M1 Junction 24 and Stoke-on-Trent.

Traffic Flows

3.7 It was agreed during scoping discussions with the highway authorities that existing 2016 VISSIM model data for the A38 / A50 roundabout, together with the A38 and A50 mainline flows, would be obtained from an existing VISSIM model of the grade-separated junction.

3.8 In order to appropriately assess peak hour traffic flows and existing junction capacity on the remainder of the highway network, Manual Turning Counts (MTCs) were undertaken on the 1st of May 2018 at the following junctions:

- B5008 Etwall Road / Service Accesses (roundabout)
- B5008 Etwall Road / Findern Lane (signals)
- B5008 Etwall Road / Repton Road / A5132 The Castle Way / The Green (double mini-roundabout)

- A5132 / A38 southbound link (priority-controlled T-junction)
- A5132 / A38 northbound link (priority-controlled T-junction)

3.9 The surveys were conducted during the AM and PM peak hours (07:00-09:00hrs & 15:30-17:30hrs). The MTC results indicated morning and evening peak hours of 07:30-08:30hrs and 16:30-17:30hrs on the network. The results of the MTC surveys are included within **Appendix C**.

3.10 ATC surveys were also undertaken on the local highway network, recording traffic speeds and flows along each of the following links between the 26th of April and the 2nd of May 2018:

- B5008 Etwall Road (adjacent to the proposed development site)
- A5132 Twyford Road (east of the railway bridge)
- B5008 Repton Road (south of the junction with Beech Avenue)
- A5132 The Castle Way (west of the junction with Waterside)

3.11 The surveyed traffic flows are summarised within Flow Diagram 1 of **Appendix D**.

Traffic Growth

3.12 The highway impacts of the proposals have been assessed in the opening year (2020) and an agreed horizon year (2028) which is the end of the currently adopted Local Plan period. In order to obtain future year traffic flows TEMPRO/NTM (National Traffic Model) growth factors have been applied to the survey flows to estimate background traffic flows.

3.13 The growth factors have been obtained from the TEMPRO database and use information from the weekday morning and evening peak periods within the South Derbyshire authority area. The localised NTM factors for all roads in the zone are displayed as follows.

- 2016 to 2018 (AM Peak) = 1.0762
- 2016 to 2018 (PM Peak) = 1.0792
- 2018 to 2020 (AM Peak) = 1.0367

- 2018 to 2020 (PM Peak) = 1.0382
- 2016 to 2028 (AM Peak) = 1.2116
- 2016 to 2028 (PM Peak) = 1.2183
- 2018 to 2028 (AM Peak) = 1.1671
- 2018 to 2028 (PM Peak) = 1.1720

3.14 The growth factors have been applied to the surveyed flows (Flow Diagram 1 of **Appendix D**) to generate opening year traffic flows (2020) and horizon year traffic flows (2028), shown within Flow Diagrams 2 and 3 of **Appendix D**.

Committed Developments

3.15 Whilst the TEMPRO growth will take into account a significant proportion of new trips generated by new development within the local area, to ensure a robust basis for the assessment, traffic generated by the following committed development schemes have also been included:

Table 3.1: Committed Developments

Site / App Ref	Total No. of Dwellings	Other Land Uses	Status	No. of Dwellings still to be Occupied
Highfields Farm 9/2006/0775	1200	primary school & local centre	Partially Completed (assume 60% still to be developed and occupied)	720
Chellaston Fields 9/2012/0568	450	small supermarket & local centre	Partially Completed (assume 50% still to be developed and occupied)	225
Holmleigh Way, Chellaston 9/2013/0663	157		Under Construction	157
The Mease, Hilton 9/2013/1044	485	primary school & local centre 22,000m2 floor area for B1/B2/B8 use	Partially Completed (assume 50% still to be developed and occupied)	243
New House Farm, Phase 1 9/2014/1136	300		Under Construction	300
New House Farm, Phase 2 9/2017/0349	1100	extra care facility, local centre & primary school	Planning Approval	1100

Land West of Ladybank Road, Mickleover 9/2015/0768	252		Under Construction	252
Boulton Moor Ph2 9/2016/0166 (Ph1 close to completion, so not added)	600	primary school	Allocated & Planning Decision Pending/ Imminent	600
Snelsmoor Grange 04/13/00351	800	(Derby City)	Planning Decision Pending	800
Deep Dale Lane 9/2017/0922	100		Planning Decision Pending	100
Egginton Road, Etwall 9/2017/1191	50		Planning Decision Pending	50
Hackwood Farm 9/2014/0562 & 03/18/00347 & 03/18/00466	690	primary school & local centre (410 dwellings in Derby City)	Under Construction	690
Willington Road, Etwall Ph2 9/2015/0354 (Ph1 close to completion, so not added)	99		Planning Approval	99
Dove Valley Park 9/2017/0816	0	B2 and B8 units – total GFA = 61,061sqm	Allocated & Planning Decision Pending/ Imminent	0
Total Dwellings still to be occupied				**5336**
Total Dwellings still to be occupied in South Derbyshire				**4126**

3.16 These combined commitments equate to an additional 5,336 dwellings to be occupied in local area, and 4,126 in South Derbyshire, together with a floor area of 83,061m^2 of employment land uses.

3.17 The TAs produced for each of these development proposals has been reviewed and flows attributed to our study area network (junctions at which traffic surveys have been conducted as part of this TA) where the flows are forecast to route via the network. In instances where the TAs have not extended as far as our study area assumptions based on likely movements / existing patterns of movements through the network have been applied, i.e. using the ATC traffic results at the A38 / A50 junction to determine likely distributions along the strategic highway network.

3.18 The resulting committed development flows for each of the listed developments are displayed within Flow Diagrams 4a to 4n of **Appendix D**, whilst the total combined

committed development traffic flows are displayed within Flow Diagram 5 in **Appendix D**. It should be noted that Deep Dale Lane has no discernible impact on the study area (Flow Diagram 4j).

3.19 The total committed development flows (Flow Diagram 5 in **Appendix D**) have been added to the opening year traffic flows (Flow Diagram 2 in **Appendix D**) and horizon year traffic flows (Flow Diagram 3 in **Appendix D**) to create 'base + committed' traffic flows for 2020 and 2028, displayed within Flow Diagram 6 and 7, respectively, in **Appendix D**.

3.20 Many of the committed development schemes would not be fully constructed by 2020 but are expected to be fully constructed by 2028. The build out rates have been agreed with SDDC for the purposes of assessing the A50/A38 junction and developing an appropriate mitigation scheme for the assessment year of 2025. However, as the committed developments have little impact on the local highway network, full build out has been assumed for both the 2020 and 2028 assessment years in this Transport Assessment.

Public Right of Way Survey

3.21 A public right of way (Footpath no. 9) currently runs through the proposed development site. This runs from the east side of the A38 towards Willington. It starts at the end of the slip road to join the A38 southbound from Toyota Island, and crosses through the site to a pedestrian level crossing on the Stoke to Derby railway line, approximately 165m to the west of the Willington level crossing on Etwall Road, and then through the field to meet Etwall Road 160m south of the level crossing.

3.22 A survey of the public right of way which crosses through the site was undertaken as part of the 2007 planning application for this site, which observed no use. A further survey was completed between the hours of 7am and 7pm on two weekdays and a weekend in mid-June 2018, which identified some use of the route, but with no use of the access to/from the A38. The full results are provided in **Appendix C.** All movements involved individual people entering the PROW from Etwall Road and returning to Etwall Road within 15mins or half an hour, at various times of each day. This would suggest a circular route used by dog walkers or for general recreational

purposes, rather than it being used as part of a longer route, as anticipated based on the limited connections for onward routes from the A38. The survey results are summarised in **Table 3.2** below:

Table 3.2: PROW Survey Summary

Access Point	Number of Movements (including each direction) 7am – 7pm			
	Sat	Sun	Mon	Fri
A38	0	0	0	0
Etwall Road	2	2	6	2

Personal Injury Accident Records

3.23 Personal Injury Accident (PIA) records resulting from road traffic collisions has been obtained from Derbyshire Constabulary for the latest available 5-year period (01.01.13 to 31.12.2017). The summary records, including a plan of the PIA locations, is included as **Appendix E**.

3.24 The records show that a total of 92 PIAs have been recorded within the search area, the severity of 85 of which are categorised as 'slight' whilst 7 are classified as 'serious'. None of the recorded PIAs have resulted in any fatalities. The PIAs have occurred in various locations within the study area and are discussed further below.

3.25 The first area with PIAs to discuss is at the A38/A50 junction near the give-way line from the diverge leading from the A38 northbound. Six PIAs, all classified as 'slight' have been recorded here and all resulted from rear-end shunt type collisions, occurring in varying conditions and times of day.

3.26 One PIA involved a goods vehicle >7.5t, on the circulatory carriageway between the A38 (south) and A50 (west). There were no other vehicles involved. The conditions at the time of the incident were described as wet/damp and raining and therefore the vehicle presumably lost control.

3.27 PIAs have also been recorded at the roundabout entries from the A50 eastbound diverge and at the Toyota Manufacturing Plant access to the roundabout. Thirteen PIAs (all 'slight' severity) were recorded at these combined locations, 10 of which resulted from rear-end shunt type collisions occurring in varying conditions and at

different times of the day. Two of these shunt collisions involved motorcycles (>500cc) and one involved a goods vehicle <3.5t. Another of the PIAs at this location involved just a motorcycle going ahead at the roundabout conditions were fine and dry. The 2 remaining PIAs at this location took place on the circulatory carriageway, both involving one car and a good vehicle and occurring due to lane changing manoeuvres.

3.28 Five PIAs occurred near the entry to A38/A50 junction from the A38 southbound diverge. Four of these PIAs were classified as 'slight' whilst one was classified as 'serious'. Three of these PIAs resulted from rear-end shunt type collisions, occurring in varying conditions and at different times of day. One of these shunts involved a collision of 4 cars due to a domino effect. The other 2 shunts involved a car and a goods vehicle. Another of the PIAs that took place at this location occurred on the main circulatory involving an HGV changing into the left lane and colliding with a car. The serious PIA here involved just one vehicle noted as a motorcycle <50cc, the rider of the motorcycle was changing to the left lane and presumably lost control.

3.29 Nine PIAs were recorded at the entry to the A38/A50 junction from the A50 east. All of these were rear-end shunt type accidents and resulted in injuries classified as 'slight' severity. They took place in varying weather conditions and a different times of the day.

3.30 Three PIAs occurred on the main carriageway of the A50, to the east of the A38 junction. Two of the PIAs were classified as 'slight' severity whilst one was classified as 'serious'. One of PIAs involved a rear-end shunt type collision involving a car and a pedal cyclist. The conditions were dark, but street lighting was present. The cyclist suffered 'slight' injuries. The second PIA on the A50 (east) took place on approach to the diverge, resulting from a rear-end shunt type collision during which conditions were wet/damp. The final PIA along this stretch of road took place underneath the A38 / A50 roundabout and occurred due to a car colliding with a goods vehicle >7.5tonne which was parked in a layby. The driver of the car was injured and was classified as 'serious' severity.

3.31 A further 3 PIAs (2 slight, 1 serious) have been recorded along the stretch of the A50, to the west of the A38 roundabout. Two of these PIAs resulted from rear-end shunt

type collisions. One of the shunts resulted in 'serious' injury and involved a goods vehicle <3.5t and a car, conditions were wet/damp and the PIA occurred in the dark. The remaining 'slight' PIA involved a car changing lanes during the night.

3.32 A further 9 PIAs were reported on the A38 to the north of the roundabout with the A50, 8 of which were classified as 'slight' severity whilst the one remaining PIA at along the stretch was classified as 'serious'. Eight of the incidents involved rear-end shunt type collisions. One of the shunts resulted in 'serious' injuries, involving 3 cars all of which were going ahead before one changed lanes. This PIA took place in the dark and resulted in a combination of 'slight' and 'serious' injuries. The one remaining PIA recorded along this stretch of the A38 resulted in 'slight' injuries, taking place as one parked goods vehicle >7.5t was hit by another. This PIA took place in the dark without any street lighting present.

3.33 Six additional PIAs, all classified as 'slight' severity, took place on the A38 main carriageway between Egginton and the A38/A50 junction.

3.34 There have been 13 PIAs in the vicinity of the Egginton junction along the A38, all of which have been classified as 'slight' severity. A range of different collision types have occurred at the location, including rear-end shunts and drivers failing to give-way whilst turning. The PIAs took place in varying weather conditions and at different times of the day.

3.35 Three PIAs have been recorded along the A38, to the south of the Egginton junction. Two of the PIAs at the location are classified as 'slight' severity with the other classified as 'serious'. The 'serious' PIA at the location involved a car, with weather and road conditions reported as normal. Of the 2 remaining PIAs, one involved a vehicle changing lane into the path of another vehicle whilst the other PIA involved only involved one vehicle.

3.36 Three PIAs (2 'slight', one 'serious') occurred along Castle Way to the east of the A38 Egginton junction. Two of the PIAs that occurred along the road resulted from rear-end shunt type collisions. One of the shunts resulted in 'serious' injuries and involved 3 cars all moving ahead. The other shunt that occurred along Castle Way involved two cars, one vehicle stopping whilst the other was continuing straight ahead. The final

PIA at this location involved a car and a goods vehicle <3.5t. The goods vehicle was turning right, whilst the car was going ahead. This resulted in 'slight' injuries and the road conditions were wet/damp.

3.37 Five PIAs have been recorded at the double mini-roundabout in Willington, all of which have been classified as 'slight' severity. Two of these PIAs involved a pedestrian casualty and one involved a pedal cyclist. The 2 remaining PIAs involved a rear-end shunt type, collision whilst another involved a collision with a parked vehicle.

3.38 Three incidents have also occurred to the south of the double mini-roundabout, these were all classified as 'slight'. Two of these involved a car colliding with a pedestrian, one of which occurred in the dark. The remaining PIA at this location involved a cyclist. The cyclist was overtaking a vehicle as the vehicle turned right.

3.39 Five PIAs occurred on Twyford Road all of which were classified as 'slight' severity. Three of these incidents involved pedal cyclists and all occurred in daylight and at varying times of the day. Another PIA along Twyford Road involved a car and a motorcycle. The car was preforming a U-turn on the main carriageway into the path of the motorcycle. The final PIA at this location involved 2 cars in a rear-end shunt type PIA. The road conditions were wet/damp when this took place.

3.40 One PIA, classed as 'serious', took place on Findern Lane. This PIA only involved one vehicle; a motorcycle <125cc. There were no reported movements taking place or any weather conditions to take note of.

3.41 Two PIAs have been recorded on Repton Road at the junction with Hall Lane both have been recorded as 'slight'. One occurred as a car overtook a parked goods vehicle and collided with a pedestrian. The other PIA on Repton Road resulted from a rear-end shunt type collision between a car and a bus/coach. The bus was coming to a stop and the car continued into the back of the bus.

3.42 The final two PIAs in the study area took place along residential roads within Willington, both classified as slight. One of the PIAs involved a car colliding with a pedestrian, road conditions were wet/damp and the PIA occurred in the dark. The final

PIA involved a car turning into the path of a motorcycle.

3.43 Whilst there is a high total number of incidents recorded, it is a large study area and involves some sections of the highway network with very high flows. Fortunately, none of these were fatalities, and over 92% only resulted in slight injuries. Most of the broad locations identified only had 1-5 incidents over the 5 years, with only very few experiencing more than an average of 2 per year. These were in the vicinity of the Eggington junction with the A38, and the approach to the A50/A38 roundabout from the A50 eastbound and the Toyota site (combined), and so do not represent single locations.

3.44 The PIA records indicate that there are no road safety issues within the vicinity of the proposed site access on Etwall Road.

3.45 There is no evidence to suggest that road geometry or design of the road layout has played a significant factor in the PIAs that have been recorded over the study period. The main reoccurring theme was shunts, which are common at roundabouts and on routes where congestion builds at peak times, a there were a few incidents involving changing lanes. Any proposed physical highway works should consider measures to improve the risk of these types of accidents where possible. Within Willington village, there were some incidents involving vulnerable road users, and therefore if any physical highways works are proposed, these should consider measures to improve safety for vulnerable road users.

4.0 Development Proposals

Existing Site

4.1 The existing site is formed by a combination of fields used for agricultural purposes. Access to the existing site is provided by way of gated field access points along Etwall Road.

Planning History

4.2 The site was the subject of a planning application (ref: 9/2007/1470) at the end of 2007. The 2007 application was for a B8 land uses with ancillary uses which would have provided a total GEA of 114,100m^2. As part of the planning application a site access in the form of a new roundabout along the B5008 was agreed in principle with the local highway authority and minor off site mitigation measures were agreed with the (then) Highways Agency. The 2007 application was subsequently dismissed at appeal in 2010 on the grounds that impacts on landscape, views and heritage could not be adequately mitigated.

Proposed Development

4.3 The new proposals involve the development of the site for commercial uses providing buildings with a combined floor area of up to 100,000m^2. The proposed floor area will be split with at least 75% (75,000m^2) of the floor area being for B8 land uses and no more than 25% (25,000m^2) of the floor area being B1c/B2 land uses. The indicative site layout proposals are included as **Appendix A**.

Access Arrangements

4.4 Similar access arrangements, as agreed in principle as part of the 2007 application, via a new roundabout along the B5008, have been adopted as part of the new proposals. The roundabout has been relocated slightly further south and west, to ensure that the appropriate stopping sight distances can be achieved on all approaches. This also offered improved junction spacing and deflection from the previous arrangement. It is situated just over 120m to the south of the existing roundabout along the Etwall Road which provides access to the Derby with Burton Services (hotel, petrol station, pub /

restaurants) adjacent to the A38 / A50 junction. The proposed roundabout has been designed in accordance with DMRB TD 16/07 and provides an inscribed circle diameter of 40m, along with entry widths from each of the 3-arms of 7m. The proposed roundabout design is included in **Appendix F**, along with the Stage 1 Road Safety Audit and Designers Response.

4.5 The various visibility requirements set out in TD16/07 of DMRB have been checked and are illustrated a further drawing in **Appendix F**. The existing 85th percentage vehicle speeds were confirmed with the ATC survey and recorded as 39.2mph southbound and 39.6mph northbound in dry weather conditions. A one step below desirable minimum is proposed on the approach to the pedestrian crossing from the northern arm, where the speed of traffic between the existing and proposed roundabout is expected to be below the 40mph speed limit.

4.6 Vehicle tracking analysis using the design vehicle set out in DMBR TD 16/07 is also included within **Appendix F**. All HGV traffic to and from the site is to travel to/from the A50/A38 junction using the strategic highway network, not via Willington. This will be managed with a construction management plan during the construction phases, and then a routing agreement for deliveries and commercial journeys once the units become operational. However, all manoeuvres have been checked with swept path analysis, in order to meet the design standards. The analysis demonstrates that the proposed site access roundabout will provide suitable geometries to enable articulated vehicles to safely enter and exit the site and accommodate through traffic.

4.7 The scale of the development is over the standard limit from a single point of access for industrial uses set out in the 6Cs Design Guide, but it is stated that a single point of access to larger sites will be considered on a site-by-site basis. The threshold is the same for B1, B2 and B8 land uses, but there are significant differences in the volume of traffic generated by each of these. Given the high proportion of B8 Warehousing and Distribution (by far the lowest trip generator of B1, B2 and B8), the volume of traffic is broadly similar to the 6Cs Design Guide limits for a residential development of 400 dwellings which is permitted using a narrower carriageway, albeit without HGVs. A capacity assessment of the site access roundabout has been completed (see Section 7.0) and demonstrates that it has sufficient capacity to accommodate the

expected traffic movements during peak hours, with lots of spare capacity in the future year assessment of 2028. Vehicle tracking/swept path analysis has been completed to ensure that the junction design can fully accommodate HGV manoeuvres.

4.8 The concept of having the access as far north as possible, closest to the strategic road network, is partially to keep the impact of HGVs furthest away from the residential areas of Willington. A second access for pedestrians and cyclists is provided towards the south of the site (see below). If considered appropriate by DCC Highways this could be an emergency access, however, the internal roads carriageway width is 7.3m and therefore emergency vehicles would be able to pass a parked or broken down vehicle on both sides of the road, plus there are wide footways and verges on both sides of the carriageway which could be used by emergency vehicles if the carriageway was completely blocked.

4.9 Pedestrian access to the site will be provided with footways alongside the proposed vehicular access along Etwall Road, and pedestrian crossing facilities with dropped kerbs and tactile paving will be provided on each arm of the roundabout and provide links to the existing pedestrian footway along the eastern side of Etwall Road.

4.10 A further shared pedestrian/cycle access, segregated from vehicular traffic, is proposed further to the south of the site. It is proposed to widen the existing footway on the east side of Etwall Road, where practical to do so within the highway boundary, with the intention to provide a footway/cycleway between the pedestrian/cycle access and the village of Willington. A crossing point with dropped kerbs and tactile paving will be provided approximately 140m north of the Etwall Road level crossing, to ensure that pedestrian and vehicular inter-visibility can be achieved in both directions and to provide access to/from the site. These proposals are also shown on a drawing in **Appendix G**.

4.11 It is proposed that the shared pedestrian/cycle link within the site will be 3.0m wide and hard surfaced from the crossing point to the internal road network within the site, and link to recreational pedestrian routes. The route from the internal highway network will also provide maintenance access for the balancing pond. Pedestrian routes and crossing points will also be provided within the site to provide safe access on foot to the various units within the proposed site.

4.12 As a part of the development proposals, the public right of way that current cuts across the site is to be rerouted parallel to the A38 along the western boundary, and then along the southern boundary of the site. As recommended by Network Rail, it is proposed to close the pedestrian level crossing facility and divert the public right of way through the site and onto Etwall Road in order to utilise the much safer pedestrian sub-way alongside the Willington level crossing on Etwall Road. There will be recreational walking routes, and areas to sit and socialise in the south-east corner of the site around the feature balancing pond, created for employees and the public, which form part of and connect to the public right of way. This will be accessible to the public via the pedestrian/cycle access approximately 140m north of the Willington level crossing on Etwall Road, or the main site access.

4.13 A survey of the public right of way was undertaken as part of the 2007 planning application for this site, which observed no use. A further survey was completed on two weekdays and a weekend in June 2018 (see **Appendix C** and the summary in **Table 3.2**), which identified some use of the route, but with no use of the access to/from the A38. All movements involved individual people entering the PROW from Etwall Road and returning to Etwall Road within 15mins or half an hour. This would suggest a circular route used by dog walkers or for general recreational purposes, rather than it being used as part of a longer route, as anticipated based on the limited connections for onward routes from the A38. Therefore, the proposed circular routes focused around the south-east corner of the site will offer pleasant recreational walks for local residents, including dog walkers, which would fit the patterns of movements identified in the survey.

Parking

4.14 The proposed development scheme will involve a mix of B1c, B2 and B8 land uses. The relevant maximum standards set out within the 6C's Design Guide for each of these land uses are set out as follows. These will be applied to each unit.

- B1c & B2 – one car space or every 55m^2 floorspace
- B8 Warehousing – one car space for every 120m^2 floorspace

4.15 The 6C's Design Guide provides a minimum standard for disabled parking spaces:

- Up to 200 spaces - Individual bays for each disabled employee plus two bays or 5% of total parking spaces
- Over 200 spaces - 6 bays plus 2% of the total number of parking spaces

4.16 Parking standards relating to servicing provision are also set out within the 6C's Design Guide. The minimum servicing standards are:

- B1c – one lorry space for every 500m^2 floorspace
- B2 / B8 – one lorry space for every 400m^2 floorspace

4.17 Cycle parking will also be incorporated into the scheme on the basis of the minimum standards set out within the 6C's Design Guide. Cycle parking for the B1c, B2 and B8 land uses should be provided to a minimum level of one cycle parking space per 400m^2 of floorspace. The spaces will be secure and covered cycle parking facilities, conveniently located near to the entrances of buildings, with good lighting.

4.18 The masterplan has been informed by these standards, however the proposed development scheme and outline planning application provides some flexibility in the split of uses between B1c, B2 and B8, therefore the proposed levels of car / disabled / lorry / cycle parking should be calculated based on the standards for each unit once the land use is confirmed.

4.19 The provision of charging of plug-in and other ultra-low emission vehicles will be provided to meet the requirements of the local planning and highway authorities.

5.0 Sustainable Transport

5.1 This section of the report considers the existing sustainable travel options available to access the site in accordance with Chapter 4 of the National Planning Policy Framework (NPPF) (DCLG, March 2012).

Walking

5.2 Whilst PPG13 on Transport was superseded, the key principles and good practice remain relevant. "PPG13: A Guide to Better Practice" stated that "motorised modes are rarely used for trips of around half a mile (0.8 km) or less and the former PPG13 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 under 2 kilometres".

5.3 The whole village of Willington is well within a reasonable 2km walking distance of the proposed site, it is approximately 500m from the proposed pedestrian/cycle access into the site. There is existing pedestrian infrastructure to aid walking between Willington and the site, which can be used for commuting and for use of the local facilities in Willington during lunch breaks and before/after work. Footways run along the full length of Etwall Road on the east side of the carriageway. A grass verge is provided for a majority of the length that separates the footway from the road.

5.4 The footway along Etwall Road runs underneath the railway level crossing and so safeguards pedestrians using this route. Guard railing is also provided near the underpass to further improve pedestrian safety.

5.5 There is a footway provide along Findern Lane, which provides access to the Mercia Marina, approximately 1.5km from the site (20min walk, or 5 min cycle ride). This offers additional local facilities for use during lunch breaks and before/after work.

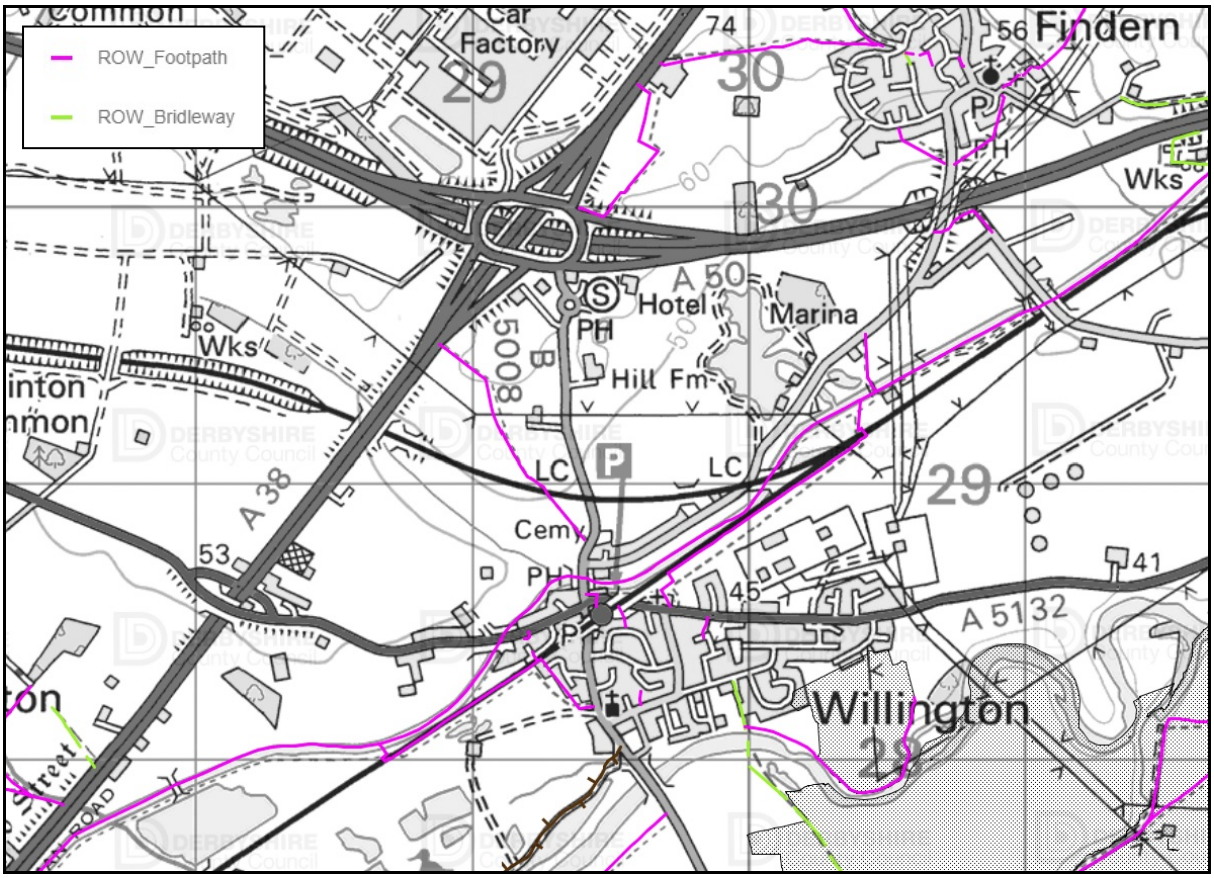
5.6 Further uncontrolled pedestrian crossing facilities are provided to the north of the site at the roundabout that serves the service station. Dropped kerbs, tactile paving and central pedestrian refuge facilities are provided on two of the arms. This will enable staff and visitors to access the nearby facilities provided at the service station by foot.

5.7 Footways are also provided on part of the Toyota Island roundabout. The footways

connect from the service station to the public right of way accessed by steps between the entry from the A38 southbound and exit for the A50 eastbound. This public right of way exits opposite the Toyota Manufacturing Plant on the east side of the A38. There is a public right of way that connects to Findern from the A38 just to the north.

5.8 There are also a number of other public rights of way in the area, as shown by the DCC public rights of way plan, an extract of which is provided as **Figure 5.1**.

Figure 5.1: Public Rights of Way Plan



5.9 A public right of way (Footpath no. 9) currently runs through the proposed development site. This runs from the east side of the A38 towards Willington. It starts at the end of the slip road to join the A38 southbound from Toyota Island, and crosses through the site to a pedestrian level crossing on the Stoke to Derby railway line, approximately 165m to the west of the Willington level crossing on Etwall Road, and then through the field to meet Etwall Road 160m south of the level crossing.

5.10 As a part of the development proposals, the public right of way that current cuts across

the site is to be rerouted parallel to the A38 along the western boundary, and then along the southern boundary of the site. As recommended by Network Rail, it is proposed to close the pedestrian level crossing facility and divert the public right of way through the site and onto Etwall Road in order to utilise the much safer pedestrian sub-way alongside the Willington level crossing on Etwall Road. The diverted public right of way will be accessible from the pedestrian/cycle access approximately 140m north of the Willington level crossing on Etwall Road.

Cycling

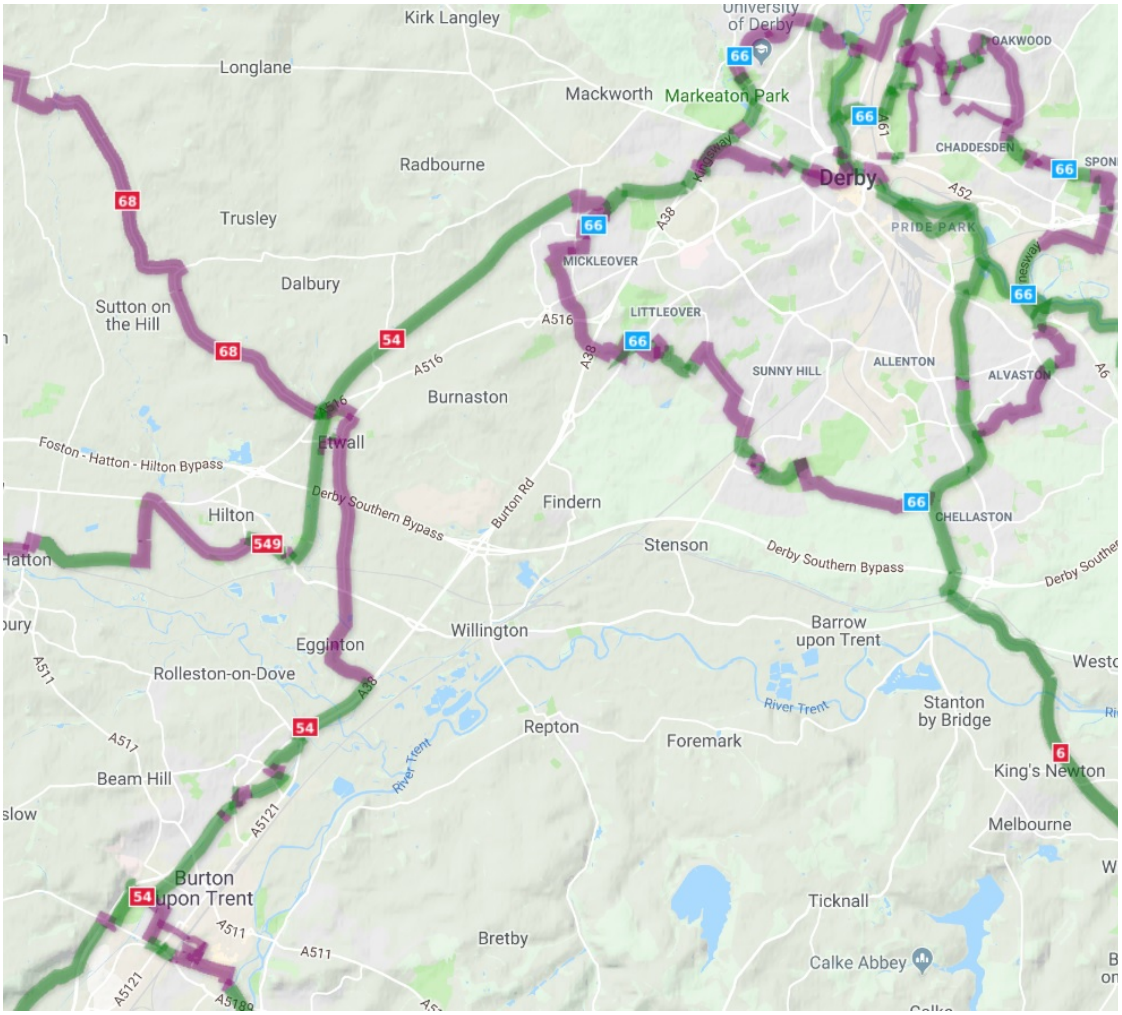
5.11 PPG13 noted that "cycling also has potential to substitute for short car trips, particularly those under 5.0km and to form part of a longer journey by public transport". There are a number of urban residential areas within 5.0km of the site, including Willington, Findern, Repton, Egginton, Stenson and Etwall and therefore a are within the recommended cycling distance for commuting to and from the site. Some of these are only accessible on-road route, such as Findern which is 3.0km (10min cycle ride) via Findern Lane.

5.12 An extract of the Derby City Council (DCC) Cycle Map is provided in **Appendix H**. This shows that a traffic free cycle path travels north from the A38 / A50 (Toyota Island) roundabout alongside the A38. This cycle route then joins up to recommended unmarked cycle routes and Derby's extensive cycle network, including Regional Cycle Route (RCR) 66, which provides an orbital route around Derby. It also continues south along the west side of the A38 to Burton on Trent, and therefore provides opportunities to commute by cycling to and from Derby or Burton on Trent. This cycle route can be accessed from the site via the Eggington junction (2.3km 7mins cycle time). The total journey from the site to Derby city centre via this route is approximately 14km (47mins cycle ride) and to Burton on Trent town centre is approximately 9km (29mins cycle ride).

5.13 An extract of the Sustrans map for the area is provided as **Figure 5.2** below. National Cycle Route (NCR) 54 runs along Egginton Road. The route can be accessed from the A5132, to the west of Willington a cycling distance of approximately 3.7km to the east of the proposed site (11mins cycle ride). NCR 54 provides a route south (through Burton upon Trent) and links into RCR 66, to the north, providing an alternative route

to/from Derby.

Figure 5.2: Extract of Sustrans Map



5.14 There is also an alternative route along the canal, to Burton on Trent town centre which is approximately 8.2km (24mins cycle ride) from the site, accessed at Canal Bridge. This route also continues north to Stenson which is approximately 4.2km from the site (13min cycle ride).

5.15 SDDC have confirmed there are committed tow path improvements which will improve the route between Willington and the south derby development area. This is Route No. 4 of the Greenway Strategy for South Derbyshire, extending from Swarkestone to Stretton, which would comprise an improved shared use Greenway to connect NCN6 to NCN54, via Willington. There are also schemes proposed for improvements to the tow path to the south from Willington to Repton and beyond (route no. 14), and also a connection between the tow path and Findern (part of route

no. 5). These proposals all also form part of the SDDC Cycling Strategy (2001). The proposed new or improved routes will provide an extensive cycling network within the area. The proposed infrastructure is supported by policies for travel plans for new developments, cycle parking, integration with rail services, safety and security, encouragement and education.

Public Transport - Bus Services

5.16 A 400m walking distance to the nearest bus stop is recommended by the Institute of Highways and Transportation's Guidelines for Planning for Public Transport in Developments (IHT 1999). However, the guidelines also state that the recommended 400m is to be "treated as guidance" and that it is "more important to provide services that are easy for passengers to understand and attractive to use than to achieve slavish adherence to some arbitrary criteria for walking distance".

5.17 The nearest bus stops to the site are situated along Etwall Road in Willington between the junctions of Findern Lane and The Green. These are approximately 550m from the pedestrian/cycle access to the site (6 minute walk). Facilities at the stop on the western side of Etwall Road include a shelter, seating, raised kerbing and timetable information, whilst the stop on the eastern side of the road provides raised kerbing with a pole, flag and timetable information. There are also bus stops on Findern Lane.

5.18 The bus service which serves these stops are summarised in **Table 5.1** below. Full timetable details for each of the services can be found at www.travelineeastmidlands.co.uk.

Table 5.1: Bus Service Summary

Service No.	Route	Days	Times (hrs)	Daytime Frequency
Villager (V3)	Derby > Willington > Repton > Burton	Mon-Fri	0621-2345	60mins
		Sat	0621-2344	60mins
		Sun	0941-1045	60mins
	Burton > Repton > Willington > Derby	Mon-Fri	0707-2325	60mins
		Sat	0707-2325	60mins
		Sun	0921-1125	60mins

Note: Times as timetabled for nearest bus stop on Etwall Road

5.19 The bus services stopping on Etwall Road within the vicinity of the proposed site provide links to and from Derby and Burton on Trent. The bus service provides hourly services throughout the whole week. It provides a journey time of 30 mins into Derby city centre and 19 mins journey to Burton on Trent.

5.20 As set out in the accompanying Framework Travel Plan, the operator of the Villager (V3) service, Trent Barton, has confirmed that it would currently be feasible to divert the bus route to serve the development (and potentially the Derby with Burton Services site) with a U-turn at the site access roundabout (or the Derby with Burton Services roundabout) and that this could be achieved within the existing timetable and maintain the hourly frequency (see **Appendix I**). A new bus stop could be provided on the development side of Etwall Road (potentially with a further bus stop on the east side of the road near to Derby with Burton Services), with the exact location(s) to be agreed with DCC Highways and the bus operator.

5.21 The mitigation strategy also includes providing a new hourly bus service from Swadlincote to the site, via rural villages not currently served by public transport, providing links to existing bus and rail services at Repton and Willington.

5.22 There is also the Derbyshire Connect South and West call connect service, which covers the Willington area, but is predominantly a bus service for residents needing to access shopping facilities and health appointments.

Public Transport - Train Services

5.23 The nearest train station is in Willington which is approximately 600m to the south of the pedestrian/cycle access to the site (7 minute walk or 2 minute cycle ride). Willington train station lies on the line between Birmingham and Nottingham, also calling at Derby and Burton-on-Trent on-route. The rail services provide an 8-10 minute journey to Derby and 5-6 minute journey to Burton-on-Trent. Seven services travel in each direction on weekdays, operating between 07:25hrs and 23:45hrs. Derby, Nottingham and Birmingham train stations are major interchange points for other rail services operating locally, regionally and nationally.

5.24 Timetable information for rail services can be found at www.nationalrail.co.uk

Conclusion

5.25 The proposed development is situated in a relatively sustainable location, with residential areas and local amenities and facilities accessible by sustainable modes of transport. The development proposals include providing a segregated access for pedestrians and cyclists only, widening the existing footway between this site access and the village of Willington, diverting the existing PROW through the site to close the pedestrian level crossing and provide access to the subway at the Willington level crossing on Etwall Road, providing new recreational space and walking routes for employees and the public to enjoy, rerouting the existing bus service to directly serve the site from Derby and Burton on Trent and providing a new bus service from Swadlincote. These and further measures to promote the use of sustainable transport are set out in the accompanying Framework Travel Plan.

6.0 Trip Generation & Distribution

6.1 Trip rates have been calculated based on surveys at similar sites contained within the TRICS database. Trip rates for the proposed B1c/B2 floor space has been calculated using survey information from 'Industrial Units' contained within TRICS whilst survey information from 'Warehousing (Commercial)' sites has been used to calculate trip rates for the proposed B8 land uses.

6.2 The sites selected to provide representative trip rates have been filtered using the following parameters:

- Sites at which vehicular surveys have been undertaken.
- Sites in England (excluding Greater London).
- Sites with surveys dated 2010 or later
- Sites categorised as being within 'Edge of Town' or 'Free Standing' locations

6.3 The TRICS output data is included within **Appendix J**, whilst **Table 6.1** provides a summary of the resulting average vehicular trip rates and generation resulting from the proposed development for the AM and PM peak hours, assuming a 75% / 25% split between B8 and B1c / B2 land uses.

Table 6.1: Proposed Vehicular Trip Rates & Generation

Land Use	Peak Hr	Trip Rates (per 100m^2)		Trip Generation	
		In	Out	In	Out
Industrial (25,000m^2)	AM (0800-0900)	0.502	0.062	126	16
	PM (1700-1800)	0.037	0.454	9	114
Warehousing (75,000m^2)	AM (0800-0900)	0.126	0.058	95	44
	PM (1700-1800)	0.022	0.080	17	60
Total (100,000m^2)	AM (0800-0900)	-	-	220	59
	PM (1700-1800)	-	-	26	174

6.4 The proposals are therefore forecast to generate a total of 279 vehicular trips in the AM peak hour and 199 vehicular trips in the PM peak hour.

6.5 Based on the same TRICS output, **Table 6.2** shows the average trip rates and

generation for OGVs.

Table 6.2: Proposed OGV Trip Rates & Generation

Land Use	Peak Hr	Trip Rates (per 100m²)		Trip Generation	
		In	Out	In	Out
Industrial (25,000m²)	AM (0800-0900)	0.019	0.013	5	3
	PM (1700-1800)	0.003	0.002	1	1
Warehousing (75,000m²)	AM (0800-0900)	0.030	0.022	23	17
	PM (1700-1800)	0.010	0.022	8	17
Total (100,000m²)	AM (0800-0900)	-	-	27	20
	PM (1700-1800)	-	-	8	17

6.6 Of the total forecast vehicular trips, 47 are expected to be OGVs in the AM peak hour and 25 in the PM peak hour. These vehicular trips are converted to PCUs by applying a factor of 2.

Modal Splits

6.7 Of the survey sites used from the TRICS database to estimate vehicular trip generation for the proposed scheme, 5 also included multi-modal surveys. The multi-modal TRICS output is contained within **Appendix K**.

6.8 The average percentage split for the proposed proportion of each land use has been applied to the vehicular trip generation presented within **Table 6.1** and the results are summarised within **Table 6.3**.

Table 6.3 – Multi-Modal Trip Generation

Mode	Average % Split	Total Trips (Arrivals & Departures)	
		AM Peak (0800 – 0900)	PM Peak (1700 – 1800)
Vehicle Drivers	87.0%	279	199
Car Passengers	10.2%	33	23
Pedestrians	1.1%	4	3
Cyclists	1.0%	3	2
Public Transport	0.7%	2	2
Total People	100.0%	321	229

Note: Some rounding errors may occur

6.9 On average, 87.0% of the trips generated by the proposed development scheme are expected to be vehicle drivers, with 10.2% passengers. More sustainable transport modes (pedestrians, cyclist and public transport) make up the remaining 2.8% of the total number of trips generated.

6.10 It should be noted that 2011 Census journey to work data for the super output area including the site (and used for the distribution), suggests that locally, car drivers make up a lower modal share (72.7%) as do car passengers (8.3%), and there is a higher proportion of people using more sustainable transport modes (19%) (see **Table 6.4**). Therefore, the assumptions used from TRICS will provide a robust assessment.

Table 6.4 – Journey to Work Modal Split form 2011 Census

Mode	Census Data % Split
Vehicle Drivers	72.7%
Car Passengers	8.3%
Pedestrians	10.5%
Cyclists	2.7%
Public Transport	3.4%
Other	2.4%
Total People	100.0%

6.11 A Framework Travel Plan, aimed at reducing development traffic and single occupancy car journeys by 10% (from a baseline established from initial surveys) and increasing the modal share of sustainable transport modes, has been produced to accompany the planning submission. This is anticipated to be secured and delivered via a S106 agreement. The Framework Travel Plan sets out how a range of measures that would be introduced in order to ensure that journeys by sustainable modes of travel are encouraged. The implementation of the Framework Travel Plan is likely to result in the actual vehicular trip generation of the proposed development being lower than that used to undertake this robust assessment.

Distribution & Assignment

6.12 The light vehicular trips generated by the proposed development have been distributed

on the local highway network in accordance with existing origin-destination travel to work information for car drivers from the 2011 Census for the Middle Layer Super Output Area (MLSOA) 'South Derbyshire 003', which contains the proposed development site.

6.13 The original distribution model set out in the scoping reports has been slightly adjusted in order to reflect the evidence of existing congestion at peak times in the centre of Willington, which will influence route choice, particularly where two options have similar journey times when there is no congestion on either route. **Table 6.5** sets out the adjustments.

Table 6.5 – Distribution Adjustments

Location	Route Changes
South Derbyshire 003 – internal zone includes Findern and Stenson Fields, plus northern parts of Willington (easily walkable)	Amended from 50% using Findern Lane and 50% using A5132 Twyford Road, to 90% and 10% respectively, as can cut across between Findern Lane and Stenson
South Derbyshire 002 – contains Hilton, Etwall and Egginton	90% using A50 (W) to junction 3 and 10% using the A38 (S) and A5132 slip roads, rather than 100% using A5132 The Castle Way via the centre of Willington
Derby 027 and 029 – contains Sunny Hill and Sinfin	Using Findern Lane rather than using A5132 Twyford Road
North West Leicestershire 003 and 007 - north and east of Ashby-de-la-Zouch	Using the A50 (E) rather than Repton Road (2-3mins slower with no congestion, quicker when congested in Willington)

6.14 All HGVs generated by the site will route via the strategic road network, accessed from the A38/A50 junction, and so have been added separately. It is considered important in terms of the impact on the local road network in the village of Willington, that additional HGVs do not route through the village. There are existing physical constraints, in terms of height restrictions to pass under the low railway bridges on Repton Road (3.9m / 13') and Twyford Road (3.6m / 11'9"). There is also a 7.5t weight restriction (except for access) on Repton Road south from the double mini-roundabout junction. The site management company will work with end users to

implement routing agreements for all commercial HGV journeys to ensure that these are made via the A38/A50 junction.

6.15 The distribution model is included as **Appendix L** and is summarised on Flow Diagram 8 in **Appendix D** and in **Table 6.6** below.

Table 6.6: Trip Distribution (Light Vehicles and HGVs)

Route		Light Vehicles	HGVs
Code	Description		
A	A38 (north)	26.3%	35.6%
B	A50 (east)	20.7%	28.0%
C	Findern Lane/Willington Road	15.2%	0%
D	A5132 Twyford Road (east)	1.2%	0%
E	Repton Road	9.7%	0%
F	A5132 The Castle Way (west)	0.0%	0%
G	A38 (south)	11.5%	16.4%
H	A50 (west)	14.8%	20.0%
I	A38 (south) / A5132 (west)	0.6%	0%
Total		100.0%	100.0%

6.16 The assignment of total vehicles and HGVs is shown on Flow Diagram 9a and 9b for the AM and PM peak hours respectively, within **Appendix D**. The resulting number of trips in PCUs travelling through each of the junctions within the area is summarised within **Table 6.7** and displayed within Flow Diagram 10 of **Appendix D**.

Table 6.7: Proposed Vehicular Trip Assignment by Junction (PCUs)

Junction	AM Peak		PM Peak	
	In	Out	In	Out
Site Access / B5008	247	79	34	191
B5008 / Access to Services	190	63	27	145
A50 / A38	190	63	27	145
B5008 / Findern Lane	57	15	7	45
B5008 / A5132	24	6	3	19

Note: Some rounding errors may occur

7.0 Impact Assessment

Percentage Flow Impacts

7.1 **Table 7.1** summarises the percentage impact of the traffic generated by the proposed development on the links leading to and from junctions. The percentage impacts are calculated against the 2020 Base + Committed Traffic Flows (Flow Diagram 6 of **Appendix D**).

Table 7.1: Proposed Development Traffic Flow Impacts (PCUs)

Link Location	AM Peak Hour			PM Peak Hour		
	Base + Com	Diff	%	Base + Com	Diff	%
A50 (west of junction with A38)	5431	51	0.93%	5052	35	0.68%
A38 (north of junction with A50)	6727	90	1.34%	6481	61	0.95%
A50 (east of junction with A38)	6864	71	1.03%	6265	48	0.77%
B5008 (between A38/A50 junction and services)	1231	253	20.56 %	1147	172	15.03 %
A38 (south of junction with A50)	6997	41	0.59%	6400	28	0.44%
B5008 (between services access and Site access)	940	253	26.92 %	1022	172	16.88 %
B5008 (between site access and Findern Lane)	940	73	7.75%	1022	52	5.09%
Findern Lane	453	42	9.37%	512	30	5.93%
B5008 Etwall Road (between Findern Ln and A5132)	1240	30	2.45%	1212	22	1.79%
A5132 Twyford Rd	763	3	0.43%	792	2	0.30%
B5008 Repton Rd	1742	27	1.56%	1798	19	1.08%
A5132 The Castle Way (east of A38)	1317	0	0.00%	1298	0	0.00%
A38 southbound link to Castle Way	705	0	0.05%	667	1	0.15%
A38 northbound link to Carriers Way	575	1	0.23%	610	0	0.02%
A5132 Carriers Way (west of A38)	1050	2	0.16%	1098	1	0.11%
A38 north of A5132	6997	34	0.48%	6400	24	0.38%
A38 south of A5132	7563	32	0.42%	6912	23	0.33%

7.2 The only links where impacts greater than 10% are forecast to be felt are along the

B5008 Etwall Road, as it travels between the proposed site access and the Toyota Island (A38 / A50 roundabout). Impacts along the links travelling through this section are forecast at 26.92% - 20.56% and 15.03% - 16.88%% during the AM and PM peak hours respectively.

7.3 The section of Etwall Road, to the south of the proposed site access, traveling as far as the centre of Willington, is forecast to see impacts of 5.09%-7.75% between the site and the Findern Lane junction and just 1.79%-2.45% between Findern Lane and the double mini-roundabout junction.

7.4 Beyond this junction on the A5008 Etwall Road, the proposed development is forecast to have impacts of less than 1.56% on link flows during the peak hours. Flows along the A50 are not forecast to increase by more than 1.03% during the peak hours whilst flows along the A38 are forecast to increase by a maximum of 1.34% during the peak hours. These are significantly lower that standard variations in vehicle flows and would not be perceivable.

7.5 In terms of impact at junctions, the percentage impact of the development traffic is set out in **Table 7.2**. The percentage impacts are calculated against the 2020 Base + Committed Traffic Flows (Flow Diagram 6 of **Appendix D**).

Table 7.2: Proposed Development Traffic Flow Impacts (PCUs)

Junction	AM Peak Hour			PM Peak Hour		
	Base + Com	Diff	%	Base + Com	Diff	%
Site Access / B5008	940	326	34.7%	1022	225	22.0%
B5008 / Access to Services	1190	253	21.3%	1349	172	12.8%
A50 / A38 Roundabout	5922	253	4.3%	5767	172	3.0%
B5008 / Findern Lane	1333	73	5.5%	1351	52	3.9%
B5008 / A5132	2522	30	1.2%	2560	22	0.8%

Note: Some rounding errors may occur

7.6 The low percentage impacts do not themselves warrant capacity assessments at the A50/A38, B5008/Findern Lane and B5008/A5132. Furthermore, the increase in

traffic at the B5008/A5132 junction only around 30 two-way trips, which is used as a threshold for measuring significant impact. However, there are known existing capacity concerns on these sections of the highway network and therefore the highway authorities have requested capacity assessment work.

Network Capacity Assessments

7.7 Based on the scoping discussions, detailed junction assessments have been undertaken at each of the following junctions:

- A50 / A38 (grade separated roundabout)
- B5008 Etwall Road / Service Accesses (roundabout)
- B5008 Etwall Road / Proposed Site Access (roundabout)
- B5008 Etwall Road / Findern Lane (signals)
- B5008 Etwall Road / Repton Road / A5132 The Castle Way / The Green (double mini-roundabout)

7.8 The capacity assessments have been undertaken on the basis of the 2020 and 2028 'base + committed' development (Flow Diagrams 6 and 7 of **Appendix D**) and the 2020 and 2028 'with development' traffic flows, included as Flow Diagrams 11 and 12 of **Appendix D**. The 'with development' flows have been created by adding the proposed development traffic flows (Flow Diagram 10 of **Appendix D**) to the 2020 and 2028 'base + committed' traffic flows.

Strategic Road Network

7.9 The methodology for testing the impact of the proposed development at the A50/A38 grade separated junction, known as Toyota Island, and establishing a mitigation scheme, was agreed with HE and SDDC through a series of Scoping Notes, a meeting and e-mail correspondence, which can be found in **Appendix B**.

7.10 A 2016 base VISSIM model of the existing junction provided by Highways England (HE) has been developed by WSP and a mitigation solution has been discussed and explored with HE. The Microsimulation Modelling Impact Assessment Report and Mitigation Scheme Drawing are provided in **Appendix M**.

7.11 The VISSIM modelling work demonstrates that the junction is expected to be over capacity in the reference case (base plus growth, plus committed development traffic). Therefore, when the development traffic is added it is further over capacity.

7.12 As set out in the Microsimulation Modelling Impact Assessment Report in **Appendix M**, the development traffic only accounts for a 1.2% increase in the total flows through the junction in the AM peak hour and a 1.7% increase in flows in the PM peak hour, compared to the 2016 base flows.

7.13 As shown in **Table 7.1** above, when compared to the 2020 reference case, the total development traffic only accounts for a percentage increase of between 0.29% and 1.36% on all links leading to and from the junction, other than the B5008 arm where there is up to 19.05% increase in the AM (mainly traffic traveling to the site) and 13.87% in the PM (mainly traffic traveling away from the site).

7.14 As show in **Table 7.2**, the development traffic only accounts for a 4.0% increase in the total turning movements at the roundabout in the AM peak hour and a 2.8% increase in total turning movements in the PM peak hour, compared to the 2020 reference case.

7.15 HE has advised that where a junction is already over capacity without the proposed development traffic, HE will not require the development to provide mitigation to such an extent that the junction is brought back into capacity. As HE would typically raise no objections to development proposals which are shown to have no severe impacts, mitigation which allows the junction to perform no worse, with development traffic in place, will be acceptable.

7.16 Given the existing capacity issues and anticipated demands on the junction from committed developments within the Local Plan period, and the commitment in the SDDC Local Plan (Policy INF4) for an improvement scheme at this junction, a contribution to a wider improvement scheme, proportionately based on the impact of the development was considered the most appropriate solution. However, HE confirmed that the scheme development was in such early stages that it was unlikely to be a feasible option, and a standalone 'nil detriment' mitigation scheme would be required to be presented. Nonetheless, on a practical and cost-effective level, it was agreed that the status of the wider scheme was to be considered prior to

implementation of any interim scheme that just sought to mitigate this impact of this development.

7.17 It has been agreed in principle that a signalisation scheme at the A38/A50 junction in broad accordance with the design proposed will be both deliverable, and capable of mitigating development impacts (see correspondence in **Appendix N**). Therefore, a condition will be recommended to ensure a more detailed scheme proposal is approved prior to occupation of the development. This would require further development of the modelling work confirming the finer details of the scheme and a trigger point for its implementation.

7.18 The initial modelling results have identified some improvements on some links and worsening on others but with overall net benefits beyond mitigating the development traffic. However, the initial assessment has been undertaken based on fixed time operation of the traffic signals. Should the mitigation scheme be implemented, it is a standard requirement for this type of junction to use Microprocessor Optimised Vehicle Actuation (MOVA). This would help to balance the performance of the junction by responding to the actual demands of traffic at different times, and therefore the further modelling work to be conditioned, to include MOVA, will help to demonstrate the improvements to the capacity and operation of the junction following the introduction of the proposed mitigation scheme. However, it was agreed that MOVA could be retrofitted by HE, if the proposed mitigation scheme already offered network benefits without MOVA and the cost of the additional equipment made the mitigation scheme no longer proportionate to the impact of the development traffic and affect the viability of the development scheme.

7.19 The impact of the development traffic at the A50/A38 junction will be further managed through the Travel Plan, as discussed in further detail in the mitigation section below.

Local Highway Network

7.20 The capacity assessments on the remainder of the study area have been undertaken using the appropriate industry standard traffic modelling computer software packages (JUNCTIONS 9 & LINSIG 3). JUNCTIONS 9 has been used to assess the priority-

controlled junctions and roundabouts. The program provides output in the form of Ratio of Flow to Capacity (RFC). An RFC below 0.85 indicates that a priority-controlled junction operates comfortably within capacity. An RFC value between 0.85 and 1.00 indicates that there may be occasions during the period modelled when queues will develop, and delays may begin to occur. An RFC value greater than 1.00 indicates that a junction operates over its full theoretical capacity.

7.21 LINSIG 3 has been used to assess the signalised junction on the network. The program provides output in the form of Practical Reserve Capacity (PRC). Ideally the PRC values should be greater than zero, although the theoretical capacity is at -10%. The PRC is calculated from the maximum degree of saturation on a signal-controlled link and is a measure of how much additional traffic could pass through a signal-controlled junction whilst maintaining a maximum degree of saturation of 90% on all links. Signal specifications, included as **Appendix O**, have been obtained from DCC to aid the creation of LINSIG model that represent the existing on-street settings at the signalised junction.

Proposed Site Access / B5008 Etwall Road

7.22 The results of the assessments for the proposed site access onto the B5008 Etwall Road are summarised in **Table 7.3** whilst full output is included within **Appendix P**.

Table 7.3: Site Access / Etwall Road Assessment Summary

Arm / Movement	2020 With Development				2028 With Development			
	AM Peak		PM Peak		AM Peak		PM Peak	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
Site Access	0.07	0	0.17	0	0.07	0	0.16	0
Etwall Road (N)	0.39	1	0.38	1	0.42	1	0.43	1
Etwall Road (S)	0.43	1	0.32	1	0.48	1	0.36	1

7.23 It can be seen from **Table 7.3** that the proposed site access junction will operate with substantial spare capacity in both 2020 and 2028 following the introduction of the proposed development.

7.24 A maximum RFC of 0.48 is reached in the AM peak hour and 0.44 in the PM peak hour. A queue of only one vehicle is forecast for both peaks at the site access junction. is reached in both peak hours.

7.25 The results demonstrate that the proposed site access junction layout will accommodate the reference case traffic flows plus the traffic generated by the proposed development in a satisfactorily manner and is therefore considered appropriate so serve the proposed scheme.

B5008 Etwall Road / Services Access Roundabout

7.26 Capacity assessments have been undertaken for the B5008 Etwall Road / Services Access roundabout situated to the south-east of the A38 / A50 roundabout using JUNCTIONS 9. The results of the assessments are summarised in **Table 7.4** and full output included within **Appendix P**.

Table 7.4: B5008 / Services Assessment Summary

Arm / Movement	2020 Base + Committed				2020 With Development			
	AM Peak		PM Peak		AM Peak		PM Peak	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
B5008 (north)	0.47	1	0.63	2	0.64	2	0.65	2
Service Station Access	0.10	0	0.16	0	0.12	0	0.17	0
HGV Parking Access	0.02	0	0.02	0	0.02	0	0.02	0
B5008 Etwall Road (south)	0.38	1	0.34	1	0.42	1	0.44	1
Arm / Movement	**2028 Base + Committed**				**2028 With Development**			
	AM Peak		**PM Peak**		**AM Peak**		**PM Peak**	
	RFC	**Q**	**RFC**	**Q**	**RFC**	**Q**	**RFC**	**Q**
B5008 (north)	0.53	1	0.71	3	0.70	3	0.74	3
Service Station Access	0.12	0	0.19	0	0.14	0	0.20	0
HGV Parking Access	0.02	0	0.02	0	0.03	0	0.02	0
B5008 Etwall Road (south)	0.43	1	0.38	1	0.47	1	0.49	1

7.27 It can be seen from **Table 7.4** that the existing roundabout operates with spare

capacity during each of the scenarios tested.

7.28 A maximum RFC of 0.71 is recorded at the roundabout during the 2028 base + committed development assessments, occurring on the northern arm of the roundabout during the PM peak hour. The maximum RFC at the roundabout rises to reach 0.74 following the addition of development traffic. The maximum level of queuing is forecast to rise by two PCUs on the B5008 (north) arm in the AM peak hour, when the development traffic is added, with no increase in queues elsewhere. The queues on each arm continue to reach a maximum of 0-3 PCUs.

7.29 The results demonstrate that the addition of traffic generated by the proposed development scheme would have minimal impact on the operation of the existing roundabout.

B5008 Etwall Road / Findern Lane

7.30 The results of the assessments for the Etwall Road / Findern Lane junction are summarised in **Table 7.5** whilst full output is included within **Appendix P**.

Table 7.5: Etwall Road / Findern Lane Assessment Summary

Arm / Movement	2020 Base + Committed				2020 With Development			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Deg Sat (%)	Q (pcus)	Deg Sat (%)	Q (pcus)	Deg Sat (%)	Q (pcus)	Deg Sat (%)	Q (pcus)
Etwall Rd (south)	64.4%	16	62.0%	13	67.6%	17	61.9%	13
Etwall Rd (north)	38.8%	8	54.4%	12	40.8%	8	58.5%	14
Findern Ln	61.9%	7	60.8%	9	68.8%	8	63.3%	9
Practical Reserve Capacity (PRC)	39.8%		45.1%		30.8%		42.1%	
Total Delay Over All Lanes (pcuHr)	9.05		11.41		10.36		11.99	
Cycle Time (secs)	120		120		120		120	

Table 7.5: Etwall Road / Findern Lane Assessment Summary (continued)

Arm / Movement	2028 Base + Committed				2028 With Development			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Deg Sat (%)	Q (pcus)	Deg Sat (%)	Q (pcus)	Deg Sat (%)	Q (pcus)	Deg Sat (%)	Q (pcus)
Etwall Rd (south)	72.5%	19	70.0%	17	76.8%	22	71.7%	17
Etwall Rd (north)	43.0%	9	60.2%	14	45.7%	10	64.3%	16
Findern Ln	72.3%	8	70.5%	11	76.3%	10	73.4%	11
Practical Reserve Capacity (PRC)	24.1%		27.7%		17.2%		22.6%	
Total Delay Over All Lanes (pcuHr)	11.23		14.00		13.04		14.87	
Cycle Time (secs)	120		120		120		120	

7.31 It can be seen from **Table 7.5** that the signalised junction will continue to operate with spare capacity during both peak hour periods after the introduction of traffic generated by the proposed development. A minimum PRC of 24.1% is reached at the junction during the AM peak hour within the '2028 Base + Committed' scenario. The minimum PRC reduces to 17.2% following the introduction of traffic generated by the proposed development with minimal change in queues. There is a lower impact in the PM peak hour, where the PRC decreases from 27.7% to 22.6%.

7.32 The Total Delay represents the aggregate delay to all traffic on the route caused by queuing, this is likely to increase by between 0.58 and 1.81 PCUHr during the peaks as a result of the traffic generated by the proposed development. This level of impact would be practically unperceivable.

7.33 The results demonstrate that the addition of traffic generated by the proposed development scheme would have minimal impact on the operation of the signalised junction.

B5008 Etwall Road / Repton Road / A5132 The Castle Way / The Green

7.34 Capacity assessments have been undertaken for the B5008 Etwall Road / Repton Road / A5132 The Castle Way / The Green double mini-roundabout using JUNCTIONS 9.

The results of the assessments are summarised in **Table 7.6** and full output included within **Appendix P**.

Table 7.6: B5008 / A5132 Assessment Summary

Arm / Movement	2020 Base + Committed				2020 With Development			
	AM Peak		PM Peak		AM Peak		PM Peak	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
Northern mini – Etwall Rd (north)	0.65	2	0.81	4	0.65	2	0.83	5
Northern mini – The Green (east)	0.73	3	0.66	2	0.73	3	0.67	2
Northern mini – A5132 (south)	0.65	2	0.60	2	0.65	2	0.60	2
Southern mini – A5132 (north)	0.94	12	1.00	22	0.94	11	1.02	27
Southern mini – Repton Rd (south)	1.16	70	1.07	40	1.19	81	1.08	42
Southern mini - The Castle Way (west)	1.32	119	1.34	126	1.33	125	1.34	126
Arm / Movement	**2028 Base + Committed**				**2028 With Development**			
	AM Peak		PM Peak		AM Peak		PM Peak	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
Northern mini – Etwall Rd (north)	0.73	3	0.91	9	0.73	3	0.94	12
Northern mini – The Green (east)	0.87	6	0.80	4	0.88	7	0.81	4
Northern mini – A5132 (south)	0.64	2	0.61	2	0.65	2	0.61	3
Southern mini – A5132 (north)	1.06	41	1.12	66	1.06	42	1.14	73
Southern mini – Repton Rd (south)	1.32	155	1.21	95	1.35	173	1.21	95
Southern mini - The Castle Way (west)	1.47	204	1.51	218	1.48	210	1.51	220

7.35 It can be seen from **Table 7.6** that the northern of the double mini-roundabouts that make up the B5008 / A5132 junction will operate within or just about at capacity during peak hour periods in both assessment years, either with or without the development traffic added. The southern of the double mini-roundabouts at the junction operates beyond capacity in each of the tested scenarios. All arms of the southern mini-roundabout are over 100% capacity in the 2028 reference case in both

the AM and PM, before the development traffic is added.

7.36 It should be noted that when a JUNCTIONS model is showing to junction to be at or over capacity (e.g. RFC of 1+), any additional traffic has a dramatic effect on the results and the calculation of queues increases exponentially and can be unrealistically high.

7.37 As shown in **Table 7.1** above, when compared to the 2020 reference case, the total development traffic only accounts for a percentage increase of between 0% and 2.45% on all links leading to and from the junction (30 two-way trips or less). As show in **Table 7.2**, the total development traffic on all arms only accounts for a 1.2% increase in the total turning movements at the double mini-roundabout in the AM peak hour and a 0.8% increase in total turning movements in the PM peak hour, compared to the 2020 reference case. This level of traffic is lower than standard daily variations in traffic flows. Nonetheless, given the base situation, there is a need to mitigate the impact of the development on this junction.

7.38 Given the physical constraints to create additional capacity, including the two railway bridges on Repton Road and Twyford Road, amendments to the double mini-roundabouts are unlikely to be a suitable form of mitigation. For example, modelling demonstrated that the signalisation of the junction appears to offer limited benefits with some negative effects, so on balance may not be an appropriate solution.

7.39 As the impact of the development is minor and is not the reason for the junction to operate over capacity, the existing traffic movements through the junction have been a focus point for mitigation. The Framework Travel Plan includes a number of measures that are aimed at specifically minimising any increase in traffic through the village, and where possible, also seeking a modal shift in existing journeys to reduce the base traffic flows.

7.40 The proposed mitigation scheme at the A50/A38 junction, along with other local committed strategic highway improvements, will unlock additional capacity which tends to lead to traffic re-routing or reassigning, and so is expected to encourage existing drivers travelling through Willington to use more strategic routes. The proposed mitigation scheme involving the signalisation of the A50/A38 junction,

would offer net benefits in addition to mitigating the impact of the development traffic. The improved capacity gained at this junction, along with the committed Highways England grade separated junction scheme at 3 junctions along the A38 (Kingsway, Markeaton and Little Eaton), the South Derby Integrated Transport Link, potential new junction on the A50 at Deep Dale Lane/Stenson, and improvements at the A50/A514 junction committed in the Local Plan, are expected to result in some reassignment of movements through the centre of Willington to the strategic highway network.

7.41 The developer has engaged with SDDC, Derbyshire CC and Derby CC, as well as bus operators and large local employers, to discuss sustainable transport solutions, such as enhancing the cycle network and public transport options, to address existing issues through modal shift from single occupancy cars to more sustainable transport choices. There are some sustainable transport schemes already proposed in the Local Plan, but it was particularly noted that there were gaps in bus service provision in South Derbyshire, which is predominantly rural.

7.42 The proposals to reroute the existing V3, between Derby and Burton on Trent, to directly serve the site, and provide new bus stop(s) are to be supplemented with a proposed new public bus service. The proposed new bus service will provide access by public transport for those commuting from Swadlincote, and rural villages between Swadlincote and Willington, to the employment opportunities within Willington, at the proposed site and the Derby with Burton Services, with potential to also serve other large local employment sites to increase potential patronage and further reduce car journeys through Willington. This would directly serve the site from Swadlincote, via rural villages not currently service by public transport, and provide these communities with links to existing bus and rail services in Repton and Willington.

7.43 The main draw of employees is expected to be from Derby and other areas north of the site. However, the existing car movements through Willington north-south are very high given the type of roads (c. 500 vehicles per hour in each direction in the AM and PM peak) and the 2011 Census suggests that over 10% of employees at existing workplaces in the super output area within which the site is located come from the Swadlincote area, so the proposed new bus service gives existing commuters using

this route a more attractive direct public transport option, rather than travelling to Burton on Trent and then changing services. Creating modal shift within exiting commuter and other types of journeys would reduce existing traffic off the roads through the centre of Willington.

7.44 The developer is committed to continue to work with public transport teams at SDDC, Derbyshire CC and Derby CC, local bus operators, existing local employers and other developers, to ensure that the proposed bus service provides maximises value in terms of adding viable commuting options between numerous workplaces and residential areas not currently well served by public transport, at the same time as providing a bus service to and from the site.

7.45 In additional to promoting local public car share schemes, the developer will work with the site management company and end users to seek to establish a site-specific car share scheme. They will investigate using Liftshare or a similar organisation to manage this. One Liftshare case study with a site-specific car share scheme saw 33% of staff regularly car sharing – which is high, although obviously each site will have different potential for matching journeys or part journeys. *Making Car Sharing and Car Clubs Work* (DfT, 2005) sets out that:

> The research supporting this best practice guide demonstrates that car sharing schemes have produced significant increases in multi occupancy car use (a 21% increase on average), with no corresponding detrimental impact on other sustainable modes.

7.46 If engaged, Liftshare also tend to get involved in the wider Travel Plan tasks and measures, as they need to gather data to match journeys, and have software to easily expand on this to offer other personalised journey planning options. They have good case studies and evidence of strong modal shift using a variety of Travel Plan measures including their personalised travel planning software, with reductions in single occupancy car use ranging from 8% to 32%.

7.47 All HGV traffic associated with the development will be routed directly to and from the strategic road network at the A50/A38 junction, rather than through the village of Willington. There are existing constraints in the form of height and weight restrictions

in central Willington, but this will also be controlled through routing agreements implemented by all end users and the site management company, to ensure all commercial HGV journeys are made via the A50/A38 junction. This has been accounted for in the modelling work.

7.48 Both visitors and employees commuting by car will also be encouraged, through the Framework Travel Plan, to use the strategic road network rather than travel through the centre of Willington. However, this has not been assumed in the modelling work. Local staff have the option to walk, cycle, or use public transport, and facilities to do so are all being enhanced through the Travel Plan measures. Those travelling from beyond the local area should be using the strategic road network or improved public transport options.

7.49 Other than the HGV routing, the effect of the Framework Travel Plan and associated measures has **not** been accounted for in the impact assessment modelling work which is therefore is expected to show a robust assumption for the impact through Willington. The development traffic will be managed through the Travel Plan, with an overall modal shift target for a 10% reduction in single occupancy car use, through infrastructure and promotional measures to encouraged use of more sustainable transport choices. This would reduce the assessed traffic impact, which would then only account for 1.7% of the movements through the double mini roundabout junction in the AM peak hour and just under 0.8% in the PM peak hour.

7.50 We consider that the Framework Travel Plan measures proposed to focus on the route through Willington – encouraging use of the strategic network, new public bus service and site-specific car share scheme – in addition to the other general TP measures, have a reasonable potential to decrease the development traffic on this route by 50%. That equates to around 10 car drivers either using the new bus service or getting a lift with a colleague. There would still be space for existing commuters to use the new bus service or for others to join at the stops also serving the V3 bus service and train station in Willington. **Table 7.7** considers how this would affect the number of additional two-way movements and percentage impact at this junction.

Table 7.7: B5008 / A5132 Impact With/Without Travel Plan

Scenario	AM Peak Hour			PM Peak Hour		
	Base + Com	Diff	%	Base + Com	Diff	%
Calculated Vehicular Trips	2522	30	1.2%	2560	22	0.8%
Overall Target 10% Reduction Applied to Vehicular Trips	2522	27	1.1%	2560	20	0.8%
Potential 50% Reduction Applied to Vehicular Trips	2522	14	0.6%	2560	11	0.4%

7.51 As noted above, reductions in base traffic are more critical. Whilst it is difficult to quantify the effect of the proposed new bus service and improvements in capacity on the strategic road network and cycle network, only very small changes in traffic flows would be required to mitigate the small amount of development traffic, especially with the Travel Plan measures to minimise the impact of development traffic using this route.

Junction Impact Assessment Conclusions

7.52 The results of the detailed junction capacity assessments demonstrate that the proposed site access junction will accommodate the reference case traffic flows plus the traffic generated by the proposed development in a satisfactorily manner and is therefore considered appropriate so serve the proposed scheme.

7.53 The detailed junction capacity assessments also demonstrate that the proposed development will have a minimal to low impact on capacity on the local highway network. The roundabout providing access to the Derby with Burton services, and the Etwall Road/Findern Lane junction will continue to operate with spare theoretical capacity following the completion of the development proposals. Off-site mitigation measures to enhance network capacity at these junctions are not therefore considered to be warranted as part of the redevelopment proposals.

7.54 There are existing congestion issues evident in the reference case scenarios at the A50/A38 junction and the double mini-roundabouts in the centre of Willington, and

therefore, despite low levels of development traffic, mitigation is required.

7.55 A mitigation scheme to signalise the A50/A38 Toyota Island has been approved in principle by Highways England. Further modelling work to demonstrate the benefits of MOVA and other developments to the initial mitigation scheme to signalise the junction will be conditioned. The additional modelling work will also allow the net benefits to overall operation of the junction to be more clearly demonstrated.

7.56 Mitigation proposals to address the impact of the low levels of development traffic through Willington are focused on, firstly managing the impact of the development traffic, but also seeking to offer sustainable transport improvements with wider benefits, to reduce existing traffic flows through the village. The package of mitigation measures are as follows:

- Minimise impact of the development traffic through Willington
    - routeing agreement for all HGVs to use the A50/A38, in addition to the height and weight restrictions in the centre of Willington village
    - encouraging visitors and staff commuting by car to use the A50/A3

    (supported by the mitigation scheme approved in principle with Highways England to improve capacity at the A50/A38)

- Encourage use of sustainable transport options to travel to/from the site, and within the local community, including:
    - improved pedestrian/cycle route from Willington
    - traffic-free site access for pedestrians and cyclists, including new crossing facility on the B5008
    - crossing facilities at the site access junction to provide access to between the site and the Derby with Burton services area
    - cycle storage and changing facilities on-site
    - reroute existing V3 bus service, between Derby and Burton on Trent, to

directly serve the site, and provide new bus stop(s)

- new public bus service directly serving the site from Swadlincote, via rural villages not currently service by public transport, providing links to existing bus and rail services in Repton and Willington, and potentially provide access to other large employment sites in the area to increase potential patronage and further reduce existing car journeys through Willington
- actively encouraging car sharing, and seeking to introduce a site-specific car share scheme

Level Crossing Assessment

7.57 Network rail requested that an assessment of the queues forming at the level crossing were included in the Transport Assessment, and also took into account the proposed introduction of a more modern barrier system to reduce the safety risk factor at this location. A Signalling Infrastructure Condition Assessment is due in October 2025 and the proposed risk solution will need to be supported by a Suitable and Sufficient Risk Assessment. The new barrier system would be down for approximately 3 minutes, compared to the existing time of approximately 30 seconds to a minute and therefore it was requested that this be taken into account. The queues are expected to be worse than the current situation due to the increased barrier down time, and the proposal will need to be reviewed before the scheme is implemented and alternative measures may be considered.

7.58 A survey of the existing situation was carried out on Tuesday 1st May 2018 (see **Appendix C**), and the PM peak hour saw the largest queues of 9 vehicles to the south of the level crossing and 31 vehicles to the north of the level crossing. During the AM peak hour, the maximum queue length was also 9 vehicles to the south and only 11 to the north.

7.59 An assessment to determine the expected queues and the impact of the development traffic at the level crossing has been completed using LinSig and the results are provided in **Appendix Q**. The queue lengths in the AM peak hour reflect the survey

and growth to the future assessment years, but the queues observed in the PM peak hour are not quite reached but are generally higher than in the AM peak hour. The results are summarised in **Table 7.8** below.

Table 7.8: Level Crossing Assessment Summary – Existing Barrier System

Arm / Movement	2020 Base + Committed				2020 With Development			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Deg Sat (%)	Q (pcus)	Deg Sat (%)	Q (pcus)	Deg Sat (%)	Q (pcus)	Deg Sat (%)	Q (pcus)
Etwall Rd (north)	21.7%	11	29.0%	16	22.5%	11	31.4%	18
Etwall Rd (south)	27.5%	15	24.5%	13	30.5%	17	24.8%	13
Practical Reserve Capacity (PRC)	226.7 %		210.2%		194.7%		186.4%	
Total Delay Over All Lanes (pcuHr)	0.84		0.93		0.93		1.00	
Cycle Time (secs)	1800		1800		1800		1800	
Arm / Movement	**2028 Base + Committed**				**2028 With Development**			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Deg Sat (%)	Q (pcus)	Deg Sat (%)	Q (pcus)	Deg Sat (%)	Q (pcus)	Deg Sat (%)	Q (pcus)
Etwall Rd (north)	24.5%	13	32.8%	19	25.2%	13	35.1%	21
Etwall Rd (south)	31.0%	17	27.6%	15	34.0%	20	28.0%	15
Practical Reserve Capacity (PRC)	190.3%		174.5%		164.8%		156.1%	
Total Delay Over All Lanes (pcuHr)	0.98		1.10		1.08		1.18	
Cycle Time (secs)	1800		1800		1800		1800	

7.60 Assuming the existing barrier arrangements, the queues in both 2020 and 2028 are expected to increase by 0 vehicles to the north and 2-3 vehicles to the south in the AM peak hour, and by 2 vehicles to the north and 0 vehicle to the south in the PM peak hour, with the development traffic added.

7.61 A further assessment has been completed using LinSig, to consider the potential new barrier system and the impact on the total queues and the impact of the development

traffic, and the results are also provided in **Appendix Q**. There was a general increase in queues as expected with traffic growth to 2020 and 2028 as well as the increase in the time the barrier is down, and again the queues were slightly higher in the PM peak hour. The results are summarised in **Table 7.9** below.

Table 7.9: Level Crossing Assessment Summary – Potential Barrier System

Arm / Movement	2020 Base + Committed				2020 With Development			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Deg Sat (%)	Q (pcus)	Deg Sat (%)	Q (pcus)	Deg Sat (%)	Q (pcus)	Deg Sat (%)	Q (pcus)
Etwall Rd (north)	23.4%	28	31.2%	41	24.2%	30	33.8%	46
Etwall Rd (south)	29.3%	39	26.3%	33	32.8%	44	26.7%	34
Practical Reserve Capacity (PRC)	204.0%		188.6%		174.3		166.5%	
Total Delay Over All Lanes (pcuHr)	3.92		4.37		4.35		4.69	
Cycle Time (secs)	1800		1800		1800		1800	
0Arm / Movement	**2028 Base + Committed**				**2028 With Development**			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Deg Sat (%)	Q (pcus)	Deg Sat (%)	Q (pcus)	Deg Sat (%)	Q (pcus)	Deg Sat (%)	Q (pcus)
Etwall Rd (north)	26.3%	33	35.2%	49	27.1%	34	37.8%	55
Etwall Rd (south)	33.3%	45	29.7%	39	36.5%	52	30.1%	39
Practical Reserve Capacity (PRC)	170.1%		155.4%		146.4%		138.3%	
Total Delay Over All Lanes (pcuHr)	4.60		5.17		5.07		5.53	
Cycle Time (secs)	1800		1800		1800		1800	

7.62 The maximum queues in 2020 are expected to increase by 2 vehicles to the north and 5 vehicles to the south in the AM peak hour, and by 5 vehicles to the north and 1 vehicle to the south in the PM peak hour, with the development traffic added. The maximum queues in 2028 are expected to increase by 1 vehicle to the north and 7 vehicles to the south in the AM peak hour, and by 6 vehicles to the north and 0 vehicles to the south in the PM peak hour, with the development traffic added. This is

a robust assessment, as if the new barrier system was not installed, the barrier would continue to be down for approximately 30 seconds to a minute and therefore both the total queues and impact of the development would be less.

7.63 A simple test of the impact of the development traffic anticipated per hour, divided into seconds, and robustly assuming a double arrival rate during the barrier down time, suggested that based on the current timings there would be no additional queue to the north in the AM peak hour and no additional queue to the south in the PM peak hour, which is the same as the LinSig results. It also calculates that there would only increase the queue in the opposite direction by 1 or 2 vehicles (also see tables in **Appendix Q**), which is very similar to the LinSig results. Using this method, if the barrier was down for 3 minutes, rather than the surveyed times of between approximately 30 seconds and a minute, the increase in queues was very similar to the LinSig results, varying by only 1 vehicle. The comparison of the results is provided below in **Table 7.10** and **Table 7.11**.

Table 7.10: Level Crossing Assessment – Anticipated Increase in Queue Generated by Development Traffic – Existing Barrier System

Arm / Movement	2020				2028			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Basic	LinSig	Basic	LinSig	Basic	LinSig	Basic	LinSig
Etwall Rd (north)	0	0	1	2	0	0	1	2
Etwall Rd (south)	2	2	0	0	2	3	0	0

Table 7.11: Level Crossing Assessment – Anticipated Increase in Queue Generated by Development Traffic – Proposed Barrier System

Arm / Movement	2020				2028			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Basic	LinSig	Basic	LinSig	Basic	LinSig	Basic	LinSig
Etwall Rd (north)	2	2	5	5	2	1	5	6
Etwall Rd (south)	6	5	1	1	6	7	1	0

7.64 In conclusion, the impact of the development traffic would have minimal impact on the queuing at the level crossing based on the existing barrier system, with just 0-3 additional vehicles expected. The impact will increase if the proposed new barriers system is installed, but this will generally increase the level of queuing, and the proposal would need to be fully assessed before it was approved and introduced.

Highway Safety Assessment

7.65 The PIA records for the latest available 5-year period show that a total of 92 PIAs have been recorded within the search area. Whilst there is a high total number of incidents recorded, it is a large study area and involves some sections of the highway network with very high flows. Fortunately, none of these were fatalities, and over 92% only resulted in slight injuries. Most of the broad locations identified only had 1-5 incidents over the 5 years, with only very few experiencing more than an average of 2 per year. These were in the vicinity of the Egginton junction with the A38, and the approach to the A50/A38 roundabout from the A50 eastbound and the Toyota site (combined), and so do not represent single locations. In both cases, there is minimal impact in terms of proposed development traffic.

7.66 There is no evidence to suggest that road geometry or design of the road layout has played a significant factor in the PIAs that have been recorded over the study period. The main reoccurring theme were shunts, which are common at roundabouts and on routes where congestion builds at peak times, a there were a few incidents involving changing lanes. Any proposed physical highway works should consider measures to improve the risk of these types of accidents where possible. Within Willington village, there were some incidents involving vulnerable road users, and therefore if any physical highways works are proposed, these should consider measures to improve safety for vulnerable road users.

7.67 The PIA records indicate that there are no road safety issues within the vicinity of the proposed site access on Etwall Road.

7.68 The proposed development is not considered likely to have any significant effect or 'severe' impact on the local highway network in terms of road safety. The proposed

development will provide suitable links to for pedestrians, cyclists and public transport users whilst at the same time providing safe vehicular access to the local and strategic highway network. Standalone mitigation measures to enhance road safety are not therefore considered to be warranted as part of the development proposals.

8.0 Conclusions

8.1 In summary, this Transport Assessment (TA) has been prepared on behalf of Brackley Property Developments, in respect of their planning application for an industrial development on land to the west of the B5008 Etwall Road, at Burnaston Cross, Derbyshire.

8.2 The development proposal are for commercial uses providing a combined floor area of up to 100,000m^2. The proposed floor area will be split with at least 75% (75,000m^2) of the floor area being for B8 land uses and no more than 25% (25,000m^2) of the floor area being B1c/B2 land uses. The same access arrangement as agreed in principle as part of the 2007 application, via a new roundabout along the B5008, has been adopted as part of the new proposals with some modifications to the design and location. The indicative site layout proposals are included as **Appendix A**.

8.3 All HGV traffic associated with the development will be routed directly to and from the strategic road network at the A50/A38 junction, rather than through the village of Willington. There are existing constraints in the form of height and weight restrictions in central Willington, but this will also be controlled through routing agreements implemented by all end users and the site management company, to ensure all commercial HGV journeys are made via the A50/A38 junction.

8.4 The proposed development is situated in a sustainable location, with residential areas and local amenities and facilities accessible by sustainable modes of transport. The development proposals include providing a segregated access for pedestrians and cyclists only, widening the existing footway between this site access and the village of Willington, diverting the existing PROW through the site to close the pedestrian level crossing and provide access to the subway at the Willington level crossing on Etwall Road, providing new recreational space and walking routes for employees and the public to enjoy. It is proposed to reroute the existing V3 bus service between Derby and Burton on Trent, to directly serve the site, and provide a new public bus service between Swadlincote and the site in Willington, via rural villages. This would provide links to existing bus and rail services in Repton and Willington, and potentially provide access to other large employment sites in the area to increase potential patronage and further reduce car journeys through Willington. These and further

measures to promote the use of sustainable transport are set out in the accompanying Framework Travel Plan and will help to manage and minimise any increase in traffic.

8.5 A robust assessment of traffic generation resulting from the development proposals indicates that an increase on the local highway network of 279 vehicular trips in the AM peak hour and 199 vehicular trips in the PM peak hour, prior to any reductions achieved through implementation of the Framework Travel Plan.

8.6 The results of the detailed junction capacity assessments demonstrate that the proposed site access junction will accommodate the reference case traffic flows plus the traffic generated by the proposed development in a satisfactorily manner and is therefore considered appropriate so serve the proposed scheme. They also demonstrate that the proposed development will have a minimal to low impact on capacity on the local highway network. The roundabout providing access to the Derby with Burton services, and the Etwall Road/Findern Lane junction will continue to operate with spare capacity following the completion of the development proposals. Off-site mitigation measures to enhance network capacity are not therefore considered to be warranted as part of the redevelopment proposals.

8.7 The results also shown that there are congestion issues evident in the reference case scenarios in 2020 (and 2028) at the A50/A38 junction and the double mini-roundabouts in the centre of Willington. Although there are not significant increases in traffic expected, due to the base situation, the impact is exacerbated.

8.8 A mitigation scheme to signalise the A50/A38 Toyota Island has been approved in principle, with Highways England. Further modelling work to demonstrate the benefits of MOVA and other developments to the initial mitigation scheme to signalise the junction will be conditioned. The additional modelling work will also allow the net benefits to overall operation of the junction to be more clearly demonstrated.

8.9 The Framework Travel Plan includes a number of measures that are aimed at specifically minimising any increase in traffic through the village, and where possible, also seeking a modal shift in existing journeys to reduce the base traffic flows, in order to mitigate the impact of the development at the double mini-roundabouts in

Willington. The proposed bus service providing direct access to the site from Swadlincote, offers a wider improvement to public transport in the area particularly for rural villages to the south of the site, and so has good potential to reduce the existing traffic travelling through Willington. Extending the route to serve other large local employment sites will increase potential patronage and viability, and further reduce existing car journeys through the double-mini roundabouts Willington. The Framework Travel Plan also includes proposals for a site-specific car share scheme, which has high potential to manage the level of commuter traffic associated with the development proposals, and measures to encourage visitors and staff to access the site via the A50/A38 junction.

8.10 An assessment to determine the expected queues and the impact of the development traffic at the level crossing has been completed and concludes that the impact of the development traffic would have minimal impact on the queuing at the level crossing based on the existing barrier system, with just 0-3 additional vehicles expected. The impact will increase if the proposed new barriers system is installed, but this will generally increase the level of queuing, and the proposal would need to be fully assessed before it was approved and introduced.

8.11 The PIA records for the latest available 5-year period show that a total of 92 PIAs have been recorded within the search area. Whilst there is a high total number of incidents recorded, it is a large study area and involves some sections of the highway network with very high flows. Fortunately, none of these were fatalities, and over 92% only resulted in slight injuries. Most of the broad locations identified only had 1-5 incidents over the 5 years, with only very few experiencing more than an average of 2 per year. These were in the vicinity of the Egginton junction with the A38, and the approach to the A50/A38 roundabout from the A50 eastbound and the Toyota site (combined), and so do not represent single locations. In both cases, there is minimal impact in terms of proposed development traffic.

8.12 The PIA records indicate that there are no road safety issues within the vicinity of the proposed site access on Etwall Road.

8.13 The proposed development is not considered likely to have any significant effect or ‘severe’ impact on the local highway network in terms of road safety. The proposed

development will provide suitable links to for pedestrians, cyclists and public transport users whilst at the same time providing safe vehicular access to the local and strategic highway network. Standalone mitigation measures to enhance road safety are not therefore considered to be warranted as part of the development proposals.

8.14 In light of the above assessment, and subject to the proposed mitigation scheme at the A50/A38 junction and Travel Plan measures, the development proposals are considered to be acceptable in highway terms.

Appendix A

Masterplan

Notes:

To be read in conjunction with relevant consultants drawings.

Revision:

A CD 09/03/2018
Masterplan Updated.
B TH 03/05/2018
Masterplan Updated to BWB final comments.
D CD 12/06/2018
Masterplan Updated.
E CD 02/07/2018
Masterplan Updated.
F CD 06/07/2018
Swales and Bunds Updated.
G CD 01/08/2018
Landscaping Updated.
H CD 01/08/2018
Landscaping Updated.

UNIT 1:		
Warehouse	55,140 sqft	5122.7sqm
Office [2 Storey]	4,320 sqft	401.3 sqm
Total	59,460 sqft	5524.0 sqm
NDA		3.7 acres
UNIT 2:		
Warehouse	195,850 sqft	18195.1 sqm
Office [2 Storey]	9,500 sqft	882.5 sqm
Total	205,350 sqft	19077.6 sqm
NDA		8.3 acres
UNIT 3:		
Warehouse	134,800 sqft	12523.3 sqm
Office [2 Storey]	9,000 sqft	836.1 sqm
Total	143,800 sqft	13359.4 sqm
NDA		6.3 acres
UNIT 4:		
Warehouse	245,125 sqft	22772.8 sqm
Office [2 Storey]	10,450 sqft	970.9 sqm
Total	255,575 sqft	23743.7 sqm
NDA		11.2 acres
UNIT 5:		
Warehouse	17,653 sqft	1640.0 sqm
Office [1 Storey]	1,622 sqft	150.7 sqm
Total	19,275 sqft	1790.7 sqm
NDA		1.2 acres
UNIT 6:		
Warehouse	14,394 sqft	1337.2 sqm
Office [1 Storey]	1,640 sqft	152.4 sqm
Total	16,034 sqft	1489.6 sqm
NDA		1.1 acres
UNIT 7:		
Warehouse	22,370 sqft	2078.2 sqm
Office [1 Storey]	1,410 sqft	131.0 sqm
Total	23,780 sqft	2209.2 sqm
NDA		1.4 acres
UNIT 8:		
Warehouse	16,079 sqft	1493.8 sqm
Office [1 Storey]	1,410 sqft	131.0 sqm
Total	17,489 sqft	1624.8 sqm
NDA		1.2 acres
UNIT 9:		
Warehouse	70,551 sqft	6554.4 sqm
Office [2 Storey]	4,086 sqft	379.6 sqm
Total	74,637 sqft	6934.0 sqm
NDA		3.5 acres
UNIT 10:		
Warehouse	63,287 sqft	5879.5 sqm
Office [2 Storey]	5,260 sqft	488.7 sqm
Total	68,547 sqft	6368.2 sqm
NDA		3.4 acres
UNIT 11:		
Warehouse	67,581 sqft	6278.5 sqm
Office [2 Storey]	5,616 sqft	521.7 sqm
Total	73,197 sqft	6800.2 sqm
NDA		3.3 acres
Total GIA:	957,144 sqft	88921.4 sqm
Gross Site Plan:		77.9 acres
Net Developable Total Areas:		44.6 acres

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Masterplan

Drawing status:	Indicative
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Project no:	Dwg no:	Rev:
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Appendix B

Scoping Correspondence

Proposed Industrial Development
Burnaston Cross, nr Willington, Derbyshire
Transport Assessment & Travel Plan Scoping Note

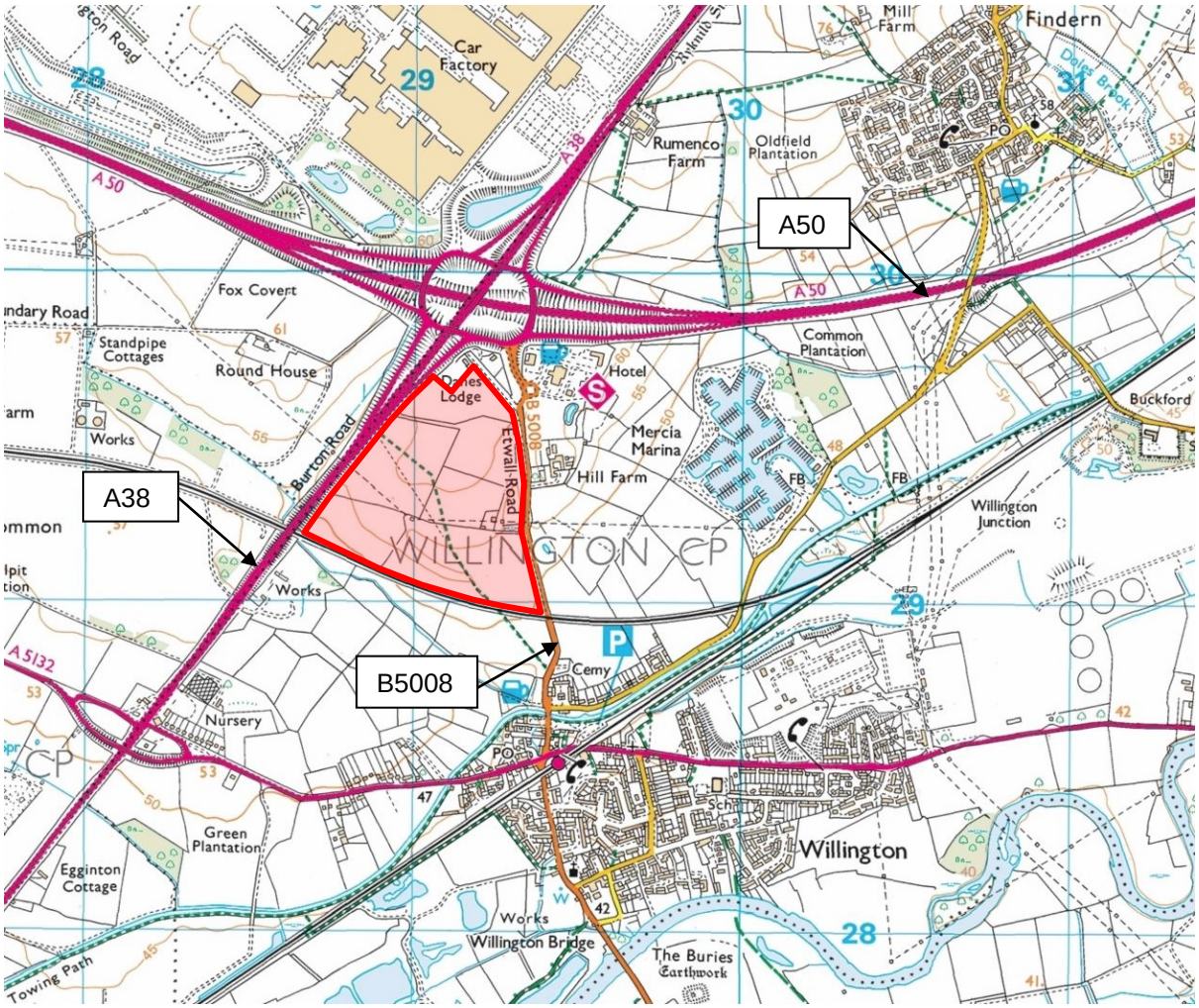
BSP Consulting have been instructed to prepare a Transport Assessment (TA) and Framework Travel Plan (FTP) to accompany a planning application for development proposals at Burnaston Cross nr Willington in South Derbyshire.

This scoping note has been prepared to agree the scope of work to be included within the TA and FTP, avoid potentially abortive work and address any specific highways and transportation concerns raised by the relevant highway authorities. The following sets out the background, development proposals and the proposed scope of work for comment and approval by Derbyshire County Council (DCC) and Highways England (HE). A scoping meeting is suggested ahead of a written response.

Site Location

The development site is situated just south of junction 4 of the A50 where it meets the A38, known as Toyota Island. The Toyota factory is on the opposite side of the A50. The site is approximately 500m north of the village of Willington. It is a greenfield site, bounded by an access road to Danes Lodge, which is to be retained, to the north, a railway line to the south, the B5008 to the east and the A38 to the west. The approximate site area and location is shown on **Figure 1**.

Figure 1: Site Location



There is the existing industrial site owned by Toyota to the north of the A50, and a road side services to the east of the site. The other surroundings are rural and agricultural. There is an existing public right of way which goes through the site.

Planning History

An industrial scheme proposed by others was previously refused planning permission, not on highways grounds, but on visual/landscape impact grounds, which will be addressed as part of this application.

As part of this prevision proposal, a site access in the form of a new roundabout on the B5008 was agreed in principle with DCC, and minimal off-site mitigation measures were agreed with the Highway Agency (now HE).

Committed Developments / Highway Improvement Schemes

It is understood that there are several committed developments in the vicinity, and that some have planning conditions/obligations in relation to providing a scheme to partially signalise the A38/A50 junction.

HE has a proposed A38 grade separation scheme to upgrade 3 junctions in Derby, to the north of the A50. The recent preferred route announcement has programmed these new junctions to be open for traffic in 2024.

Development Proposals

The total site area is 78 acres gross with 57.5 acres net developable area, proposed for a mixture of B1/B2/B8 uses. The current draft Masterplan shows a total floor area of 81,065sqm (GIA) of Warehousing with ancillary Offices. See SPG Drawing 16-078 MP02 enclosed.

	Warehouse (sqm)	Office (sqm)	Total
Unit 1	4,394	400	**4,794**
Unit 2	9,205	786	**9,991**
Unit 3	12,148	932	**13,080**
Unit 4	11,348	824	**12,172**
Unit 5	7,803	718	**8,521**
Unit 6	7,803	718	**8,521**
Unit 7	7,805	718	**8,523**
Unit 8	7,805	718	**8,523**
Unit 9	6,324	616	**6,940**
Total	**74,635**	**6,430**	**81,065**

In order to quantify the trips associated with this type and scale of development, trip rates have been obtained from the TRICS data for “Employment: Industrial Estate” and “Employment: Warehousing (Commercial)”. The TRICS land use definitions, suggests that these should be used based on the predominant use of the site. However, the latter use tends to have significantly lower trips rates. Should all or a proportion of the site be specifically for B8 “Warehousing/Distribution” (except for ancillary B1 office use) with this to be controlled through the planning permission or conditions, it would be appropriate to apply the alternative trip rate for that element of the scheme. These initial calculations therefore provide a robust figure and a minimum figure, for the purposes of considering the scope of work for the Transport Assessment and Travel Plan.

The TRICS rates below have been obtained by filtering the sites by the following parameters:

Industrial Estate	**Warehousing**
Located in England, excluding Greater London	Located in England, excluding Greater London
Free-standing or Edge of Town Locations	Free-standing or Edge of Town Locations
Those in Residential Zones excluded	Were all in Industrial or Commercial Zones
Only sites with over 10,000sqm GIA	Smaller sites included as very few sites

TRICS Trip Rates/Generation: Industrial Estate

Industrial Estate	**AM Peak 07:30-08:30**		**PM Peak 16:30-17:30**	
	In	**Out**	**In**	**Out**
Trip Rate (per 100sqm GIA)	0.369	0.116	0.159	0.285
Trip Generation (81,065sqm)	299	94	129	231

TRICS Trip Rates/Generation: Warehousing

Warehousing	**AM Peak 08:00-09:00**		**PM Peak 16:30-17:30**	
	In	**Out**	**In**	**Out**
Trip Rate (per 100sqm GIA)	0.115	0.048	0.019	0.078
Trip Generation (81,065sqm)	93	39	15	63

Transport Assessment

The following list sets out the proposed content for the Transport Assessment and methodology points to be agreed with the highway authorities.

1) A description of the site – location, existing use and surrounding area

2) Analysis of the sustainability of the site, in terms of local pedestrian, cycle and public transport facilities, and the proximity to local amenities, with reference to the Framework Travel Plan.

3) Details of the proposed development, including access arrangements by all modes of transport, site layout and development schedule.

   Please provide comments/approval in principle of the proposed site access arrangements, which are indicated on DTA Drawing 8181-02 enclosed, and the following design points (geometries taken from capacity assessment in the previous supporting TA):

   - Willington Road (B5008) currently has a speed limit of 40mph
   - Proposed 40m ICD roundabout with two lane entry widths
   - 7m wide site access road

4) Traffic impact assessment:

   It is anticipated that we would need to test the impact of the development traffic in the application year (2018) and/or opening year (2019), and also the application year plus 10-years (2028) or the end of Local Plan period (also 2028).

   We will need to agree the following with DCC and HE:

- Study area
- Traffic survey data collection
- Committed developments
- Trip Generation – method to be agreed, e.g. TRICS or strategic model
- Trip Distribution – method to be agreed, e.g. Census Data or strategic model

The methodologies agreed in relation to the above points will establish how we determine the detailed capacity assessment work required.

5) A highway safety assessment will determine the likely safety impact of the development proposals on the basis of the anticipated changes in traffic movements resulting from the development of the site. DCC & HE to advise on the study area for the accident data search.

6) The TA will be concluded with an overview of the anticipated impact of the proposed redevelopment on the highway network, summarising any proposed mitigation measures, if considered necessary.

Framework Travel Plan

It is anticipated that a Framework Travel Plan will be required to accompany the planning application. It is proposed that the report would establish the following:

- The objectives of the Framework Travel Plan
- Establish how individual Travel Plans will be developed, implemented and managed by each occupier
- Description of site location, proposed development and access arrangements
- Appraisal of existing travel options available (including public transport, cycling and walking facilities)
- Details of the anticipated travel patterns for the site based on TA information, and survey methods to establish actual travel patterns on occupation of the site
- Establish suitable targets
- Set out specific measures, which endeavour to achieve the targets and objectives
- Establish schedule and methods for monitoring and reviewing the Travel Plans for individual occupiers [e.g. on occupation (year 1), and then in year 3 and year 5]
- Timetabled action plan

Actions

It is requested that Derbyshire County Council (DCC) and Highways England (HE) review the above information and proposals. A scoping meeting is suggested to discuss the above points and agree the methodologies to be used.

Joanna Posnett
Principal Transport Planner
05.03.18

Enc. SGP Drawing 16-078 MP02
DTA Drawing 8181-02
TRICS Data: Industrial Estate
TRICS Data: Warehousing

Proposed Industrial Development
Burnaston Cross, nr Willington, Derbyshire
Scoping Note 02 - Trip Generation & Distribution

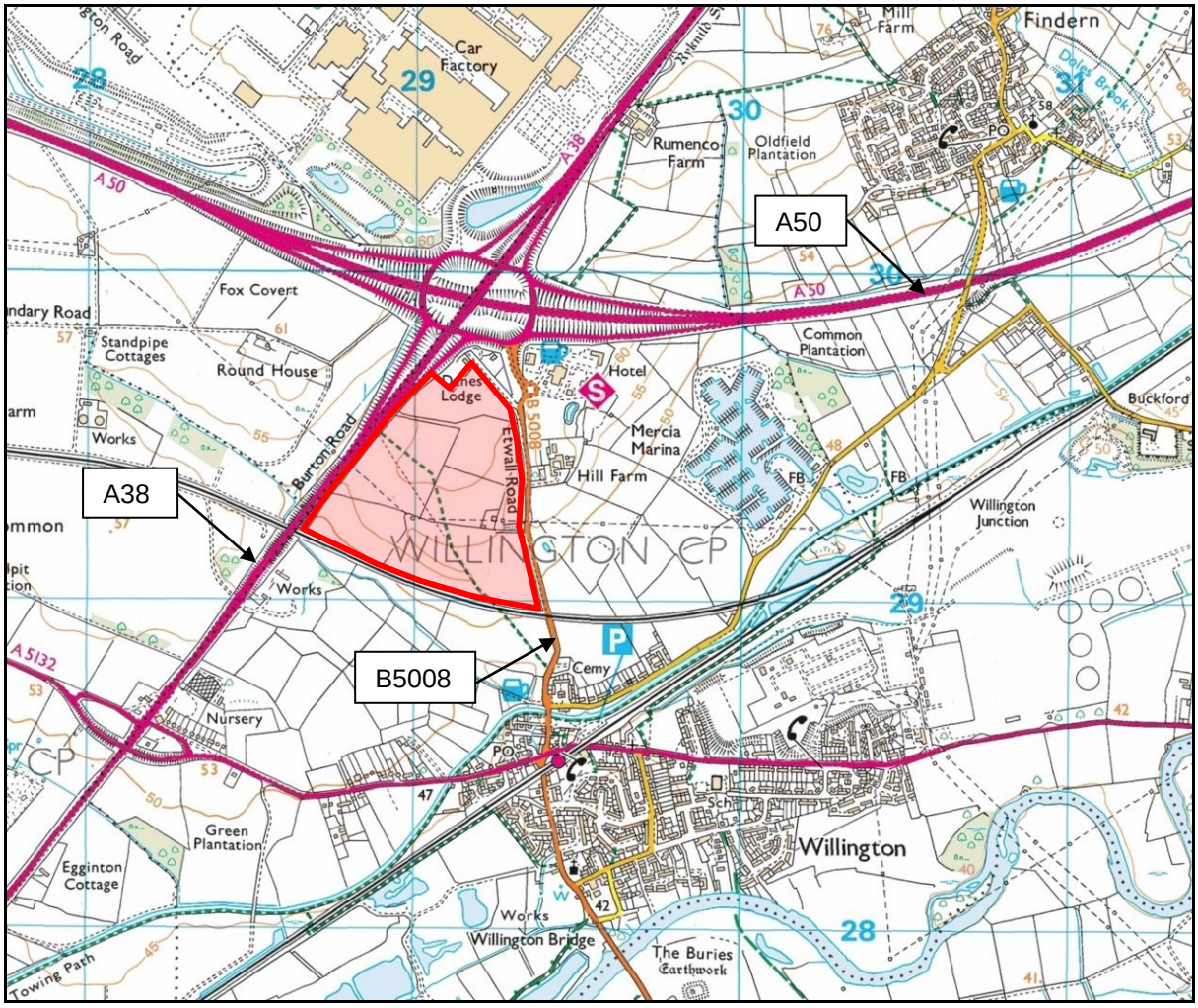
BSP Consulting have been instructed to prepare a Transport Assessment (TA) and Framework Travel Plan (FTP) to accompany a planning application for development proposals at Burnaston Cross nr Willington in South Derbyshire.

This Trip Generation and Distribution Note has been produced to provide additional information relating to the proposed development and potential off-site impacts following submission of the original Scoping Note to Highways England (HE) and Derbyshire County Council (DCC) dated 5th March 2018.

Site Location

The development site is situated just south of junction 4 of the A50 where it meets the A38, known as Toyota Island. The Toyota factory is on the opposite side of the A50. The site is approximately 500m north of the village of Willington. It is a greenfield site, bounded by an access road to Danes Lodge, which is to be retained, to the north, a railway line to the south, the B5008 to the east and the A38 to the west. The approximate site area and location is shown on Figure 1.

Figure 1: Site Location



Development Proposals

The development proposals will provide a total floor area of 81,065m^2. Since the original scoping note, it has been confirmed that the proposed floor area will be split between employment land uses, with a predominance for B8 warehousing. The applicant is willing to accept a condition to ensure that at least 75% of the area (60,799m^2) is allocated for B8 Warehousing and Distribution uses with up to 25% of the area (20,266m^2) allocated for B1c/B2 Industrial uses. The proposed site will be accessed from a new roundabout on the B5008. An illustrative masterplan is included as **Appendix A**.

Trip Generation

Trip rates have been calculated based on surveys at similar sites contained within the TRICS database. These have been updated from the original Scoping Note now that the development schedule has been confirmed and the TRICS database has been updated. Trip rates for the proposed B1c/B2 floor space has been calculated using survey information from 'Industrial Units' contained within TRICS whilst survey information from 'Warehousing (Commercial)' sites has been used to calculate trip rates for the proposed B8 land uses.

The sites selected to provide representative trip rates have been filtered using the following parameters:

- Sites at which vehicular surveys have been undertaken.
- Sites in England (excluding Greater London).
- Sites with surveys dated 2010 or later
- Sites categorised as being within 'Edge of Town' or 'Free Standing' locations

The TRICS output data is included within **Appendix B**, whilst **Table 1** provides a summary of the resulting average vehicular trip rates and generation resulting from the proposed development for the AM and PM peak hours. **Table 2** also shows the average trip rates and generation for OGVs.

Table 1: Proposed Vehicular Trip Rates & Generation

Land Use	Peak Hr	Trip Rates (per 100m^2)		Trip Generation	
		In	Out	In	Out
Industrial Units (20,266m^2)	AM (0800-0900)	0.502	0.062	102	13
	PM (1700-1800)	0.037	0.454	7	92
Warehousing (60,799m^2)	AM (0800-0900)	0.126	0.058	77	35
	PM (1700-1800)	0.022	0.080	13	49
Total (81,065m^2)	AM (0800-0900)	-	-	178	48
	PM (1700-1800)	-	-	21	141

The proposals are therefore forecast to generate a total of 226 vehicular trips in the AM peak hour and 162 vehicular trips in the PM peak hour.

Table 2: Proposed OGV Trip Rates & Generation

Land Use	Peak Hr	Trip Rates (per 100m^2)		Trip Generation	
		In	Out	In	Out
Industrial Units (20,266m^2)	AM (0800-0900)	0.019	0.013	4	3
	PM (1700-1800)	0.003	0.002	1	0
Warehousing (60,799m^2)	AM (0800-0900)	0.126	0.058	18	13
	PM (1700-1800)	0.022	0.080	6	13
Total (81,065m^2)	AM (0800-0900)	-	-	22	16
	PM (1700-1800)	-	-	7	13

Of the total forecast vehicular trips, 38 are expected to be OGVs in the AM peak hour and 20 in the PM peak hour. These would be converted to PCUs by applying a factor of 2 for the capacity assessment work.

Distribution & Assignment

The vehicular trips generated by the proposed development have been distributed on the local highway network in accordance with existing origin-destination travel to work information for car drivers from the 2011 Census for the Middle Layer Super Output Area (MLSOA) 'South Derbyshire 003', which contains the proposed development site. The distribution model is included as **Appendix C**.

The resulting assignment of vehicular trips generated by the proposed development during the peak hours is summarised within **Table 3**.

Table 3: Vehicular Trip Distribution & Assignment

Route		%	AM Peak		PM Peak	
Code	Description		In	Out	In	Out
A	A38 (north)	26.3%	47	13	5	37
B	A50 (east)	19.9%	35	10	4	28
C	Findern Lane/Willington Road	5.9%	11	3	1	8
D	A5132 Twyford Road (east)	10.5%	19	5	2	15
E	Repton Road	10.5%	19	5	2	15
F	A5132 The Castle Way (west)	5.9%	11	3	1	8
G	A38 (south)	14.8%	26	7	3	21
H	A50 (west)	6.2%	11	3	1	9
Total		100.0%	178	48	21	141

Note: Some rounding errors may occur

The resulting number of trips through each of the junctions situated within the area is summarised within **Table 4**.

Table 4: Proposed Vehicular Trip Assignment by Junction

Junction	AM Peak		PM Peak		% of Trips
	In	Out	In	Out	
Site Access / B5008	178	48	21	141	100.0%
B5008 / Access to Roadside Services	120	32	14	95	67.2%
A50 / A38	120	32	14	95	67.2%
B5008 / Findern Lane	59	16	7	46	32.8%
B5008 / A5132	48	13	6	38	26.9%

Capacity Assessments

The summary provided by **Table 4** indicates that the proposed development is anticipated to result in increases of over 50 trips at each of the junctions listed within **Table 4**. We therefore propose to include detailed junction capacity assessments at each of the locations as part of the forthcoming Transport Assessment.

The application year will be 2018. The estimated opening year for first occupations has been reviewed and confirmed to be 2020. Therefore, it is considered appropriate to test 2020 (opening year) and 2028 (which is both the application year plus 10-years and the end of Local Plan period) as the assessment years in accordance with DfT Circular 02/2013.

Actions

Following review of this note would you please confirm if the trip generation, assignment and proposed extent of the junction capacity assessments are considered acceptable to the authority.

Martin Murphy
Senior Transport Planner
03.04.18

Appendix A – Illustrative Masterplan
Appendix B – TRICS Output
Appendix C – Trip Distribution Model

Proposed Industrial Development
Burnaston Cross, nr Willington, Derbyshire
Scoping Note 03 - Traffic Growth & Committed Developments

BSP Consulting have been instructed to prepare a Transport Assessment (TA) and Framework Travel Plan (FTP) to accompany a planning application for development proposals at Burnaston Cross nr Willington in South Derbyshire.

This Scoping Note (03) has been produced to provide additional detail relating to the traffic growth and committed development assumptions that are proposed be included within the forthcoming TA. This note follows the submission on Scoping Note 01 and 02 and subsequent correspondence with Highways England (HE) and Derbyshire County Council (DCC) with regards to the scope of the TA.

Background Flows

Manual traffic surveys are due to be undertaken in May 2018 at each of the following junctions on the local highway network and the strategic road network surrounding the site:

- A50 / A38 (grade separated)
- B5008 / Services Access (roundabout)
- B5008 / Findern Lane (signals)
- A5132 / B5008 / Repton Road (double mini-roundabout)
- A5132 / A38 southbound link (priority junction - included for environmental assessment work)
- A5132 / A38 northbound link (priority junction - included for environmental assessment work)

To take into account background growth between 2018, 2020 (opening year) and 2028 (10-year post application) TEMPRO localised NTM factors will be applied to the surveyed flows. The growth factors have been obtained from the TEMPRO database and use information from the weekday morning and evening peak periods within the South Derbyshire authority area. The localised TEMPRO/NTM factors for all roads within the area are displayed as follows.

2018 to 2020 (AM Peak) = 1.0367

2018 to 2020 (PM Peak) = 1.0382

2018 to 2028 (AM Peak) = 1.1671

2018 to 2028 (PM Peak) = 1.1720

The TEMPRO planning assumptions take into account increases to the number of households within the South Derbyshire authority area of 1,693 by 2020 and 6,475 by 2028, together with increases to the number of jobs in the area of 118 by 2020 and 947 by 2028.

Traffic data for the A50 and A38 will also be obtained from HE's webTRIS website. Should suitable data not yet be available for a neutral day in 2018, data from a neutral day in 2017 will be used. Then, using the same method as above, localised TEMPRO/NTM growth factors will be obtained and applied to calculate 2020 and 2028 base flows.

Committed Developments

Whilst the TEMPRO growth will take into account a significant proportion of new trips generated by new development within the local area, to ensure a robust basis for the assessment, traffic generated by the following committed development schemes will also be included:

- Highfields Farm (App. Ref: 9/2006/0775) – 1,200 dwellings, primary school & local centre. The scheme is partially completed. It will be assumed that 50% of the scheme is still to be developed and occupied.
- Chellaston Fields (App. Ref: 9/2012/0568) – 450 dwellings, small supermarket & local centre. The scheme is partially completed. It will be assumed that 50% of the scheme is still to be developed and occupied.
- Holmleigh Way, Chellaston (App. Ref: 9/2013/0663) – 157 dwellings. Approved and yet to be developed.
- The Mease, Hilton (App. Ref: 9/2013/1044) – 485 dwellings, employment uses, primary school & local centre. The scheme is partially completed. It will be assumed that 50% of the scheme is still to be developed and occupied.
- New House Farm, Phase 1 (App. Ref: 9/2014/1136) – 300 dwellings. Approved and yet to be developed.
- Boulton Moor (App Ref: 9/2016/0166) – 600 dwellings & primary school. Planning decision pending.
- New House Farm, Phase 2 (App. Ref: 9/2017/0349) – 1,100 dwellings, care home & local centre. Approved and yet to be developed.
- Deep Dale Lane (App. Ref: 9/2017/0922) – 100 dwellings. Planning decision pending.
- Egginton Road, Etwall (App. Ref: 9/2017/1191) – 50 dwellings. Planning decision pending.

These combined commitments equate to an additional 3,375 dwellings in local area, together with a number of employment opportunities.

The TAs produced for each of these development proposals will be reviewed and flows attributed to our study area network (junctions bulleted on the previous page) where the flows are forecast to route via the network. In instances where the TAs have not extended as far as our study area network we will make assumptions based on likely movements / existing patterns of movements through the network.

Actions

Following review of this note would you please confirm if you are content with the proposed traffic growth factors and committed development assumptions. If there are any further commitments that you require us to take account of, please provide details and planning application reference numbers accordingly. Similarly, please confirm if there are any committed developments listed above which you do not consider should be included.

Martin Murphy
Senior Transport Planner
25.04.18

Joanna Posnett

From: Joanna Posnett <J.Posnett@bsp-consulting.co.uk>
Sent: 05 June 2018 08:37
To: Gibbard, Andrew
Subject: RE: Burnaston Cross, South Derbyshire nr A50/A38
Attachments: 18-0054 Scoping Note - Burnaston Cross 05.03.18.pdf; 18-0054 Scoping Note - Burnaston Cross 03.04.18.pdf

Hi Andy

SDDC have noted that comments have not been received by Derby City Council in relation to proposals that I mentioned to you below. We had not previously consulted you in detail with regards to scoping the TA, based on the low level of anticipated impact on the local road network within the city.

For further information, please see attached our scoping notes confirming the scale of the proposals (SN02 has the most accurate figures), the distribution of this traffic and the study area that has been agreed with Derbyshire County Council and HE.

We trust Derby City Council Highways would not require anything further from the TA, but please contact me urgently if you have any comments that we should take into account.

For your further information, we have also agreed to include various local committed developments in our TA, and these include some key developments close to or on both sides of the City/County boundary e.g. Highfields Farm, Land west of Mickleover, and Boulton Moor.

Kind regards

Joanna Posnett BA(Hons) MCIHT
Principal Transport Planner

On Behalf Of
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Tel: 0116 204 7766
Extension No: 205

email: j.posnett@bsp-consulting.co.uk
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From: Joanna Posnett <J.Posnett@bsp-consulting.co.uk>
Sent: 20 April 2018 11:34
To: Gibbard, Andrew <Andrew.Gibbard@derby.gov.uk>
Subject: RE: GDTM Flows, South Derbyshire

Ok Andy

Thank you for the confirmation.

Kind regards

Joanna Posnett BA(Hons) MCIHT
Principal Transport Planner

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email: j.posnett@bsp-consulting.co.uk
web: www.bsp-consulting.co.uk

From: Gibbard, Andrew <Andrew.Gibbard@derby.gov.uk>
Sent: 20 April 2018 10:08
To: Joanna Posnett <j.posnett@bsp-consulting.co.uk>
Subject: RE: GDTM Flows, South Derbyshire

Joanna,

My advice would be to undertake a manual assessment using traffic counts. The model outside of Derby becomes more generalised in terms of the infrastructure and zone system. As such, the loading of traffic can be spatially broad and doesn't necessarily load at the right point to local junctions.

Strategic models shouldn't really be used to provide traffic flows at local junctions, unless they have been specifically validated. Really we use DATM to understand the wider impacts of large developments, where there are competing route choices, and the impacts are spatially beyond what can be reasonably calculated using a manual assignment method.

Regards

Andy

Andrew Gibbard | Acting Group Manager | Traffic and Transportation | Communities and Place Directorate | The Council House, Corporation Street, Derby DE1 2FS. | Telephone 01332 641756 | Minicom 01332 640666 | www.derby.gov.uk

---

From: Joanna Posnett [mailto:J.Posnett@bsp-consulting.co.uk]
Sent: 18 April 2018 12:08
To: Gibbard, Andrew; Simpson, Laura (Transportation)
Subject: RE: GDTM Flows, South Derbyshire

Hi Andy/Laura

Just wondering if you have had chance to look into this? Could you provide an idea of timescales for providing the data too please? We need to organise traffic counts for any junctions not covered as soon as possible, so hope to hear from you soon. Let me know if you have any queries.

Kind regards

Joanna Posnett BA(Hons) MCIHT
Principal Transport Planner

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email: j.posnett@bsp-consulting.co.uk
web: www.bsp-consulting.co.uk

From: Joanna Posnett
Sent: 13 April 2018 16:57
To: Gibbard, Andrew <Andrew.Gibbard@derby.gov.uk>; Laura.Simpson@derby.gov.uk
Subject: GDTM Flows, South Derbyshire

Hi Andy/Laura

I understand that any request for data from GDTM need to be via Derby City Council. We are looking at a proposed development site south of the A50/A38(Toyota Island) junction and would be interested in purchasing data for two assessment years, with committed developments/highway schemes included.

We would assume that the latest work that our client commissioned for Radbourne Lane would have the necessary committed developments included in 2023 and 2030, and we would be able to be flexible enough to use same assessment years. We do not think there have been any significant changes in committed developments.

We would not be looking to re-run the model to test the impact of our development traffic as it would be relatively low, but just obtain assessment year flows for our study area junctions which were already included in the model.

These are:

- A50 / A38 (Toyota Island)
- B5008 / Access to Roadside Services (Willingham)
- B5008 / Findern Lane, Willingham
- B5008 / A5132, Willingham

We appreciate that some junctions may be too remote from Derby to have been included in the model. Please can you confirm and let us know the cost of obtaining the turning flows for any junctions that would be available.

Look forward to hearing from you.

Kind regards

Joanna Posnett BA(Hons) MCIHT
Principal Transport Planner

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Where design information is issued in CAD format it is only the information which is displayed in the paper-space which is to be used, furthermore should any discrepancies be present between the CAD and the pdf drawings issued the contents of the pdf are to take precedence. Finally we note that, whilst we endeavour to coordinate all our drawings, we are not responsible for the setting out of the private works.

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Joanna Posnett

From: Geoff Blissett (Economy Transport and Environment) <Geoff.Blissett@derbyshire.gov.uk>
Sent: 23 April 2018 10:13
To: Joanna Posnett
Cc: Sue Highley (Economy Transport and Environment)
Subject: RE: Burnaston Cross - Industrial Development

Hi Jo,

I tried to contact you earlier but you were away.

As you will appreciate, most of the potential impact falls upon the SRN however I understand that there has been substantive dialogue between yourselves and Highways England (HE) about this and that It would seem that HE are broadly happy with the scoping of the Transportation Assessment. I assume that the capacity assessment VISSIM? will include the MSA access.

I not that you are seeking advice about the access. I have forwarded your request onto my college Sue Highly, Area Development Control Engineer. Doubtless Sue will be in touch in due course as regards accident data. Accident data can be provided by Derbyshire Constabulary. Contact Alison Morse 0300 122 8743 or 122 5043.

I trust In the meantime that you find these observations helpful.

Regards,

Geoff Blissett

Development Control, Transportation Assessment & Studies Officer

01629 538646

(Int 38646)

Economy, Transport and Environment, Derbyshire County Council
County Hall, Matlock, Derbyshire, DE4 3AG.

Highway Development Advice is offered in good faith, but is an informal opinion only, given on a without prejudice basis and does not commit the County Council, (Highway Authority) to any action, recommendation, or decision. Advice may be subject to further review at a later date.

From: Joanna Posnett [mailto:J.Posnett@bsp-consulting.co.uk]
Sent: 20 April 2018 12:46
To: Geoff Blissett (Economy Transport and Environment) <Geoff.Blissett@derbyshire.gov.uk>
Subject: RE: Burnaston Cross - Industrial Development

Hi Geoff

I just left you a voice message. Derby City Council have just confirmed that they do not consider the GDTM to be suitable to provide any traffic flows for this purpose, so we are going to be complete traffic surveys at each of the study area junctions a.s.a.p. and so need to confirm if you have any additional requirements. We will also need to agree the list of committed developments with yourself and HE. Hopefully speak to you soon.

Kind regards

Joanna Posnett BA(Hons) MCIHT
Principal Transport Planner

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email: j.posnett@bsp-consulting.co.uk
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From: Joanna Posnett
Sent: 19 April 2018 14:13
To: Geoff Blissett (Economy Transport and Environment) <Geoff.Blissett@derbyshire.gov.uk>
Cc: James Houghton <James.Houghton@brackley-propdev.co.uk>
Subject: FW: Burnaston Cross - Industrial Development

Hi Geoff

We have received the response below from HE, and therefore are now in a position to require confirmation from yourselves that you are content with the proposed scope of work and scoping advise from HE to satisfy Derbyshire CC as the local highway authority. I have re-attached our Scoping Note 01 (05.03.18) and Scoping Note 02 (03.04.18) for information.

As previously requested, we also could do with feedback from you regarding the proposed site access arrangements (Drawing also attached).

We are chasing Derby City Council for confirmation of the extent of the GDTM and if we can purchase future year 'with committed developments' flows for all of the study area junctions or if we need to organise any additional traffic surveys, etc. Please advise Derbyshire CC require us to obtain any base traffic data (flows/speeds) to inform the TA. I presume we still need to contact Derbyshire Police Authority for the accident data?

I am working remotely today, but will be in the office all day tomorrow if you prefer to have a chat.

Kind regards
Joanna Posnett BA(Hons) MCIHT
Principal Transport Planner

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email: j.posnett@bsp-consulting.co.uk
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From: Freek, Steve <Steve.Freek@highwaysengland.co.uk>
Sent: 19 April 2018 08:35
To: Joanna Posnett <j.posnett@bsp-consulting.co.uk>
Cc: HE instructions <Midlandsspa.europe@aecom.com>; Law, Daniel <Daniel.Law@aecom.com>
Subject: Burnaston Cross - Industrial Development

Hi Jo,

We (Highways England) have reviewed your revised scoping note for the proposed Industrial Development known as Burnaston Cross, located to the south east of the A38/A50 Burnaston Interchange (Toyota Island) near Willington, south of Derby. Based on the information provided in the revised note and your email dated 17th March, we would comment as follows:

Firstly, to address the queries in your email of 17th March:

- I can confirm Highways England are content with the GDTM being used to obtain base flows, with the agreed development traffic generation added on using either:
  - an agreed Census Data based distribution; or
  - GDTM to assign the development traffic.
- Your proposal to obtain the 2023 and 2030 GDTM flows for the study area junctions and then use localised TEMPRO/NTM growth factors to reduce the flows to the actual assessment years (2020 and 2028) is acceptable.

Referring to the 'other' queries listed in your email:

- Regarding the likely timescales for the delivery of the mitigation works proposed by the applicant at Rykneld Road, Highways Agency responded to application DER/01/11/00023 in 2012 recommending that the scheme be delivered prior to occupation of 500 dwellings. This application has not yet been granted permission and there is therefore no certainty that this will be delivered in the short term. Scheme drawing *MHA/001/106-P* proposing to signalise the A50 west and A38 north off-slips is attached.
- The VISSIM base model is representative of the current A38/A50 junction layout only.
- A third party consultant will need to be commissioned to carry out the highway impact assessment work. Highways England and our consultants will review and provide feedback and guidance, but cannot carry out the work on the applicant's behalf.
- A LinSig assessment would not be considered suitable for assessing the existing A50/A38 junction as this operates under priority control. The reference case scenario (without development traffic and without any mitigation) should be compared to a development case scenario (with development traffic (and with mitigation if necessary)) such that implications of the development traffic on the junction's operation can be determined.

Following review of the scoping note submitted in your email of 3rd April, please find our comments below:

Development Proposal
We note that the development uses have been detailed further, from the previously proposed B1/B2/B8 uses resulting in a total floor area of 81,065sqm, with 75% of the area (60,799sqm) allocated to B8 warehousing & distribution and the remaining 25% (20,266sqm) allocated to B1c/B2 industrial uses. This level of detail is welcomed and allows a more accurate estimate of likely trip generation to be determined.

Trip Generation
Trip generation figures have been revised based on the updated development uses outlined above. Based on an interrogation of the TRICS database using development types 'Warehousing

(Commercial)' and 'Industrial Unit' for the respective B8 and B1c/B2 uses, we consider the proposed generation of 227 AM and 162 PM peak hour vehicle trips reasonable.

Trip Distribution
We have reviewed the information provided in Appendix C of the scoping note which details the methodology adopted for determining the proposed developments' trip distribution, using Census Journey to Work Data. To check the suitability of the proposals we have determined the likely trip distribution using the same approach, recording the most attractive route for each journey to/from the site for each ward. Our results suggest very similar proportions and as such we are content that the proposed distribution applied to the modelling work would provide a representative assessment of network operation.

Assessment Requirements
In our previous response we stated that an opening year and 10 year assessment were required as outlined in the DfT Circular 02/2013. We recommended that a later opening year be considered as 2019 is not considered realistic due to the size of the proposal and time required for approval of planning permission. We note that the likely opening year has been reconsidered and is proposed as 2020, along with a 10 year assessment of 2028. We are content with these proposed assessment years.

We are also content with the proposed scope of junction assessments presented in Table 4, as informed by the distribution exercise.

I trust this is helpful but please get in touch if you wish to discuss any of the above matters further.

Regards

Steve Freek
Assistant Spatial Planning & Economic Development Manager
Highways England, Stirling House (Area 7) Lakeside Court, Osier Drive, Sherwood Business Park
Nottingham NG15 0DS
Tel: 0300 470 4457
Mob: 07712 543047
Email: steve.freek@highwaysengland.co.uk

From: Joanna Posnett [mailto:J.Posnett@bsp-consulting.co.uk]
Sent: 03 April 2018 18:28
To: Joanna Posnett; Freek, Steve; Geoff Blissett (Economy Transport and Environment)
Cc: Law, Daniel; James Houghton
Subject: RE: Burnaston Cross - Industrial Development

Dear All

Further to my e-mail below, please find attached our Scoping Note 02 setting out the proposed trip rates, generation, distribution and study area.

We would appreciate your comments on the attached and also the queries in the e-mail below.

Kind regards

Joanna Posnett BA(Hons) MCIHT
Principal Transport Planner

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Extension No: 205

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From: Joanna Posnett <J.Posnett@bsp-consulting.co.uk>
Sent: 27 March 2018 16:08
To: Freek, Steve <Steve.Freek@highwaysengland.co.uk>; Geoff Blissett (Economy Transport and Environment) <Geoff.Blissett@derbyshire.gov.uk>
Cc: Law, Daniel <Daniel.Law@aecom.com>; James Houghton <James.Houghton@brackley-propdev.co.uk>
Subject: RE: Burnaston Cross - Industrial Development

Hi Steve / Daniel / Geoff

Thank you for your responses. I trust you are in agreement with the written response from HE, Geoff? Let me know if you have anything further to add at this stage. Any comments on the access and study area junctions in the county?

We will provide a further scoping note with confirmed trip generation and distribution and assessment years, as soon as possible.

If we understand correctly, you would be content with us using the GDTM just to obtain base flows and then add on the agreed development traffic generation using an agreed Census Data based distribution OR to assign the development traffic. Please confirm.

We currently propose to use GDTM to obtain base flows for the closest assessment years, so that they include all committed development and infrastructure schemes. We have recently had 2023 and 2030 modelled and so would hope to be able to obtain the flows for the study area junctions. If considered acceptable, we could use localised TEMPRO/NTM growth factors to reduce the flows to the actual assessment years. We would then add on the development traffic and assess the impact with junction modelling software.

We do have a few other queries:

- Please can you provide full details of the agreed part signalisation scheme, e.g. layout and signal controller specifications?
- Please can you confirm the trigger / estimated date for these mitigation works?
- Does the VISSIM base model include the current layout AND the with part signalisation scheme scenario?
- Can our client commission assessment runs of the VISSIM model via HE/AECOM if we provide the flows?
- Would a LINSIG model be acceptable as an alternative assessment method for the A50/A38 junction?

Kind regards

Joanna Posnett BA(Hons) MCIHT
Principal Transport Planner

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web: www.bsp-consulting.co.uk

From: Freek, Steve <Steve.Freek@highwaysengland.co.uk>
Sent: 22 March 2018 11:54
To: Joanna Posnett <j.posnett@bsp-consulting.co.uk>; Geoff Blissett (Economy Transport and Environment) <Geoff.Blissett@derbyshire.gov.uk>
Cc: Law, Daniel <Daniel.Law@aecom.com>
Subject: RE: Burnaston Cross - Industrial Development

Hi Jo,

We have considered your email below and reviewed the attached Scoping Note and supporting documents, regarding the proposed Industrial Estate known as Burnaston Cross, located to the south of the A38/A50 roundabout near Willington, south of Derby. Based upon the documentation received to date HE's initial comments are as follows:

"**Background**
From a review of the submitted Scoping Note, we understand that an industrial development was previously proposed at this site and was later refused planning permission. It is stated however that this refusal was on grounds of visual intrusion/landscaping impacts and not highways related. Although no highway details were provided at the time, the then Highways Agency did express 'concerns at the potential increase in vehicular movements on Toyota'.

Regarding the current safety performance of the adjacent A38/A50 junction, the significant planned developments in the vicinity of this junction pose a concern to Highways England regarding its future operation. The applicant should note that the development proposals approximately 2 miles to the north at Rykneld Road for 800 dwellings proposes to deliver partial signalisation of the A38/A50 junction.

Site access design
We note from review of the Scoping Note that BSP request comments on the proposed site access junction. As this is situated on the B5008 (a part of the local highway network) to the south of the existing services and approximately 250m south of the A38/A50 circulatory, Highways England has no comments to make regarding this junction design.

Trip Generation & Distribution
The Scoping Note provides information regarding the likely vehicular trips generated by the proposed development, based on trip rates obtained from TRICS for the two development uses "Employment: Industrial Estate" and "Employment: Warehousing (Commercial)". It is stated that these 2 uses provide respective robust and minimum trip generation estimates. As the B1/B2/B8 proportions have not yet been specified, and having interrogated the TRICS database, the trip rates for "Employment: Industrial Estate" appear to be the most appropriate to use at present.

Trip distributions have not been provided although it is stated that this will be set out in the Transport Assessment. Regarding methodology, we understand that Census Journey to Work Data or the relevant authority's strategic model will be adopted. These are both acceptable methods ***however details should be agreed beforehand, and along with the trip generation figures this data will inform on the scope of the impact assessment work required.***

Assessment Requirements
As outlined in the DfT Circular 02/2013 an opening year and a 10 year assessment are required. The Scoping Note states that *'It is anticipated that we would need to test the impact of the development traffic in the application year (2018) and/or opening year (2019), and also the application year plus 10-years (2028) or the end of the Local Plan period (also 2028)'*. Based

upon the size of the proposed development the proposal of an opening year in 2019 does not appear to be a realistic assumption. This should be reconsidered with time taken into account for the development to be granted planning permission.

A suitable opening year should be assessed inclusive of full development, all committed development traffic and any committed schemes. The agreed opening year should be a realistic date at which the development could become first available for occupation. A junction capacity assessment 10 years post-application (or the end of the relevant Local Plan year, whichever is the greater) should also be provided, although results from this are purely informative at this time.

Traffic impact assessment requirements are further described in the Department for Transport '*Guidance on Transport Assessment (GTA)'* and in the Circular 02/2013. It is noted that this guidance has been archived, however still provides a good practice guide in preparing a Transport Assessment. In addition, the Department for Communities and Local Government (DCLG) also provide guidance on preparing Transport Assessments.

Modelling

The proposed development is located in an area where substantial work has recently been carried out using the Greater Derby Transport Model (GDTM) to develop assessment forecasts for nearby proposals, inclusive of committed developments and infrastructures schemes. We would be content with the GDTM being adopted to support the development of forecast traffic impacts from the proposed development. To assess these impacts, Highways England has a 2016 base VISSIM model of the A38/A50 junction which can be passed on to the applicant if requested.

Highways England recommends that the Transport Assessment is agreed in a staged approach, that is the overall methodology and elements such as ***assessment years, trip generation and distribution and that the scope of highway impact assessments be agreed prior to further assessment work being carried out. This approach should avoid any abortive work.***

Let me know if this is sufficient for you to continue with your assessment or alternatively if you wish to arrange a meeting to discuss any of these points further.

I trust this is helpful.

Regards

Steve Freek
Assistant Spatial Planning & Economic Development Manager
Highways England, Stirling House (Area 7) Lakeside Court, Osier Drive, Sherwood Business Park Nottingham NG15 0DS
Tel: 0300 470 4457
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Email: steve.freek@highwaysengland.co.uk

From: Joanna Posnett [mailto:J.Posnett@bsp-consulting.co.uk]
Sent: 05 March 2018 08:44
To: Freek, Steve; Geoff Blissett (Economy Transport and Environment)
Subject: Burnaston Cross - Industrial Development

Morning Steve/Geoff

We have been instructed to look at proposals for an industrial/warehousing development just south of the A50/A38 junction, and would like to arrange a scoping meeting to discuss the Transport Assessment and Travel Plan work required to accompany a planning application. Please see attached a scoping note for information. I hope you agree that a meeting with relevant highway authorities would be the best way to agree the scope of work and methodologies.

Whilst we are under pressure from our client to complete the work and so I would like to set up a meeting to discuss this with you as soon as possible, it may be useful to have a quick chat over the phone beforehand now that you have the basic information. I am out of the office today and Wednesday, but should be around for the rest of the week, and will try and give you a call. Please feel free to respond with any comments and your availability for a meeting in the meantime.

Steve – this is what I mentioned to you when we last spoke, and would appreciate input from you (if this is within your new remit) or an appropriate colleague from HE, and the relevant contact at AECOM. Let me know if I need to contact anyone else.

Kind regards

Joanna Posnett BA(Hons) MCIHT
Principal Transport Planner

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Joanna Posnett

From: Freek, Steve <Steve.Freek@highwaysengland.co.uk>
Sent: 22 March 2018 11:54
To: Joanna Posnett; Geoff Blissett (Economy Transport and Environment)
Cc: Law, Daniel
Subject: RE: Burnaston Cross - Industrial Development

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Jo,

We have considered your email below and reviewed the attached Scoping Note and supporting documents, regarding the proposed Industrial Estate known as Burnaston Cross, located to the south of the A38/A50 roundabout near Willington, south of Derby. Based upon the documentation received to date HE's initial comments are as follows:

"**Background**
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Assessment Requirements

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A suitable opening year should be assessed inclusive of full development, all committed development traffic and any committed schemes. The agreed opening year should be a realistic date at which the development could become first available for occupation. A junction capacity assessment 10 years post-application (or the end of the relevant Local Plan year, whichever is the greater) should also be provided, although results from this are purely informative at this time.

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Highways England recommends that the Transport Assessment is agreed in a staged approach, that is the overall methodology and elements such as ***assessment years, trip generation and distribution and that the scope of highway impact assessments be agreed prior to further assessment work being carried out. This approach should avoid any abortive work.***

Let me know if this is sufficient for you to continue with your assessment or alternatively if you wish to arrange a meeting to discuss any of these points further.

I trust this is helpful.

Regards

Steve Freek
Assistant Spatial Planning & Economic Development Manager
Highways England, Stirling House (Area 7) Lakeside Court, Osier Drive, Sherwood Business Park
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Sent: 05 March 2018 08:44
To: Freek, Steve; Geoff Blissett (Economy Transport and Environment)
Subject: Burnaston Cross - Industrial Development

Morning Steve/Geoff

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Steve – this is what I mentioned to you when we last spoke, and would appreciate input from you (if this is within your new remit) or an appropriate colleague from HE, and the relevant contact at AECOM. Let me know if I need to contact anyone else.

Kind regards

Joanna Posnett BA(Hons) MCIHT
Principal Transport Planner

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Joanna Posnett

From: Freek, Steve <Steve.Freek@highwaysengland.co.uk>
Sent: 19 April 2018 08:35
To: Joanna Posnett
Cc: HE instructions; Law, Daniel
Subject: Burnaston Cross - Industrial Development
Attachments: Rykneld Road highway scheme.pdf

Hi Jo,

We (Highways England) have reviewed your revised scoping note for the proposed Industrial Development known as Burnaston Cross, located to the south east of the A38/A50 Burnaston Interchange (Toyota Island) near Willington, south of Derby. Based on the information provided in the revised note and your email dated 17th March, we would comment as follows:

Firstly, to address the queries in your email of 17th March:

- I can confirm Highways England are content with the GDTM being used to obtain base flows, with the agreed development traffic generation added on using either:
    - an agreed Census Data based distribution; or
    - GDTM to assign the development traffic.
- Your proposal to obtain the 2023 and 2030 GDTM flows for the study area junctions and then use localised TEMPRO/NTM growth factors to reduce the flows to the actual assessment years (2020 and 2028) is acceptable.

Referring to the 'other' queries listed in your email:

- Regarding the likely timescales for the delivery of the mitigation works proposed by the applicant at Rykneld Road, Highways Agency responded to application DER/01/11/00023 in 2012 recommending that the scheme be delivered prior to occupation of 500 dwellings. This application has not yet been granted permission and there is therefore no certainty that this will be delivered in the short term. Scheme drawing *MHA/001/106-P* proposing to signalise the A50 west and A38 north off-slips is attached.
- The VISSIM base model is representative of the current A38/A50 junction layout only.
- A third party consultant will need to be commissioned to carry out the highway impact assessment work. Highways England and our consultants will review and provide feedback and guidance, but cannot carry out the work on the applicant's behalf.
- A LinSig assessment would not be considered suitable for assessing the existing A50/A38 junction as this operates under priority control. The reference case scenario (without development traffic and without any mitigation) should be compared to a development case scenario (with development traffic (and with mitigation if necessary)) such that implications of the development traffic on the junction's operation can be determined.

Following review of the scoping note submitted in your email of 3rd April, please find our comments below:

<u>Development Proposal</u>
We note that the development uses have been detailed further, from the previously proposed B1/B2/B8 uses resulting in a total floor area of 81,065sqm, with 75% of the area (60,799sqm) allocated to B8 warehousing & distribution and the remaining 25% (20,266sqm) allocated to

B1c/B2 industrial uses. This level of detail is welcomed and allows a more accurate estimate of likely trip generation to be determined.

Trip Generation
Trip generation figures have been revised based on the updated development uses outlined above. Based on an interrogation of the TRICS database using development types 'Warehousing (Commercial)' and 'Industrial Unit' for the respective B8 and B1c/B2 uses, we consider the proposed generation of 227 AM and 162 PM peak hour vehicle trips reasonable.

Trip Distribution
We have reviewed the information provided in Appendix C of the scoping note which details the methodology adopted for determining the proposed developments' trip distribution, using Census Journey to Work Data. To check the suitability of the proposals we have determined the likely trip distribution using the same approach, recording the most attractive route for each journey to/from the site for each ward. Our results suggest very similar proportions and as such we are content that the proposed distribution applied to the modelling work would provide a representative assessment of network operation.

Assessment Requirements
In our previous response we stated that an opening year and 10 year assessment were required as outlined in the DfT Circular 02/2013. We recommended that a later opening year be considered as 2019 is not considered realistic due to the size of the proposal and time required for approval of planning permission. We note that the likely opening year has been reconsidered and is proposed as 2020, along with a 10 year assessment of 2028. We are content with these proposed assessment years.

We are also content with the proposed scope of junction assessments presented in Table 4, as informed by the distribution exercise.

I trust this is helpful but please get in touch if you wish to discuss any of the above matters further.

Regards

Steve Freek
Assistant Spatial Planning & Economic Development Manager
Highways England, Stirling House (Area 7) Lakeside Court, Osier Drive, Sherwood Business Park Nottingham NG15 0DS
Tel: 0300 470 4457
Mob: 07712 543047
Email: steve.freek@highwaysengland.co.uk

From: Joanna Posnett [mailto:J.Posnett@bsp-consulting.co.uk]
Sent: 03 April 2018 18:28
To: Joanna Posnett; Freek, Steve; Geoff Blissett (Economy Transport and Environment)
Cc: Law, Daniel; James Houghton
Subject: RE: Burnaston Cross - Industrial Development

Dear All

Further to my e-mail below, please find attached our Scoping Note 02 setting out the proposed trip rates, generation, distribution and study area.

We would appreciate your comments on the attached and also the queries in the e-mail below.

Kind regards

Joanna Posnett BA(Hons) MCIHT
Principal Transport Planner

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From: Joanna Posnett <J.Posnett@bsp-consulting.co.uk>
Sent: 27 March 2018 16:08
To: Freek, Steve <Steve.Freek@highwaysengland.co.uk>; Geoff Blissett (Economy Transport and Environment) <Geoff.Blissett@derbyshire.gov.uk>
Cc: Law, Daniel <Daniel.Law@aecom.com>; James Houghton <James.Houghton@brackley-propdev.co.uk>
Subject: RE: Burnaston Cross - Industrial Development

Hi Steve / Daniel / Geoff

Thank you for your responses. I trust you are in agreement with the written response from HE, Geoff? Let me know if you have anything further to add at this stage. Any comments on the access and study area junctions in the county?

We will provide a further scoping note with confirmed trip generation and distribution and assessment years, as soon as possible.

If we understand correctly, you would be content with us using the GDTM just to obtain base flows and then add on the agreed development traffic generation using an agreed Census Data based distribution OR to assign the development traffic. Please confirm.

We currently propose to use GDTM to obtain base flows for the closest assessment years, so that they include all committed development and infrastructure schemes. We have recently had 2023 and 2030 modelled and so would hope to be able to obtain the flows for the study area junctions. If considered acceptable, we could use localised TEMPRO/NTM growth factors to reduce the flows to the actual assessment years. We would then add on the development traffic and assess the impact with junction modelling software.

We do have a few other queries:

- Please can you provide full details of the agreed part signalisation scheme, e.g. layout and signal controller specifications?
- Please can you confirm the trigger / estimated date for these mitigation works?
- Does the VISSIM base model include the current layout AND the with part signalisation scheme scenario?
- Can our client commission assessment runs of the VISSIM model via HE/AECOM if we provide the flows?
- Would a LINSIG model be acceptable as an alternative assessment method for the A50/A38 junction?

Kind regards

Joanna Posnett BA(Hons) MCIHT
Principal Transport Planner

On Behalf Of
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From: Freek, Steve <Steve.Freek@highwaysengland.co.uk>
Sent: 22 March 2018 11:54
To: Joanna Posnett <j.posnett@bsp-consulting.co.uk>; Geoff Blissett (Economy Transport and Environment) <Geoff.Blissett@derbyshire.gov.uk>
Cc: Law, Daniel <Daniel.Law@aecom.com>
Subject: RE: Burnaston Cross - Industrial Development

Hi Jo,

We have considered your email below and reviewed the attached Scoping Note and supporting documents, regarding the proposed Industrial Estate known as Burnaston Cross, located to the south of the A38/A50 roundabout near Willington, south of Derby. Based upon the documentation received to date HE's initial comments are as follows:

"**Background**
From a review of the submitted Scoping Note, we understand that an industrial development was previously proposed at this site and was later refused planning permission. It is stated however that this refusal was on grounds of visual intrusion/landscaping impacts and not highways related. Although no highway details were provided at the time, the then Highways Agency did express 'concerns at the potential increase in vehicular movements on Toyota'.

Regarding the current safety performance of the adjacent A38/A50 junction, the significant planned developments in the vicinity of this junction pose a concern to Highways England regarding its future operation. The applicant should note that the development proposals approximately 2 miles to the north at Rykneld Road for 800 dwellings proposes to deliver partial signalisation of the A38/A50 junction.

Site access design
We note from review of the Scoping Note that BSP request comments on the proposed site access junction. As this is situated on the B5008 (a part of the local highway network) to the south of the existing services and approximately 250m south of the A38/A50 circulatory, Highways England has no comments to make regarding this junction design.

Trip Generation & Distribution
The Scoping Note provides information regarding the likely vehicular trips generated by the proposed development, based on trip rates obtained from TRICS for the two development uses "Employment: Industrial Estate" and "Employment: Warehousing (Commercial)". It is stated that these 2 uses provide respective robust and minimum trip generation estimates. As the B1/B2/B8 proportions have not yet been specified, and having interrogated the TRICS database, the trip rates for "Employment: Industrial Estate" appear to be the most appropriate to use at present.

Trip distributions have not been provided although it is stated that this will be set out in the Transport Assessment. Regarding methodology, we understand that Census Journey to Work Data or the relevant authority's strategic model will be adopted. These are both acceptable methods ***however details should be agreed beforehand, and along with the trip generation figures this data will inform on the scope of the impact assessment work required.***

Assessment Requirements

As outlined in the DfT Circular 02/2013 an opening year and a 10 year assessment are required. The Scoping Note states that *'It is anticipated that we would need to test the impact of the development traffic in the application year (2018) and/or opening year (2019), and also the application year plus 10-years (2028) or the end of the Local Plan period (also 2028)'*. Based upon the size of the proposed development the proposal of an opening year in 2019 does not appear to be a realistic assumption. This should be reconsidered with time taken into account for the development to be granted planning permission.

A suitable opening year should be assessed inclusive of full development, all committed development traffic and any committed schemes. The agreed opening year should be a realistic date at which the development could become first available for occupation. A junction capacity assessment 10 years post-application (or the end of the relevant Local Plan year, whichever is the greater) should also be provided, although results from this are purely informative at this time.

Traffic impact assessment requirements are further described in the Department for Transport '*Guidance on Transport Assessment (GTA)'* and in the Circular 02/2013. It is noted that this guidance has been archived, however still provides a good practice guide in preparing a Transport Assessment. In addition, the Department for Communities and Local Government (DCLG) also provide guidance on preparing Transport Assessments.

Modelling

The proposed development is located in an area where substantial work has recently been carried out using the Greater Derby Transport Model (GDTM) to develop assessment forecasts for nearby proposals, inclusive of committed developments and infrastructures schemes. We would be content with the GDTM being adopted to support the development of forecast traffic impacts from the proposed development. To assess these impacts, Highways England has a 2016 base VISSIM model of the A38/A50 junction which can be passed on to the applicant if requested.

Highways England recommends that the Transport Assessment is agreed in a staged approach, that is the overall methodology and elements such as ***assessment years, trip generation and distribution and that the scope of highway impact assessments be agreed prior to further assessment work being carried out. This approach should avoid any abortive work.***

Let me know if this is sufficient for you to continue with your assessment or alternatively if you wish to arrange a meeting to discuss any of these points further.

I trust this is helpful.

Regards

Steve Freek
Assistant Spatial Planning & Economic Development Manager
Highways England, Stirling House (Area 7) Lakeside Court, Osier Drive, Sherwood Business Park Nottingham NG15 0DS
Tel: 0300 470 4457
Mob: 07712 543047
Email: steve.freek@highwaysengland.co.uk

From: Joanna Posnett [mailto:J.Posnett@bsp-consulting.co.uk]
Sent: 05 March 2018 08:44
To: Freek, Steve; Geoff Blissett (Economy Transport and Environment)
Subject: Burnaston Cross - Industrial Development

Morning Steve/Geoff

We have been instructed to look at proposals for an industrial/warehousing development just south of the A50/A38 junction, and would like to arrange a scoping meeting to discuss the Transport Assessment and Travel Plan work required to accompany a planning application. Please see attached a scoping note for information. I hope you agree that a meeting with relevant highway authorities would be the best way to agree the scope of work and methodologies.

Whilst we are under pressure from our client to complete the work and so I would like to set up a meeting to discuss this with you as soon as possible, it may be useful to have a quick chat over the phone beforehand now that you have the basic information. I am out of the office today and Wednesday, but should be around for the rest of the week, and will try and give you a call. Please feel free to respond with any comments and your availability for a meeting in the meantime.

Steve – this is what I mentioned to you when we last spoke, and would appreciate input from you (if this is within your new remit) or an appropriate colleague from HE, and the relevant contact at AECOM. Let me know if I need to contact anyone else.

Kind regards

Joanna Posnett BA(Hons) MCIHT
Principal Transport Planner

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https://www.gov.uk/government/organisations/highways-england **|** *info@highwaysengland.co.uk*

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Joanna Posnett

From: Law, Daniel <Daniel.Law@aecom.com>
Sent: 16 May 2018 14:18
To: Martin Murphy
Cc: Joanna Posnett; Blissett,Geoff (Environmental Services); Freek, Steve
Subject: RE: Burnaston Cross - Industrial Development

Hi Martin,

Steve is on leave for a fortnight and has asked me to advise on committed developments on Highways England's behalf. Highways England would typically advise that the committed developments to be included in the assessment work are agreed through discussion with the LPA, and from review of the below and Scoping Note 03 we are content that the major developments will be accounted for.

Regards,

Daniel Law, BEng (Hons)
Senior Engineer, Transportation
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From: Martin Murphy [mailto:M.Murphy@bsp-consulting.co.uk]
Sent: 16 May 2018 14:07
To: Freek, Steve
Cc: Law, Daniel; Joanna Posnett; Blissett,Geoff (Environmental Services)
Subject: RE: Burnaston Cross - Industrial Development

Good Afternoon Steve,

Following on from Jo's emails (below) with regards to the committed developments in the area, we received a response from South Derbyshire DC (also below) with some further information / sites to consider. We'll look to take this response into account when putting together the proposed development flows, however, it would be useful if you could confirm if there are any further developments in the area which HE feels that we need to take into account. We're looking to finalise traffic flows this week, as the VISSIM modelling work is due to start next week, so could you let me know by the end of Friday (18th) if there are any additional committed development sites that you require us to take account of within the assessment work?

Kind regards

Martin Murphy BSc(Hons)
Senior Transport Planner

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web: www.bsp-consulting.co.uk

From: Exley Kevin <Kevin.Exley@south-derbys.gov.uk>
Sent: 10 May 2018 12:09
To: Joanna Posnett <j.posnett@bsp-consulting.co.uk>
Cc: Nash Chris <Chris.Nash@south-derbys.gov.uk>
Subject: RE: Burnaston Cross - Industrial Development

Dear Joanna

I have had a quick look at the note circulated and it mostly seems in order. The only observations I have in respect of the sites you have highlighted are as follows:

- New House Farm, Phase 1 (App. Ref: 9/2014/1136) – 300 dwellings. Approved and yet to be developed. This site is under construction and we have recorded delivery on this site in the 12 months to March 31st 2018.
- Land at SK2934 8494, West of Ladybank Road, Mickleover (9/2017/0603) Approved and yet to be developed although we think developers are on site. (this forms part of the wider land west of Mickleover but isn't referenced in the technical note
- Holmleigh Way, Chellaston (App. Ref: 9/2013/0663) – 157 dwellings. Approved and yet to be developed. Site is under Construction.
- This document also doesn't reference the currently being built out Boulton Moor Phase (Phase 1 site is still ongoing) application references include 9/2013/0802, 9/2015/1104 and 9/2017/0286 and will once complete will have delivered 548 dwellings. However this site is reasonably close to completion based on our most recent surveys. This is an adjacent site in Derby city for 800 dwellings (Snelsmoor Lane) but I am unaware of the status of this)
- Land at SK3036 1005 Hackwood Farm 290 dwellings (there are a further 400 outside of the district in Derby City). Approved and yet to be developed
- Willington Road Etwall 217 dwellings total. Phase 1 is close to finishing (we think), second phase is not started. (9/2013/1040, 9/2016/1248 and 9/2016/1216)
- Dove Valley Park (phase 2) 9/2017/0816 Outline application for B2 and B8 units each unit providing no less than 15,000sqm of floor space with access for approval and all other matters reserved.

As a further observation I note that ' The TEMPRO planning assumptions take into account increases to the number of households within the South Derbyshire authority area of 1,693 by 2020 and 6,475 by 2028' Based on our expected delivery I would suggest that both figures are little light in terms of what we expect to be deliver. I have included a link to our most recent housing position paper (sorry its dated June 2017 so it's a little dated now). This identifies that between April 1st 2018 and March 31st 2028 we will deliver 8881 homes across the district as a whole and this is the minimum delivery we need to meet our housing requirement. This is notably higher than the assumption in the paper reflecting the fact that there was under delivery in the early part of the Plan period 2011-17 due to economic conditions and a lack of sites which needs to be remedied to 2028 and the fact that the District is committed to deliver 3000 homes to meet Derby City's unmet need.

I have attached a link to the most recent housing position paper for your information. https://www.south-derbys.gov.uk/assets/attach/1928/Housing%20Position%20Paper%20June%202017.pdf

Hope this all makes sense. Please come back to me should you require clarification on any points.

Kind Regards
Kevin Exley
01283 228717

From: Joanna Posnett [mailto:J.Posnett@bsp-consulting.co.uk]
Sent: 10 May 2018 10:29
To: Freek, Steve; Law, Daniel; Geoff Blissett (Economy Transport and Environment); Sylvester Tony; Nash Chris
Cc: HE instructions; Martin Murphy
Subject: RE: Burnaston Cross - Industrial Development

Morning All

Just following this up as we are wanting to confirm the committed developments and associated traffic, to set up the assessment year flows as soon as possible. Please let us know if you have any queries which are delaying your response.

Kind regards

Joanna Posnett BA(Hons) MCIHT
Principal Transport Planner

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From: Joanna Posnett <j.posnett@bsp-consulting.co.uk>
Sent: 01 May 2018 12:26
To: Freek, Steve <Steve.Freek@highwaysengland.co.uk>; Law, Daniel <Daniel.Law@aecom.com>; Geoff Blissett (Economy Transport and Environment) <Geoff.Blissett@derbyshire.gov.uk>; tony.sylvester@south-derbys.gov.uk; chris.nash@south-derbys.gov.uk
Cc: HE instructions <Midlandsspa.europe@aecom.com>; Martin Murphy <M.Murphy@bsp-consulting.co.uk>
Subject: RE: Burnaston Cross - Industrial Development

Dear All

Please find attached our Scoping Note 03 setting our proposals for Traffic Growth and Committed Developments.

We are keen to agree this stage with HE and Derbyshire County council as highway authorities, and also South Derbyshire District Council as the planning authority. Whilst we have reviewed the South Derbyshire District Council planning pages for key local committed developments, we would appreciate input from the planning authority in terms of the status of these applications and permitted developments on both sides of the A50 and A38.

Please note that we are not proposing to include allocated sites, as we are also applying growth from TEMPRO/NTM.

Kind regards

Joanna Posnett BA(Hons) MCIHT
Principal Transport Planner

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Joanna Posnett

From: Law, Daniel <Daniel.Law@aecom.com>
Sent: 16 May 2018 12:21
To: Joanna Posnett
Cc: HE instructions
Subject: RE: Burnaston Cross - Industrial Development

Hi Joanna,
Apologies for the delay. TEMPro growth factors have been checked and are all acceptable.
Regards,

Daniel Law, BEng (Hons)
Senior Engineer, Transportation
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From: Joanna Posnett [mailto:J.Posnett@bsp-consulting.co.uk]
Sent: 01 May 2018 12:27
To: Freek, Steve; Law, Daniel; Geoff Blissett (Economy Transport and Environment); tony.sylvester@south-derbys.gov.uk; chris.nash@south-derbys.gov.uk
Cc: HE instructions; Martin Murphy
Subject: RE: Burnaston Cross - Industrial Development

Dear All

Please find attached our Scoping Note 03 setting our proposals for Traffic Growth and Committed Developments.

We are keen to agree this stage with HE and Derbyshire County council as highway authorities, and also South Derbyshire District Council as the planning authority. Whilst we have reviewed the South Derbyshire District Council planning pages for key local committed developments, we would appreciate input from the planning authority in terms of the status of these applications and permitted developments on both sides of the A50 and A38.

Please note that we are not proposing to include allocated sites, as we are also applying growth from TEMPRO/NTM.

Kind regards

Joanna Posnett BA(Hons) MCIHT
Principal Transport Planner

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From: Freek, Steve <Steve.Freek@highwaysengland.co.uk>
Sent: 24 April 2018 10:20
To: Joanna Posnett <j.posnett@bsp-consulting.co.uk>
Cc: HE instructions <Midlandsspa.europe@aecom.com>; Law, Daniel <Daniel.Law@aecom.com>
Subject: RE: Burnaston Cross - Industrial Development

Hi Jo,

I can confirm that as detailed in DfT TAG Unit M1.2 (Data Sources and Surveys), the 1st and 2nd May next week can be classed as neutral days and as such are acceptable survey dates.

Regarding the committed developments Dan should be able to provide you with the details (he's back to work tomorrow).

Regards

Steve Freek
Assistant Spatial Planning & Economic Development Manager
Highways England, Stirling House (Area 7) Lakeside Court, Osier Drive, Sherwood Business Park Nottingham NG15 0DS
Tel: 0300 470 4457
Mob: 07712 543047
Email: steve.freek@highwaysengland.co.uk

From: Joanna Posnett [mailto:J.Posnett@bsp-consulting.co.uk]
Sent: 23 April 2018 16:15
To: Freek, Steve
Cc: HE instructions; Law, Daniel
Subject: RE: Burnaston Cross - Industrial Development
Importance: High

Hi Steve

We have been told that the GDTM is not appropriate to establish the base + committed flows at the study area junctions (see attached from Derby City Council), and therefore we are looking to undertake traffic count surveys as soon as possible, and will need to agree the committed developments to add on in addition to localised TEMPRO/NTM growth factors.

It is looking possible to get the surveys completed Tues/Wed next week (1st or 2nd May). Please confirm if undertaking the surveys on either of these dates will be acceptable. I understand that we just have to avoid the Thursday before the BH and the whole of the BH week (para 3.3.6. on page 11 of the attached).

Kind regards

Joanna Posnett BA(Hons) MCIHT
Principal Transport Planner

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From: Freek, Steve <Steve.Freek@highwaysengland.co.uk>
Sent: 19 April 2018 08:35
To: Joanna Posnett <j.posnett@bsp-consulting.co.uk>
Cc: HE instructions <Midlandsspa.europe@aecom.com>; Law, Daniel <Daniel.Law@aecom.com>
Subject: Burnaston Cross - Industrial Development

Hi Jo,

We (Highways England) have reviewed your revised scoping note for the proposed Industrial Development known as Burnaston Cross, located to the south east of the A38/A50 Burnaston Interchange (Toyota Island) near Willington, south of Derby. Based on the information provided in the revised note and your email dated 17th March, we would comment as follows:

Firstly, to address the queries in your email of 17th March:

- I can confirm Highways England are content with the GDTM being used to obtain base flows, with the agreed development traffic generation added on using either:
  - an agreed Census Data based distribution; or
  - GDTM to assign the development traffic.
- Your proposal to obtain the 2023 and 2030 GDTM flows for the study area junctions and then use localised TEMPRO/NTM growth factors to reduce the flows to the actual assessment years (2020 and 2028) is acceptable.

Referring to the 'other' queries listed in your email:

- Regarding the likely timescales for the delivery of the mitigation works proposed by the applicant at Rykneld Road, Highways Agency responded to application DER/01/11/00023 in 2012 recommending that the scheme be delivered prior to occupation of 500 dwellings. This application has not yet been granted permission and there is therefore no certainty that this will be delivered in the short term. Scheme drawing *MHA/001/106-P* proposing to signalise the A50 west and A38 north off-slips is attached.
- The VISSIM base model is representative of the current A38/A50 junction layout only.
- A third party consultant will need to be commissioned to carry out the highway impact assessment work. Highways England and our consultants will review and provide feedback and guidance, but cannot carry out the work on the applicant's behalf.
- A LinSig assessment would not be considered suitable for assessing the existing A50/A38 junction as this operates under priority control. The reference case scenario (without development traffic and without any mitigation) should be compared to a development case scenario (with development traffic (and with mitigation if necessary)) such that implications of the development traffic on the junction's operation can be determined.

Following review of the scoping note submitted in your email of 3rd April, please find our comments below:

<u>Development Proposal</u>
We note that the development uses have been detailed further, from the previously proposed B1/B2/B8 uses resulting in a total floor area of 81,065sqm, with 75% of the area (60,799sqm) allocated to B8 warehousing & distribution and the remaining 25% (20,266sqm) allocated to

B1c/B2 industrial uses. This level of detail is welcomed and allows a more accurate estimate of likely trip generation to be determined.

Trip Generation
Trip generation figures have been revised based on the updated development uses outlined above. Based on an interrogation of the TRICS database using development types 'Warehousing (Commercial)' and 'Industrial Unit' for the respective B8 and B1c/B2 uses, we consider the proposed generation of 227 AM and 162 PM peak hour vehicle trips reasonable.

Trip Distribution
We have reviewed the information provided in Appendix C of the scoping note which details the methodology adopted for determining the proposed developments' trip distribution, using Census Journey to Work Data. To check the suitability of the proposals we have determined the likely trip distribution using the same approach, recording the most attractive route for each journey to/from the site for each ward. Our results suggest very similar proportions and as such we are content that the proposed distribution applied to the modelling work would provide a representative assessment of network operation.

Assessment Requirements
In our previous response we stated that an opening year and 10 year assessment were required as outlined in the DfT Circular 02/2013. We recommended that a later opening year be considered as 2019 is not considered realistic due to the size of the proposal and time required for approval of planning permission. We note that the likely opening year has been reconsidered and is proposed as 2020, along with a 10 year assessment of 2028. We are content with these proposed assessment years.

We are also content with the proposed scope of junction assessments presented in Table 4, as informed by the distribution exercise.

I trust this is helpful but please get in touch if you wish to discuss any of the above matters further.

Regards

Steve Freek
Assistant Spatial Planning & Economic Development Manager
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Email: steve.freek@highwaysengland.co.uk

From: Joanna Posnett [mailto:J.Posnett@bsp-consulting.co.uk]
Sent: 03 April 2018 18:28
To: Joanna Posnett; Freek, Steve; Geoff Blissett (Economy Transport and Environment)
Cc: Law, Daniel; James Houghton
Subject: RE: Burnaston Cross - Industrial Development

Dear All

Further to my e-mail below, please find attached our Scoping Note 02 setting out the proposed trip rates, generation, distribution and study area.

We would appreciate your comments on the attached and also the queries in the e-mail below.

Kind regards

Joanna Posnett BA(Hons) MCIHT
Principal Transport Planner

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From: Joanna Posnett <J.Posnett@bsp-consulting.co.uk>
Sent: 27 March 2018 16:08
To: Freek, Steve <Steve.Freek@highwaysengland.co.uk>; Geoff Blissett (Economy Transport and Environment) <Geoff.Blissett@derbyshire.gov.uk>
Cc: Law, Daniel <Daniel.Law@aecom.com>; James Houghton <James.Houghton@brackley-propdev.co.uk>
Subject: RE: Burnaston Cross - Industrial Development

Hi Steve / Daniel / Geoff

Thank you for your responses. I trust you are in agreement with the written response from HE, Geoff? Let me know if you have anything further to add at this stage. Any comments on the access and study area junctions in the county?

We will provide a further scoping note with confirmed trip generation and distribution and assessment years, as soon as possible.

If we understand correctly, you would be content with us using the GDTM just to obtain base flows and then add on the agreed development traffic generation using an agreed Census Data based distribution OR to assign the development traffic. Please confirm.

We currently propose to use GDTM to obtain base flows for the closest assessment years, so that they include all committed development and infrastructure schemes. We have recently had 2023 and 2030 modelled and so would hope to be able to obtain the flows for the study area junctions. If considered acceptable, we could use localised TEMPRO/NTM growth factors to reduce the flows to the actual assessment years. We would then add on the development traffic and assess the impact with junction modelling software.

We do have a few other queries:

- Please can you provide full details of the agreed part signalisation scheme, e.g. layout and signal controller specifications?
- Please can you confirm the trigger / estimated date for these mitigation works?
- Does the VISSIM base model include the current layout AND the with part signalisation scheme scenario?
- Can our client commission assessment runs of the VISSIM model via HE/AECOM if we provide the flows?
- Would a LINSIG model be acceptable as an alternative assessment method for the A50/A38 junction?

Kind regards

Joanna Posnett BA(Hons) MCIHT
Principal Transport Planner

On Behalf Of
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From: Freek, Steve <Steve.Freek@highwaysengland.co.uk>
Sent: 22 March 2018 11:54
To: Joanna Posnett <j.posnett@bsp-consulting.co.uk>; Geoff Blissett (Economy Transport and Environment) <Geoff.Blissett@derbyshire.gov.uk>
Cc: Law, Daniel <Daniel.Law@aecom.com>
Subject: RE: Burnaston Cross - Industrial Development

Hi Jo,

We have considered your email below and reviewed the attached Scoping Note and supporting documents, regarding the proposed Industrial Estate known as Burnaston Cross, located to the south of the A38/A50 roundabout near Willington, south of Derby. Based upon the documentation received to date HE's initial comments are as follows:

"**Background**
From a review of the submitted Scoping Note, we understand that an industrial development was previously proposed at this site and was later refused planning permission. It is stated however that this refusal was on grounds of visual intrusion/landscaping impacts and not highways related. Although no highway details were provided at the time, the then Highways Agency did express 'concerns at the potential increase in vehicular movements on Toyota'.

Regarding the current safety performance of the adjacent A38/A50 junction, the significant planned developments in the vicinity of this junction pose a concern to Highways England regarding its future operation. The applicant should note that the development proposals approximately 2 miles to the north at Rykneld Road for 800 dwellings proposes to deliver partial signalisation of the A38/A50 junction.

Site access design
We note from review of the Scoping Note that BSP request comments on the proposed site access junction. As this is situated on the B5008 (a part of the local highway network) to the south of the existing services and approximately 250m south of the A38/A50 circulatory, Highways England has no comments to make regarding this junction design.

Trip Generation & Distribution
The Scoping Note provides information regarding the likely vehicular trips generated by the proposed development, based on trip rates obtained from TRICS for the two development uses "Employment: Industrial Estate" and "Employment: Warehousing (Commercial)". It is stated that these 2 uses provide respective robust and minimum trip generation estimates. As the B1/B2/B8 proportions have not yet been specified, and having interrogated the TRICS database, the trip rates for "Employment: Industrial Estate" appear to be the most appropriate to use at present.

Trip distributions have not been provided although it is stated that this will be set out in the Transport Assessment. Regarding methodology, we understand that Census Journey to Work Data or the relevant authority's strategic model will be adopted. These are both acceptable methods ***however details should be agreed beforehand, and along with the trip generation figures this data will inform on the scope of the impact assessment work required.***

Assessment Requirements

As outlined in the DfT Circular 02/2013 an opening year and a 10 year assessment are required. The Scoping Note states that *'It is anticipated that we would need to test the impact of the development traffic in the application year (2018) and/or opening year (2019), and also the application year plus 10-years (2028) or the end of the Local Plan period (also 2028)'*. Based upon the size of the proposed development the proposal of an opening year in 2019 does not appear to be a realistic assumption. This should be reconsidered with time taken into account for the development to be granted planning permission.

A suitable opening year should be assessed inclusive of full development, all committed development traffic and any committed schemes. The agreed opening year should be a realistic date at which the development could become first available for occupation. A junction capacity assessment 10 years post-application (or the end of the relevant Local Plan year, whichever is the greater) should also be provided, although results from this are purely informative at this time.

Traffic impact assessment requirements are further described in the Department for Transport '*Guidance on Transport Assessment (GTA)'* and in the Circular 02/2013. It is noted that this guidance has been archived, however still provides a good practice guide in preparing a Transport Assessment. In addition, the Department for Communities and Local Government (DCLG) also provide guidance on preparing Transport Assessments.

Modelling

The proposed development is located in an area where substantial work has recently been carried out using the Greater Derby Transport Model (GDTM) to develop assessment forecasts for nearby proposals, inclusive of committed developments and infrastructures schemes. We would be content with the GDTM being adopted to support the development of forecast traffic impacts from the proposed development. To assess these impacts, Highways England has a 2016 base VISSIM model of the A38/A50 junction which can be passed on to the applicant if requested.

Highways England recommends that the Transport Assessment is agreed in a staged approach, that is the overall methodology and elements such as ***assessment years, trip generation and distribution and that the scope of highway impact assessments be agreed prior to further assessment work being carried out. This approach should avoid any abortive work.***

Let me know if this is sufficient for you to continue with your assessment or alternatively if you wish to arrange a meeting to discuss any of these points further.

I trust this is helpful.

Regards

Steve Freek
Assistant Spatial Planning & Economic Development Manager
Highways England, Stirling House (Area 7) Lakeside Court, Osier Drive, Sherwood Business Park Nottingham NG15 0DS
Tel: 0300 470 4457
Mob: 07712 543047
Email: steve.freek@highwaysengland.co.uk

From: Joanna Posnett [mailto:J.Posnett@bsp-consulting.co.uk]
Sent: 05 March 2018 08:44
To: Freek, Steve; Geoff Blissett (Economy Transport and Environment)
Subject: Burnaston Cross - Industrial Development

Morning Steve/Geoff

We have been instructed to look at proposals for an industrial/warehousing development just south of the A50/A38 junction, and would like to arrange a scoping meeting to discuss the Transport Assessment and Travel Plan work required to accompany a planning application. Please see attached a scoping note for information. I hope you agree that a meeting with relevant highway authorities would be the best way to agree the scope of work and methodologies.

Whilst we are under pressure from our client to complete the work and so I would like to set up a meeting to discuss this with you as soon as possible, it may be useful to have a quick chat over the phone beforehand now that you have the basic information. I am out of the office today and Wednesday, but should be around for the rest of the week, and will try and give you a call. Please feel free to respond with any comments and your availability for a meeting in the meantime.

Steve – this is what I mentioned to you when we last spoke, and would appreciate input from you (if this is within your new remit) or an appropriate colleague from HE, and the relevant contact at AECOM. Let me know if I need to contact anyone else.

Kind regards

Joanna Posnett BA(Hons) MCIHT
Principal Transport Planner

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Registered office: 12 Oxford Street, Nottingham. NG1 5BG

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Highways England Company Limited | General enquiries: 0300 123 5000 |National Traffic Operations Centre, 3 Ridgeway, Quinton Business Park, Birmingham B32 1AF | *https://www.gov.uk/government/organisations/highways-england* **|** *info@highwaysengland.co.uk*

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Joanna Posnett

From: Exley Kevin <Kevin.Exley@south-derbys.gov.uk>
Sent: 10 May 2018 12:09
To: Joanna Posnett
Cc: Nash Chris
Subject: RE: Burnaston Cross - Industrial Development

Dear Joanna

I have had a quick look at the note circulated and it mostly seems in order. The only observations I have in respect of the sites you have highlighted are as follows:

- New House Farm, Phase 1 (App. Ref: 9/2014/1136) – 300 dwellings. Approved and yet to be developed. This site is under construction and we have recorded delivery on this site in the 12 months to March 31st 2018.
- Land at SK2934 8494, West of Ladybank Road, Mickleover (9/2017/0603) Approved and yet to be developed although we think developers are on site. (this forms part of the wider land west of Mickleover but isn't referenced in the technical note
- Holmleigh Way, Chellaston (App. Ref: 9/2013/0663) – 157 dwellings. Approved and yet to be developed. Site is under Construction.
- This document also doesn't reference the currently being built out Boulton Moor Phase (Phase 1 site is still ongoing) application references include 9/2013/0802, 9/2015/1104 and 9/2017/0286 and will once complete will have delivered 548 dwellings. However this site is reasonably close to completion based on our most recent surveys. This is an adjacent site in Derby city for 800 dwellings (Snelsmoor Lane) but I am unaware of the status of this)
- Land at SK3036 1005 Hackwood Farm 290 dwellings (there are a further 400 outside of the district in Derby City). Approved and yet to be developed
- Willington Road Etwall 217 dwellings total. Phase 1 is close to finishing (we think), second phase is not started. (9/2013/1040, 9/2016/1248 and 9/2016/1216)
- Dove Valley Park (phase 2) 9/2017/0816 Outline application for B2 and B8 units each unit providing no less than 15,000sqm of floor space with access for approval and all other matters reserved.

As a further observation I note that ' The TEMPRO planning assumptions take into account increases to the number of households within the South Derbyshire authority area of 1,693 by 2020 and 6,475 by 2028' Based on our expected delivery I would suggest that both figures are little light in terms of what we expect to be deliver. I have included a link to our most recent housing position paper (sorry its dated June 2017 so it's a little dated now). This identifies that between April 1st 2018 and March 31st 2028 we will deliver 8881 homes across the district as a whole and this is the minimum delivery we need to meet our housing requirement. This is notably higher than the assumption in the paper reflecting the fact that there was under delivery in the early part of the Plan period 2011-17 due to economic conditions and a lack of sites which needs to be remedied to 2028 and the fact that the District is committed to deliver 3000 homes to meet Derby City's unmet need.

I have attached a link to the most recent housing position paper for your information. https://www.south-derbys.gov.uk/assets/attach/1928/Housing%20Position%20Paper%20June%202017.pdf

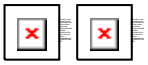
Hope this all makes sense. Please come back to me should you require clarification on any points.

Kind Regards
Kevin Exley
01283 228717

From: Nash Chris
Sent: 10 May 2018 11:16
To: Exley Kevin
Subject: FW: Burnaston Cross - Industrial Development

Kind regards

Chris Nash
Principal Area Planning Officer – Service Delivery
T: 01283 595926
www.south-derbys.gov.uk



Any advice is given at officer level only and does not prejudice any formal decision the Council makes in the future.

From: Joanna Posnett [mailto:J.Posnett@bsp-consulting.co.uk]
Sent: 10 May 2018 10:29
To: Freek, Steve; Law, Daniel; Geoff Blissett (Economy Transport and Environment); Sylvester Tony; Nash Chris
Cc: HE instructions; Martin Murphy
Subject: RE: Burnaston Cross - Industrial Development

Morning All

Just following this up as we are wanting to confirm the committed developments and associated traffic, to set up the assessment year flows as soon as possible. Please let us know if you have any queries which are delaying your response.

Kind regards

Joanna Posnett BA(Hons) MCIHT
Principal Transport Planner

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From: Joanna Posnett <j.posnett@bsp-consulting.co.uk>
Sent: 01 May 2018 12:26
To: Freek, Steve <Steve.Freek@highwaysengland.co.uk>; Law, Daniel <Daniel.Law@aecom.com>; Geoff Blissett (Economy Transport and Environment) <Geoff.Blissett@derbyshire.gov.uk>; tony.sylvester@south-derbys.gov.uk; chris.nash@south-derbys.gov.uk
Cc: HE instructions <Midlandsspa.europe@aecom.com>; Martin Murphy <M.Murphy@bsp-consulting.co.uk>
Subject: RE: Burnaston Cross - Industrial Development

Dear All

Please find attached our Scoping Note 03 setting our proposals for Traffic Growth and Committed Developments.

We are keen to agree this stage with HE and Derbyshire County council as highway authorities, and also South Derbyshire District Council as the planning authority. Whilst we have reviewed the South Derbyshire District Council planning pages for key local committed developments, we would appreciate input from the planning authority in terms of the status of these applications and permitted developments on both sides of the A50 and A38.

Please note that we are not proposing to include allocated sites, as we are also applying growth from TEMPRO/NTM.

Kind regards

Joanna Posnett BA(Hons) MCIHT
Principal Transport Planner

On Behalf Of
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email: j.posnett@bsp-consulting.co.uk
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From: Freek, Steve <Steve.Freek@highwaysengland.co.uk>
Sent: 24 April 2018 10:20
To: Joanna Posnett <j.posnett@bsp-consulting.co.uk>
Cc: HE instructions <Midlandsspa.europe@aecom.com>; Law, Daniel <Daniel.Law@aecom.com>
Subject: RE: Burnaston Cross - Industrial Development

Hi Jo,

I can confirm that as detailed in DfT TAG Unit M1.2 (Data Sources and Surveys), the 1st and 2nd May next week can be classed as neutral days and as such are acceptable survey dates.

Regarding the committed developments Dan should be able to provide you with the details (he's back to work tomorrow).

Regards

Steve Freek
Assistant Spatial Planning & Economic Development Manager
Highways England, Stirling House (Area 7) Lakeside Court, Osier Drive, Sherwood Business Park Nottingham NG15 0DS
Tel: 0300 470 4457
Mob: 07712 543047
Email: steve.freek@highwaysengland.co.uk

From: Joanna Posnett [mailto:J.Posnett@bsp-consulting.co.uk]
Sent: 23 April 2018 16:15
To: Freek, Steve

Cc: HE instructions; Law, Daniel
Subject: RE: Burnaston Cross - Industrial Development
Importance: High

Hi Steve

We have been told that the GDTM is not appropriate to establish the base + committed flows at the study area junctions (see attached from Derby City Council), and therefore we are looking to undertake traffic count surveys as soon as possible, and will need to agree the committed developments to add on in addition to localised TEMPRO/NTM growth factors.

It is looking possible to get the surveys completed Tues/Wed next week (1st or 2nd May). Please confirm if undertaking the surveys on either of these dates will be acceptable. I understand that we just have to avoid the Thursday before the BH and the whole of the BH week (para 3.3.6. on page 11 of the attached).

Kind regards

Joanna Posnett BA(Hons) MCIHT
Principal Transport Planner

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From: Freek, Steve <Steve.Freek@highwaysengland.co.uk>
Sent: 19 April 2018 08:35
To: Joanna Posnett <j.posnett@bsp-consulting.co.uk>
Cc: HE instructions <Midlandsspa.europe@aecom.com>; Law, Daniel <Daniel.Law@aecom.com>
Subject: Burnaston Cross - Industrial Development

Hi Jo,

We (Highways England) have reviewed your revised scoping note for the proposed Industrial Development known as Burnaston Cross, located to the south east of the A38/A50 Burnaston Interchange (Toyota Island) near Willington, south of Derby. Based on the information provided in the revised note and your email dated 17th March, we would comment as follows:

Firstly, to address the queries in your email of 17th March:

- I can confirm Highways England are content with the GDTM being used to obtain base flows, with the agreed development traffic generation added on using either:
  - an agreed Census Data based distribution; or
  - GDTM to assign the development traffic.
- Your proposal to obtain the 2023 and 2030 GDTM flows for the study area junctions and then use localised TEMPRO/NTM growth factors to reduce the flows to the actual assessment years (2020 and 2028) is acceptable.

Referring to the 'other' queries listed in your email:

- Regarding the likely timescales for the delivery of the mitigation works proposed by the applicant at Rykneld Road, Highways Agency responded to application DER/01/11/00023 in 2012 recommending that the scheme be delivered prior to occupation of 500 dwellings. This application has not yet been granted permission and there is therefore no certainty that this will be delivered in the short term. Scheme drawing *MHA/001/106-P* proposing to signalise the A50 west and A38 north off-slips is attached.
- The VISSIM base model is representative of the current A38/A50 junction layout only.
- A third party consultant will need to be commissioned to carry out the highway impact assessment work. Highways England and our consultants will review and provide feedback and guidance, but cannot carry out the work on the applicant's behalf.
- A LinSig assessment would not be considered suitable for assessing the existing A50/A38 junction as this operates under priority control. The reference case scenario (without development traffic and without any mitigation) should be compared to a development case scenario (with development traffic (and with mitigation if necessary)) such that implications of the development traffic on the junction's operation can be determined.

Following review of the scoping note submitted in your email of 3rd April, please find our comments below:

Development Proposal
We note that the development uses have been detailed further, from the previously proposed B1/B2/B8 uses resulting in a total floor area of 81,065sqm, with 75% of the area (60,799sqm) allocated to B8 warehousing & distribution and the remaining 25% (20,266sqm) allocated to B1c/B2 industrial uses. This level of detail is welcomed and allows a more accurate estimate of likely trip generation to be determined.

Trip Generation
Trip generation figures have been revised based on the updated development uses outlined above. Based on an interrogation of the TRICS database using development types 'Warehousing (Commercial)' and 'Industrial Unit' for the respective B8 and B1c/B2 uses, we consider the proposed generation of 227 AM and 162 PM peak hour vehicle trips reasonable.

Trip Distribution
We have reviewed the information provided in Appendix C of the scoping note which details the methodology adopted for determining the proposed developments' trip distribution, using Census Journey to Work Data. To check the suitability of the proposals we have determined the likely trip distribution using the same approach, recording the most attractive route for each journey to/from the site for each ward. Our results suggest very similar proportions and as such we are content that the proposed distribution applied to the modelling work would provide a representative assessment of network operation.

Assessment Requirements
In our previous response we stated that an opening year and 10 year assessment were required as outlined in the DfT Circular 02/2013. We recommended that a later opening year be considered as 2019 is not considered realistic due to the size of the proposal and time required for approval of planning permission. We note that the likely opening year has been reconsidered and is proposed as 2020, along with a 10 year assessment of 2028. We are content with these proposed assessment years.

We are also content with the proposed scope of junction assessments presented in Table 4, as informed by the distribution exercise.

I trust this is helpful but please get in touch if you wish to discuss any of the above matters further.

Regards

Steve Freek
Assistant Spatial Planning & Economic Development Manager
Highways England, Stirling House (Area 7) Lakeside Court, Osier Drive, Sherwood Business Park
Nottingham NG15 0DS
Tel: 0300 470 4457
Mob: 07712 543047
Email: steve.freek@highwaysengland.co.uk

From: Joanna Posnett [mailto:J.Posnett@bsp-consulting.co.uk]
Sent: 03 April 2018 18:28
To: Joanna Posnett; Freek, Steve; Geoff Blissett (Economy Transport and Environment)
Cc: Law, Daniel; James Houghton
Subject: RE: Burnaston Cross - Industrial Development

Dear All

Further to my e-mail below, please find attached our Scoping Note 02 setting out the proposed trip rates, generation, distribution and study area.

We would appreciate your comments on the attached and also the queries in the e-mail below.

Kind regards

Joanna Posnett BA(Hons) MCIHT
Principal Transport Planner

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From: Joanna Posnett <J.Posnett@bsp-consulting.co.uk>
Sent: 27 March 2018 16:08
To: Freek, Steve <Steve.Freek@highwaysengland.co.uk>; Geoff Blissett (Economy Transport and Environment) <Geoff.Blissett@derbyshire.gov.uk>
Cc: Law, Daniel <Daniel.Law@aecom.com>; James Houghton <James.Houghton@brackley-propdev.co.uk>
Subject: RE: Burnaston Cross - Industrial Development

Hi Steve / Daniel / Geoff

Thank you for your responses. I trust you are in agreement with the written response from HE, Geoff? Let me know if you have anything further to add at this stage. Any comments on the access and study area junctions in the county?

We will provide a further scoping note with confirmed trip generation and distribution and assessment years, as soon as possible.

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We do have a few other queries:

- Please can you provide full details of the agreed part signalisation scheme, e.g. layout and signal controller specifications?
- Please can you confirm the trigger / estimated date for these mitigation works?
- Does the VISSIM base model include the current layout AND the with part signalisation scheme scenario?
- Can our client commission assessment runs of the VISSIM model via HE/AECOM if we provide the flows?
- Would a LINSIG model be acceptable as an alternative assessment method for the A50/A38 junction?

Kind regards

Joanna Posnett BA(Hons) MCIHT
Principal Transport Planner

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web: www.bsp-consulting.co.uk

From: Freek, Steve <Steve.Freek@highwaysengland.co.uk>
Sent: 22 March 2018 11:54
To: Joanna Posnett <j.posnett@bsp-consulting.co.uk>; Geoff Blissett (Economy Transport and Environment) <Geoff.Blissett@derbyshire.gov.uk>
Cc: Law, Daniel <Daniel.Law@aecom.com>
Subject: RE: Burnaston Cross - Industrial Development

Hi Jo,

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approximately 2 miles to the north at Rykneld Road for 800 dwellings proposes to deliver partial signalisation of the A38/A50 junction.

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We note from review of the Scoping Note that BSP request comments on the proposed site access junction. As this is situated on the B5008 (a part of the local highway network) to the south of the existing services and approximately 250m south of the A38/A50 circulatory, Highways England has no comments to make regarding this junction design.

Trip Generation & Distribution

The Scoping Note provides information regarding the likely vehicular trips generated by the proposed development, based on trip rates obtained from TRICS for the two development uses "Employment: Industrial Estate" and "Employment: Warehousing (Commercial)". It is stated that these 2 uses provide respective robust and minimum trip generation estimates. As the B1/B2/B8 proportions have not yet been specified, and having interrogated the TRICS database, the trip rates for "Employment: Industrial Estate" appear to be the most appropriate to use at present.

Trip distributions have not been provided although it is stated that this will be set out in the Transport Assessment. Regarding methodology, we understand that Census Journey to Work Data or the relevant authority's strategic model will be adopted. These are both acceptable methods ***however details should be agreed beforehand, and along with the trip generation figures this data will inform on the scope of the impact assessment work required.***

Assessment Requirements

As outlined in the DfT Circular 02/2013 an opening year and a 10 year assessment are required. The Scoping Note states that *'It is anticipated that we would need to test the impact of the development traffic in the application year (2018) and/or opening year (2019), and also the application year plus 10-years (2028) or the end of the Local Plan period (also 2028)'*. Based upon the size of the proposed development the proposal of an opening year in 2019 does not appear to be a realistic assumption. This should be reconsidered with time taken into account for the development to be granted planning permission.

A suitable opening year should be assessed inclusive of full development, all committed development traffic and any committed schemes. The agreed opening year should be a realistic date at which the development could become first available for occupation. A junction capacity assessment 10 years post-application (or the end of the relevant Local Plan year, whichever is the greater) should also be provided, although results from this are purely informative at this time.

Traffic impact assessment requirements are further described in the Department for Transport '*Guidance on Transport Assessment (GTA)'* and in the Circular 02/2013. It is noted that this guidance has been archived, however still provides a good practice guide in preparing a Transport Assessment. In addition, the Department for Communities and Local Government (DCLG) also provide guidance on preparing Transport Assessments.

Modelling

The proposed development is located in an area where substantial work has recently been carried out using the Greater Derby Transport Model (GDTM) to develop assessment forecasts for nearby proposals, inclusive of committed developments and infrastructures schemes. We would be content with the GDTM being adopted to support the development of forecast traffic impacts from the proposed development. To assess these impacts, Highways England has a 2016 base VISSIM model of the A38/A50 junction which can be passed on to the applicant if requested.

Highways England recommends that the Transport Assessment is agreed in a staged approach, that is the overall methodology and elements such as ***assessment years, trip generation and***

distribution and that the scope of highway impact assessments be agreed prior to further assessment work being carried out. This approach should avoid any abortive work.

Let me know if this is sufficient for you to continue with your assessment or alternatively if you wish to arrange a meeting to discuss any of these points further.

I trust this is helpful.

Regards

Steve Freek
Assistant Spatial Planning & Economic Development Manager
Highways England, Stirling House (Area 7) Lakeside Court, Osier Drive, Sherwood Business Park
Nottingham NG15 0DS
Tel: 0300 470 4457
Mob: 07712 543047
Email: steve.freek@highwaysengland.co.uk

From: Joanna Posnett [mailto:J.Posnett@bsp-consulting.co.uk]
Sent: 05 March 2018 08:44
To: Freek, Steve; Geoff Blissett (Economy Transport and Environment)
Subject: Burnaston Cross - Industrial Development

Morning Steve/Geoff

We have been instructed to look at proposals for an industrial/warehousing development just south of the A50/A38 junction, and would like to arrange a scoping meeting to discuss the Transport Assessment and Travel Plan work required to accompany a planning application. Please see attached a scoping note for information. I hope you agree that a meeting with relevant highway authorities would be the best way to agree the scope of work and methodologies.

Whilst we are under pressure from our client to complete the work and so I would like to set up a meeting to discuss this with you as soon as possible, it may be useful to have a quick chat over the phone beforehand now that you have the basic information. I am out of the office today and Wednesday, but should be around for the rest of the week, and will try and give you a call. Please feel free to respond with any comments and your availability for a meeting in the meantime.

Steve – this is what I mentioned to you when we last spoke, and would appreciate input from you (if this is within your new remit) or an appropriate colleague from HE, and the relevant contact at AECOM. Let me know if I need to contact anyone else.

Kind regards

Joanna Posnett BA(Hons) MCIHT
Principal Transport Planner

On Behalf Of
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Where design information is issued in CAD format it is only the information which is displayed in the paper-space which is to be used, furthermore should any discrepancies be present between the CAD and the pdf drawings issued the contents of the pdf are to take precedence. Finally we note that, whilst we endeavour to coordinate all our drawings, we are not responsible for the setting out of the private works.

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Appendix C

Traffic Survey Results

Derby, City of Derby
Classified Junction Count

Site 2 of 7
Local Road
Petrol Pump Access
B5008 Etwall Road (South)
B5008 Etwall Road (West)

Lat/Long
lat 52.863492° lon -1.565433°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 2.1: Left from Local Road to Petrol Pump Access								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	1	0	0	0	0	0	1	1.00
0715 - 0730	0	0	1	0	1	1	0	0	3	3.50
0730 - 0745	0	0	0	0	1	0	0	0	1	1.00
0745 - 0800	0	0	1	0	1	0	0	0	2	2.00
Hourly Total	0	0	3	0	3	1	0	0	7	7.50
Hourly Average	0.00	0.00	0.75	0.00	0.75	0.25	0.00	0.00	1.75	1.88
0800 - 0815	0	0	2	0	0	0	0	0	2	2.00
0815 - 0830	0	0	0	0	0	0	0	0	0	0.00
0830 - 0845	0	0	0	0	1	0	0	0	1	1.00
0845 - 0900	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	2	0	1	0	0	0	3	3.00
Hourly Average	0.00	0.00	0.50	0.00	0.25	0.00	0.00	0.00	0.75	0.75
Session Total	0	0	5	0	4	1	0	0	10	10.50
Session Average	0.00	0.00	0.63	0.00	0.50	0.13	0.00	0.00	1.25	1.31

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 2.1: Left from Local Road to Petrol Pump Access								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	1	0	0	0	0	0	1	1.00
1545 - 1600	0	0	1	0	0	0	0	0	1	1.00
1600 - 1615	0	0	2	0	0	0	0	0	2	2.00
1615 - 1630	0	0	3	0	0	0	0	0	3	3.00
Hourly Total	0	0	7	0	0	0	0	0	7	7.00
Hourly Average	0.00	0.00	1.75	0.00	0.00	0.00	0.00	0.00	1.75	1.75
1630 - 1645	0	1	3	0	0	0	0	0	4	3.40
1645 - 1700	0	0	5	0	0	0	0	0	5	5.00
1700 - 1715	0	0	1	0	1	0	0	0	2	2.00
1715 - 1730	0	0	2	0	0	0	0	0	2	2.00
Hourly Total	0	1	11	0	1	0	0	0	13	12.40
Hourly Average	0.00	0.25	2.75	0.00	0.25	0.00	0.00	0.00	3.25	3.10
1730 - 1745	0	0	5	0	0	0	0	0	5	5.00
1745 - 1800	0	0	0	0	0	0	0	0	0	0.00
1/2 Hourly Total	0	0	5	0	0	0	0	0	5	5.00
1/2 Hourly Average	0.00	0.00	2.50	0.00	0.00	0.00	0.00	0.00	2.50	2.50
Session Total	0	1	23	0	1	0	0	0	25	24.40
Session Average	0.00	0.10	2.30	0.00	0.10	0.00	0.00	0.00	2.50	2.44

Derby, City of Derby
Classified Junction Count

Site 2 of 7
Local Road
Petrol Pump Access
B5008 Etwall Road (South)
B5008 Etwall Road (West)

Lat/Long
lat 52.863492° lon -1.565433°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 2.2: Left from Local Road to B5008 Etwall Road (South)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	1	0	0	0	0	0	1	1.00
0715 - 0730	0	0	3	0	2	0	0	0	5	5.00
0730 - 0745	0	0	2	0	1	0	0	0	3	3.00
0745 - 0800	0	0	2	0	2	0	0	0	4	4.00
Hourly Total	0	0	8	0	5	0	0	0	13	13.00
Hourly Average	0.00	0.00	2.00	0.00	1.25	0.00	0.00	0.00	3.25	3.25
0800 - 0815	0	0	6	0	2	1	0	0	9	9.50
0815 - 0830	0	0	6	0	0	0	0	0	6	6.00
0830 - 0845	0	0	6	0	1	0	0	0	7	7.00
0845 - 0900	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	19	0	3	1	0	0	23	23.50
Hourly Average	0.00	0.00	4.75	0.00	0.75	0.25	0.00	0.00	5.75	5.88

Session Total	0	0	27	0	8	1	0	0	36	36.50
Session Average	0.00	0.00	3.38	0.00	1.00	0.13	0.00	0.00	4.50	4.56

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 2.2: Left from Local Road to B5008 Etwall Road (South)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	12	0	1	0	0	0	13	13.00
1545 - 1600	0	0	7	1	0	0	0	0	8	8.00
1600 - 1615	0	1	10	0	0	0	0	0	11	10.40
1615 - 1630	0	0	13	0	0	0	0	0	13	13.00
Hourly Total	0	1	42	1	1	0	0	0	45	44.40
Hourly Average	0.00	0.25	10.50	0.25	0.25	0.00	0.00	0.00	11.25	11.10
1630 - 1645	0	0	12	0	0	0	0	0	12	12.00
1645 - 1700	0	0	9	0	0	0	0	0	9	9.00
1700 - 1715	0	0	11	0	2	0	0	0	13	13.00
1715 - 1730	0	0	11	0	0	0	0	0	11	11.00
Hourly Total	0	0	43	0	2	0	0	0	45	45.00
Hourly Average	0.00	0.00	10.75	0.00	0.50	0.00	0.00	0.00	11.25	11.25
1730 - 1745	0	0	10	0	1	0	0	0	11	11.00
1745 - 1800	0	0	15	0	1	0	0	0	16	16.00
1/2 Hourly Total	0	0	25	0	2	0	0	0	27	27.00
1/2 Hourly Average	0.00	0.00	12.50	0.00	1.00	0.00	0.00	0.00	13.50	13.50

Session Total	0	1	110	1	5	0	0	0	117	116.40
Session Average	0.00	0.10	11.00	0.10	0.50	0.00	0.00	0.00	11.70	11.64

Derby, City of Derby
Classified Junction Count

Site 2 of 7
Local Road
Petrol Pump Access
B5008 Etwall Road (South)
B5008 Etwall Road (West)

Lat/Long
lat 52.863492° lon -1.565433°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 2.3: Right from Local Road to B5008 Etwall Road (West)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	14	0	5	0	0	0	19	19.00
0715 - 0730	0	0	17	0	4	0	0	0	21	21.00
0730 - 0745	0	0	15	0	4	1	0	0	20	20.50
0745 - 0800	0	0	9	0	6	1	0	0	16	16.50
Hourly Total	0	0	55	0	19	2	0	0	76	77.00
Hourly Average	0.00	0.00	13.75	0.00	4.75	0.50	0.00	0.00	19.00	19.25
0800 - 0815	0	0	26	0	1	1	0	0	28	28.50
0815 - 0830	0	0	15	0	6	0	0	0	21	21.00
0830 - 0845	0	0	14	0	1	0	0	0	15	15.00
0845 - 0900	0	0	20	0	5	0	0	0	25	25.00
Hourly Total	0	0	75	0	13	1	0	0	89	89.50
Hourly Average	0.00	0.00	18.75	0.00	3.25	0.25	0.00	0.00	22.25	22.38
Session Total	0	0	130	0	32	3	0	0	165	166.50
Session Average	0.00	0.00	16.25	0.00	4.00	0.38	0.00	0.00	20.63	20.81

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 2.3: Right from Local Road to B5008 Etwall Road (West)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	32	0	8	0	0	0	40	40.00
1545 - 1600	0	0	25	0	5	0	0	0	30	30.00
1600 - 1615	0	0	20	0	3	1	0	0	24	24.50
1615 - 1630	0	0	19	0	3	0	0	0	22	22.00
Hourly Total	0	0	96	0	19	1	0	0	116	116.50
Hourly Average	0.00	0.00	24.00	0.00	4.75	0.25	0.00	0.00	29.00	29.13
1630 - 1645	0	1	17	0	6	0	0	0	24	23.40
1645 - 1700	0	0	25	0	5	0	0	0	30	30.00
1700 - 1715	0	0	27	0	5	0	0	0	32	32.00
1715 - 1730	0	1	22	0	3	0	1	0	27	27.70
Hourly Total	0	2	91	0	19	0	1	0	113	113.10
Hourly Average	0.00	0.50	22.75	0.00	4.75	0.00	0.25	0.00	28.25	28.28
1730 - 1745	0	1	27	0	5	0	0	0	33	32.40
1745 - 1800	0	1	33	0	3	0	0	0	37	36.40
1/2 Hourly Total	0	2	60	0	8	0	0	0	70	68.80
1/2 Hourly Average	0.00	1.00	30.00	0.00	4.00	0.00	0.00	0.00	35.00	34.40
Session Total	0	4	247	0	46	1	1	0	299	298.40
Session Average	0.00	0.40	24.70	0.00	4.60	0.10	0.10	0.00	29.90	29.84

Derby, City of Derby
Classified Junction Count

Site 2 of 7
Local Road
Petrol Pump Access
B5008 Etwall Road (South)
B5008 Etwall Road (West)

Lat/Long
lat 52.863492° lon -1.565433°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 2.4: U-Turn from Local Road to Local Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	0	0	0	0	0	0	0	0.00
0715 - 0730	0	0	0	0	0	0	0	0	0	0.00
0730 - 0745	0	0	0	0	0	0	0	0	0	0.00
0745 - 0800	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800 - 0815	0	0	0	0	0	0	0	0	0	0.00
0815 - 0830	0	0	0	0	0	0	0	0	0	0.00
0830 - 0845	0	0	0	0	0	0	0	0	0	0.00
0845 - 0900	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Session Total	0	0	0	0	0	0	0	0	0	0.00
Session Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 2.4: U-Turn from Local Road to Local Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	0	0	0	0	0	0	0	0	0	0.00
1615 - 1630	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1630 - 1645	0	0	0	0	0	0	0	0	0	0.00
1645 - 1700	0	0	0	0	0	0	0	0	0	0.00
1700 - 1715	0	0	0	0	0	0	0	0	0	0.00
1715 - 1730	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1730 - 1745	0	0	0	0	0	0	0	0	0	0.00
1745 - 1800	0	0	0	0	0	0	0	0	0	0.00
1/2 Hourly Total	0	0	0	0	0	0	0	0	0	0.00
1/2 Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Session Total	0	0	0	0	0	0	0	0	0	0.00
Session Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Derby, City of Derby
Classified Junction Count

Site 2 of 7
Local Road
Petrol Pump Access
B5008 Etwall Road (South)
B5008 Etwall Road (West)

Lat/Long
lat 52.863492° lon -1.565433°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 2.5: Left from Petrol Pump Access to B5008 Etwall Road (South)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	0	0	0	0	0	0	0	0.00
0715 - 0730	0	0	0	0	0	0	0	0	0	0.00
0730 - 0745	0	0	0	0	0	1	0	0	1	1.50
0745 - 0800	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	1	0	0	1	1.50
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.25	0.38
0800 - 0815	0	0	0	0	0	0	0	0	0	0.00
0815 - 0830	0	0	0	0	0	0	0	0	0	0.00
0830 - 0845	0	0	0	0	0	1	0	0	1	1.50
0845 - 0900	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	1	0	0	1	1.50
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.25	0.38
Session Total	0	0	0	0	0	2	0	0	2	3.00
Session Average	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.25	0.38

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 2.5: Left from Petrol Pump Access to B5008 Etwall Road (South)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	0	0	0	0	0	0	0	0	0	0.00
1615 - 1630	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1630 - 1645	0	0	0	0	0	0	0	0	0	0.00
1645 - 1700	0	0	0	0	0	0	0	0	0	0.00
1700 - 1715	0	0	0	0	0	0	0	0	0	0.00
1715 - 1730	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1730 - 1745	0	0	1	0	0	0	0	0	1	1.00
1745 - 1800	0	0	0	0	0	0	0	0	0	0.00
1/2 Hourly Total	0	0	1	0	0	0	0	0	1	1.00
1/2 Hourly Average	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.50	0.50
Session Total	0	0	1	0	0	0	0	0	1	1.00
Session Average	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.10	0.10

Derby, City of Derby
Classified Junction Count

Site 2 of 7
Local Road
Petrol Pump Access
B5008 Etwall Road (South)
B5008 Etwall Road (West)

Lat/Long
lat 52.863492° lon -1.565433°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 2.6: Right from Petrol Pump Access to B5008 Etwall Road (West)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	1	0	0	1	0	0	2	2.50
0715 - 0730	0	0	0	0	0	0	2	0	2	4.60
0730 - 0745	0	2	0	0	0	1	3	1	7	11.20
0745 - 0800	0	0	0	0	0	0	1	0	1	2.30
Hourly Total	0	2	1	0	0	2	6	1	12	20.60
Hourly Average	0.00	0.50	0.25	0.00	0.00	0.50	1.50	0.25	3.00	5.15
0800 - 0815	0	0	0	0	0	0	1	0	1	2.30
0815 - 0830	0	0	0	0	1	0	5	0	6	12.50
0830 - 0845	0	0	0	0	0	1	3	0	4	8.40
0845 - 0900	0	0	0	0	1	0	0	0	1	1.00
Hourly Total	0	0	0	0	2	1	9	0	12	24.20
Hourly Average	0.00	0.00	0.00	0.00	0.50	0.25	2.25	0.00	3.00	6.05
Session Total	0	2	1	0	2	3	15	1	24	44.80
Session Average	0.00	0.25	0.13	0.00	0.25	0.38	1.88	0.13	3.00	5.60

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 2.6: Right from Petrol Pump Access to B5008 Etwall Road (West)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	6	0	6	13.80
1545 - 1600	0	0	0	0	0	0	5	0	5	11.50
1600 - 1615	0	0	0	0	0	0	1	0	1	2.30
1615 - 1630	0	0	0	0	0	2	3	0	5	9.90
Hourly Total	0	0	0	0	0	2	15	0	17	37.50
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.50	3.75	0.00	4.25	9.38
1630 - 1645	0	0	0	0	1	0	4	0	5	10.20
1645 - 1700	0	0	0	0	0	1	2	0	3	6.10
1700 - 1715	0	0	0	0	0	0	1	0	1	2.30
1715 - 1730	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	1	1	7	0	9	18.60
Hourly Average	0.00	0.00	0.00	0.00	0.25	0.25	1.75	0.00	2.25	4.65
1730 - 1745	0	0	0	0	0	0	3	0	3	6.90
1745 - 1800	0	0	0	0	0	0	1	0	1	2.30
1/2 Hourly Total	0	0	0	0	0	0	4	0	4	9.20
1/2 Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	4.60
Session Total	0	0	0	0	1	3	26	0	30	65.30
Session Average	0.00	0.00	0.00	0.00	0.10	0.30	2.60	0.00	3.00	6.53

Derby, City of Derby
Classified Junction Count

Site 2 of 7
Local Road
Petrol Pump Access
B5008 Etwall Road (South)
B5008 Etwall Road (West)

Lat/Long
lat 52.863492° lon -1.565433°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 2.7: Right from Petrol Pump Access to Local Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	0	0	0	0	0	0	0	0.00
0715 - 0730	0	0	0	0	0	0	0	0	0	0.00
0730 - 0745	0	0	0	0	0	0	0	0	0	0.00
0745 - 0800	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800 - 0815	0	0	0	0	0	0	0	0	0	0.00
0815 - 0830	0	0	0	0	0	0	0	0	0	0.00
0830 - 0845	0	0	0	0	0	0	0	0	0	0.00
0845 - 0900	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Session Total	0	0	0	0	0	0	0	0	0	0.00
Session Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 2.7: Right from Petrol Pump Access to Local Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	0	0	0	0	0	0	0	0	0	0.00
1615 - 1630	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1630 - 1645	0	0	0	0	0	0	0	0	0	0.00
1645 - 1700	0	0	0	0	0	0	0	0	0	0.00
1700 - 1715	0	0	0	0	0	0	0	0	0	0.00
1715 - 1730	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1730 - 1745	0	0	0	0	0	0	0	0	0	0.00
1745 - 1800	0	0	0	0	0	0	0	0	0	0.00
1/2 Hourly Total	0	0	0	0	0	0	0	0	0	0.00
1/2 Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Session Total	0	0	0	0	0	0	0	0	0	0.00
Session Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Derby, City of Derby
Classified Junction Count

Site 2 of 7
Local Road
Petrol Pump Access
B5008 Etwall Road (South)
B5008 Etwall Road (West)

Lat/Long
lat 52.863492° lon -1.565433°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 2.8: U-Turn from Petrol Pump Access to Petrol Pump Access								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	0	0	0	0	0	0	0	0.00
0715 - 0730	0	0	0	0	0	0	0	0	0	0.00
0730 - 0745	0	0	0	0	0	1	0	0	1	1.50
0745 - 0800	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	1	0	0	1	1.50
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.25	0.38
0800 - 0815	0	0	0	0	0	0	0	0	0	0.00
0815 - 0830	0	0	0	0	0	0	0	0	0	0.00
0830 - 0845	0	0	0	0	0	0	0	0	0	0.00
0845 - 0900	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Session Total	0	0	0	0	0	1	0	0	1	1.50
Session Average	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.13	0.19

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 2.8: U-Turn from Petrol Pump Access to Petrol Pump Access								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	1	2	0	3	6.10
1545 - 1600	0	0	0	0	0	0	2	0	2	4.60
1600 - 1615	0	0	0	0	0	0	0	0	0	0.00
1615 - 1630	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	1	4	0	5	10.70
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.25	1.00	0.00	1.25	2.68
1630 - 1645	0	0	0	0	0	0	0	0	0	0.00
1645 - 1700	0	0	0	0	0	0	0	0	0	0.00
1700 - 1715	0	0	0	0	0	1	0	0	1	1.50
1715 - 1730	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	1	0	0	1	1.50
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.25	0.38
1730 - 1745	0	0	0	0	0	0	0	0	0	0.00
1745 - 1800	0	0	0	0	0	1	0	0	1	1.50
1/2 Hourly Total	0	0	0	0	0	1	0	0	1	1.50
1/2 Hourly Average	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.50	0.75

Session Total	0	0	0	0	0	3	4	0	7	13.70
Session Average	0.00	0.00	0.00	0.00	0.00	0.30	0.40	0.00	0.70	1.37

Derby, City of Derby
Classified Junction Count

Site 2 of 7
Local Road
Petrol Pump Access
B5008 Etwall Road (South)
B5008 Etwall Road (West)

Lat/Long
lat 52.863492° lon -1.565433°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 2.9: Left from B5008 Etwall Road (South) to B5008 Etwall Road (West)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	1	1	91	0	9	0	0	0	102	100.60
0715 - 0730	0	1	95	0	18	1	0	0	115	114.90
0730 - 0745	0	0	113	0	12	1	0	0	126	126.50
0745 - 0800	0	0	109	0	14	2	0	1	126	128.00
Hourly Total	1	2	408	0	53	4	0	1	469	470.00
Hourly Average	0.25	0.50	102.00	0.00	13.25	1.00	0.00	0.25	117.25	117.50
0800 - 0815	0	1	107	0	7	2	1	1	119	121.70
0815 - 0830	0	1	93	1	9	0	1	0	105	105.70
0830 - 0845	0	2	80	0	9	2	0	1	94	94.80
0845 - 0900	0	0	90	0	10	0	0	0	100	100.00
Hourly Total	0	4	370	1	35	4	2	2	418	422.20
Hourly Average	0.00	1.00	92.50	0.25	8.75	1.00	0.50	0.50	104.50	105.55

Session Total	1	6	778	1	88	8	2	3	887	892.20
Session Average	0.13	0.75	97.25	0.13	11.00	1.00	0.25	0.38	110.88	111.53

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 2.9: Left from B5008 Etwall Road (South) to B5008 Etwall Road (West)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	64	0	12	0	0	1	77	78.00
1545 - 1600	0	0	52	0	20	1	0	1	74	75.50
1600 - 1615	0	1	70	0	17	1	0	2	91	92.90
1615 - 1630	0	0	75	0	11	0	0	0	86	86.00
Hourly Total	0	1	261	0	60	2	0	4	328	332.40
Hourly Average	0.00	0.25	65.25	0.00	15.00	0.50	0.00	1.00	82.00	83.10
1630 - 1645	0	0	91	0	14	0	0	0	105	105.00
1645 - 1700	0	0	75	0	8	0	0	1	84	85.00
1700 - 1715	0	0	106	0	9	0	0	0	115	115.00
1715 - 1730	0	0	87	0	7	0	0	0	94	94.00
Hourly Total	0	0	359	0	38	0	0	1	398	399.00
Hourly Average	0.00	0.00	89.75	0.00	9.50	0.00	0.00	0.25	99.50	99.75
1730 - 1745	0	0	74	0	6	0	0	0	80	80.00
1745 - 1800	0	0	87	0	6	0	0	0	93	93.00
1/2 Hourly Total	0	0	161	0	12	0	0	0	173	173.00
1/2 Hourly Average	0.00	0.00	80.50	0.00	6.00	0.00	0.00	0.00	86.50	86.50

Session Total	0	1	781	0	110	2	0	5	899	904.40
Session Average	0.00	0.10	78.10	0.00	11.00	0.20	0.00	0.50	89.90	90.44

Derby, City of Derby
Classified Junction Count

Site 2 of 7
Local Road
Petrol Pump Access
B5008 Etwall Road (South)
B5008 Etwall Road (West)

Lat/Long
lat 52.863492° lon -1.565433°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 2.10: Right from B5008 Etwall Road (South) to Local Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	1	0	0	0	0	0	1	1.00
0715 - 0730	0	0	1	0	0	0	0	0	1	1.00
0730 - 0745	0	0	1	0	0	0	0	0	1	1.00
0745 - 0800	0	0	2	0	0	0	0	0	2	2.00
Hourly Total	0	0	5	0	0	0	0	0	5	5.00
Hourly Average	0.00	0.00	1.25	0.00	0.00	0.00	0.00	0.00	1.25	1.25
0800 - 0815	0	0	1	0	0	0	0	0	1	1.00
0815 - 0830	0	0	2	0	0	0	0	0	2	2.00
0830 - 0845	0	0	1	0	0	0	0	0	1	1.00
0845 - 0900	0	0	2	0	0	0	0	0	2	2.00
Hourly Total	0	0	6	0	0	0	0	0	6	6.00
Hourly Average	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	1.50	1.50
Session Total	0	0	11	0	0	0	0	0	11	11.00
Session Average	0.00	0.00	1.38	0.00	0.00	0.00	0.00	0.00	1.38	1.38

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 2.10: Right from B5008 Etwall Road (South) to Local Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	4	0	1	0	0	0	5	5.00
1545 - 1600	0	0	4	0	0	0	0	0	4	4.00
1600 - 1615	0	0	1	0	0	0	0	0	1	1.00
1615 - 1630	0	0	5	0	0	0	0	0	5	5.00
Hourly Total	0	0	14	0	1	0	0	0	15	15.00
Hourly Average	0.00	0.00	3.50	0.00	0.25	0.00	0.00	0.00	3.75	3.75
1630 - 1645	0	0	3	0	0	0	0	0	3	3.00
1645 - 1700	0	0	6	0	1	0	0	0	7	7.00
1700 - 1715	0	0	8	0	1	0	0	0	9	9.00
1715 - 1730	0	0	4	0	1	0	0	0	5	5.00
Hourly Total	0	0	21	0	3	0	0	0	24	24.00
Hourly Average	0.00	0.00	5.25	0.00	0.75	0.00	0.00	0.00	6.00	6.00
1730 - 1745	0	0	8	0	0	0	0	0	8	8.00
1745 - 1800	0	0	8	0	1	0	0	0	9	9.00
1/2 Hourly Total	0	0	16	0	1	0	0	0	17	17.00
1/2 Hourly Average	0.00	0.00	8.00	0.00	0.50	0.00	0.00	0.00	8.50	8.50
Session Total	0	0	51	0	5	0	0	0	56	56.00
Session Average	0.00	0.00	5.10	0.00	0.50	0.00	0.00	0.00	5.60	5.60

Derby, City of Derby
Classified Junction Count

Site 2 of 7
Local Road
Petrol Pump Access
B5008 Etwall Road (South)
B5008 Etwall Road (West)

Lat/Long
lat 52.863492° lon -1.565433°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 2.11: Right from B5008 Etwall Road (South) to Petrol Pump Access								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	4	0	1	0	0	0	5	5.00
0715 - 0730	0	0	2	0	0	0	0	0	2	2.00
0730 - 0745	0	0	1	0	1	1	0	1	4	5.50
0745 - 0800	0	0	2	0	1	0	0	0	3	3.00
Hourly Total	0	0	9	0	3	1	0	1	14	15.50
Hourly Average	0.00	0.00	2.25	0.00	0.75	0.25	0.00	0.25	3.50	3.88
0800 - 0815	0	0	4	0	0	0	0	0	4	4.00
0815 - 0830	0	0	4	0	0	0	0	0	4	4.00
0830 - 0845	0	0	1	0	1	0	0	0	2	2.00
0845 - 0900	0	0	6	0	0	0	0	0	6	6.00
Hourly Total	0	0	15	0	1	0	0	0	16	16.00
Hourly Average	0.00	0.00	3.75	0.00	0.25	0.00	0.00	0.00	4.00	4.00
Session Total	0	0	24	0	4	1	0	1	30	31.50
Session Average	0.00	0.00	3.00	0.00	0.50	0.13	0.00	0.13	3.75	3.94

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 2.11: Right from B5008 Etwall Road (South) to Petrol Pump Access								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	5	0	1	0	0	0	6	6.00
1545 - 1600	0	0	4	0	0	0	1	0	5	6.30
1600 - 1615	0	0	2	0	0	0	0	0	2	2.00
1615 - 1630	0	0	4	0	0	0	0	0	4	4.00
Hourly Total	0	0	15	0	1	0	1	0	17	18.30
Hourly Average	0.00	0.00	3.75	0.00	0.25	0.00	0.25	0.00	4.25	4.58
1630 - 1645	0	0	6	0	3	0	0	0	9	9.00
1645 - 1700	0	0	3	0	0	0	0	0	3	3.00
1700 - 1715	0	0	6	0	0	0	0	0	6	6.00
1715 - 1730	0	0	6	0	2	0	0	0	8	8.00
Hourly Total	0	0	21	0	5	0	0	0	26	26.00
Hourly Average	0.00	0.00	5.25	0.00	1.25	0.00	0.00	0.00	6.50	6.50
1730 - 1745	0	0	2	0	0	0	0	0	2	2.00
1745 - 1800	0	0	4	0	1	0	0	0	5	5.00
1/2 Hourly Total	0	0	6	0	1	0	0	0	7	7.00
1/2 Hourly Average	0.00	0.00	3.00	0.00	0.50	0.00	0.00	0.00	3.50	3.50
Session Total	0	0	42	0	7	0	1	0	50	51.30
Session Average	0.00	0.00	4.20	0.00	0.70	0.00	0.10	0.00	5.00	5.13

Derby, City of Derby
Classified Junction Count

Site 2 of 7
Local Road
Petrol Pump Access
B5008 Etwall Road (South)
B5008 Etwall Road (West)

Lat/Long
lat 52.863492° lon -1.565433°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 2.12: U-Turn from B5008 Etwall Road (South) to B5008 Etwall Road (South)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	0	0	0	0	0	0	0	0.00
0715 - 0730	0	0	1	0	1	0	0	0	2	2.00
0730 - 0745	0	0	0	0	0	0	0	0	0	0.00
0745 - 0800	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	1	0	1	0	0	0	2	2.00
Hourly Average	0.00	0.00	0.25	0.00	0.25	0.00	0.00	0.00	0.50	0.50
0800 - 0815	0	0	0	0	0	0	0	0	0	0.00
0815 - 0830	0	0	1	0	0	0	0	0	1	1.00
0830 - 0845	0	0	0	0	0	0	0	0	0	0.00
0845 - 0900	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	1	0	0	0	0	0	1	1.00
Hourly Average	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.25	0.25

Session Total	0	0	2	0	1	0	0	0	3	3.00
Session Average	0.00	0.00	0.25	0.00	0.13	0.00	0.00	0.00	0.38	0.38

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 2.12: U-Turn from B5008 Etwall Road (South) to B5008 Etwall Road (South)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	0	0	0	0	0	0	0	0	0	0.00
1615 - 1630	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	1	0	0	0	0	0	1	1.00
Hourly Average	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.25	0.25
1630 - 1645	0	0	0	0	0	0	0	0	0	0.00
1645 - 1700	0	0	0	0	0	0	0	0	0	0.00
1700 - 1715	0	0	0	0	0	0	0	0	0	0.00
1715 - 1730	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	1	0	0	0	0	0	1	1.00
Hourly Average	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.25	0.25
1730 - 1745	0	0	0	0	0	0	0	0	0	0.00
1745 - 1800	0	0	0	0	0	0	0	0	0	0.00
1/2 Hourly Total	0	0	0	0	0	0	0	0	0	0.00
1/2 Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Session Total	0	0	2	0	0	0	0	0	2	2.00
Session Average	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.20	0.20

Derby, City of Derby
Classified Junction Count

Site 2 of 7
Local Road
Petrol Pump Access
B5008 Etwall Road (South)
B5008 Etwall Road (West)

Lat/Long
lat 52.863492° lon -1.565433°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 2.13: Left from B5008 Etwall Road (West) to Local Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	7	0	2	0	0	0	9	9.00
0715 - 0730	0	0	5	0	1	0	0	0	6	6.00
0730 - 0745	0	0	8	0	0	0	0	0	8	8.00
0745 - 0800	0	0	10	0	1	0	0	0	11	11.00
Hourly Total	0	0	30	0	4	0	0	0	34	34.00
Hourly Average	0.00	0.00	7.50	0.00	1.00	0.00	0.00	0.00	8.50	8.50
0800 - 0815	0	0	8	0	2	0	0	0	10	10.00
0815 - 0830	0	0	3	0	0	0	0	0	3	3.00
0830 - 0845	0	0	8	0	2	0	0	0	10	10.00
0845 - 0900	0	0	10	0	1	0	0	0	11	11.00
Hourly Total	0	0	29	0	5	0	0	0	34	34.00
Hourly Average	0.00	0.00	7.25	0.00	1.25	0.00	0.00	0.00	8.50	8.50
Session Total	0	0	59	0	9	0	0	0	68	68.00
Session Average	0.00	0.00	7.38	0.00	1.13	0.00	0.00	0.00	8.50	8.50

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 2.13: Left from B5008 Etwall Road (West) to Local Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	13	0	4	0	0	0	17	17.00
1545 - 1600	0	0	14	0	2	0	0	0	16	16.00
1600 - 1615	0	0	10	0	1	0	0	0	11	11.00
1615 - 1630	0	0	13	0	1	0	0	0	14	14.00
Hourly Total	0	0	50	0	8	0	0	0	58	58.00
Hourly Average	0.00	0.00	12.50	0.00	2.00	0.00	0.00	0.00	14.50	14.50
1630 - 1645	0	2	13	0	3	0	0	0	18	16.80
1645 - 1700	0	1	17	0	1	0	0	0	19	18.40
1700 - 1715	0	0	23	0	0	0	0	0	23	23.00
1715 - 1730	0	0	27	0	1	0	0	0	28	28.00
Hourly Total	0	3	80	0	5	0	0	0	88	86.20
Hourly Average	0.00	0.75	20.00	0.00	1.25	0.00	0.00	0.00	22.00	21.55
1730 - 1745	0	0	26	0	2	0	0	0	28	28.00
1745 - 1800	0	0	31	0	0	0	0	0	31	31.00
1/2 Hourly Total	0	0	57	0	2	0	0	0	59	59.00
1/2 Hourly Average	0.00	0.00	28.50	0.00	1.00	0.00	0.00	0.00	29.50	29.50
Session Total	0	3	187	0	15	0	0	0	205	203.20
Session Average	0.00	0.30	18.70	0.00	1.50	0.00	0.00	0.00	20.50	20.32

Derby, City of Derby
Classified Junction Count

Site 2 of 7
Local Road
Petrol Pump Access
B5008 Etwall Road (South)
B5008 Etwall Road (West)

Lat/Long
lat 52.863492° lon -1.565433°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 2.14: Left from B5008 Etwall Road (West) to Petrol Pump Access								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	7	0	3	0	2	0	12	14.60
0715 - 0730	0	0	9	0	1	0	0	0	10	10.00
0730 - 0745	0	0	10	0	2	1	1	0	14	15.80
0745 - 0800	0	0	8	0	2	1	1	0	12	13.80
Hourly Total	0	0	34	0	8	2	4	0	48	54.20
Hourly Average	0.00	0.00	8.50	0.00	2.00	0.50	1.00	0.00	12.00	13.55
0800 - 0815	0	0	17	0	2	0	5	0	24	30.50
0815 - 0830	0	1	11	0	4	2	3	0	21	25.30
0830 - 0845	0	0	16	0	3	0	0	0	19	19.00
0845 - 0900	0	0	11	0	4	2	0	0	17	18.00
Hourly Total	0	1	55	0	13	4	8	0	81	92.80
Hourly Average	0.00	0.25	13.75	0.00	3.25	1.00	2.00	0.00	20.25	23.20
Session Total	0	1	89	0	21	6	12	0	129	147.00
Session Average	0.00	0.13	11.13	0.00	2.63	0.75	1.50	0.00	16.13	18.38

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 2.14: Left from B5008 Etwall Road (West) to Petrol Pump Access								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	1	14	0	2	3	4	0	24	30.10
1545 - 1600	0	1	8	0	1	1	4	0	15	20.10
1600 - 1615	0	0	17	0	1	2	2	0	22	25.60
1615 - 1630	0	1	14	0	3	1	0	0	19	18.90
Hourly Total	0	3	53	0	7	7	10	0	80	94.70
Hourly Average	0.00	0.75	13.25	0.00	1.75	1.75	2.50	0.00	20.00	23.68
1630 - 1645	0	0	8	0	0	1	2	0	11	14.10
1645 - 1700	0	0	13	0	4	2	3	0	22	26.90
1700 - 1715	0	0	17	0	5	0	2	0	24	26.60
1715 - 1730	0	0	8	0	3	0	2	0	13	15.60
Hourly Total	0	0	46	0	12	3	9	0	70	83.20
Hourly Average	0.00	0.00	11.50	0.00	3.00	0.75	2.25	0.00	17.50	20.80
1730 - 1745	0	0	10	0	1	2	1	0	14	16.30
1745 - 1800	0	1	13	0	0	1	3	0	18	21.80
1/2 Hourly Total	0	1	23	0	1	3	4	0	32	38.10
1/2 Hourly Average	0.00	0.50	11.50	0.00	0.50	1.50	2.00	0.00	16.00	19.05
Session Total	0	4	122	0	20	13	23	0	182	216.00
Session Average	0.00	0.40	12.20	0.00	2.00	1.30	2.30	0.00	18.20	21.60

Derby, City of Derby
Classified Junction Count

Site 2 of 7
Local Road
Petrol Pump Access
B5008 Etwall Road (South)
B5008 Etwall Road (West)

Lat/Long
lat 52.863492° lon -1.565433°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 2.15: Right from B5008 Etwall Road (West) to B5008 Etwall Road (South)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	52	0	17	2	0	0	71	72.00
0715 - 0730	0	0	51	0	13	2	1	0	67	69.30
0730 - 0745	0	1	73	0	9	4	0	0	87	88.40
0745 - 0800	0	0	90	0	17	4	0	0	111	113.00
Hourly Total	0	1	266	0	56	12	1	0	336	342.70
Hourly Average	0.00	0.25	66.50	0.00	14.00	3.00	0.25	0.00	84.00	85.68
0800 - 0815	0	0	83	0	13	3	0	0	99	100.50
0815 - 0830	0	0	55	0	8	2	0	0	65	66.00
0830 - 0845	0	0	62	0	12	2	0	0	76	77.00
0845 - 0900	0	0	49	0	10	2	0	1	62	64.00
Hourly Total	0	0	249	0	43	9	0	1	302	307.50
Hourly Average	0.00	0.00	62.25	0.00	10.75	2.25	0.00	0.25	75.50	76.88

Session Total	0	1	515	0	99	21	1	1	638	650.20
Session Average	0.00	0.13	64.38	0.00	12.38	2.63	0.13	0.13	79.75	81.28

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 2.15: Right from B5008 Etwall Road (West) to B5008 Etwall Road (South)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	82	4	13	1	0	0	100	100.50
1545 - 1600	0	0	95	0	13	0	0	0	108	108.00
1600 - 1615	1	2	104	0	19	1	0	0	127	125.50
1615 - 1630	2	2	94	0	8	0	0	0	106	103.20
Hourly Total	3	4	375	4	53	2	0	0	441	437.20
Hourly Average	0.75	1.00	93.75	1.00	13.25	0.50	0.00	0.00	110.25	109.30
1630 - 1645	1	0	112	0	19	0	1	1	134	135.50
1645 - 1700	0	0	122	1	16	0	0	0	139	139.00
1700 - 1715	0	0	98	0	9	1	1	0	109	110.80
1715 - 1730	1	1	93	0	8	0	0	0	103	101.60
Hourly Total	2	1	425	1	52	1	2	1	485	486.90
Hourly Average	0.50	0.25	106.25	0.25	13.00	0.25	0.50	0.25	121.25	121.73
1730 - 1745	0	3	120	0	7	0	0	0	130	128.20
1745 - 1800	0	1	111	0	14	0	0	0	126	125.40
1/2 Hourly Total	0	4	231	0	21	0	0	0	256	253.60
1/2 Hourly Average	0.00	2.00	115.50	0.00	10.50	0.00	0.00	0.00	128.00	126.80

Session Total	5	9	1031	5	126	3	2	1	1182	1177.70
Session Average	0.50	0.90	103.10	0.50	12.60	0.30	0.20	0.10	118.20	117.77

Derby, City of Derby
Classified Junction Count

Site 2 of 7
Local Road
Petrol Pump Access
B5008 Etwall Road (South)
B5008 Etwall Road (West)

Lat/Long
lat 52.863492° lon -1.565433°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 2.16: U-Turn from B5008 Etwall Road (West) to B5008 Etwall Road (West)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	3	0	0	0	0	0	3	3.00
0715 - 0730	0	0	0	0	1	0	0	0	1	1.00
0730 - 0745	0	0	1	0	0	0	0	0	1	1.00
0745 - 0800	0	0	3	0	1	0	0	0	4	4.00
Hourly Total	0	0	7	0	2	0	0	0	9	9.00
Hourly Average	0.00	0.00	1.75	0.00	0.50	0.00	0.00	0.00	2.25	2.25
0800 - 0815	0	0	0	0	0	0	0	0	0	0.00
0815 - 0830	0	0	1	0	0	0	0	0	1	1.00
0830 - 0845	0	0	0	0	0	0	0	0	0	0.00
0845 - 0900	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	1	0	0	0	0	0	1	1.00
Hourly Average	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.25	0.25
Session Total	0	0	8	0	2	0	0	0	10	10.00
Session Average	0.00	0.00	1.00	0.00	0.25	0.00	0.00	0.00	1.25	1.25

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 2.16: U-Turn from B5008 Etwall Road (West) to B5008 Etwall Road (West)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	1	0	0	1	1.50
1545 - 1600	2	0	0	0	0	0	0	0	2	0.40
1600 - 1615	0	0	1	0	0	0	0	0	1	1.00
1615 - 1630	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	2	0	1	0	0	1	0	0	4	2.90
Hourly Average	0.50	0.00	0.25	0.00	0.00	0.25	0.00	0.00	1.00	0.73
1630 - 1645	0	0	2	0	0	0	0	0	2	2.00
1645 - 1700	0	0	0	0	0	0	0	0	0	0.00
1700 - 1715	0	0	1	0	0	0	1	0	2	3.30
1715 - 1730	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	4	0	0	0	1	0	5	6.30
Hourly Average	0.00	0.00	1.00	0.00	0.00	0.00	0.25	0.00	1.25	1.58
1730 - 1745	0	0	0	0	0	0	0	0	0	0.00
1745 - 1800	0	1	4	0	0	0	0	0	5	4.40
1/2 Hourly Total	0	1	4	0	0	0	0	0	5	4.40
1/2 Hourly Average	0.00	0.50	2.00	0.00	0.00	0.00	0.00	0.00	2.50	2.20
Session Total	2	1	9	0	0	1	1	0	14	13.60
Session Average	0.20	0.10	0.90	0.00	0.00	0.10	0.10	0.00	1.40	1.36

Derby, City of Derby
Classified Junction Count

Site 3 of 7
Findern Lane
B5008
B5008 Etwall Road

Lat/Long
lat 52.854808° lon -1.564672°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 3.1: Left from Findern Lane to B5008								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	2	1	8	0	5	0	0	1	17	15.80
0715 - 0730	0	0	16	0	0	1	0	0	17	17.50
0730 - 0745	3	0	24	0	4	0	0	1	32	30.60
0745 - 0800	1	1	43	0	2	0	0	0	47	45.60
Hourly Total	6	2	91	0	11	1	0	2	113	109.50
Hourly Average	1.50	0.50	22.75	0.00	2.75	0.25	0.00	0.50	28.25	27.38
0800 - 0815	0	0	34	0	2	0	0	1	37	38.00
0815 - 0830	0	0	36	0	4	0	0	0	40	40.00
0830 - 0845	1	0	32	0	1	2	0	0	36	36.20
0845 - 0900	0	0	32	0	4	0	0	2	38	40.00
Hourly Total	1	0	134	0	11	2	0	3	151	154.20
Hourly Average	0.25	0.00	33.50	0.00	2.75	0.50	0.00	0.75	37.75	38.55
Session Total	7	2	225	0	22	3	0	5	264	263.70
Session Average	0.88	0.25	28.13	0.00	2.75	0.38	0.00	0.63	33.00	32.96

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 3.1: Left from Findern Lane to B5008								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	3	0	36	0	2	0	0	0	41	38.60
1615 - 1630	2	0	52	0	2	0	0	0	56	54.40
Hourly Total	5	0	88	0	4	0	0	0	97	93.00
Hourly Average	1.25	0.00	22.00	0.00	1.00	0.00	0.00	0.00	24.25	23.25
1630 - 1645	0	1	56	0	2	0	0	0	59	58.40
1645 - 1700	0	0	51	0	3	0	0	1	55	56.00
1700 - 1715	1	0	51	0	4	0	0	0	56	55.20
1715 - 1730	2	0	39	0	3	0	0	0	44	42.40
Hourly Total	3	1	197	0	12	0	0	1	214	212.00
Hourly Average	0.75	0.25	49.25	0.00	3.00	0.00	0.00	0.25	53.50	53.00
1730 - 1745	6	1	53	0	2	0	0	0	62	56.60
1745 - 1800	0	0	57	0	2	0	0	0	59	59.00
1/2 Hourly Total	6	1	110	0	4	0	0	0	121	115.60
1/2 Hourly Average	3.00	0.50	55.00	0.00	2.00	0.00	0.00	0.00	60.50	57.80
Session Total	14	2	395	0	20	0	0	1	432	420.60
Session Average	1.40	0.20	39.50	0.00	2.00	0.00	0.00	0.10	43.20	42.06

Derby, City of Derby
Classified Junction Count

Site 3 of 7
Findern Lane
B5008
B5008 Etwall Road

Lat/Long
lat 52.854808° lon -1.564672°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 3.2: Right from Findern Lane to B5008 Etwall Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	3	0	1	0	0	0	4	4.00
0715 - 0730	0	0	4	0	1	0	0	0	5	5.00
0730 - 0745	0	0	5	0	1	0	0	0	6	6.00
0745 - 0800	0	0	12	0	2	1	0	0	15	15.50
Hourly Total	0	0	24	0	5	1	0	0	30	30.50
Hourly Average	0.00	0.00	6.00	0.00	1.25	0.25	0.00	0.00	7.50	7.63
0800 - 0815	0	0	12	0	0	0	0	0	12	12.00
0815 - 0830	0	0	10	0	0	0	0	0	10	10.00
0830 - 0845	0	0	11	0	1	0	0	0	12	12.00
0845 - 0900	0	0	9	0	0	0	0	0	9	9.00
Hourly Total	0	0	42	0	1	0	0	0	43	43.00
Hourly Average	0.00	0.00	10.50	0.00	0.25	0.00	0.00	0.00	10.75	10.75
Session Total	0	0	66	0	6	1	0	0	73	73.50
Session Average	0.00	0.00	8.25	0.00	0.75	0.13	0.00	0.00	9.13	9.19

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 3.2: Right from Findern Lane to B5008 Etwall Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	0	0	9	0	1	0	0	1	11	12.00
1615 - 1630	0	0	18	0	4	0	0	0	22	22.00
Hourly Total	0	0	27	0	5	0	0	1	33	34.00
Hourly Average	0.00	0.00	6.75	0.00	1.25	0.00	0.00	0.25	8.25	8.50
1630 - 1645	0	0	17	0	1	0	0	1	19	20.00
1645 - 1700	0	0	15	0	0	0	0	0	15	15.00
1700 - 1715	0	0	21	0	1	0	0	0	22	22.00
1715 - 1730	0	0	10	0	1	0	0	0	11	11.00
Hourly Total	0	0	63	0	3	0	0	1	67	68.00
Hourly Average	0.00	0.00	15.75	0.00	0.75	0.00	0.00	0.25	16.75	17.00
1730 - 1745	0	0	11	0	1	0	0	0	12	12.00
1745 - 1800	0	0	7	0	1	0	0	0	8	8.00
1/2 Hourly Total	0	0	18	0	2	0	0	0	20	20.00
1/2 Hourly Average	0.00	0.00	9.00	0.00	1.00	0.00	0.00	0.00	10.00	10.00
Session Total	0	0	108	0	10	0	0	2	120	122.00
Session Average	0.00	0.00	10.80	0.00	1.00	0.00	0.00	0.20	12.00	12.20

Derby, City of Derby
Classified Junction Count

Site 3 of 7
Findern Lane
B5008
B5008 Etwall Road

Lat/Long
lat 52.854808° lon -1.564672°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 3.3: Left from B5008 to B5008 Etwall Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	1	1	95	0	10	0	0	0	107	105.60
0715 - 0730	0	1	97	0	16	1	0	0	115	114.90
0730 - 0745	0	0	108	0	13	2	0	1	124	126.00
0745 - 0800	0	0	101	0	13	1	0	1	116	117.50
Hourly Total	1	2	401	0	52	4	0	2	462	464.00
Hourly Average	0.25	0.50	100.25	0.00	13.00	1.00	0.00	0.50	115.50	116.00
0800 - 0815	0	1	101	0	4	2	1	1	110	112.70
0815 - 0830	0	1	98	1	10	0	1	0	111	111.70
0830 - 0845	0	2	70	0	8	2	0	1	83	83.80
0845 - 0900	0	0	84	0	13	0	0	0	97	97.00
Hourly Total	0	4	353	1	35	4	2	2	401	405.20
Hourly Average	0.00	1.00	88.25	0.25	8.75	1.00	0.50	0.50	100.25	101.30
Session Total	1	6	754	1	87	8	2	4	863	869.20
Session Average	0.13	0.75	94.25	0.13	10.88	1.00	0.25	0.50	107.88	108.65

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 3.3: Left from B5008 to B5008 Etwall Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	0	1	69	0	15	1	0	1	87	87.90
1615 - 1630	0	0	69	0	9	0	0	0	78	78.00
Hourly Total	0	1	138	0	24	1	0	1	165	165.90
Hourly Average	0.00	0.25	34.50	0.00	6.00	0.25	0.00	0.25	41.25	41.48
1630 - 1645	0	0	83	0	17	0	0	0	100	100.00
1645 - 1700	0	0	70	0	11	0	0	0	81	81.00
1700 - 1715	0	0	98	0	7	0	0	0	105	105.00
1715 - 1730	0	0	77	0	7	0	0	0	84	84.00
Hourly Total	0	0	328	0	42	0	0	0	370	370.00
Hourly Average	0.00	0.00	82.00	0.00	10.50	0.00	0.00	0.00	92.50	92.50
1730 - 1745	0	0	71	0	6	0	0	0	77	77.00
1745 - 1800	0	0	93	0	6	0	0	0	99	99.00
1/2 Hourly Total	0	0	164	0	12	0	0	0	176	176.00
1/2 Hourly Average	0.00	0.00	82.00	0.00	6.00	0.00	0.00	0.00	88.00	88.00
Session Total	0	1	630	0	78	1	0	1	711	711.90
Session Average	0.00	0.10	63.00	0.00	7.80	0.10	0.00	0.10	71.10	71.19

Derby, City of Derby
Classified Junction Count

Site 3 of 7
Findern Lane
B5008
B5008 Etwall Road

Lat/Long
lat 52.854808° lon -1.564672°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 3.4: Right from B5008 to Findern Lane								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	1	0	18	0	3	0	0	1	23	23.20
0715 - 0730	0	1	21	0	1	0	0	0	23	22.40
0730 - 0745	0	0	46	0	4	0	0	1	51	52.00
0745 - 0800	1	0	38	0	4	0	0	0	43	42.20
Hourly Total	2	1	123	0	12	0	0	2	140	139.80
Hourly Average	0.50	0.25	30.75	0.00	3.00	0.00	0.00	0.50	35.00	34.95
0800 - 0815	0	0	40	1	2	1	0	0	44	44.50
0815 - 0830	0	0	51	0	2	1	0	0	54	54.50
0830 - 0845	1	0	31	0	3	0	0	0	35	34.20
0845 - 0900	1	0	38	0	3	1	0	0	43	42.70
Hourly Total	2	0	160	1	10	3	0	0	176	175.90
Hourly Average	0.50	0.00	40.00	0.25	2.50	0.75	0.00	0.00	44.00	43.98
Session Total	4	1	283	1	22	3	0	2	316	315.70
Session Average	0.50	0.13	35.38	0.13	2.75	0.38	0.00	0.25	39.50	39.46

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 3.4: Right from B5008 to Findern Lane								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	1	0	32	0	5	0	0	0	38	37.20
1615 - 1630	1	0	30	0	1	0	0	0	32	31.20
Hourly Total	2	0	62	0	6	0	0	0	70	68.40
Hourly Average	0.50	0.00	15.50	0.00	1.50	0.00	0.00	0.00	17.50	17.10
1630 - 1645	0	0	28	0	1	0	0	1	30	31.00
1645 - 1700	0	1	34	0	1	0	0	0	36	35.40
1700 - 1715	0	0	30	0	4	0	0	0	34	34.00
1715 - 1730	1	0	43	1	4	0	0	0	49	48.20
Hourly Total	1	1	135	1	10	0	0	1	149	148.60
Hourly Average	0.25	0.25	33.75	0.25	2.50	0.00	0.00	0.25	37.25	37.15
1730 - 1745	3	0	40	0	2	0	0	0	45	42.60
1745 - 1800	2	1	41	0	5	0	0	2	51	50.80
1/2 Hourly Total	5	1	81	0	7	0	0	2	96	93.40
1/2 Hourly Average	2.50	0.50	40.50	0.00	3.50	0.00	0.00	1.00	48.00	46.70
Session Total	8	2	278	1	23	0	0	3	315	310.40
Session Average	0.80	0.20	27.80	0.10	2.30	0.00	0.00	0.30	31.50	31.04

Derby, City of Derby
Classified Junction Count

Site 3 of 7
Findern Lane
B5008
B5008 Etwall Road

Lat/Long
lat 52.854808° lon -1.564672°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 3.5: Left from B5008 Etwall Road to Findern Lane								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	5	0	0	0	0	0	5	5.00
0715 - 0730	0	0	5	0	0	0	1	0	6	7.30
0730 - 0745	0	0	6	0	1	0	0	0	7	7.00
0745 - 0800	0	0	7	0	2	1	0	0	10	10.50
Hourly Total	0	0	23	0	3	1	1	0	28	29.80
Hourly Average	0.00	0.00	5.75	0.00	0.75	0.25	0.25	0.00	7.00	7.45
0800 - 0815	0	0	10	0	1	1	0	0	12	12.50
0815 - 0830	1	0	12	0	1	1	0	0	15	14.70
0830 - 0845	0	0	9	0	3	0	0	0	12	12.00
0845 - 0900	0	0	9	0	0	0	0	0	9	9.00
Hourly Total	1	0	40	0	5	2	0	0	48	48.20
Hourly Average	0.25	0.00	10.00	0.00	1.25	0.50	0.00	0.00	12.00	12.05
Session Total	1	0	63	0	8	3	1	0	76	78.00
Session Average	0.13	0.00	7.88	0.00	1.00	0.38	0.13	0.00	9.50	9.75

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 3.5: Left from B5008 Etwall Road to Findern Lane								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	1	1	7	0	1	0	0	0	10	8.60
1615 - 1630	1	0	7	0	2	0	0	0	10	9.20
Hourly Total	2	1	14	0	3	0	0	0	20	17.80
Hourly Average	0.50	0.25	3.50	0.00	0.75	0.00	0.00	0.00	5.00	4.45
1630 - 1645	0	0	14	0	2	1	0	0	17	17.50
1645 - 1700	0	0	12	0	1	0	0	0	13	13.00
1700 - 1715	0	0	11	0	1	0	0	0	12	12.00
1715 - 1730	0	0	20	0	3	0	0	0	23	23.00
Hourly Total	0	0	57	0	7	1	0	0	65	65.50
Hourly Average	0.00	0.00	14.25	0.00	1.75	0.25	0.00	0.00	16.25	16.38
1730 - 1745	0	0	16	0	0	0	0	0	16	16.00
1745 - 1800	0	0	11	0	0	0	0	0	11	11.00
1/2 Hourly Total	0	0	27	0	0	0	0	0	27	27.00
1/2 Hourly Average	0.00	0.00	13.50	0.00	0.00	0.00	0.00	0.00	13.50	13.50
Session Total	2	1	98	0	10	1	0	0	112	110.30
Session Average	0.20	0.10	9.80	0.00	1.00	0.10	0.00	0.00	11.20	11.03

Derby, City of Derby
Classified Junction Count

Site 3 of 7
Findern Lane
B5008
B5008 Etwall Road

Lat/Long
lat 52.854808° lon -1.564672°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 3.6: Right from B5008 Etwall Road to B5008								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	43	0	17	0	0	0	60	60.00
0715 - 0730	0	0	47	0	16	4	0	0	67	69.00
0730 - 0745	0	1	75	0	8	5	0	0	89	90.90
0745 - 0800	0	0	91	0	18	3	0	0	112	113.50
Hourly Total	0	1	256	0	59	12	0	0	328	333.40
Hourly Average	0.00	0.25	64.00	0.00	14.75	3.00	0.00	0.00	82.00	83.35
0800 - 0815	0	0	82	0	10	3	0	0	95	96.50
0815 - 0830	0	0	58	0	10	3	0	0	71	72.50
0830 - 0845	0	0	49	0	12	2	0	0	63	64.00
0845 - 0900	0	0	49	0	10	1	0	1	61	62.50
Hourly Total	0	0	238	0	42	9	0	1	290	295.50
Hourly Average	0.00	0.00	59.50	0.00	10.50	2.25	0.00	0.25	72.50	73.88

Session Total	0	1	494	0	101	21	0	1	618	628.90
Session Average	0.00	0.13	61.75	0.00	12.63	2.63	0.00	0.13	77.25	78.61

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 3.6: Right from B5008 Etwall Road to B5008								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	0	2	91	0	12	0	0	0	105	103.80
1615 - 1630	1	2	102	0	10	1	0	0	116	114.50
Hourly Total	1	4	193	0	22	1	0	0	221	218.30
Hourly Average	0.25	1.00	48.25	0.00	5.50	0.25	0.00	0.00	55.25	54.58
1630 - 1645	1	1	85	0	13	0	0	0	100	98.60
1645 - 1700	0	0	81	1	8	0	1	1	92	94.30
1700 - 1715	0	0	99	0	12	0	0	0	111	111.00
1715 - 1730	1	0	121	0	12	0	1	0	135	135.50
Hourly Total	2	1	386	1	45	0	2	1	438	439.40
Hourly Average	0.50	0.25	96.50	0.25	11.25	0.00	0.50	0.25	109.50	109.85
1730 - 1745	0	1	87	0	5	0	0	0	93	92.40
1745 - 1800	0	3	92	0	13	0	0	0	108	106.20
1/2 Hourly Total	0	4	179	0	18	0	0	0	201	198.60
1/2 Hourly Average	0.00	2.00	89.50	0.00	9.00	0.00	0.00	0.00	100.50	99.30

Session Total	3	9	758	1	85	1	2	1	860	856.30
Session Average	0.30	0.90	75.80	0.10	8.50	0.10	0.20	0.10	86.00	85.63

Derby, City of Derby
Classified Junction Count

Site 4 of 7
B5008 Canal Bridge
A5132 The Green
B5008 Repton Road
A5132 The Castle Way

Lat/Long
lat 52.853453° lon -1.564944°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 4.1: Left from B5008 Canal Bridge to A5132 The Green								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	3	0	2	0	0	0	5	5.00
0715 - 0730	0	0	4	0	1	0	0	0	5	5.00
0730 - 0745	0	0	12	0	0	0	0	0	12	12.00
0745 - 0800	0	0	8	0	3	0	0	0	11	11.00
Hourly Total	0	0	27	0	6	0	0	0	33	33.00
Hourly Average	0.00	0.00	6.75	0.00	1.50	0.00	0.00	0.00	8.25	8.25
0800 - 0815	0	0	4	0	2	0	0	0	6	6.00
0815 - 0830	0	0	13	0	5	0	0	0	18	18.00
0830 - 0845	1	0	9	0	0	2	0	0	12	12.20
0845 - 0900	0	0	15	0	3	0	0	0	18	18.00
Hourly Total	1	0	41	0	10	2	0	0	54	54.20
Hourly Average	0.25	0.00	10.25	0.00	2.50	0.50	0.00	0.00	13.50	13.55

Session Total	1	0	68	0	16	2	0	0	87	87.20
Session Average	0.13	0.00	8.50	0.00	2.00	0.25	0.00	0.00	10.88	10.90

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 4.1: Left from B5008 Canal Bridge to A5132 The Green								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	0	1	18	0	1	0	0	0	20	19.40
1615 - 1630	0	0	21	0	2	0	0	0	23	23.00
Hourly Total	0	1	39	0	3	0	0	0	43	42.40
Hourly Average	0.00	0.25	9.75	0.00	0.75	0.00	0.00	0.00	10.75	10.60
1630 - 1645	1	1	23	0	0	0	0	0	25	23.60
1645 - 1700	0	0	24	0	1	0	0	0	25	25.00
1700 - 1715	0	0	29	0	1	0	0	0	30	30.00
1715 - 1730	0	0	33	1	6	0	1	0	41	42.30
Hourly Total	1	1	109	1	8	0	1	0	121	120.90
Hourly Average	0.25	0.25	27.25	0.25	2.00	0.00	0.25	0.00	30.25	30.23
1730 - 1745	1	0	20	0	1	0	0	0	22	21.20
1745 - 1800	0	2	25	0	4	0	0	0	31	29.80
1/2 Hourly Total	1	2	45	0	5	0	0	0	53	51.00
1/2 Hourly Average	0.50	1.00	22.50	0.00	2.50	0.00	0.00	0.00	26.50	25.50

Session Total	2	4	193	1	16	0	1	0	217	214.30
Session Average	0.20	0.40	19.30	0.10	1.60	0.00	0.10	0.00	21.70	21.43

Derby, City of Derby
Classified Junction Count

Site 4 of 7
B5008 Canal Bridge
A5132 The Green
B5008 Repton Road
A5132 The Castle Way

Lat/Long
lat 52.853453° lon -1.564944°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 4.2: Southbound from B5008 Canal Bridge to B5008 Repton Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	1	1	44	0	18	1	0	1	66	66.10
0715 - 0730	1	0	50	0	15	3	0	0	69	69.70
0730 - 0745	2	1	76	0	13	3	0	1	96	96.30
0745 - 0800	1	1	115	0	11	4	0	0	132	132.60
Hourly Total	5	3	285	0	57	11	0	2	363	364.70
Hourly Average	1.25	0.75	71.25	0.00	14.25	2.75	0.00	0.50	90.75	91.18
0800 - 0815	0	0	97	0	9	2	0	1	109	111.00
0815 - 0830	0	0	72	0	8	3	0	0	83	84.50
0830 - 0845	0	0	55	0	10	2	0	0	67	68.00
0845 - 0900	0	0	52	0	10	1	0	3	66	69.50
Hourly Total	0	0	276	0	37	8	0	4	325	333.00
Hourly Average	0.00	0.00	69.00	0.00	9.25	2.00	0.00	1.00	81.25	83.25

Session Total	5	3	561	0	94	19	0	6	688	697.70
Session Average	0.63	0.38	70.13	0.00	11.75	2.38	0.00	0.75	86.00	87.21

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 4.2: Southbound from B5008 Canal Bridge to B5008 Repton Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	2	1	97	0	13	0	0	0	113	110.80
1615 - 1630	2	2	120	0	8	1	0	0	133	130.70
Hourly Total	4	3	217	0	21	1	0	0	246	241.50
Hourly Average	1.00	0.75	54.25	0.00	5.25	0.25	0.00	0.00	61.50	60.38
1630 - 1645	0	0	98	0	14	0	0	0	112	112.00
1645 - 1700	2	0	99	0	10	0	1	2	114	115.70
1700 - 1715	1	0	114	0	15	0	0	0	130	129.20
1715 - 1730	1	0	117	0	9	0	0	0	127	126.20
Hourly Total	4	0	428	0	48	0	1	2	483	483.10
Hourly Average	1.00	0.00	107.00	0.00	12.00	0.00	0.25	0.50	120.75	120.78
1730 - 1745	1	1	97	0	8	0	0	0	107	105.60
1745 - 1800	1	1	115	0	8	0	0	0	125	123.60
1/2 Hourly Total	2	2	212	0	16	0	0	0	232	229.20
1/2 Hourly Average	1.00	1.00	106.00	0.00	8.00	0.00	0.00	0.00	116.00	114.60

Session Total	10	5	857	0	85	1	1	2	961	953.80
Session Average	1.00	0.50	85.70	0.00	8.50	0.10	0.10	0.20	96.10	95.38

Derby, City of Derby
Classified Junction Count

Site 4 of 7
B5008 Canal Bridge
A5132 The Green
B5008 Repton Road
A5132 The Castle Way

Lat/Long
lat 52.853453° lon -1.564944°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 4.3: Right from B5008 Canal Bridge to A5132 The Castle Way								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	4	0	2	0	0	0	6	6.00
0715 - 0730	0	0	6	0	2	0	0	0	8	8.00
0730 - 0745	1	0	13	0	1	2	0	0	17	17.20
0745 - 0800	0	0	10	0	2	0	0	0	12	12.00
Hourly Total	1	0	33	0	7	2	0	0	43	43.20
Hourly Average	0.25	0.00	8.25	0.00	1.75	0.50	0.00	0.00	10.75	10.80
0800 - 0815	0	0	8	0	1	0	0	0	9	9.00
0815 - 0830	0	0	16	0	2	0	0	0	18	18.00
0830 - 0845	0	0	17	0	2	0	0	0	19	19.00
0845 - 0900	0	0	10	0	1	0	0	0	11	11.00
Hourly Total	0	0	51	0	6	0	0	0	57	57.00
Hourly Average	0.00	0.00	12.75	0.00	1.50	0.00	0.00	0.00	14.25	14.25
Session Total	1	0	84	0	13	2	0	0	100	100.20
Session Average	0.13	0.00	10.50	0.00	1.63	0.25	0.00	0.00	12.50	12.53

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 4.3: Right from B5008 Canal Bridge to A5132 The Castle Way								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	1	0	8	0	0	0	0	0	9	8.20
1615 - 1630	1	0	14	0	2	0	0	0	17	16.20
Hourly Total	2	0	22	0	2	0	0	0	26	24.40
Hourly Average	0.50	0.00	5.50	0.00	0.50	0.00	0.00	0.00	6.50	6.10
1630 - 1645	0	0	21	0	1	0	0	0	22	22.00
1645 - 1700	0	0	15	0	0	0	0	0	15	15.00
1700 - 1715	0	0	9	0	1	0	0	0	10	10.00
1715 - 1730	0	1	8	0	0	0	0	0	9	8.40
Hourly Total	0	1	53	0	2	0	0	0	56	55.40
Hourly Average	0.00	0.25	13.25	0.00	0.50	0.00	0.00	0.00	14.00	13.85
1730 - 1745	3	1	17	0	0	0	0	0	21	18.00
1745 - 1800	0	0	6	0	0	0	0	0	6	6.00
1/2 Hourly Total	3	1	23	0	0	0	0	0	27	24.00
1/2 Hourly Average	1.50	0.50	11.50	0.00	0.00	0.00	0.00	0.00	13.50	12.00
Session Total	5	2	98	0	4	0	0	0	109	103.80
Session Average	0.50	0.20	9.80	0.00	0.40	0.00	0.00	0.00	10.90	10.38

Derby, City of Derby
Classified Junction Count

Site 4 of 7
B5008 Canal Bridge
A5132 The Green
B5008 Repton Road
A5132 The Castle Way

Lat/Long
lat 52.853453° lon -1.564944°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 4.4: U-Turn from B5008 Canal Bridge to B5008 Canal Bridge								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	0	0	0	0	0	0	0	0.00
0715 - 0730	0	0	0	0	0	0	0	0	0	0.00
0730 - 0745	0	0	0	0	0	0	0	0	0	0.00
0745 - 0800	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800 - 0815	0	0	0	0	0	0	0	0	0	0.00
0815 - 0830	0	0	0	0	0	0	0	0	0	0.00
0830 - 0845	0	0	0	0	0	1	0	0	1	1.50
0845 - 0900	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	1	0	0	1	1.50
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.25	0.38
Session Total	0	0	0	0	0	1	0	0	1	1.50
Session Average	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.13	0.19

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 4.4: U-Turn from B5008 Canal Bridge to B5008 Canal Bridge								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	0	0	0	0	0	0	0	0	0	0.00
1615 - 1630	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1630 - 1645	0	0	0	0	0	0	0	0	0	0.00
1645 - 1700	0	0	0	0	0	0	0	0	0	0.00
1700 - 1715	0	0	0	0	0	0	0	0	0	0.00
1715 - 1730	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1730 - 1745	0	0	0	0	0	0	0	0	0	0.00
1745 - 1800	0	0	0	0	0	0	0	0	0	0.00
1/2 Hourly Total	0	0	0	0	0	0	0	0	0	0.00
1/2 Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Session Total	0	0	0	0	0	0	0	0	0	0.00
Session Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Derby, City of Derby
Classified Junction Count

Site 4 of 7
B5008 Canal Bridge
A5132 The Green
B5008 Repton Road
A5132 The Castle Way

Lat/Long
lat 52.853453° lon -1.564944°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 4.5: Left from A5132 The Green to B5008 Repton Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	13	0	4	0	0	0	17	17.00
0715 - 0730	0	0	11	0	3	0	0	0	14	14.00
0730 - 0745	0	0	11	0	3	0	0	0	14	14.00
0745 - 0800	0	0	22	0	4	0	0	0	26	26.00
Hourly Total	0	0	57	0	14	0	0	0	71	71.00
Hourly Average	0.00	0.00	14.25	0.00	3.50	0.00	0.00	0.00	17.75	17.75
0800 - 0815	0	0	17	0	5	0	0	0	22	22.00
0815 - 0830	0	0	13	0	0	0	0	1	14	15.00
0830 - 0845	0	0	19	0	0	0	0	0	19	19.00
0845 - 0900	0	0	13	0	2	0	0	0	15	15.00
Hourly Total	0	0	62	0	7	0	0	1	70	71.00
Hourly Average	0.00	0.00	15.50	0.00	1.75	0.00	0.00	0.25	17.50	17.75
Session Total	0	0	119	0	21	0	0	1	141	142.00
Session Average	0.00	0.00	14.88	0.00	2.63	0.00	0.00	0.13	17.63	17.75

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 4.5: Left from A5132 The Green to B5008 Repton Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	0	0	15	0	0	0	0	0	15	15.00
1615 - 1630	0	0	10	0	0	0	0	0	10	10.00
Hourly Total	0	0	25	0	0	0	0	0	25	25.00
Hourly Average	0.00	0.00	6.25	0.00	0.00	0.00	0.00	0.00	6.25	6.25
1630 - 1645	0	0	19	0	2	0	0	0	21	21.00
1645 - 1700	0	0	17	0	0	0	0	0	17	17.00
1700 - 1715	0	0	16	0	0	0	0	0	16	16.00
1715 - 1730	1	0	25	0	0	0	0	0	26	25.20
Hourly Total	1	0	77	0	2	0	0	0	80	79.20
Hourly Average	0.25	0.00	19.25	0.00	0.50	0.00	0.00	0.00	20.00	19.80
1730 - 1745	0	0	21	0	0	0	0	0	21	21.00
1745 - 1800	0	0	21	0	0	0	0	0	21	21.00
1/2 Hourly Total	0	0	42	0	0	0	0	0	42	42.00
1/2 Hourly Average	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	21.00	21.00
Session Total	1	0	144	0	2	0	0	0	147	146.20
Session Average	0.10	0.00	14.40	0.00	0.20	0.00	0.00	0.00	14.70	14.62

Derby, City of Derby
Classified Junction Count

Site 4 of 7
B5008 Canal Bridge
A5132 The Green
B5008 Repton Road
A5132 The Castle Way

Lat/Long
lat 52.853453° lon -1.564944°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 4.6: Westbound from A5132 The Green to A5132 The Castle Way								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	1	0	34	0	5	1	1	0	42	43.00
0715 - 0730	1	0	44	0	12	0	4	0	61	65.40
0730 - 0745	0	0	41	0	11	0	1	0	53	54.30
0745 - 0800	2	0	47	0	5	0	0	0	54	52.40
Hourly Total	4	0	166	0	33	1	6	0	210	215.10
Hourly Average	1.00	0.00	41.50	0.00	8.25	0.25	1.50	0.00	52.50	53.78
0800 - 0815	0	0	57	0	7	0	1	0	65	66.30
0815 - 0830	0	1	45	0	5	0	1	0	52	52.70
0830 - 0845	1	0	44	0	8	0	0	1	54	54.20
0845 - 0900	0	0	49	0	6	0	1	0	56	57.30
Hourly Total	1	1	195	0	26	0	3	1	227	230.50
Hourly Average	0.25	0.25	48.75	0.00	6.50	0.00	0.75	0.25	56.75	57.63
Session Total	5	1	361	0	59	1	9	1	437	445.60
Session Average	0.63	0.13	45.13	0.00	7.38	0.13	1.13	0.13	54.63	55.70

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 4.6: Westbound from A5132 The Green to A5132 The Castle Way								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	0	0	28	0	2	1	0	0	31	31.50
1615 - 1630	0	2	40	0	4	0	1	0	47	47.10
Hourly Total	0	2	68	0	6	1	1	0	78	78.60
Hourly Average	0.00	0.50	17.00	0.00	1.50	0.25	0.25	0.00	19.50	19.65
1630 - 1645	0	1	58	0	4	0	0	0	63	62.40
1645 - 1700	0	0	38	0	3	1	0	0	42	42.50
1700 - 1715	1	0	39	0	2	0	0	0	42	41.20
1715 - 1730	2	1	51	0	4	0	0	0	58	55.80
Hourly Total	3	2	186	0	13	1	0	0	205	201.90
Hourly Average	0.75	0.50	46.50	0.00	3.25	0.25	0.00	0.00	51.25	50.48
1730 - 1745	2	1	47	1	0	0	0	0	51	48.80
1745 - 1800	1	1	36	0	3	0	0	0	41	39.60
1/2 Hourly Total	3	2	83	1	3	0	0	0	92	88.40
1/2 Hourly Average	1.50	1.00	41.50	0.50	1.50	0.00	0.00	0.00	46.00	44.20
Session Total	6	6	337	1	22	2	1	0	375	368.90
Session Average	0.60	0.60	33.70	0.10	2.20	0.20	0.10	0.00	37.50	36.89

Derby, City of Derby
Classified Junction Count

Site 4 of 7
B5008 Canal Bridge
A5132 The Green
B5008 Repton Road
A5132 The Castle Way

Lat/Long
lat 52.853453° lon -1.564944°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 4.7: Right from A5132 The Green to B5008 Canal Bridge								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	1	25	0	1	0	0	0	27	26.40
0715 - 0730	0	0	19	0	2	0	0	1	22	23.00
0730 - 0745	0	0	33	0	2	0	0	0	35	35.00
0745 - 0800	0	0	22	0	1	1	0	1	25	26.50
Hourly Total	0	1	99	0	6	1	0	2	109	110.90
Hourly Average	0.00	0.25	24.75	0.00	1.50	0.25	0.00	0.50	27.25	27.73
0800 - 0815	0	1	17	0	2	0	0	0	20	19.40
0815 - 0830	0	0	18	0	3	0	0	0	21	21.00
0830 - 0845	0	1	11	0	2	0	0	0	14	13.40
0845 - 0900	0	0	19	0	3	0	0	0	22	22.00
Hourly Total	0	2	65	0	10	0	0	0	77	75.80
Hourly Average	0.00	0.50	16.25	0.00	2.50	0.00	0.00	0.00	19.25	18.95
Session Total	0	3	164	0	16	1	0	2	186	186.70
Session Average	0.00	0.38	20.50	0.00	2.00	0.13	0.00	0.25	23.25	23.34

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 4.7: Right from A5132 The Green to B5008 Canal Bridge								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	0	0	11	0	2	0	0	0	13	13.00
1615 - 1630	0	0	11	0	2	0	0	0	13	13.00
Hourly Total	0	0	22	0	4	0	0	0	26	26.00
Hourly Average	0.00	0.00	5.50	0.00	1.00	0.00	0.00	0.00	6.50	6.50
1630 - 1645	0	0	17	0	1	0	0	0	18	18.00
1645 - 1700	0	0	9	0	3	0	0	0	12	12.00
1700 - 1715	0	0	13	0	2	0	0	0	15	15.00
1715 - 1730	0	0	13	1	1	0	0	0	15	15.00
Hourly Total	0	0	52	1	7	0	0	0	60	60.00
Hourly Average	0.00	0.00	13.00	0.25	1.75	0.00	0.00	0.00	15.00	15.00
1730 - 1745	0	0	15	0	1	0	0	0	16	16.00
1745 - 1800	0	0	21	0	3	0	0	0	24	24.00
1/2 Hourly Total	0	0	36	0	4	0	0	0	40	40.00
1/2 Hourly Average	0.00	0.00	18.00	0.00	2.00	0.00	0.00	0.00	20.00	20.00
Session Total	0	0	110	1	15	0	0	0	126	126.00
Session Average	0.00	0.00	11.00	0.10	1.50	0.00	0.00	0.00	12.60	12.60

Derby, City of Derby
Classified Junction Count

Site 4 of 7
B5008 Canal Bridge
A5132 The Green
B5008 Repton Road
A5132 The Castle Way

Lat/Long
lat 52.853453° lon -1.564944°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 4.8: U-Turn from A5132 The Green to A5132 The Green								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	0	0	0	0	0	0	0	0.00
0715 - 0730	0	0	0	0	0	0	0	0	0	0.00
0730 - 0745	0	0	0	0	0	0	0	0	0	0.00
0745 - 0800	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800 - 0815	0	0	0	0	0	0	0	0	0	0.00
0815 - 0830	0	0	0	0	0	0	0	0	0	0.00
0830 - 0845	0	0	0	0	0	0	0	0	0	0.00
0845 - 0900	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Session Total	0	0	0	0	0	0	0	0	0	0.00
Session Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 4.8: U-Turn from A5132 The Green to A5132 The Green								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	0	0	0	0	0	0	0	0	0	0.00
1615 - 1630	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1630 - 1645	0	0	0	0	0	0	0	0	0	0.00
1645 - 1700	0	0	0	0	0	0	0	0	0	0.00
1700 - 1715	0	0	0	0	0	0	0	0	0	0.00
1715 - 1730	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1730 - 1745	0	0	0	0	0	0	0	0	0	0.00
1745 - 1800	0	0	0	0	0	0	0	0	0	0.00
1/2 Hourly Total	0	0	0	0	0	0	0	0	0	0.00
1/2 Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Session Total	0	0	0	0	0	0	0	0	0	0.00
Session Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Derby, City of Derby
Classified Junction Count

Site 4 of 7
B5008 Canal Bridge
A5132 The Green
B5008 Repton Road
A5132 The Castle Way

Lat/Long
lat 52.853453° lon -1.564944°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 4.9: Left from B5008 Repton Road to A5132 The Castle Way								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	1	1	42	0	6	0	1	0	51	50.90
0715 - 0730	0	0	47	0	10	1	1	0	59	60.80
0730 - 0745	0	0	48	0	6	1	1	1	57	59.80
0745 - 0800	0	0	66	0	9	1	0	0	76	76.50
Hourly Total	1	1	203	0	31	3	3	1	243	248.00
Hourly Average	0.25	0.25	50.75	0.00	7.75	0.75	0.75	0.25	60.75	62.00
0800 - 0815	0	0	53	0	6	1	1	0	61	62.80
0815 - 0830	1	0	58	0	2	0	1	0	62	62.50
0830 - 0845	0	0	72	0	5	1	1	3	82	86.80
0845 - 0900	0	0	53	0	4	1	0	3	61	64.50
Hourly Total	1	0	236	0	17	3	3	6	266	276.60
Hourly Average	0.25	0.00	59.00	0.00	4.25	0.75	0.75	1.50	66.50	69.15

Session Total	2	1	439	0	48	6	6	7	509	524.60
Session Average	0.25	0.13	54.88	0.00	6.00	0.75	0.75	0.88	63.63	65.58

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 4.9: Left from B5008 Repton Road to A5132 The Castle Way								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	0	0	47	0	4	1	2	0	54	57.10
1615 - 1630	1	1	48	0	2	0	0	0	52	50.60
Hourly Total	1	1	95	0	6	1	2	0	106	107.70
Hourly Average	0.25	0.25	23.75	0.00	1.50	0.25	0.50	0.00	26.50	26.93
1630 - 1645	0	0	51	0	6	0	0	0	57	57.00
1645 - 1700	0	0	61	1	5	0	0	0	67	67.00
1700 - 1715	0	0	51	1	5	0	0	0	57	57.00
1715 - 1730	0	0	59	0	8	0	0	0	67	67.00
Hourly Total	0	0	222	2	24	0	0	0	248	248.00
Hourly Average	0.00	0.00	55.50	0.50	6.00	0.00	0.00	0.00	62.00	62.00
1730 - 1745	0	0	57	0	2	0	0	0	59	59.00
1745 - 1800	0	0	61	0	2	0	0	0	63	63.00
1/2 Hourly Total	0	0	118	0	4	0	0	0	122	122.00
1/2 Hourly Average	0.00	0.00	59.00	0.00	2.00	0.00	0.00	0.00	61.00	61.00

Session Total	1	1	435	2	34	1	2	0	476	477.70
Session Average	0.10	0.10	43.50	0.20	3.40	0.10	0.20	0.00	47.60	47.77

Derby, City of Derby
Classified Junction Count

Site 4 of 7
B5008 Canal Bridge
A5132 The Green
B5008 Repton Road
A5132 The Castle Way

Lat/Long
lat 52.853453° lon -1.564944°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 4.10: Northbound from B5008 Repton Road to B5008 Canal Bridge								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	72	0	13	0	0	1	86	87.00
0715 - 0730	0	1	94	0	19	1	0	0	115	114.90
0730 - 0745	0	0	105	0	12	1	0	0	118	118.50
0745 - 0800	1	0	107	0	13	0	0	1	122	122.20
Hourly Total	1	1	378	0	57	2	0	2	441	442.60
Hourly Average	0.25	0.25	94.50	0.00	14.25	0.50	0.00	0.50	110.25	110.65
0800 - 0815	1	0	121	1	1	3	1	1	129	132.00
0815 - 0830	0	1	99	1	7	1	1	0	110	111.20
0830 - 0845	1	1	86	0	6	1	0	1	96	96.10
0845 - 0900	0	0	78	0	12	0	0	0	90	90.00
Hourly Total	2	2	384	2	26	5	2	2	425	429.30
Hourly Average	0.50	0.50	96.00	0.50	6.50	1.25	0.50	0.50	106.25	107.33
Session Total	3	3	762	2	83	7	2	4	866	871.90
Session Average	0.38	0.38	95.25	0.25	10.38	0.88	0.25	0.50	108.25	108.99

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 4.10: Northbound from B5008 Repton Road to B5008 Canal Bridge								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	1	1	64	0	12	1	0	1	80	80.10
1615 - 1630	1	0	79	0	7	0	0	0	87	86.20
Hourly Total	2	1	143	0	19	1	0	1	167	166.30
Hourly Average	0.50	0.25	35.75	0.00	4.75	0.25	0.00	0.25	41.75	41.58
1630 - 1645	0	0	84	0	14	0	0	1	99	100.00
1645 - 1700	0	1	89	0	11	0	0	0	101	100.40
1700 - 1715	0	0	102	0	9	0	0	0	111	111.00
1715 - 1730	0	0	96	0	8	0	0	0	104	104.00
Hourly Total	0	1	371	0	42	0	0	1	415	415.40
Hourly Average	0.00	0.25	92.75	0.00	10.50	0.00	0.00	0.25	103.75	103.85
1730 - 1745	2	0	82	0	4	0	0	0	88	86.40
1745 - 1800	2	1	104	0	7	0	0	1	115	113.80
1/2 Hourly Total	4	1	186	0	11	0	0	1	203	200.20
1/2 Hourly Average	2.00	0.50	93.00	0.00	5.50	0.00	0.00	0.50	101.50	100.10
Session Total	6	3	700	0	72	1	0	3	785	781.90
Session Average	0.60	0.30	70.00	0.00	7.20	0.10	0.00	0.30	78.50	78.19

Derby, City of Derby
Classified Junction Count

Site 4 of 7
B5008 Canal Bridge
A5132 The Green
B5008 Repton Road
A5132 The Castle Way

Lat/Long
lat 52.853453° lon -1.564944°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 4.11: Right from B5008 Repton Road to A5132 The Green								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	2	17	0	5	0	0	0	24	22.80
0715 - 0730	0	0	16	0	1	1	0	0	18	18.50
0730 - 0745	0	0	6	0	0	0	0	0	6	6.00
0745 - 0800	0	0	3	0	0	0	0	0	3	3.00
Hourly Total	0	2	42	0	6	1	0	0	51	50.30
Hourly Average	0.00	0.50	10.50	0.00	1.50	0.25	0.00	0.00	12.75	12.58
0800 - 0815	0	0	5	0	0	0	0	0	5	5.00
0815 - 0830	0	0	8	0	1	0	0	0	9	9.00
0830 - 0845	0	0	14	0	0	0	0	0	14	14.00
0845 - 0900	0	0	11	0	2	0	0	0	13	13.00
Hourly Total	0	0	38	0	3	0	0	0	41	41.00
Hourly Average	0.00	0.00	9.50	0.00	0.75	0.00	0.00	0.00	10.25	10.25
Session Total	0	2	80	0	9	1	0	0	92	91.30
Session Average	0.00	0.25	10.00	0.00	1.13	0.13	0.00	0.00	11.50	11.41

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 4.11: Right from B5008 Repton Road to A5132 The Green								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	0	0	18	0	4	0	0	0	22	22.00
1615 - 1630	0	0	14	0	5	0	0	0	19	19.00
Hourly Total	0	0	32	0	9	0	0	0	41	41.00
Hourly Average	0.00	0.00	8.00	0.00	2.25	0.00	0.00	0.00	10.25	10.25
1630 - 1645	0	0	14	1	1	0	0	0	16	16.00
1645 - 1700	0	0	12	0	1	0	0	0	13	13.00
1700 - 1715	0	0	15	0	2	0	0	0	17	17.00
1715 - 1730	0	0	13	0	1	0	0	0	14	14.00
Hourly Total	0	0	54	1	5	0	0	0	60	60.00
Hourly Average	0.00	0.00	13.50	0.25	1.25	0.00	0.00	0.00	15.00	15.00
1730 - 1745	0	0	8	0	0	0	0	0	8	8.00
1745 - 1800	0	0	8	0	1	0	0	0	9	9.00
1/2 Hourly Total	0	0	16	0	1	0	0	0	17	17.00
1/2 Hourly Average	0.00	0.00	8.00	0.00	0.50	0.00	0.00	0.00	8.50	8.50
Session Total	0	0	102	1	15	0	0	0	118	118.00
Session Average	0.00	0.00	10.20	0.10	1.50	0.00	0.00	0.00	11.80	11.80

Derby, City of Derby
Classified Junction Count

Site 4 of 7
B5008 Canal Bridge
A5132 The Green
B5008 Repton Road
A5132 The Castle Way

Lat/Long
lat 52.853453° lon -1.564944°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 4.12: U-Turn from B5008 Repton Road to B5008 Repton Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	0	0	0	0	0	0	0	0.00
0715 - 0730	0	0	0	0	0	0	0	0	0	0.00
0730 - 0745	0	0	0	0	0	0	0	0	0	0.00
0745 - 0800	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800 - 0815	0	0	0	0	0	0	0	0	0	0.00
0815 - 0830	0	0	0	0	0	0	0	0	0	0.00
0830 - 0845	0	0	0	0	0	0	0	0	0	0.00
0845 - 0900	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Session Total	0	0	0	0	0	0	0	0	0	0.00
Session Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 4.12: U-Turn from B5008 Repton Road to B5008 Repton Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	0	0	0	0	0	0	0	0	0	0.00
1615 - 1630	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1630 - 1645	0	0	0	0	0	0	0	0	0	0.00
1645 - 1700	0	0	1	0	0	0	0	0	1	1.00
1700 - 1715	0	0	0	0	0	0	0	0	0	0.00
1715 - 1730	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	1	0	0	0	0	0	1	1.00
Hourly Average	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.25	0.25
1730 - 1745	0	0	1	0	0	0	0	0	1	1.00
1745 - 1800	0	0	0	0	0	0	0	0	0	0.00
1/2 Hourly Total	0	0	1	0	0	0	0	0	1	1.00
1/2 Hourly Average	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.50	0.50
Session Total	0	0	2	0	0	0	0	0	2	2.00
Session Average	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.20	0.20

Derby, City of Derby
Classified Junction Count

Site 4 of 7
B5008 Canal Bridge
A5132 The Green
B5008 Repton Road
A5132 The Castle Way

Lat/Long
lat 52.853453° lon -1.564944°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 4.13: Left from A5132 The Castle Way to B5008 Canal Bridge								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	1	0	8	0	0	0	0	0	9	8.20
0715 - 0730	0	1	6	0	1	1	0	0	9	8.90
0730 - 0745	1	0	16	0	0	0	0	0	17	16.20
0745 - 0800	0	0	14	0	0	0	0	0	14	14.00
Hourly Total	2	1	44	0	1	1	0	0	49	47.30
Hourly Average	0.50	0.25	11.00	0.00	0.25	0.25	0.00	0.00	12.25	11.83
0800 - 0815	0	0	5	0	2	0	0	0	7	7.00
0815 - 0830	0	0	21	0	2	0	0	0	23	23.00
0830 - 0845	0	0	11	0	3	0	0	0	14	14.00
0845 - 0900	0	0	20	0	1	1	0	0	22	22.50
Hourly Total	0	0	57	0	8	1	0	0	66	66.50
Hourly Average	0.00	0.00	14.25	0.00	2.00	0.25	0.00	0.00	16.50	16.63
Session Total	2	1	101	0	9	2	0	0	115	113.80
Session Average	0.25	0.13	12.63	0.00	1.13	0.25	0.00	0.00	14.38	14.23

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 4.13: Left from A5132 The Castle Way to B5008 Canal Bridge								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	0	0	9	0	5	0	0	0	14	14.00
1615 - 1630	0	0	11	0	0	0	0	0	11	11.00
Hourly Total	0	0	20	0	5	0	0	0	25	25.00
Hourly Average	0.00	0.00	5.00	0.00	1.25	0.00	0.00	0.00	6.25	6.25
1630 - 1645	0	0	9	0	2	0	0	0	11	11.00
1645 - 1700	0	0	11	0	1	0	0	0	12	12.00
1700 - 1715	0	0	12	0	0	0	0	0	12	12.00
1715 - 1730	1	0	17	0	1	0	0	0	19	18.20
Hourly Total	1	0	49	0	4	0	0	0	54	53.20
Hourly Average	0.25	0.00	12.25	0.00	1.00	0.00	0.00	0.00	13.50	13.30
1730 - 1745	1	0	12	0	1	0	0	0	14	13.20
1745 - 1800	0	0	8	0	3	0	0	1	12	13.00
1/2 Hourly Total	1	0	20	0	4	0	0	1	26	26.20
1/2 Hourly Average	0.50	0.00	10.00	0.00	2.00	0.00	0.00	0.50	13.00	13.10
Session Total	2	0	89	0	13	0	0	1	105	104.40
Session Average	0.20	0.00	8.90	0.00	1.30	0.00	0.00	0.10	10.50	10.44

Derby, City of Derby
Classified Junction Count

Site 4 of 7
B5008 Canal Bridge
A5132 The Green
B5008 Repton Road
A5132 The Castle Way

Lat/Long
lat 52.853453° lon -1.564944°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 4.14: Eastbound from A5132 The Castle Way to A5132 The Green								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	1	35	0	4	0	0	0	40	39.40
0715 - 0730	0	1	32	0	5	0	1	0	39	39.70
0730 - 0745	0	0	46	0	8	1	0	0	55	55.50
0745 - 0800	0	1	50	0	4	1	1	0	57	58.20
Hourly Total	0	3	163	0	21	2	2	0	191	192.80
Hourly Average	0.00	0.75	40.75	0.00	5.25	0.50	0.50	0.00	47.75	48.20
0800 - 0815	0	0	49	0	7	0	1	0	57	58.30
0815 - 0830	0	0	41	0	7	0	1	0	49	50.30
0830 - 0845	0	0	49	0	7	0	2	0	58	60.60
0845 - 0900	0	0	38	0	3	0	1	1	43	45.30
Hourly Total	0	0	177	0	24	0	5	1	207	214.50
Hourly Average	0.00	0.00	44.25	0.00	6.00	0.00	1.25	0.25	51.75	53.63
Session Total	0	3	340	0	45	2	7	1	398	407.30
Session Average	0.00	0.38	42.50	0.00	5.63	0.25	0.88	0.13	49.75	50.91

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 4.14: Eastbound from A5132 The Castle Way to A5132 The Green								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	0	0	36	0	5	0	0	0	41	41.00
1615 - 1630	0	0	37	0	8	0	0	0	45	45.00
Hourly Total	0	0	73	0	13	0	0	0	86	86.00
Hourly Average	0.00	0.00	18.25	0.00	3.25	0.00	0.00	0.00	21.50	21.50
1630 - 1645	0	0	52	0	5	0	1	0	58	59.30
1645 - 1700	0	0	41	0	3	1	0	0	45	45.50
1700 - 1715	1	0	37	0	6	0	0	0	44	43.20
1715 - 1730	3	3	44	0	6	0	0	0	56	51.80
Hourly Total	4	3	174	0	20	1	1	0	203	199.80
Hourly Average	1.00	0.75	43.50	0.00	5.00	0.25	0.25	0.00	50.75	49.95
1730 - 1745	1	2	62	0	4	0	0	0	69	67.00
1745 - 1800	0	0	49	0	3	0	0	0	52	52.00
1/2 Hourly Total	1	2	111	0	7	0	0	0	121	119.00
1/2 Hourly Average	0.50	1.00	55.50	0.00	3.50	0.00	0.00	0.00	60.50	59.50
Session Total	5	5	358	0	40	1	1	0	410	404.80
Session Average	0.50	0.50	35.80	0.00	4.00	0.10	0.10	0.00	41.00	40.48

Derby, City of Derby
Classified Junction Count

Site 4 of 7
B5008 Canal Bridge
A5132 The Green
B5008 Repton Road
A5132 The Castle Way

Lat/Long
lat 52.853453° lon -1.564944°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 4.15: Right from A5132 The Castle Way to B5008 Repton Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	1	0	28	0	10	0	1	0	40	40.50
0715 - 0730	0	0	33	0	5	1	1	0	40	41.80
0730 - 0745	1	0	55	0	9	0	1	1	67	68.50
0745 - 0800	1	0	72	0	10	0	1	0	84	84.50
Hourly Total	3	0	188	0	34	1	4	1	231	235.30
Hourly Average	0.75	0.00	47.00	0.00	8.50	0.25	1.00	0.25	57.75	58.83
0800 - 0815	1	1	93	0	8	2	0	0	105	104.60
0815 - 0830	0	0	79	0	13	0	0	0	92	92.00
0830 - 0845	0	0	39	0	5	3	0	0	47	48.50
0845 - 0900	0	0	53	0	9	1	0	0	63	63.50
Hourly Total	1	1	264	0	35	6	0	0	307	308.60
Hourly Average	0.25	0.25	66.00	0.00	8.75	1.50	0.00	0.00	76.75	77.15

Session Total	4	1	452	0	69	7	4	1	538	543.90
Session Average	0.50	0.13	56.50	0.00	8.63	0.88	0.50	0.13	67.25	67.99

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 4.15: Right from A5132 The Castle Way to B5008 Repton Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	1	4	76	0	6	0	0	0	87	83.80
1615 - 1630	2	0	78	0	14	1	0	0	95	93.90
Hourly Total	3	4	154	0	20	1	0	0	182	177.70
Hourly Average	0.75	1.00	38.50	0.00	5.00	0.25	0.00	0.00	45.50	44.43
1630 - 1645	1	0	67	0	9	0	0	0	77	76.20
1645 - 1700	0	0	93	0	8	0	0	0	101	101.00
1700 - 1715	0	1	96	0	11	0	0	0	108	107.40
1715 - 1730	3	1	88	0	4	0	0	0	96	93.00
Hourly Total	4	2	344	0	32	0	0	0	382	377.60
Hourly Average	1.00	0.50	86.00	0.00	8.00	0.00	0.00	0.00	95.50	94.40
1730 - 1745	0	1	85	0	9	1	0	0	96	95.90
1745 - 1800	2	0	92	0	3	0	0	0	97	95.40
1/2 Hourly Total	2	1	177	0	12	1	0	0	193	191.30
1/2 Hourly Average	1.00	0.50	88.50	0.00	6.00	0.50	0.00	0.00	96.50	95.65

Session Total	9	7	675	0	64	2	0	0	757	746.60
Session Average	0.90	0.70	67.50	0.00	6.40	0.20	0.00	0.00	75.70	74.66

Derby, City of Derby
Classified Junction Count

Site 4 of 7
B5008 Canal Bridge
A5132 The Green
B5008 Repton Road
A5132 The Castle Way

Lat/Long
lat 52.853453° lon -1.564944°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 4.16: U-Turn from A5132 The Castle Way to A5132 The Castle Way								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	0	0	0	0	0	0	0	0.00
0715 - 0730	0	0	0	0	0	0	0	0	0	0.00
0730 - 0745	0	0	0	0	0	0	0	0	0	0.00
0745 - 0800	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800 - 0815	0	0	0	0	0	0	0	0	0	0.00
0815 - 0830	0	0	0	0	0	0	0	0	0	0.00
0830 - 0845	0	0	0	0	0	0	0	0	0	0.00
0845 - 0900	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Session Total	0	0	0	0	0	0	0	0	0	0.00
Session Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 4.16: U-Turn from A5132 The Castle Way to A5132 The Castle Way								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	0	0	0	0	0	0	0	0	0	0.00
1615 - 1630	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1630 - 1645	0	0	0	0	0	0	0	0	0	0.00
1645 - 1700	0	0	1	0	0	0	0	0	1	1.00
1700 - 1715	0	0	0	0	0	0	0	0	0	0.00
1715 - 1730	0	0	0	0	1	0	0	0	1	1.00
Hourly Total	0	0	1	0	1	0	0	0	2	2.00
Hourly Average	0.00	0.00	0.25	0.00	0.25	0.00	0.00	0.00	0.50	0.50
1730 - 1745	0	0	0	0	0	0	0	0	0	0.00
1745 - 1800	0	0	0	0	0	0	0	0	0	0.00
1/2 Hourly Total	0	0	0	0	0	0	0	0	0	0.00
1/2 Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Session Total	0	0	1	0	1	0	0	0	2	2.00
Session Average	0.00	0.00	0.10	0.00	0.10	0.00	0.00	0.00	0.20	0.20

Derby, City of Derby
Classified Junction Count

Site 5 of 7
Carriers Road
A5132
A5132 Carriers Road

Lat/Long
lat 52.855000° lon -1.586196°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 5.1: Left from Carriers Road to A5132								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	1	1	41	0	6	0	0	0	49	47.60
0715 - 0730	0	1	32	0	5	0	0	0	38	37.40
0730 - 0745	0	0	43	0	7	0	0	0	50	50.00
0745 - 0800	0	1	56	0	4	2	1	0	64	65.70
Hourly Total	1	3	172	0	22	2	1	0	201	200.70
Hourly Average	0.25	0.75	43.00	0.00	5.50	0.50	0.25	0.00	50.25	50.18
0800 - 0815	0	0	65	0	7	0	0	0	72	72.00
0815 - 0830	0	0	47	0	18	0	0	0	65	65.00
0830 - 0845	0	0	33	0	7	1	1	0	42	43.80
0845 - 0900	0	0	33	0	7	1	1	0	42	43.80
Hourly Total	0	0	178	0	39	2	2	0	221	224.60
Hourly Average	0.00	0.00	44.50	0.00	9.75	0.50	0.50	0.00	55.25	56.15
Session Total	1	3	350	0	61	4	3	0	422	425.30
Session Average	0.13	0.38	43.75	0.00	7.63	0.50	0.38	0.00	52.75	53.16

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 5.1: Left from Carriers Road to A5132								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	1	0	47	0	1	0	0	0	49	48.20
1615 - 1630	0	0	42	0	11	0	1	0	54	55.30
Hourly Total	1	0	89	0	12	0	1	0	103	103.50
Hourly Average	0.25	0.00	22.25	0.00	3.00	0.00	0.25	0.00	25.75	25.88
1630 - 1645	1	0	51	0	7	0	1	0	60	60.50
1645 - 1700	0	0	64	0	8	1	0	0	73	73.50
1700 - 1715	0	0	52	0	5	0	0	0	57	57.00
1715 - 1730	2	2	67	0	6	0	0	0	77	74.20
Hourly Total	3	2	234	0	26	1	1	0	267	265.20
Hourly Average	0.75	0.50	58.50	0.00	6.50	0.25	0.25	0.00	66.75	66.30
1730 - 1745	2	0	76	0	7	2	0	0	87	86.40
1745 - 1800	0	0	49	0	4	0	0	0	53	53.00
1/2 Hourly Total	2	0	125	0	11	2	0	0	140	139.40
1/2 Hourly Average	1.00	0.00	62.50	0.00	5.50	1.00	0.00	0.00	70.00	69.70
Session Total	6	2	448	0	49	3	2	0	510	508.10
Session Average	0.60	0.20	44.80	0.00	4.90	0.30	0.20	0.00	51.00	50.81

Derby, City of Derby
Classified Junction Count

Site 5 of 7
Carriers Road
A5132
A5132 Carriers Road

Lat/Long
lat 52.855000° lon -1.586196°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 5.2: Right from Carriers Road to A5132 Carriers Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	9	0	4	0	0	0	13	13.00
0715 - 0730	0	1	15	0	7	1	0	0	24	23.90
0730 - 0745	1	0	12	0	5	1	0	0	19	18.70
0745 - 0800	0	0	12	1	4	1	0	0	18	18.50
Hourly Total	1	1	48	1	20	3	0	0	74	74.10
Hourly Average	0.25	0.25	12.00	0.25	5.00	0.75	0.00	0.00	18.50	18.53
0800 - 0815	0	0	19	0	10	2	0	0	31	32.00
0815 - 0830	0	0	17	0	3	1	0	0	21	21.50
0830 - 0845	0	0	21	0	5	0	0	0	26	26.00
0845 - 0900	0	0	20	0	2	0	0	0	22	22.00
Hourly Total	0	0	77	0	20	3	0	0	100	101.50
Hourly Average	0.00	0.00	19.25	0.00	5.00	0.75	0.00	0.00	25.00	25.38

Session Total	1	1	125	1	40	6	0	0	174	175.60
Session Average	0.13	0.13	15.63	0.13	5.00	0.75	0.00	0.00	21.75	21.95

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 5.2: Right from Carriers Road to A5132 Carriers Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	1	0	27	0	3	0	0	0	31	30.20
1615 - 1630	1	0	54	0	5	0	0	0	60	59.20
Hourly Total	2	0	81	0	8	0	0	0	91	89.40
Hourly Average	0.50	0.00	20.25	0.00	2.00	0.00	0.00	0.00	22.75	22.35
1630 - 1645	0	0	36	1	7	0	0	0	44	44.00
1645 - 1700	0	0	38	0	2	0	0	0	40	40.00
1700 - 1715	0	0	43	0	5	1	0	0	49	49.50
1715 - 1730	0	0	57	0	4	0	0	0	61	61.00
Hourly Total	0	0	174	1	18	1	0	0	194	194.50
Hourly Average	0.00	0.00	43.50	0.25	4.50	0.25	0.00	0.00	48.50	48.63
1730 - 1745	0	0	47	0	6	0	0	0	53	53.00
1745 - 1800	0	0	41	0	2	0	0	0	43	43.00
1/2 Hourly Total	0	0	88	0	8	0	0	0	96	96.00
1/2 Hourly Average	0.00	0.00	44.00	0.00	4.00	0.00	0.00	0.00	48.00	48.00

Session Total	2	0	343	1	34	1	0	0	381	379.90
Session Average	0.20	0.00	34.30	0.10	3.40	0.10	0.00	0.00	38.10	37.99

Derby, City of Derby
Classified Junction Count

Site 5 of 7
Carriers Road
A5132
A5132 Carriers Road

Lat/Long
lat 52.855000° lon -1.586196°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 5.3: Northbound from A5132 to A5132 Carriers Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	21	0	4	1	0	0	26	26.50
0715 - 0730	1	1	32	0	7	0	3	0	44	46.50
0730 - 0745	1	0	34	0	8	0	0	2	45	46.20
0745 - 0800	2	1	44	0	3	2	3	1	56	59.70
Hourly Total	4	2	131	0	22	3	6	3	171	178.90
Hourly Average	1.00	0.50	32.75	0.00	5.50	0.75	1.50	0.75	42.75	44.73
0800 - 0815	0	0	51	0	7	0	2	0	60	62.60
0815 - 0830	1	1	54	0	2	0	0	0	58	56.60
0830 - 0845	0	0	68	0	6	0	0	4	78	82.00
0845 - 0900	0	0	41	0	2	1	1	3	48	52.80
Hourly Total	1	1	214	0	17	1	3	7	244	254.00
Hourly Average	0.25	0.25	53.50	0.00	4.25	0.25	0.75	1.75	61.00	63.50
Session Total	5	3	345	0	39	4	9	10	415	432.90
Session Average	0.63	0.38	43.13	0.00	4.88	0.50	1.13	1.25	51.88	54.11

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 5.3: Northbound from A5132 to A5132 Carriers Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	1	0	36	0	5	1	0	0	43	42.70
1615 - 1630	2	3	52	0	3	0	1	0	61	58.90
Hourly Total	3	3	88	0	8	1	1	0	104	101.60
Hourly Average	0.75	0.75	22.00	0.00	2.00	0.25	0.25	0.00	26.00	25.40
1630 - 1645	2	0	75	0	7	0	0	0	84	82.40
1645 - 1700	0	0	67	1	4	0	0	0	72	72.00
1700 - 1715	1	1	64	0	2	0	1	0	69	68.90
1715 - 1730	0	2	69	0	2	0	0	0	73	71.80
Hourly Total	3	3	275	1	15	0	1	0	298	295.10
Hourly Average	0.75	0.75	68.75	0.25	3.75	0.00	0.25	0.00	74.50	73.78
1730 - 1745	5	2	70	0	5	0	0	0	82	76.80
1745 - 1800	0	0	60	0	3	0	0	0	63	63.00
1/2 Hourly Total	5	2	130	0	8	0	0	0	145	139.80
1/2 Hourly Average	2.50	1.00	65.00	0.00	4.00	0.00	0.00	0.00	72.50	69.90
Session Total	11	8	493	1	31	1	2	0	547	536.50
Session Average	1.10	0.80	49.30	0.10	3.10	0.10	0.20	0.00	54.70	53.65

Derby, City of Derby
Classified Junction Count

Site 5 of 7
Carriers Road
A5132
A5132 Carriers Road

Lat/Long
lat 52.855000° lon -1.586196°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 5.4: Right from A5132 to Carriers Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	2	0	27	0	3	0	1	0	33	32.70
0715 - 0730	0	0	24	0	4	0	3	0	31	34.90
0730 - 0745	0	0	38	0	6	0	2	0	46	48.60
0745 - 0800	0	0	38	0	5	4	1	0	48	51.30
Hourly Total	2	0	127	0	18	4	7	0	158	167.50
Hourly Average	0.50	0.00	31.75	0.00	4.50	1.00	1.75	0.00	39.50	41.88
0800 - 0815	0	0	35	0	5	1	1	0	42	43.80
0815 - 0830	0	0	18	0	1	0	0	0	19	19.00
0830 - 0845	1	0	29	0	2	1	1	0	34	35.00
0845 - 0900	0	0	23	0	3	0	0	0	26	26.00
Hourly Total	1	0	105	0	11	2	2	0	121	123.80
Hourly Average	0.25	0.00	26.25	0.00	2.75	0.50	0.50	0.00	30.25	30.95
Session Total	3	0	232	0	29	6	9	0	279	291.30
Session Average	0.38	0.00	29.00	0.00	3.63	0.75	1.13	0.00	34.88	36.41

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 5.4: Right from A5132 to Carriers Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	0	0	20	0	1	1	3	0	25	29.40
1615 - 1630	0	0	13	0	1	0	2	0	16	18.60
Hourly Total	0	0	33	0	2	1	5	0	41	48.00
Hourly Average	0.00	0.00	8.25	0.00	0.50	0.25	1.25	0.00	10.25	12.00
1630 - 1645	0	0	19	0	3	0	2	0	24	26.60
1645 - 1700	0	0	6	0	1	0	0	0	7	7.00
1700 - 1715	0	0	17	0	3	0	0	0	20	20.00
1715 - 1730	0	0	18	0	1	1	0	0	20	20.50
Hourly Total	0	0	60	0	8	1	2	0	71	74.10
Hourly Average	0.00	0.00	15.00	0.00	2.00	0.25	0.50	0.00	17.75	18.53
1730 - 1745	1	0	15	0	2	0	0	1	19	19.20
1745 - 1800	0	0	11	0	0	0	0	0	11	11.00
1/2 Hourly Total	1	0	26	0	2	0	0	1	30	30.20
1/2 Hourly Average	0.50	0.00	13.00	0.00	1.00	0.00	0.00	0.50	15.00	15.10
Session Total	1	0	119	0	12	2	7	1	142	152.30
Session Average	0.10	0.00	11.90	0.00	1.20	0.20	0.70	0.10	14.20	15.23

Derby, City of Derby
Classified Junction Count

Site 5 of 7
Carriers Road
A5132
A5132 Carriers Road

Lat/Long
lat 52.855000° lon -1.586196°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 5.5: Left from A5132 Carriers Road to Carriers Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	4	0	0	0	0	0	4	4.00
0715 - 0730	1	0	6	0	2	2	0	0	11	11.20
0730 - 0745	0	0	5	0	0	0	0	0	5	5.00
0745 - 0800	0	0	6	0	1	0	1	0	8	9.30
Hourly Total	1	0	21	0	3	2	1	0	28	29.50
Hourly Average	0.25	0.00	5.25	0.00	0.75	0.50	0.25	0.00	7.00	7.38
0800 - 0815	0	0	3	0	0	0	1	0	4	5.30
0815 - 0830	0	0	2	0	0	1	1	0	4	5.80
0830 - 0845	0	0	7	0	0	0	1	0	8	9.30
0845 - 0900	0	0	3	0	0	0	1	0	4	5.30
Hourly Total	0	0	15	0	0	1	4	0	20	25.70
Hourly Average	0.00	0.00	3.75	0.00	0.00	0.25	1.00	0.00	5.00	6.43
Session Total	1	0	36	0	3	3	5	0	48	55.20
Session Average	0.13	0.00	4.50	0.00	0.38	0.38	0.63	0.00	6.00	6.90

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 5.5: Left from A5132 Carriers Road to Carriers Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	0	0	9	0	1	0	1	0	11	12.30
1615 - 1630	0	0	21	0	1	0	0	0	22	22.00
Hourly Total	0	0	30	0	2	0	1	0	33	34.30
Hourly Average	0.00	0.00	7.50	0.00	0.50	0.00	0.25	0.00	8.25	8.58
1630 - 1645	0	0	8	0	0	0	0	0	8	8.00
1645 - 1700	0	0	7	0	0	0	0	0	7	7.00
1700 - 1715	0	0	3	0	1	0	0	0	4	4.00
1715 - 1730	0	0	2	0	0	0	0	0	2	2.00
Hourly Total	0	0	20	0	1	0	0	0	21	21.00
Hourly Average	0.00	0.00	5.00	0.00	0.25	0.00	0.00	0.00	5.25	5.25
1730 - 1745	0	0	7	0	0	0	0	0	7	7.00
1745 - 1800	1	0	4	0	1	0	0	0	6	5.20
1/2 Hourly Total	1	0	11	0	1	0	0	0	13	12.20
1/2 Hourly Average	0.50	0.00	5.50	0.00	0.50	0.00	0.00	0.00	6.50	6.10
Session Total	1	0	61	0	4	0	1	0	67	67.50
Session Average	0.10	0.00	6.10	0.00	0.40	0.00	0.10	0.00	6.70	6.75

Derby, City of Derby
Classified Junction Count

Site 5 of 7
Carriers Road
A5132
A5132 Carriers Road

Lat/Long
lat 52.855000° lon -1.586196°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 5.6: Southbound from A5132 Carriers Road to A5132								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	1	0	60	0	9	0	1	0	71	71.50
0715 - 0730	0	1	76	0	6	0	1	0	84	84.70
0730 - 0745	2	2	118	0	11	0	0	1	134	132.20
0745 - 0800	1	0	109	0	7	1	4	0	122	126.90
Hourly Total	4	3	363	0	33	1	6	1	411	415.30
Hourly Average	1.00	0.75	90.75	0.00	8.25	0.25	1.50	0.25	102.75	103.83
0800 - 0815	0	1	142	0	11	2	0	0	156	156.40
0815 - 0830	1	0	105	0	8	1	1	0	116	117.00
0830 - 0845	0	0	126	0	11	3	0	0	140	141.50
0845 - 0900	0	0	129	0	6	2	0	2	139	142.00
Hourly Total	1	1	502	0	36	8	1	2	551	556.90
Hourly Average	0.25	0.25	125.50	0.00	9.00	2.00	0.25	0.50	137.75	139.23
Session Total	5	4	865	0	69	9	7	3	962	972.20
Session Average	0.63	0.50	108.13	0.00	8.63	1.13	0.88	0.38	120.25	121.53

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 5.6: Southbound from A5132 Carriers Road to A5132								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	0	3	67	1	12	0	1	0	84	83.50
1615 - 1630	2	0	69	0	4	1	0	0	76	74.90
Hourly Total	2	3	136	1	16	1	1	0	160	158.40
Hourly Average	0.50	0.75	34.00	0.25	4.00	0.25	0.25	0.00	40.00	39.60
1630 - 1645	1	0	76	0	7	0	0	0	84	83.20
1645 - 1700	0	0	77	0	3	0	0	0	80	80.00
1700 - 1715	1	2	102	0	14	0	0	0	119	117.00
1715 - 1730	4	2	90	1	7	1	0	1	106	103.10
Hourly Total	6	4	345	1	31	1	0	1	389	383.30
Hourly Average	1.50	1.00	86.25	0.25	7.75	0.25	0.00	0.25	97.25	95.83
1730 - 1745	1	2	79	0	4	0	0	0	86	84.00
1745 - 1800	1	2	75	0	3	0	0	2	83	83.00
1/2 Hourly Total	2	4	154	0	7	0	0	2	169	167.00
1/2 Hourly Average	1.00	2.00	77.00	0.00	3.50	0.00	0.00	1.00	84.50	83.50
Session Total	10	11	635	2	54	2	1	3	718	708.70
Session Average	1.00	1.10	63.50	0.20	5.40	0.20	0.10	0.30	71.80	70.87

Derby, City of Derby
Classified Junction Count

Site 6 of 7
A5132 The Castle Way (East)
A5132 The Castle Way (West)
Carrier's Road

Lat/Long
lat 52.853511° lon -1.580952°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 6.1: Westbound from A5132 The Castle Way (East) to A5132 The Castle Way (West)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	2	0	45	0	7	1	1	0	56	56.20
0715 - 0730	1	1	50	0	11	0	4	0	67	70.80
0730 - 0745	1	0	67	0	13	0	2	1	84	86.80
0745 - 0800	2	0	77	0	8	4	0	0	91	91.40
Hourly Total	6	1	239	0	39	5	7	1	298	305.20
Hourly Average	1.50	0.25	59.75	0.00	9.75	1.25	1.75	0.25	74.50	76.30
0800 - 0815	0	0	70	0	11	1	3	0	85	89.40
0815 - 0830	1	1	63	0	3	0	0	0	68	66.60
0830 - 0845	1	0	89	0	6	1	1	4	102	107.00
0845 - 0900	0	0	59	0	3	0	1	3	66	70.30
Hourly Total	2	1	281	0	23	2	5	7	321	333.30
Hourly Average	0.50	0.25	70.25	0.00	5.75	0.50	1.25	1.75	80.25	83.33
Session Total	8	2	520	0	62	7	12	8	619	638.50
Session Average	1.00	0.25	65.00	0.00	7.75	0.88	1.50	1.00	77.38	79.81

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 6.1: Westbound from A5132 The Castle Way (East) to A5132 The Castle Way (West)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	1	0	42	0	4	0	3	0	50	53.10
1615 - 1630	2	3	55	0	4	0	0	0	64	60.60
Hourly Total	3	3	97	0	8	0	3	0	114	113.70
Hourly Average	0.75	0.75	24.25	0.00	2.00	0.00	0.75	0.00	28.50	28.43
1630 - 1645	2	0	84	0	10	0	0	0	96	94.40
1645 - 1700	0	0	65	1	5	0	0	0	71	71.00
1700 - 1715	1	0	65	0	4	0	0	0	70	69.20
1715 - 1730	0	2	68	0	3	0	0	0	73	71.80
Hourly Total	3	2	282	1	22	0	0	0	310	306.40
Hourly Average	0.75	0.50	70.50	0.25	5.50	0.00	0.00	0.00	77.50	76.60
1730 - 1745	6	2	72	0	3	0	0	0	83	77.00
1745 - 1800	0	0	59	0	3	0	0	0	62	62.00
1/2 Hourly Total	6	2	131	0	6	0	0	0	145	139.00
1/2 Hourly Average	3.00	1.00	65.50	0.00	3.00	0.00	0.00	0.00	72.50	69.50
Session Total	12	7	510	1	36	0	3	0	569	559.10
Session Average	1.20	0.70	51.00	0.10	3.60	0.00	0.30	0.00	56.90	55.91

Derby, City of Derby
Classified Junction Count

Site 6 of 7
A5132 The Castle Way (East)
A5132 The Castle Way (West)
Carrier's Road

Lat/Long
lat 52.853511° lon -1.580952°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 6.2: Right from A5132 The Castle Way (East) to Carrier's Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	38	0	4	0	0	0	42	42.00
0715 - 0730	0	0	44	0	11	1	2	0	58	61.10
0730 - 0745	0	0	40	0	11	0	0	0	51	51.00
0745 - 0800	0	0	49	0	7	0	0	0	56	56.00
Hourly Total	0	0	171	0	33	1	2	0	207	210.10
Hourly Average	0.00	0.00	42.75	0.00	8.25	0.25	0.50	0.00	51.75	52.53
0800 - 0815	0	0	52	0	5	0	0	0	57	57.00
0815 - 0830	0	0	57	0	7	1	1	0	66	67.80
0830 - 0845	0	0	53	0	7	0	0	0	60	60.00
0845 - 0900	0	0	48	0	7	0	0	0	55	55.00
Hourly Total	0	0	210	0	26	1	1	0	238	239.80
Hourly Average	0.00	0.00	52.50	0.00	6.50	0.25	0.25	0.00	59.50	59.95
Session Total	0	0	381	0	59	2	3	0	445	449.90
Session Average	0.00	0.00	47.63	0.00	7.38	0.25	0.38	0.00	55.63	56.24

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 6.2: Right from A5132 The Castle Way (East) to Carrier's Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	0	0	43	0	3	1	0	0	47	47.50
1615 - 1630	0	0	36	0	2	1	0	0	39	39.50
Hourly Total	0	0	79	0	5	2	0	0	86	87.00
Hourly Average	0.00	0.00	19.75	0.00	1.25	0.50	0.00	0.00	21.50	21.75
1630 - 1645	0	0	48	0	5	0	0	0	53	53.00
1645 - 1700	0	0	41	0	4	1	0	0	46	46.50
1700 - 1715	0	0	44	1	4	0	0	0	49	49.00
1715 - 1730	0	1	48	0	5	0	0	0	54	53.40
Hourly Total	0	1	181	1	18	1	0	0	202	201.90
Hourly Average	0.00	0.25	45.25	0.25	4.50	0.25	0.00	0.00	50.50	50.48
1730 - 1745	0	1	50	1	1	0	0	0	53	52.40
1745 - 1800	0	0	58	0	1	0	0	0	59	59.00
1/2 Hourly Total	0	1	108	1	2	0	0	0	112	111.40
1/2 Hourly Average	0.00	0.50	54.00	0.50	1.00	0.00	0.00	0.00	56.00	55.70
Session Total	0	2	368	2	25	3	0	0	400	400.30
Session Average	0.00	0.20	36.80	0.20	2.50	0.30	0.00	0.00	40.00	40.03

Derby, City of Derby
Classified Junction Count

Site 6 of 7
A5132 The Castle Way (East)
A5132 The Castle Way (West)
Carrier's Road

Lat/Long
lat 52.853511° lon -1.580952°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 6.3: Left from A5132 The Castle Way (West) to Carrier's Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	33	0	5	0	0	0	38	38.00
0715 - 0730	0	1	45	0	4	0	0	0	50	49.40
0730 - 0745	0	2	63	0	4	0	0	0	69	67.80
0745 - 0800	0	0	57	0	3	1	3	0	64	68.40
Hourly Total	0	3	198	0	16	1	3	0	221	223.60
Hourly Average	0.00	0.75	49.50	0.00	4.00	0.25	0.75	0.00	55.25	55.90
0800 - 0815	0	0	62	0	5	2	0	0	69	70.00
0815 - 0830	0	0	52	0	7	0	1	0	60	61.30
0830 - 0845	0	0	64	0	6	1	0	0	71	71.50
0845 - 0900	0	0	66	0	3	2	0	1	72	74.00
Hourly Total	0	0	244	0	21	5	1	1	272	276.80
Hourly Average	0.00	0.00	61.00	0.00	5.25	1.25	0.25	0.25	68.00	69.20
Session Total	0	3	442	0	37	6	4	1	493	500.40
Session Average	0.00	0.38	55.25	0.00	4.63	0.75	0.50	0.13	61.63	62.55

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 6.3: Left from A5132 The Castle Way (West) to Carrier's Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	0	0	22	1	3	0	1	0	27	28.30
1615 - 1630	0	0	30	0	3	1	1	0	35	36.80
Hourly Total	0	0	52	1	6	1	2	0	62	65.10
Hourly Average	0.00	0.00	13.00	0.25	1.50	0.25	0.50	0.00	15.50	16.28
1630 - 1645	0	0	28	0	4	0	0	0	32	32.00
1645 - 1700	0	0	26	0	3	0	0	0	29	29.00
1700 - 1715	0	1	41	0	4	0	0	0	46	45.40
1715 - 1730	0	0	34	1	3	1	0	1	40	41.50
Hourly Total	0	1	129	1	14	1	0	1	147	147.90
Hourly Average	0.00	0.25	32.25	0.25	3.50	0.25	0.00	0.25	36.75	36.98
1730 - 1745	0	0	33	0	0	1	0	0	34	34.50
1745 - 1800	0	1	33	0	3	0	0	1	38	38.40
1/2 Hourly Total	0	1	66	0	3	1	0	1	72	72.90
1/2 Hourly Average	0.00	0.50	33.00	0.00	1.50	0.50	0.00	0.50	36.00	36.45
Session Total	0	2	247	2	23	3	2	2	281	285.90
Session Average	0.00	0.20	24.70	0.20	2.30	0.30	0.20	0.20	28.10	28.59

Derby, City of Derby
Classified Junction Count

Site 6 of 7
A5132 The Castle Way (East)
A5132 The Castle Way (West)
Carrier's Road

Lat/Long
lat 52.853511° lon -1.580952°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 6.4: Eastbound from A5132 The Castle Way (West) to A5132 The Castle Way (East)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	2	1	68	0	10	0	1	0	82	81.10
0715 - 0730	0	1	63	0	7	0	1	0	72	72.70
0730 - 0745	2	0	98	0	14	0	0	1	115	114.40
0745 - 0800	1	1	108	0	8	2	2	0	122	124.20
Hourly Total	5	3	337	0	39	2	4	1	391	392.40
Hourly Average	1.25	0.75	84.25	0.00	9.75	0.50	1.00	0.25	97.75	98.10
0800 - 0815	0	1	145	0	13	0	0	0	159	158.40
0815 - 0830	1	0	100	0	19	1	0	0	121	120.70
0830 - 0845	0	0	95	0	12	3	1	0	111	113.80
0845 - 0900	0	0	96	0	10	1	1	1	109	111.80
Hourly Total	1	1	436	0	54	5	2	1	500	504.70
Hourly Average	0.25	0.25	109.00	0.00	13.50	1.25	0.50	0.25	125.00	126.18
Session Total	6	4	773	0	93	7	6	2	891	897.10
Session Average	0.75	0.50	96.63	0.00	11.63	0.88	0.75	0.25	111.38	112.14

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 6.4: Eastbound from A5132 The Castle Way (West) to A5132 The Castle Way (East)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	1	3	92	0	10	0	0	0	106	103.40
1615 - 1630	2	0	81	0	12	0	0	0	95	93.40
Hourly Total	3	3	173	0	22	0	0	0	201	196.80
Hourly Average	0.75	0.75	43.25	0.00	5.50	0.00	0.00	0.00	50.25	49.20
1630 - 1645	2	0	99	0	10	0	1	0	112	111.70
1645 - 1700	0	0	115	0	8	1	0	0	124	124.50
1700 - 1715	1	1	113	0	15	0	0	0	130	128.60
1715 - 1730	6	4	123	0	10	0	0	0	143	135.80
Hourly Total	9	5	450	0	43	1	1	0	509	500.60
Hourly Average	2.25	1.25	112.50	0.00	10.75	0.25	0.25	0.00	127.25	125.15
1730 - 1745	3	2	122	0	11	1	0	0	139	135.90
1745 - 1800	1	1	91	0	4	0	0	1	98	97.60
1/2 Hourly Total	4	3	213	0	15	1	0	1	237	233.50
1/2 Hourly Average	2.00	1.50	106.50	0.00	7.50	0.50	0.00	0.50	118.50	116.75
Session Total	16	11	836	0	80	2	1	1	947	930.90
Session Average	1.60	1.10	83.60	0.00	8.00	0.20	0.10	0.10	94.70	93.09

Derby, City of Derby
Classified Junction Count

Site 6 of 7
A5132 The Castle Way (East)
A5132 The Castle Way (West)
Carrier's Road

Lat/Long
lat 52.853511° lon -1.580952°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 6.5: Left from Carrier's Road to A5132 The Castle Way (East)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	8	0	4	0	0	0	12	12.00
0715 - 0730	0	1	11	0	3	1	1	0	17	18.20
0730 - 0745	0	0	22	0	6	0	0	0	28	28.00
0745 - 0800	0	0	23	0	4	1	1	0	29	30.80
Hourly Total	0	1	64	0	17	2	2	0	86	89.00
Hourly Average	0.00	0.25	16.00	0.00	4.25	0.50	0.50	0.00	21.50	22.25
0800 - 0815	0	0	17	0	3	1	0	0	21	21.50
0815 - 0830	0	0	12	0	5	0	2	0	19	21.60
0830 - 0845	0	0	11	0	2	0	1	0	14	15.30
0845 - 0900	0	0	14	0	3	1	0	0	18	18.50
Hourly Total	0	0	54	0	13	2	3	0	72	76.90
Hourly Average	0.00	0.00	13.50	0.00	3.25	0.50	0.75	0.00	18.00	19.23
Session Total	0	1	118	0	30	4	5	0	158	165.90
Session Average	0.00	0.13	14.75	0.00	3.75	0.50	0.63	0.00	19.75	20.74

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 6.5: Left from Carrier's Road to A5132 The Castle Way (East)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	0	1	32	0	7	0	0	0	40	39.40
1615 - 1630	0	0	42	0	9	1	0	0	52	52.50
Hourly Total	0	1	74	0	16	1	0	0	92	91.90
Hourly Average	0.00	0.25	18.50	0.00	4.00	0.25	0.00	0.00	23.00	22.98
1630 - 1645	0	0	51	0	10	0	0	0	61	61.00
1645 - 1700	0	0	39	0	4	0	0	0	43	43.00
1700 - 1715	0	0	56	0	4	0	0	0	60	60.00
1715 - 1730	0	0	44	0	3	0	0	0	47	47.00
Hourly Total	0	0	190	0	21	0	0	0	211	211.00
Hourly Average	0.00	0.00	47.50	0.00	5.25	0.00	0.00	0.00	52.75	52.75
1730 - 1745	0	0	37	0	4	0	0	0	41	41.00
1745 - 1800	0	0	42	0	2	0	0	0	44	44.00
1/2 Hourly Total	0	0	79	0	6	0	0	0	85	85.00
1/2 Hourly Average	0.00	0.00	39.50	0.00	3.00	0.00	0.00	0.00	42.50	42.50
Session Total	0	1	343	0	43	1	0	0	388	387.90
Session Average	0.00	0.10	34.30	0.00	4.30	0.10	0.00	0.00	38.80	38.79

Derby, City of Derby
Classified Junction Count

Site 6 of 7
A5132 The Castle Way (East)
A5132 The Castle Way (West)
Carrier's Road

Lat/Long
lat 52.853511° lon -1.580952°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 6.6: Right from Carrier's Road to A5132 The Castle Way (West)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	3	0	0	0	0	0	3	3.00
0715 - 0730	0	0	6	0	0	0	2	0	8	10.60
0730 - 0745	0	0	5	0	1	0	0	1	7	8.00
0745 - 0800	0	1	5	0	0	2	4	1	13	19.60
Hourly Total	0	1	19	0	1	2	6	2	31	41.20
Hourly Average	0.00	0.25	4.75	0.00	0.25	0.50	1.50	0.50	7.75	10.30
0800 - 0815	0	0	16	0	1	0	0	0	17	17.00
0815 - 0830	0	0	9	0	0	0	0	0	9	9.00
0830 - 0845	0	0	8	0	2	0	0	0	10	10.00
0845 - 0900	0	0	5	0	2	1	0	0	8	8.50
Hourly Total	0	0	38	0	5	1	0	0	44	44.50
Hourly Average	0.00	0.00	9.50	0.00	1.25	0.25	0.00	0.00	11.00	11.13
Session Total	0	1	57	0	6	3	6	2	75	85.70
Session Average	0.00	0.13	7.13	0.00	0.75	0.38	0.75	0.25	9.38	10.71

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C

1530 - 1800 (Weekday PM Peak)

	Movement 6.6: Right from Carrier's Road to A5132 The Castle Way (West)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1530 - 1545	0	0	0	0	0	0	0	0	0	0.00
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	0	0	14	0	2	2	0	0	18	19.00
1615 - 1630	0	0	10	0	0	0	3	0	13	16.90
Hourly Total	0	0	24	0	2	2	3	0	31	35.90
Hourly Average	0.00	0.00	6.00	0.00	0.50	0.50	0.75	0.00	7.75	8.98
1630 - 1645	0	0	10	0	0	0	2	0	12	14.60
1645 - 1700	0	0	8	0	0	0	0	0	8	8.00
1700 - 1715	0	1	16	0	1	0	1	0	19	19.70
1715 - 1730	0	0	19	0	0	1	0	0	20	20.50
Hourly Total	0	1	53	0	1	1	3	0	59	62.80
Hourly Average	0.00	0.25	13.25	0.00	0.25	0.25	0.75	0.00	14.75	15.70
1730 - 1745	0	0	13	0	4	0	0	1	18	19.00
1745 - 1800	0	0	12	0	0	0	0	0	12	12.00
1/2 Hourly Total	0	0	25	0	4	0	0	1	30	31.00
1/2 Hourly Average	0.00	0.00	12.50	0.00	2.00	0.00	0.00	0.50	15.00	15.50
Session Total	0	1	102	0	7	3	6	1	120	129.70
Session Average	0.00	0.10	10.20	0.00	0.70	0.30	0.60	0.10	12.00	12.97

Derby, City of Derby

Report Id 237/18
Site Name Site 1 of 4
Description B5008 Etwall Road, 120m south of B5008 Etwall Road
Direction Northbound

Thursday 26 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	14	8	2	3	1	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6	4	2	0	0	0	0	45.2	39.7	4.4
0100 - 0200	6	4	1	1	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	2	0	0	0	0	0	-	38.6	2.5
0200 - 0300	2	0	1	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	-	42.8	0.3
0300 - 0400	3	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	-	37.9	2.7
0400 - 0500	25	2	6	8	9	0	0	19	0	6	0	0	0	0	0	0	0	0	0	0	0	1	0	5	7	6	5	0	1	0	0	48.6	40.1	7.4
0500 - 0600	133	17	40	38	38	0	0	126	0	6	0	0	1	0	0	0	0	0	0	0	0	0	2	37	61	26	6	1	0	0	0	41.2	37.5	4.3
0600 - 0700	352	51	82	98	121	0	3	329	0	20	0	0	0	0	0	0	0	0	0	0	0	0	5	87	179	62	15	4	0	0	0	41.7	37.5	4.2
0700 - 0800	530	137	133	146	114	1	3	495	1	30	0	0	0	0	0	0	0	0	0	1	1	3	34	191	236	57	7	0	0	0	0	39.5	35.5	4.1
0800 - 0900	462	142	117	97	106	0	2	423	2	33	1	1	0	0	0	0	0	0	0	0	0	12	61	151	178	50	9	0	0	1	0	39.2	34.9	4.9
0900 - 1000	331	94	89	72	76	0	0	310	0	21	0	0	0	0	0	0	0	0	0	0	0	0	40	129	133	23	4	1	0	1	0	38.6	35	4.2
1000 - 1100	286	81	73	68	64	0	1	251	7	26	1	0	0	0	0	0	0	0	0	0	0	1	24	120	120	17	4	0	0	0	0	38.6	35	3.7
1100 - 1200	313	82	73	70	88	0	3	281	1	24	0	2	1	1	0	0	0	0	0	0	0	1	37	92	137	45	1	0	0	0	0	39.8	35.5	4.2
1200 - 1300	281	63	64	78	76	0	2	246	1	29	0	0	1	1	0	1	0	0	0	0	0	2	22	109	123	19	5	1	0	0	0	39	35.3	4
1300 - 1400	327	65	88	102	72	0	1	287	1	35	2	1	0	0	0	0	0	0	0	0	18	10	25	116	120	34	4	0	0	0	0	39.1	34.2	6
1400 - 1500	297	67	76	84	70	0	6	268	1	18	1	2	0	0	1	0	0	0	0	0	5	0	24	123	108	32	4	1	0	0	0	39.5	35.1	4.6
1500 - 1600	338	67	69	97	105	0	1	294	2	38	0	0	0	1	2	0	0	0	0	0	4	13	17	137	118	44	5	0	0	0	0	39.8	34.9	5.1
1600 - 1700	425	108	100	110	107	0	0	392	2	29	0	0	0	0	0	2	0	0	0	0	0	1	41	138	180	54	10	1	0	0	0	40.1	35.7	4.4
1700 - 1800	458	119	104	115	120	0	2	433	2	19	0	0	0	0	1	0	0	1	1	2	4	7	44	147	190	50	10	2	1	0	0	39.8	35.3	5.3
1800 - 1900	382	100	114	97	71	0	1	365	3	12	0	0	0	0	0	1	0	0	0	0	1	14	24	127	164	46	3	2	0	1	0	39.7	35.4	5
1900 - 2000	303	69	106	56	72	1	5	285	0	11	0	0	0	1	0	0	0	0	0	1	0	0	18	127	111	38	7	1	0	0	0	40.1	35.5	4.4
2000 - 2100	160	48	33	38	41	0	2	147	0	10	0	1	0	0	0	0	0	0	0	0	1	0	4	52	73	24	5	1	0	0	0	40.7	36.5	4.3
2100 - 2200	148	46	39	38	25	1	1	144	0	2	0	0	0	0	0	0	0	0	0	1	0	0	19	71	46	8	3	0	0	0	0	38.8	34	4.5
2200 - 2300	105	32	28	18	27	0	0	104	0	1	0	0	0	0	0	0	0	0	0	0	0	1	6	44	38	9	6	0	0	0	1	40.3	36	5.5
2300 - 0000	53	21	16	11	5	0	0	49	0	4	0	0	0	0	0	0	0	0	0	0	0	2	6	20	17	5	3	0	0	0	0	40.4	35.3	5.3
0700 - 1900	**4430**	**1125**	**1100**	**1136**	**1069**	**1**	**22**	**4045**	**23**	**314**	**5**	**6**	**2**	**3**	**4**	**4**	**0**	**1**	**1**	**3**	**33**	**64**	**393**	**1580**	**1807**	**471**	**66**	**8**	**1**	**3**	**0**	**39.4**	**35.2**	**4.7**
0600 - 2200	**5393**	**1339**	**1360**	**1366**	**1328**	**3**	**33**	**4950**	**23**	**357**	**5**	**7**	**2**	**4**	**4**	**4**	**0**	**1**	**1**	**5**	**34**	**64**	**439**	**1917**	**2216**	**603**	**96**	**14**	**1**	**3**	**0**	**39.6**	**35.4**	**4.7**
0600 - 0000	**5551**	**1392**	**1404**	**1395**	**1360**	**3**	**33**	**5103**	**23**	**362**	**5**	**7**	**2**	**4**	**4**	**4**	**0**	**1**	**1**	**5**	**34**	**67**	**451**	**1981**	**2271**	**617**	**105**	**14**	**1**	**3**	**1**	**39.6**	**35.4**	**4.7**
0000 - 0000	**5734**	**1423**	**1454**	**1445**	**1412**	**3**	**33**	**5272**	**23**	**375**	**5**	**7**	**3**	**4**	**4**	**4**	**0**	**1**	**1**	**5**	**34**	**68**	**453**	**2027**	**2350**	**657**	**118**	**15**	**2**	**3**	**1**	**39.7**	**35.5**	**4.7**

Friday 27 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	18	4	5	5	4	0	0	17	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	5	4	7	0	0	0	0	0	43.3	37.5	4.9
0100 - 0200	5	2	0	1	2	0	0	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	3	0	0	0	0	0	-	38.5	5.6
0200 - 0300	7	4	1	1	1	0	0	6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	3	0	0	0	0	-	42.5	5.8
0300 - 0400	4	0	1	1	2	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	-	39.7	2.9
0400 - 0500	24	3	3	7	11	0	0	21	0	3	0	0	0	0	0	0	0	0	0	0	0	0	2	7	6	8	0	1	0	0	0	42.8	37.4	5.9
0500 - 0600	113	12	33	32	36	0	0	108	0	5	0	0	0	0	0	0	0	0	0	0	0	1	4	26	47	28	6	0	1	0	0	43.1	37.8	5
0600 - 0700	323	43	72	112	96	2	2	302	0	17	0	0	0	0	0	0	0	0	1	0	1	0	7	116	128	54	14	2	0	0	0	41.4	36.6	4.8
0700 - 0800	483	109	123	136	115	0	6	443	1	31	1	1	0	0	0	0	0	0	0	0	0	0	35	186	210	45	6	1	0	0	0	39.1	35.6	3.8
0800 - 0900	452	120	108	114	110	0	2	425	3	21	0	0	1	0	0	0	0	0	0	0	3	6	49	174	169	42	9	0	0	0	0	38.9	34.8	4.6
0900 - 1000	380	117	80	88	95	0	0	332	4	42	1	1	0	0	0	0	0	0	0	2	2	5	53	181	111	24	2	0	0	0	0	37.7	33.7	4.5
1000 - 1100	338	98	81	89	70	0	0	290	4	40	3	0	0	1	0	0	0	0	0	0	2	6	52	173	82	20	3	0	0	0	0	37.8	33.4	4.2
1100 - 1200	326	90	92	72	72	0	1	288	2	34	0	0	1	0	0	0	0	0	0	0	0	4	29	162	110	18	3	0	0	0	0	37.9	34.2	3.8
1200 - 1300	324	83	61	108	72	0	0	290	0	31	1	1	0	1	0	0	0	0	0	0	1	3	43	145	113	18	1	0	0	0	0	37.4	34	3.8
1300 - 1400	344	71	90	87	96	0	1	305	5	32	0	1	0	0	0	0	0	0	0	0	0	5	35	140	137	24	3	0	0	0	0	38.6	34.7	4.1
1400 - 1500	380	97	74	115	94	1	1	339	3	33	0	2	0	1	0	0	0	0	0	0	0	5	61	162	133	17	2	0	0	0	0	37.7	33.9	4.1
1500 - 1600	409	95	89	109	116	0	0	359	4	44	1	0	0	1	0	0	0	0	0	0	3	15	49	131	157	50	3	1	0	0	0	39.3	34.7	4.9
1600 - 1700	450	106	112	113	119	0	1	413	1	29	1	0	1	2	0	1	0	1	0	0	0	0	51	172	184	31	11	1	0	0	0	38.9	35.1	4.3
1700 - 1800	535	121	130	154	130	0	2	507	2	23	1	0	0	0	0	0	0	0	0	0	0	10	73	234	177	32	8	1	0	0	0	38.2	34.2	4.3
1800 - 1900	376	119	104	87	66	0	1	357	1	17	0	0	0	0	0	0	0	0	0	0	0	1	34	192	112	30	7	0	0	0	0	38.1	34.5	3.9
1900 - 2000	236	69	76	47	44	1	0	224	1	10	0	0	0	0	0	0	0	0	0	1	0	0	15	96	103	17	4	0	0	0	0	38.8	35.2	4.2
2000 - 2100	147	49	23	30	45	0	2	141	0	3	0	1	0	0	0	0	0	0	0	0	0	3	19	65	43	16	0	1	0	0	0	38.8	34.3	4.6
2100 - 2200	147	55	29	39	24	0	1	144	1	1	0	0	0	0	0	0	0	0	0	0	0	2	16	52	64	9	4	0	0	0	0	38.7	34.9	4.2
2200 - 2300	91	30	27	14	20	0	0	89	0	1	0	0	1	0	0	0	0	0	0	0	0	0	5	29	37	16	3	1	0	0	0	41.2	37	4.5
2300 - 0000	98	23	24	20	31	0	0	92	0	6	0	0	0	0	0	0	0	0	0	0	0	0	8	44	30	15	1	0	0	0	0	40.4	35.4	4.2
0700 - 1900	**4797**	**1226**	**1144**	**1272**	**1155**	**1**	**15**	**4348**	**30**	**377**	**9**	**6**	**3**	**6**	**0**	**1**	**0**	**1**	**0**	**2**	**11**	**60**	**564**	**2052**	**1695**	**351**	**58**	**4**	**0**	**0**	**0**	**38.5**	**34.4**	**4.3**
0600 - 2200	**5650**	**1442**	**1344**	**1500**	**1364**	**4**	**20**	**5159**	**32**	**408**	**9**	**7**	**3**	**6**	**0**	**1**	**0**	**1**	**1**	**3**	**12**	**65**	**621**	**2381**	**2033**	**447**	**80**	**7**	**0**	**0**	**0**	**38.6**	**34.6**	**4.3**
0600 - 0000	**5839**	**1495**	**1395**	**1534**	**1415**	**4**	**20**	**5340**	**32**	**415**	**9**	**7**	**4**	**6**	**0**	**1**	**0**	**1**	**1**	**3**	**12**	**65**	**634**	**2454**	**2100**	**478**	**84**	**8**	**0**	**0**	**0**	**38.8**	**34.7**	**4.3**
0000 - 0000	**6010**	**1520**	**1438**	**1581**	**1471**	**4**	**20**	**5500**	**32**	**426**	**9**	**7**	**4**	**6**	**0**	**1**	**0**	**1**	**1**	**3**	**12**	**66**	**642**	**2495**	**2160**	**528**	**93**	**9**	**1**	**0**	**0**	**38.9**	**34.8**	**4.4**

Saturday 28 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	37	12	13	6	6	0	0	36	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	15	10	4	3	2	0	0	0	45	37	6.1
0100 - 0200	13	4	3	4	2	0	0	12	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	3	5	3	1	0	0	0	0	44.3	36.1	8.6
0200 - 0300	16	6	4	4	2	0	0	14	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	3	7	3	1	0	0	0	0	43.2	36.6	5
0300 - 0400	8	1	4	1	2	0	0	6	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	3	1	1	1	0	0	0	0	-	35.2	6.7
0400 - 0500	12	6	2	2	2	0	0	9	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	3	1	5	2	0	0	0	0	45.2	39.5	6.3
0500 - 0600	86	10	25	34	17	0	1	80	0	5	0	0	0	0	0	0	0	0	0	0	0	0	1	20	37	14	13	1	0	0	0	45.3	39	5.1
0600 - 0700	87	15	20	28	24	0	0	80	1	6	0	0	0	0	0	0	0	0	0	0	0	0	6	14	29	23	12	3	0	0	0	45.2	39.2	5.7
0700 - 0800	185	44	43	45	53	0	1	165	2	17	0	0	0	0	0	0	0	0	0	0	0	0	8	68	75	28	4	2	0	0	0	40.4	36.5	4.2
0800 - 0900	298	57	75	85	81	0	1	282	0	14	0	0	0	1	0	0	0	0	0	0	0	4	14	105	116	50	7	2	0	0	0	40.8	36.3	4.5
0900 - 1000	380	84	91	111	94	0	4	366	2	8	0	0	0	0	0	0	0	0	0	0	0	3	41	154	128	47	7	0	0	0	0	39.6	35	4.5
1000 - 1100	355	92	94	85	84	0	1	340	1	13	0	0	0	0	0	0	0	0	0	0	1	10	37	133	135	36	3	0	0	0	0	39.3	34.7	4.5
1100 - 1200	430	98	122	104	106	0	0	415	2	13	0	0	0	0	0	0	0	0	0	0	0	2	36	209	138	38	5	1	1	0	0	39.1	34.8	4.2
1200 - 1300	429	95	114	103	117	0	1	410	0	15	1	0	0	1	0	1	0	0	0	0	0	6	57	182	148	33	3	0	0	0	0	38.6	34.4	4.3
1300 - 1400	457	129	106	113	109	0	0	443	1	13	0	0	0	0	0	0	0	0	0	0	0	6	52	195	162	38	4	0	0	0	0	38.5	34.5	4.1
1400 - 1500	318	85	71	78	84	0	1	300	1	15	0	1	0	0	0	0	0	0	0	0	0	2	38	123	122	30	3	0	0	0	0	39.3	34.9	4.2
1500 - 1600	322	72	65	91	94	0	0	305	0	16	0	1	0	0	0	0	0	0	0	0	1	4	21	128	133	29	6	0	0	0	0	39.3	35.2	4.2
1600 - 1700	273	66	73	76	58	0	1	255	1	14	0	0	2	0	0	0	0	0	0	0	0	0	17	97	115	38	4	1	1	0	0	40.3	36.2	4.2
1700 - 1800	319	81	94	73	71	0	3	307	1	7	0	1	0	0	0	0	0	0	0	0	0	2	23	125	128	35	4	2	0	0	0	39.5	35.5	4.2
1800 - 1900	270	58	96	50	66	0	1	261	1	6	1	0	0	0	0	0	0	0	0	0	1	6	22	108	100	29	2	2	0	0	0	39.2	34.9	4.5
1900 - 2000	189	56	50	34	49	0	1	185	0	3	0	0	0	0	0	0	0	0	0	0	1	2	16	58	86	21	5	0	0	0	0	39.8	35.7	4.5
2000 - 2100	131	33	41	27	30	0	0	127	0	4	0	0	0	0	0	0	0	0	0	0	0	1	17	44	50	12	4	3	0	0	0	40	35.6	5.1
2100 - 2200	113	27	30	21	35	0	0	111	1	1	0	0	0	0	0	0	0	0	0	0	0	0	17	42	35	16	3	0	0	0	0	40.8	35.2	4.8
2200 - 2300	99	25	21	28	25	0	0	94	2	2	0	1	0	0	0	0	0	0	0	0	0	1	11	48	31	6	2	0	0	0	0	38.4	34.4	4.1
2300 - 0000	88	19	27	18	24	0	0	84	0	4	0	0	0	0	0	0	0	0	0	0	0	1	6	42	32	7	0	0	0	0	0	38.7	34.8	3.9
0700 - 1900	**4036**	**961**	**1044**	**1014**	**1017**	**0**	**14**	**3849**	**12**	**151**	**2**	**3**	**2**	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**3**	**45**	**366**	**1627**	**1500**	**431**	**52**	**10**	**2**	**0**	**0**	**39.4**	**35.1**	**4.3**
0600 - 2200	**4556**	**1092**	**1185**	**1124**	**1155**	**0**	**15**	**4352**	**14**	**165**	**2**	**3**	**2**	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**4**	**48**	**422**	**1785**	**1700**	**503**	**76**	**16**	**2**	**0**	**0**	**39.6**	**35.2**	**4.5**
0600 - 0000	**4743**	**1136**	**1233**	**1170**	**1204**	**0**	**15**	**4530**	**16**	**171**	**2**	**4**	**2**	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**4**	**50**	**439**	**1875**	**1763**	**516**	**78**	**16**	**2**	**0**	**0**	**39.6**	**35.2**	**4.4**
0000 - 0000	**4915**	**1175**	**1284**	**1221**	**1235**	**0**	**16**	**4687**	**16**	**185**	**2**	**4**	**2**	**2**	**0**	**1**	**0**	**0**	**0**	**1**	**4**	**50**	**448**	**1922**	**1824**	**546**	**99**	**19**	**2**	**0**	**0**	**39.7**	**35.3**	**4.5**

Sunday 29 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	61	14	23	12	12	0	0	58	0	2	0	0	1	0	0	0	0	0	0	0	0	1	6	23	17	12	2	0	0	0	0	42.3	35.9	5.1
0100 - 0200	49	14	13	10	12	0	0	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	14	24	6	0	0	1	0	0	40.7	36.1	4.9
0200 - 0300	45	18	10	13	4	0	0	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	17	15	8	1	0	0	0	0	40.5	35.7	4.7
0300 - 0400	13	6	1	3	3	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	4	1	0	0	0	0	0	38.8	34	4.3
0400 - 0500	20	7	5	5	3	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	6	7	3	2	1	0	0	0	45.6	37.8	6.7
0500 - 0600	35	6	11	10	8	0	1	33	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	5	16	7	4	1	0	0	0	46.7	39.1	6
0600 - 0700	64	8	12	26	18	0	2	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	9	22	24	6	2	0	0	0	44.7	39.8	4.7
0700 - 0800	81	24	15	20	22	0	2	76	0	3	0	0	0	0	0	0	0	0	0	0	0	2	4	15	35	20	2	2	0	1	0	42	37.9	5.9
0800 - 0900	129	23	28	38	40	0	2	123	0	4	0	0	0	0	0	0	0	0	0	0	0	0	2	21	57	36	10	1	2	0	0	44	39.1	4.7
0900 - 1000	292	61	72	71	88	0	3	274	5	10	0	0	0	0	0	0	0	0	0	0	0	1	24	105	126	30	5	0	1	0	0	39.7	35.7	4.3
1000 - 1100	325	89	77	82	77	0	0	320	0	5	0	0	0	0	0	0	0	0	0	0	0	6	16	117	145	32	8	1	0	0	0	39.6	35.7	4.2
1100 - 1200	376	88	100	96	92	0	1	360	2	11	0	1	1	0	0	0	0	0	0	0	0	6	37	155	147	30	1	0	0	0	0	38.5	34.6	3.9
1200 - 1300	374	97	99	85	93	0	2	357	3	12	0	0	0	0	0	0	0	0	0	0	0	1	45	152	146	28	1	1	0	0	0	38.3	34.6	3.9
1300 - 1400	373	98	100	96	79	0	1	357	1	14	0	0	0	0	0	0	0	0	0	0	0	5	33	155	132	46	2	0	0	0	0	39.5	35	4.1
1400 - 1500	322	100	73	77	72	0	0	315	0	6	0	1	0	0	0	0	0	0	0	0	0	0	25	127	127	40	3	0	0	0	0	39.6	35.6	4
1500 - 1600	348	78	78	89	103	0	0	334	1	13	0	0	0	0	0	0	0	0	0	0	0	6	32	124	146	34	6	0	0	0	0	39.6	35.3	4.4
1600 - 1700	271	87	65	65	54	0	0	262	0	8	0	0	1	0	0	0	0	0	0	0	0	0	37	100	105	26	3	0	0	0	0	39	34.9	4.2
1700 - 1800	298	73	82	78	65	0	0	287	0	8	1	2	0	0	0	0	0	0	0	0	4	6	31	116	111	26	3	1	0	0	0	39.3	34.6	4.9
1800 - 1900	248	73	77	45	53	0	1	241	1	5	0	0	0	0	0	0	0	0	0	0	0	1	19	78	108	38	4	0	0	0	0	40.4	36	4.2
1900 - 2000	185	54	39	53	39	0	0	176	1	8	0	0	0	0	0	0	0	0	0	0	0	1	10	68	77	26	3	0	0	0	0	40.3	36	4.2
2000 - 2100	130	39	34	28	29	0	0	126	0	4	0	0	0	0	0	0	0	0	0	0	0	0	9	34	62	21	4	0	0	0	0	40.7	36.5	4.2
2100 - 2200	103	33	28	18	24	0	0	99	1	3	0	0	0	0	0	0	0	0	0	0	0	0	9	30	46	14	4	0	0	0	0	40.5	36.1	4.4
2200 - 2300	60	22	9	9	20	0	0	59	0	1	0	0	0	0	0	0	0	0	0	0	0	0	9	19	19	12	1	0	0	0	0	41.8	35.6	5.2
2300 - 0000	31	14	4	6	7	0	0	31	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	8	9	6	2	0	1	0	0	42.3	36.5	7.3
0700 - 1900	**3437**	**891**	**866**	**842**	**838**	**0**	**12**	**3306**	**13**	**99**	**1**	**4**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**34**	**305**	**1265**	**1385**	**386**	**48**	**6**	**3**	**1**	**0**	**39.6**	**35.4**	**4.4**
0600 - 2200	**3919**	**1025**	**979**	**967**	**948**	**0**	**14**	**3769**	**15**	**114**	**1**	**4**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**35**	**334**	**1406**	**1592**	**471**	**65**	**8**	**3**	**1**	**0**	**39.8**	**35.5**	**4.4**
0600 - 0000	**4019**	**1061**	**992**	**982**	**975**	**0**	**14**	**3859**	**15**	**115**	**1**	**4**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**37**	**346**	**1433**	**1620**	**489**	**68**	**8**	**4**	**1**	**0**	**39.9**	**35.5**	**4.5**
0000 - 0000	**4233**	**1126**	**1055**	**1035**	**1017**	**0**	**15**	**4077**	**15**	**118**	**1**	**4**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**40**	**365**	**1502**	**1703**	**526**	**77**	**10**	**5**	**1**	**0**	**40**	**35.6**	**4.5**

Monday 30 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	9	2	3	2	2	0	0	8	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	4	3	0	0	0	0	0	-	36.9	6.3
0100 - 0200	7	0	1	3	3	0	0	6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	2	1	0	0	0	0	-	36.4	6.8
0200 - 0300	7	4	0	0	3	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	1	0	0	0	0	-	36.4	6.1
0300 - 0400	9	1	3	0	5	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	4	2	0	0	0	0	0	-	36.3	5.3
0400 - 0500	25	3	5	9	8	1	1	18	0	4	0	0	0	1	0	0	0	0	0	1	0	0	2	7	9	3	3	0	0	0	0	43.8	36.2	7.9
0500 - 0600	122	18	41	40	23	0	1	114	0	7	0	0	0	0	0	0	0	0	0	0	0	0	2	30	57	26	7	0	0	0	0	41.7	37.6	4.2
0600 - 0700	386	57	92	102	135	2	3	358	0	20	2	0	0	1	0	0	0	0	0	0	1	3	38	163	132	42	4	1	2	0	0	39.4	35.1	4.7
0700 - 0800	543	135	128	143	137	0	2	506	6	27	2	0	0	0	0	0	0	0	0	0	0	14	72	261	164	31	1	0	0	0	0	37.6	33.7	4
0800 - 0900	434	122	99	112	101	0	1	402	0	29	1	0	0	0	1	0	0	0	0	0	0	1	43	136	188	61	5	0	0	0	0	40.1	35.8	4.2
0900 - 1000	314	91	90	65	68	0	0	286	0	28	0	0	0	0	0	0	0	0	0	0	0	0	17	126	133	34	3	0	1	0	0	39.4	35.5	3.9
1000 - 1100	274	60	79	63	72	0	0	237	2	33	1	0	0	0	1	0	0	0	0	0	1	15	38	98	92	29	0	0	1	0	0	39.1	34	5.1
1100 - 1200	290	67	71	75	77	0	0	259	1	27	2	0	0	1	0	0	0	0	0	0	0	7	33	101	104	39	5	1	0	0	0	40.1	35.2	4.8
1200 - 1300	263	53	67	79	64	0	0	230	2	27	0	0	2	0	1	0	0	1	0	0	0	4	23	97	113	23	2	1	0	0	0	38.9	35	4.1
1300 - 1400	301	65	76	81	79	2	2	262	3	28	0	0	1	2	0	1	0	0	1	0	1	15	22	122	114	24	2	0	0	0	0	38.8	34.3	4.7
1400 - 1500	287	74	82	64	67	0	2	251	3	26	2	1	0	2	0	0	0	0	0	0	0	10	35	118	100	18	6	0	0	0	0	38.5	34.4	4.5
1500 - 1600	346	84	72	95	95	0	1	309	4	32	0	0	0	0	0	0	0	0	0	0	0	1	38	142	128	31	4	1	1	0	0	39.1	34.9	4.4
1600 - 1700	395	96	110	107	82	0	0	365	2	27	0	1	0	0	0	0	0	0	0	0	0	3	34	155	153	45	4	1	0	0	0	39.6	35.3	4.2
1700 - 1800	426	108	93	124	101	0	2	407	1	15	0	0	0	0	0	1	0	0	0	0	0	0	33	148	171	57	15	2	0	0	0	40.4	36	4.5
1800 - 1900	308	86	90	73	59	0	0	293	3	11	0	0	0	1	0	0	0	0	0	3	1	0	10	99	140	47	7	1	0	0	0	40.5	36.3	4.8
1900 - 2000	229	64	71	51	43	0	3	218	1	7	0	0	0	0	0	0	0	0	0	0	0	3	8	86	107	20	4	1	0	0	0	39.3	35.9	4.1
2000 - 2100	121	42	29	31	19	0	2	112	1	6	0	0	0	0	0	0	0	0	0	0	0	5	12	38	42	19	4	0	0	0	1	41.1	35.6	5.9
2100 - 2200	126	49	37	23	17	0	0	123	0	3	0	0	0	0	0	0	0	0	0	0	0	0	6	29	64	22	4	1	0	0	0	40.7	36.9	4.1
2200 - 2300	86	21	40	11	14	0	0	82	0	3	0	0	0	0	1	0	0	0	0	0	0	0	6	32	32	15	1	0	0	0	0	40.5	35.8	4.5
2300 - 0000	42	19	8	11	4	0	0	39	0	3	0	0	0	0	0	0	0	0	0	0	0	1	4	11	14	10	2	0	0	0	0	43.5	36.6	5.6
0700 - 1900	**4181**	**1041**	**1057**	**1081**	**1002**	**2**	**10**	**3807**	**27**	**310**	**8**	**2**	**3**	**6**	**3**	**2**	**0**	**1**	**1**	**3**	**3**	**70**	**398**	**1603**	**1600**	**439**	**54**	**7**	**3**	**0**	**0**	**39.3**	**35**	**4.5**
0600 - 2200	**5043**	**1253**	**1286**	**1288**	**1216**	**4**	**18**	**4618**	**29**	**346**	**10**	**2**	**3**	**7**	**3**	**2**	**0**	**1**	**1**	**3**	**4**	**81**	**462**	**1919**	**1945**	**542**	**70**	**10**	**5**	**0**	**1**	**39.4**	**35.1**	**4.5**
0600 - 0000	**5171**	**1293**	**1334**	**1310**	**1234**	**4**	**18**	**4739**	**29**	**352**	**10**	**2**	**3**	**7**	**4**	**2**	**0**	**1**	**1**	**3**	**4**	**82**	**472**	**1962**	**1991**	**567**	**73**	**10**	**5**	**0**	**1**	**39.4**	**35.2**	**4.5**
0000 - 0000	**5350**	**1321**	**1387**	**1364**	**1278**	**5**	**20**	**4901**	**29**	**365**	**10**	**2**	**3**	**8**	**4**	**2**	**0**	**1**	**1**	**4**	**4**	**83**	**478**	**2008**	**2068**	**603**	**85**	**10**	**5**	**0**	**1**	**39.5**	**35.2**	**4.6**

Tuesday 01 May 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	12	2	3	2	5	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	5	2	0	0	0	0	45.8	39.8	5
0100 - 0200	13	4	3	2	4	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	7	1	2	0	0	0	0	47.7	37.7	6.9
0200 - 0300	5	2	1	2	0	0	0	4	0	1	0	0	0	0	0	0	0	0	0	0	1	7	19	135	124	34	7	2	0	0	0	39.5	35.2	4.6
0300 - 0400	4	1	0	1	2	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	2	16	97	120	24	3	0	0	1	0	39.1	35.8	4.2
0400 - 0500	18	0	4	5	9	0	0	15	0	3	0	0	0	0	0	0	0	0	0	0	0	4	28	122	108	30	8	1	0	0	0	39.1	35.2	4.6
0500 - 0600	127	11	30	46	40	0	1	117	0	9	0	0	0	0	0	0	0	0	0	0	0	0	16	124	116	33	5	0	0	0	0	39.8	35.6	4
0600 - 0700	357	38	90	117	112	1	3	333	0	20	0	0	0	0	0	0	0	0	0	1	0	3	20	88	124	30	3	0	0	0	0	39.7	35.6	4.4
0700 - 0800	502	114	126	129	133	0	3	469	1	28	1	0	0	0	0	0	0	0	2	1	1	3	20	106	113	34	5	0	1	0	0	39.9	35.3	5.3
0800 - 0900	438	123	112	99	104	0	3	406	2	25	0	1	0	0	0	1	0	0	0	0	0	5	25	128	136	25	0	1	0	0	0	39	34.9	4
0900 - 1000	329	72	104	85	68	0	4	298	3	22	0	0	0	1	1	0	0	0	0	0	1	3	29	155	146	49	13	1	0	0	0	40.2	35.6	4.6
1000 - 1100	263	71	71	77	44	0	0	235	0	28	0	0	0	0	0	0	0	0	0	0	2	8	31	147	182	38	10	2	0	0	0	39.2	35.5	4.6
1100 - 1200	301	74	96	60	71	0	1	267	1	32	0	0	0	0	0	0	0	0	0	0	0	3	19	112	154	51	4	0	0	0	0	40.3	36	4.1
1200 - 1300	294	76	78	83	57	0	1	262	4	23	2	1	0	1	0	0	0	0	0	0	0	1	8	94	123	38	8	1	0	0	0	40.4	36.4	4.1
1300 - 1400	269	67	64	84	54	1	2	237	2	25	0	1	0	1	0	0	0	0	0	1	0	3	20	88	124	30	3	0	0	0	0	39.7	35.6	4.4
1400 - 1500	286	68	62	77	79	0	0	261	1	22	1	0	0	1	0	0	0	0	2	1	1	3	20	106	113	34	5	0	1	0	0	39.9	35.3	5.3
1500 - 1600	320	71	78	83	88	0	0	274	0	44	1	0	0	0	0	1	0	0	0	0	0	5	25	128	136	25	0	1	0	0	0	39	34.9	4
1600 - 1700	397	94	93	114	96	0	1	368	3	22	1	0	0	0	0	2	0	0	0	0	1	3	29	155	146	49	13	1	0	0	0	40.2	35.6	4.6
1700 - 1800	420	127	109	88	96	0	0	398	0	22	0	0	0	0	0	0	0	0	0	0	2	8	31	147	182	38	10	2	0	0	0	39.2	35.5	4.6
1800 - 1900	343	90	93	78	82	0	2	325	1	14	0	0	0	1	0	0	0	0	0	0	0	3	19	112	154	51	4	0	0	0	0	40.3	36	4.1
1900 - 2000	273	83	68	57	65	0	2	259	0	11	0	0	0	1	0	0	0	0	0	0	0	1	8	94	123	38	8	1	0	0	0	40.4	36.4	4.1
2000 - 2100	147	43	33	37	34	0	1	140	1	5	0	0	0	0	0	0	0	0	0	0	0	0	19	44	62	18	4	0	0	0	0	40	36	4.5
2100 - 2200	143	57	44	21	21	0	0	134	0	9	0	0	0	0	0	0	0	0	0	0	0	1	14	48	48	29	3	0	0	0	0	41.2	36.1	4.5
2200 - 2300	91	39	27	14	11	0	0	88	0	3	0	0	0	0	0	0	0	0	0	0	0	0	7	31	34	14	4	0	1	0	0	41.2	36.5	5
2300 - 0000	41	15	10	8	8	0	0	38	0	2	0	0	0	0	0	1	0	0	0	0	0	0	3	13	11	11	3	0	0	0	0	42.7	37.4	5.1
0700 - 1900	**4162**	**1047**	**1086**	**1057**	**972**	**1**	**17**	**3800**	**18**	**307**	**6**	**3**	**0**	**5**	**1**	**4**	**0**	**0**	**19**	**3**	**11**	**60**	**307**	**1568**	**1685**	**424**	**74**	**9**	**1**	**1**	**0**	**39.5**	**35.2**	**4.9**
0600 - 2200	**5082**	**1268**	**1321**	**1289**	**1204**	**2**	**23**	**4666**	**19**	**352**	**6**	**3**	**0**	**6**	**1**	**4**	**0**	**0**	**19**	**4**	**11**	**62**	**357**	**1874**	**2078**	**560**	**103**	**12**	**1**	**1**	**0**	**39.7**	**35.4**	**4.8**
0600 - 0000	**5214**	**1322**	**1358**	**1311**	**1223**	**2**	**23**	**4792**	**19**	**357**	**6**	**3**	**0**	**6**	**1**	**5**	**0**	**0**	**19**	**4**	**11**	**62**	**367**	**1918**	**2123**	**585**	**110**	**12**	**2**	**1**	**0**	**39.8**	**35.4**	**4.8**
0000 - 0000	**5393**	**1342**	**1399**	**1369**	**1283**	**2**	**24**	**4957**	**19**	**370**	**6**	**3**	**0**	**6**	**1**	**5**	**0**	**0**	**19**	**4**	**11**	**63**	**371**	**1949**	**2203**	**629**	**125**	**13**	**5**	**1**	**0**	**39.9**	**35.5**	**4.9**

Wednesday 02 May 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	16	3	7	1	5	0	0	14	0	2	0	0	0	0	0	0	0	0	0	0	1	0	3	4	5	0	3	0	0	0	0	46	34.5	8.1
0100 - 0200	8	1	3	3	1	0	0	5	0	2	0	0	0	0	1	0	0	0	0	0	0	1	0	2	4	1	0	0	0	0	0	-	36	5.5
0200 - 0300	8	3	2	1	2	0	0	5	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	3	0	0	0	0	0	-	37.4	4.3
0300 - 0400	12	2	2	1	7	0	0	10	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	4	4	4	0	0	0	0	0	43.8	38.1	3.9
0400 - 0500	28	6	7	6	9	0	0	26	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	8	5	5	8	0	0	0	0	46.4	38.8	6.6
0500 - 0600	125	15	36	30	44	0	1	119	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5	30	58	19	13	0	0	0	0	43.3	37.6	4.7
0600 - 0700	354	46	98	104	106	2	4	324	0	24	0	0	0	0	0	0	0	0	1	1	0	1	37	148	130	33	3	0	0	0	0	39.4	34.7	4.5
0700 - 0800	491	111	126	130	124	1	1	462	1	25	1	0	0	0	0	0	0	0	1	0	0	3	44	212	190	37	4	0	0	0	0	38.6	34.8	4
0800 - 0900	435	119	118	109	89	0	1	400	1	29	0	3	0	1	0	0	0	0	0	0	0	8	48	197	158	22	2	0	0	0	0	38	34.1	3.8
0900 - 1000	370	107	100	74	89	0	1	325	2	38	2	1	0	1	0	0	0	0	0	0	0	7	62	181	97	20	3	0	0	0	0	37.8	33.5	4.1
1000 - 1100	247	70	75	56	46	0	0	214	1	28	1	2	0	0	1	0	0	0	1	1	0	10	47	98	81	9	0	0	0	0	0	37.4	32.9	5
1100 - 1200	283	74	61	71	77	0	2	250	3	24	2	2	0	0	0	0	0	0	0	1	0	7	42	114	101	15	3	0	0	0	0	38	34	4.3
1200 - 1300	309	75	83	74	77	0	2	263	4	37	1	2	0	0	0	0	0	0	0	0	2	2	38	164	82	21	0	0	0	0	0	37.7	33.8	3.9
1300 - 1400	290	84	69	62	75	0	0	258	3	28	0	1	0	0	0	0	0	0	0	0	0	15	43	107	97	24	4	0	0	0	0	38.3	34	4.8
1400 - 1500	285	70	68	75	72	0	2	250	1	28	1	3	0	0	0	0	0	0	3	0	2	8	38	110	100	23	1	0	0	0	0	38.9	33.7	5.5
1500 - 1600	297	62	59	85	91	0	0	271	1	21	2	2	0	0	0	0	0	0	0	0	0	2	20	99	134	35	7	0	0	0	0	39.9	35.8	4.1
1600 - 1700	400	95	85	120	100	0	1	372	0	24	0	0	0	2	0	1	0	0	0	0	1	9	28	176	142	39	5	0	0	0	0	39	34.8	4.3
1700 - 1800	432	114	109	94	115	1	1	410	3	16	0	1	0	0	0	0	0	0	1	6	8	2	22	141	161	81	8	2	0	0	0	41	35.7	5.8
1800 - 1900	401	108	100	111	82	0	2	381	3	14	1	0	0	0	0	0	0	0	0	0	0	0	36	144	159	54	6	2	0	0	0	40.1	35.8	4.3
1900 - 2000	265	74	80	53	58	0	4	252	2	7	0	0	0	0	0	0	0	0	0	1	1	1	18	84	103	48	8	1	0	0	0	40.8	36.1	5
2000 - 2100	171	56	40	36	39	0	0	161	0	10	0	0	0	0	0	0	0	0	0	0	0	1	14	64	64	22	5	1	0	0	0	40.6	35.8	4.7
2100 - 2200	168	57	46	33	32	0	0	166	0	2	0	0	0	0	0	0	0	0	0	0	0	2	18	57	56	28	6	1	0	0	0	41.7	36	5.1
2200 - 2300	90	31	20	26	13	0	0	87	0	3	0	0	0	0	0	0	0	0	0	0	0	0	8	33	32	13	3	1	0	0	0	40.4	36.2	4.5
2300 - 0000	30	9	6	10	5	0	0	26	0	4	0	0	0	0	0	0	0	0	0	0	0	0	2	9	6	11	1	1	0	0	0	43.6	37.7	5.8
0700 - 1900	**4240**	**1089**	**1053**	**1061**	**1037**	**2**	**13**	**3856**	**23**	**312**	**11**	**17**	**0**	**4**	**1**	**1**	**0**	**0**	**6**	**8**	**13**	**73**	**468**	**1743**	**1502**	**380**	**43**	**4**	**0**	**0**	**0**	**38.9**	**34.5**	**4.6**
0600 - 2200	**5198**	**1322**	**1317**	**1287**	**1272**	**4**	**21**	**4759**	**25**	**355**	**11**	**17**	**0**	**4**	**1**	**1**	**0**	**0**	**7**	**10**	**14**	**78**	**555**	**2096**	**1855**	**511**	**65**	**7**	**0**	**0**	**0**	**39.1**	**34.7**	**4.6**
0600 - 0000	**5318**	**1362**	**1343**	**1323**	**1290**	**4**	**21**	**4872**	**25**	**362**	**11**	**17**	**0**	**4**	**1**	**1**	**0**	**0**	**7**	**10**	**14**	**78**	**565**	**2138**	**1893**	**535**	**69**	**9**	**0**	**0**	**0**	**39.2**	**34.7**	**4.7**
0000 - 0000	**5515**	**1392**	**1400**	**1365**	**1358**	**4**	**22**	**5051**	**25**	**377**	**12**	**17**	**0**	**4**	**2**	**1**	**0**	**0**	**7**	**10**	**15**	**79**	**575**	**2189**	**1971**	**567**	**93**	**9**	**0**	**0**	**0**	**39.3**	**34.8**	**4.7**

Virtual Day (7)

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	24	6	8	4	5	0	0	23	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	7	7	5	2	0	0	0	0	43.3	36.8	5.8
0100 - 0200	14	4	3	3	3	0	0	14	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	4	6	3	1	0	0	0	0	41.9	36.6	5.8
0200 - 0300	13	5	3	3	2	0	0	12	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	4	4	3	1	0	0	0	0	43.1	36.9	5.2
0300 - 0400	8	2	2	1	3	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	2	0	0	0	0	0	-	36.7	4.9
0400 - 0500	22	4	5	6	7	0	0	18	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	5	6	5	3	0	0	0	0	45.3	38.6	6.9
0500 - 0600	106	13	31	33	29	0	1	100	0	5	0	0	0	0	0	0	0	0	0	0	0	0	2	25	48	21	8	0	0	0	0	42.9	38	4.8
0600 - 0700	275	37	67	84	87	1	2	255	0	15	0	0	0	0	0	0	0	0	0	0	0	1	15	94	111	41	10	2	0	0	0	40.8	36.3	4.8
0700 - 0800	402	96	99	107	100	0	3	374	2	23	1	0	0	0	0	0	0	0	3	0	1	6	35	163	153	36	5	1	0	0	0	39	34.8	4.9
0800 - 0900	378	101	94	93	90	0	2	352	1	22	0	1	0	0	0	0	0	0	0	0	0	5	36	133	152	43	7	1	0	0	0	39.6	35.3	4.5
0900 - 1000	342	89	89	81	83	0	2	313	2	24	0	0	0	0	0	0	0	0	0	0	0	3	37	144	122	30	4	0	0	0	0	38.9	34.7	4.4
1000 - 1100	298	80	79	74	65	0	0	270	2	25	1	0	0	0	0	0	0	0	0	0	1	7	33	119	111	24	3	0	0	0	0	38.9	34.5	4.5
1100 - 1200	331	82	88	78	83	0	1	303	2	24	1	1	0	0	0	0	0	0	0	0	0	4	35	136	121	31	4	0	0	0	0	38.9	34.8	4.3
1200 - 1300	325	77	81	87	79	0	1	294	2	25	1	1	0	1	0	0	0	0	0	0	0	3	35	139	120	25	2	0	0	0	0	38.6	34.6	4.1
1300 - 1400	337	83	85	89	81	0	1	307	2	25	0	1	0	0	0	0	0	0	0	0	3	8	33	132	127	31	3	0	0	0	0	39	34.6	4.6
1400 - 1500	311	80	72	81	77	0	2	283	1	21	1	1	0	1	0	0	0	0	1	0	1	4	34	124	115	28	3	0	0	0	0	38.9	34.7	4.6
1500 - 1600	340	76	73	93	99	0	0	307	2	30	1	0	0	0	0	0	0	0	0	0	1	7	29	127	136	35	4	0	0	0	0	39.4	35.1	4.5
1600 - 1700	373	93	91	101	88	0	1	347	1	22	0	0	1	1	0	1	0	0	0	0	0	2	34	142	146	40	7	1	0	0	0	39.6	35.4	4.3
1700 - 1800	413	106	103	104	100	0	1	393	1	16	0	1	0	0	0	0	0	0	0	1	3	5	37	151	160	46	8	2	0	0	0	39.6	35.2	4.9
1800 - 1900	333	91	96	77	68	0	1	318	2	11	0	0	0	0	0	0	0	0	0	0	0	4	23	123	134	42	5	1	0	0	0	39.9	35.5	4.5
1900 - 2000	240	67	70	50	53	0	2	228	1	8	0	0	0	0	0	0	0	0	0	0	0	1	13	88	101	30	6	1	0	0	0	40	35.8	4.4
2000 - 2100	144	44	33	32	34	0	1	136	0	6	0	0	0	0	0	0	0	0	0	0	0	1	13	49	57	19	4	1	0	0	0	40.2	35.8	4.8
2100 - 2200	135	46	36	28	25	0	0	132	0	3	0	0	0	0	0	0	0	0	0	0	0	1	14	47	51	18	4	0	0	0	0	40.2	35.6	4.6
2200 - 2300	89	29	25	17	19	0	0	86	0	2	0	0	0	0	0	0	0	0	0	0	0	0	7	34	32	12	3	0	0	0	0	40.5	35.9	4.8
2300 - 0000	55	17	14	12	12	0	0	51	0	3	0	0	0	0	0	0	0	0	0	0	0	1	5	21	17	9	2	0	0	0	0	41.2	35.8	5.1
0700 - 1900	**4183**	**1054**	**1050**	**1066**	**1013**	**1**	**15**	**3859**	**21**	**267**	**6**	**6**	**2**	**4**	**1**	**2**	**0**	**0**	**4**	**3**	**11**	**58**	**400**	**1634**	**1596**	**412**	**56**	**7**	**1**	**1**	**0**	**39.2**	**35**	**4.5**
0600 - 2200	**4977**	**1249**	**1256**	**1260**	**1212**	**2**	**21**	**4610**	**22**	**300**	**6**	**6**	**2**	**4**	**1**	**2**	**0**	**0**	**4**	**4**	**12**	**62**	**456**	**1911**	**1917**	**520**	**79**	**11**	**2**	**1**	**0**	**39.4**	**35.1**	**4.6**
0600 - 0000	**5121**	**1294**	**1294**	**1289**	**1243**	**2**	**21**	**4748**	**23**	**305**	**6**	**6**	**2**	**4**	**1**	**2**	**0**	**0**	**4**	**4**	**12**	**63**	**468**	**1966**	**1966**	**541**	**84**	**11**	**2**	**1**	**0**	**39.4**	**35.1**	**4.6**
0000 - 0000	**5307**	**1328**	**1345**	**1340**	**1293**	**3**	**21**	**4921**	**23**	**317**	**6**	**6**	**2**	**4**	**2**	**2**	**0**	**0**	**4**	**4**	**12**	**64**	**476**	**2013**	**2040**	**579**	**99**	**12**	**3**	**1**	**0**	**39.6**	**35.2**	**4.6**

Virtual Week (1)

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
Mon	5350	1321	1387	1364	1278	5	20	4901	29	365	10	2	3	8	4	2	0	1	1	4	4	83	478	2008	2068	603	85	10	5	0	1	39.5	35.2	4.6
Tue	5393	1342	1399	1369	1283	2	24	4957	19	370	6	3	0	6	1	5	0	0	19	4	11	63	371	1949	2203	629	125	13	5	1	0	39.9	35.5	4.9
Wed	5515	1392	1400	1365	1358	4	22	5051	25	377	12	17	0	4	2	1	0	0	7	10	15	79	575	2189	1971	567	93	9	0	0	0	39.3	34.8	4.7
Thu	5734	1423	1454	1445	1412	3	33	5272	23	375	5	7	3	4	4	4	0	1	1	5	34	68	453	2027	2350	657	118	15	2	3	1	39.7	35.5	4.7
Fri	6010	1520	1438	1581	1471	4	20	5500	32	426	9	7	4	6	0	1	0	1	1	3	12	66	642	2495	2160	528	93	9	1	0	0	38.9	34.8	4.4
Sat	4915	1175	1284	1221	1235	0	16	4687	16	185	2	4	2	2	0	1	0	0	0	1	4	50	448	1922	1824	546	99	19	2	0	0	39.7	35.3	4.5
Sun	4233	1126	1055	1035	1017	0	15	4077	15	118	1	4	3	0	0	0	0	0	0	0	4	40	365	1502	1703	526	77	10	5	1	0	40	35.6	4.5

Derby, City of Derby

Report Id 237/18
Site Name Site 1 of 4
Description B5008 Etwall Road, 120m south of B5008 Etwall Road
Direction Southbound

Thursday 26 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	17	6	5	3	3	0	0	16	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	6	7	2	0	0	0	0	0	39.3	35.3	3.8
0100 - 0200	8	2	3	1	2	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	3	0	0	0	0	0	-	37	5.1
0200 - 0300	3	1	0	0	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	-	37.4	2.7
0300 - 0400	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	-	37.5	-
0400 - 0500	29	5	3	6	15	0	0	26	0	2	1	0	0	0	0	0	0	0	0	0	0	0	2	7	13	5	2	0	0	0	0	43.7	37.4	4.9
0500 - 0600	100	38	23	29	10	0	3	91	0	6	0	0	0	0	0	0	0	0	0	0	0	0	1	36	38	20	4	1	0	0	0	42.3	37.4	4.3
0600 - 0700	148	17	32	45	54	2	2	125	2	15	0	2	0	0	0	0	0	0	0	0	2	2	7	43	67	24	1	2	0	0	0	40.5	36.2	4.9
0700 - 0800	345	58	80	109	98	0	2	310	0	30	0	1	1	1	0	0	0	0	0	0	0	0	17	157	142	28	0	1	0	0	0	38.7	35.2	3.3
0800 - 0900	313	101	82	62	68	0	0	277	1	33	0	1	0	1	0	0	0	0	0	0	0	0	15	133	137	26	2	0	0	0	0	38.5	35.3	3.4
0900 - 1000	244	63	76	42	63	0	1	228	2	13	0	0	0	0	0	0	0	0	0	0	0	1	18	102	91	30	2	0	0	0	0	39.8	35.3	3.9
1000 - 1100	218	57	52	43	66	0	0	190	2	24	1	1	0	0	0	0	0	0	0	0	0	2	24	91	80	19	2	0	0	0	0	38.6	34.7	3.9
1100 - 1200	256	44	61	78	73	0	1	222	2	28	0	2	0	1	0	0	0	0	0	0	0	0	20	115	92	27	2	0	0	0	0	38.9	35.1	3.8
1200 - 1300	309	80	63	88	78	0	1	271	1	34	0	0	0	0	1	1	0	0	0	0	0	4	33	123	127	18	4	0	0	0	0	38.6	34.7	4.1
1300 - 1400	293	71	75	75	72	0	1	271	1	15	1	3	0	0	1	0	0	0	0	0	1	8	32	102	113	30	6	1	0	0	0	39.4	34.8	4.9
1400 - 1500	339	93	80	86	80	0	2	312	0	21	1	1	0	1	0	1	0	0	0	0	1	2	27	135	131	32	7	4	0	0	0	39.5	35.4	4.5
1500 - 1600	403	78	92	120	113	1	0	363	5	33	1	0	0	0	0	0	0	0	0	0	1	8	16	156	178	37	4	3	0	0	0	39.1	35.5	4.2
1600 - 1700	470	103	119	122	126	1	5	445	2	17	0	0	0	0	0	0	0	0	0	1	0	1	21	148	226	54	15	2	2	0	0	40.1	36.3	4.5
1700 - 1800	446	109	111	105	121	0	8	427	3	6	0	0	0	2	0	0	0	0	0	0	0	4	23	153	203	53	7	2	0	1	0	39.9	36.1	4.3
1800 - 1900	443	134	111	105	93	0	1	424	1	16	0	0	0	0	0	1	0	0	0	0	0	0	18	151	202	57	11	3	0	1	0	40.3	36.5	4.3
1900 - 2000	347	80	93	90	84	0	3	329	2	12	0	1	0	0	0	0	0	0	0	0	0	2	23	124	156	33	8	1	0	0	0	39	35.6	4
2000 - 2100	245	70	62	57	56	0	1	235	1	8	0	0	0	0	0	0	0	0	0	0	0	1	9	106	99	29	0	1	0	0	0	39.2	35.7	3.7
2100 - 2200	176	56	38	45	37	0	2	171	0	3	0	0	0	0	0	0	0	0	0	0	0	1	10	66	71	20	6	1	0	1	0	40.4	36.2	5
2200 - 2300	145	38	35	45	27	0	1	141	0	3	0	0	0	0	0	0	0	0	0	0	0	2	10	48	64	15	2	4	0	0	0	39.7	35.9	4.8
2300 - 0000	56	21	20	7	8	0	0	53	0	3	0	0	0	0	0	0	0	0	0	0	0	1	6	13	27	6	3	0	0	0	0	40.8	36.1	4.9
0700 - 1900	**4079**	**991**	**1002**	**1035**	**1051**	**2**	**22**	**3740**	**20**	**270**	**4**	**9**	**1**	**6**	**2**	**3**	**0**	**0**	**0**	**1**	**3**	**30**	**264**	**1566**	**1722**	**411**	**62**	**16**	**2**	**2**	**0**	**39.4**	**35.5**	**4.2**
0600 - 2200	**4995**	**1214**	**1227**	**1272**	**1282**	**4**	**30**	**4600**	**25**	**308**	**4**	**12**	**1**	**6**	**2**	**3**	**0**	**0**	**0**	**1**	**5**	**36**	**313**	**1905**	**2115**	**517**	**77**	**21**	**2**	**3**	**0**	**39.4**	**35.6**	**4.2**
0600 - 0000	**5196**	**1273**	**1282**	**1324**	**1317**	**4**	**31**	**4784**	**25**	**314**	**4**	**12**	**1**	**6**	**2**	**3**	**0**	**0**	**0**	**1**	**5**	**39**	**329**	**1966**	**2206**	**538**	**82**	**25**	**2**	**3**	**0**	**39.5**	**35.6**	**4.2**
0000 - 0000	**5354**	**1325**	**1316**	**1363**	**1350**	**4**	**34**	**4939**	**25**	**323**	**5**	**12**	**1**	**6**	**2**	**3**	**0**	**0**	**0**	**1**	**5**	**39**	**334**	**2019**	**2269**	**568**	**88**	**26**	**2**	**3**	**0**	**39.6**	**35.6**	**4.2**

Friday 27 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	25	14	2	3	6	0	0	24	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	7	9	5	1	0	0	0	0	42.3	36	5.1
0100 - 0200	12	3	4	2	3	0	0	11	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6	1	2	1	0	0	0	47.6	39.6	6
0200 - 0300	4	2	1	0	1	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	1	0	0	0	0	-	36.6	6.5
0300 - 0400	6	3	0	1	2	0	0	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	2	0	0	0	0	0	-	36.5	5.1
0400 - 0500	34	0	3	4	27	0	0	33	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	10	17	5	2	0	0	0	0	40.3	37.4	3.6
0500 - 0600	84	22	22	23	17	0	3	76	0	5	0	0	0	0	0	0	0	0	0	0	0	1	4	24	36	17	0	1	1	0	0	41.6	37.1	4.8
0600 - 0700	147	15	32	48	52	1	0	130	0	12	1	3	0	0	0	0	0	0	0	0	1	1	3	43	76	19	4	0	0	0	0	40.2	36.5	4.3
0700 - 0800	330	58	61	101	110	0	2	294	1	29	1	0	2	1	0	0	0	0	0	0	0	0	18	130	144	37	1	0	0	0	0	39.3	35.5	3.6
0800 - 0900	280	91	69	64	56	0	0	253	0	27	0	0	0	0	0	0	0	0	0	0	1	3	25	119	100	26	5	1	0	0	0	39.1	35	4.3
0900 - 1000	230	58	42	75	55	0	0	208	0	20	1	0	1	0	0	0	0	0	0	1	1	2	19	99	84	20	3	1	0	0	0	38.7	34.8	4.6
1000 - 1100	227	47	62	48	70	0	1	203	2	19	0	0	0	2	0	0	0	0	0	0	2	4	25	108	76	11	1	0	0	0	0	37.7	33.7	4.2
1100 - 1200	253	60	62	53	78	0	0	226	1	23	0	2	0	1	0	0	0	0	0	0	0	4	23	122	88	14	2	0	0	0	0	38.2	34.4	3.9
1200 - 1300	336	77	85	69	105	0	0	305	3	26	0	1	0	0	1	0	0	0	0	0	0	3	38	163	102	25	5	0	0	0	0	38.3	34.3	4.1
1300 - 1400	351	93	83	84	91	0	1	329	4	15	0	1	0	1	0	0	0	0	0	0	0	1	33	150	138	26	3	0	0	0	0	38.9	34.9	3.9
1400 - 1500	389	96	107	90	96	0	2	361	0	24	0	0	1	1	0	0	0	0	0	0	0	3	41	171	148	23	2	1	0	0	0	38.2	34.5	3.9
1500 - 1600	405	102	108	90	105	0	1	377	0	25	0	0	1	0	0	1	0	0	0	0	0	3	29	177	163	29	3	1	0	0	0	38.6	35	3.8
1600 - 1700	421	104	88	111	118	2	4	398	2	14	0	0	0	1	0	0	0	0	0	2	0	2	10	141	208	47	9	2	0	0	0	39.8	36.1	4
1700 - 1800	418	114	107	92	105	1	1	401	3	10	1	0	1	0	0	0	0	0	0	0	2	3	24	163	180	37	7	2	0	0	0	39	35.4	4.2
1800 - 1900	391	104	91	94	102	0	1	370	1	18	0	0	0	0	0	0	0	1	0	0	0	2	37	170	142	36	4	0	0	0	0	38.9	34.9	4.2
1900 - 2000	342	75	103	90	74	0	1	328	0	13	0	0	0	0	0	0	0	0	0	0	0	0	19	136	151	32	3	1	0	0	0	38.9	35.6	3.7
2000 - 2100	256	54	70	70	62	0	1	245	2	8	0	0	0	0	0	0	0	0	0	3	2	3	23	79	109	32	4	1	0	0	0	39.9	35.1	5.2
2100 - 2200	130	32	39	35	24	0	1	123	1	5	0	0	0	0	0	0	0	0	0	0	0	3	11	38	61	12	5	0	0	0	0	39.8	35.5	4.7
2200 - 2300	117	26	27	33	31	0	1	114	0	2	0	0	0	0	0	0	0	0	0	0	0	0	10	32	57	17	1	0	0	0	0	40.1	36.1	3.9
2300 - 0000	72	16	26	10	20	0	1	71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	28	28	7	7	1	0	0	0	42	37.1	5
0700 - 1900	**4031**	**1004**	**965**	**971**	**1091**	**3**	**13**	**3725**	**17**	**250**	**3**	**4**	**6**	**7**	**1**	**1**	**0**	**1**	**0**	**3**	**6**	**30**	**322**	**1713**	**1573**	**331**	**45**	**8**	**0**	**0**	**0**	**38.9**	**35**	**4.1**
0600 - 2200	**4906**	**1180**	**1209**	**1214**	**1303**	**4**	**16**	**4531**	**20**	**288**	**4**	**7**	**6**	**7**	**1**	**1**	**0**	**1**	**0**	**6**	**9**	**37**	**378**	**2009**	**1970**	**426**	**61**	**10**	**0**	**0**	**0**	**39**	**35.1**	**4.2**
0600 - 0000	**5095**	**1222**	**1262**	**1257**	**1354**	**4**	**18**	**4736**	**20**	**290**	**4**	**7**	**6**	**7**	**1**	**1**	**0**	**1**	**0**	**6**	**9**	**37**	**389**	**2069**	**2055**	**450**	**69**	**11**	**0**	**0**	**0**	**39**	**35.1**	**4.2**
0000 - 0000	**5260**	**1266**	**1294**	**1290**	**1410**	**4**	**21**	**4888**	**20**	**300**	**4**	**7**	**6**	**7**	**1**	**1**	**0**	**1**	**0**	**6**	**9**	**38**	**397**	**2114**	**2127**	**480**	**75**	**13**	**1**	**0**	**0**	**39.1**	**35.2**	**4.2**

Saturday 28 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	46	15	10	15	6	0	0	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	18	17	8	2	0	0	0	0	42.1	36.6	4.5
0100 - 0200	21	4	8	2	7	0	0	20	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7	10	4	0	0	0	0	0	40.3	36.4	3.1
0200 - 0300	21	4	7	4	6	0	0	20	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	1	13	3	2	0	0	0	0	43.3	37.3	5.3
0300 - 0400	78	30	21	21	6	0	2	76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	15	34	22	4	2	0	0	0	43.5	38.8	4.2
0400 - 0500	16	3	5	6	2	1	0	13	0	2	0	0	0	0	0	0	0	0	0	0	1	0	1	5	8	1	0	0	0	0	0	39.2	35	5.2
0500 - 0600	16	4	4	4	4	0	0	13	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	7	7	1	0	0	0	0	0	39.5	35.9	4
0600 - 0700	63	9	12	20	22	0	0	58	0	5	0	0	0	0	0	0	0	0	0	0	1	1	6	20	27	8	0	0	0	0	0	39.8	35.2	4.6
0700 - 0800	102	20	17	29	36	0	0	92	0	9	0	0	0	1	0	0	0	0	0	0	0	1	8	38	46	7	1	1	0	0	0	39.7	35.5	4.5
0800 - 0900	158	35	48	44	31	0	0	148	1	7	0	0	2	0	0	0	0	0	0	0	0	1	9	59	63	22	3	0	1	0	0	40.3	36	4.4
0900 - 1000	224	39	51	63	71	0	0	210	1	13	0	0	0	0	0	0	0	0	0	0	0	0	11	89	90	30	4	0	0	0	0	40	35.8	3.9
1000 - 1100	325	70	83	79	93	0	2	312	2	9	0	0	0	0	0	0	0	0	0	0	2	3	22	139	118	33	6	2	0	0	0	39.7	35.2	4.4
1100 - 1200	356	96	96	85	79	0	1	345	0	10	0	0	0	0	0	0	0	0	0	0	0	2	18	149	154	30	2	1	0	0	0	39.2	35.4	3.8
1200 - 1300	429	101	127	90	111	0	2	409	0	16	1	1	0	0	0	0	0	0	0	0	0	0	43	182	165	38	0	1	0	0	0	38.9	34.8	3.8
1300 - 1400	472	130	124	117	101	0	2	445	2	23	0	0	0	0	0	0	0	0	0	0	0	3	46	258	132	32	1	0	0	0	0	38.1	34.2	3.6
1400 - 1500	363	81	95	87	100	0	0	349	0	13	0	1	0	0	0	0	0	0	0	0	0	1	23	149	155	30	5	0	0	0	0	39	35.3	3.8
1500 - 1600	368	74	89	95	110	0	3	351	0	14	0	0	0	0	0	0	0	0	0	0	0	2	22	151	160	26	6	1	0	0	0	38.9	35.3	3.9
1600 - 1700	394	98	107	99	90	0	2	378	2	12	0	0	0	0	0	0	0	0	0	0	0	2	21	162	177	25	5	2	0	0	0	38.7	35.4	3.8
1700 - 1800	385	92	90	105	98	0	1	372	1	10	1	0	0	0	0	0	0	0	0	0	0	1	27	144	170	40	3	0	0	0	0	39.5	35.6	3.9
1800 - 1900	359	89	96	86	88	0	1	353	1	4	0	0	0	0	0	0	0	0	0	0	0	2	32	130	159	27	7	2	0	0	0	38.9	35.3	4.3
1900 - 2000	241	60	67	55	59	0	0	236	0	5	0	0	0	0	0	0	0	0	1	0	5	4	25	94	78	31	2	1	0	0	0	39.9	34.4	5.5
2000 - 2100	197	53	60	38	46	0	0	191	0	6	0	0	0	0	0	0	0	0	0	0	0	0	14	59	95	22	7	0	0	0	0	40	36.1	4.2
2100 - 2200	155	32	49	40	34	0	0	154	0	1	0	0	0	0	0	0	0	0	0	0	0	0	12	52	69	15	4	2	1	0	0	40	36.2	4.9
2200 - 2300	137	30	35	40	32	0	0	133	0	3	0	0	0	1	0	0	0	0	0	0	0	1	13	53	52	14	3	1	0	0	0	39.4	35.3	4.5
2300 - 0000	101	24	26	26	25	0	0	99	0	2	0	0	0	0	0	0	0	0	0	0	0	0	7	34	43	13	2	1	1	0	0	41	36.5	4.8
0700 - 1900	**3935**	**925**	**1023**	**979**	**1008**	**0**	**14**	**3764**	**10**	**140**	**2**	**2**	**2**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**18**	**282**	**1650**	**1589**	**340**	**43**	**10**	**1**	**0**	**0**	**39.1**	**35.2**	**4**
0600 - 2200	**4591**	**1079**	**1211**	**1132**	**1169**	**0**	**14**	**4403**	**10**	**157**	**2**	**2**	**2**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**8**	**23**	**339**	**1875**	**1858**	**416**	**56**	**13**	**2**	**0**	**0**	**39.2**	**35.2**	**4.1**
0600 - 0000	**4829**	**1133**	**1272**	**1198**	**1226**	**0**	**14**	**4635**	**10**	**162**	**2**	**2**	**2**	**2**	**0**	**0**	**0**	**0**	**1**	**0**	**8**	**24**	**359**	**1962**	**1953**	**443**	**61**	**15**	**3**	**0**	**0**	**39.2**	**35.3**	**4.2**
0000 - 0000	**5027**	**1193**	**1327**	**1250**	**1257**	**1**	**16**	**4823**	**10**	**169**	**2**	**2**	**2**	**2**	**0**	**0**	**0**	**0**	**1**	**0**	**9**	**24**	**365**	**2015**	**2042**	**482**	**69**	**17**	**3**	**0**	**0**	**39.3**	**35.3**	**4.2**

Sunday 29 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	57	20	16	13	8	0	2	54	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	16	32	7	2	0	0	0	0	40.2	37	3.7
0100 - 0200	30	12	8	5	5	0	3	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	8	15	3	2	1	0	0	0	42.4	37.2	5.2
0200 - 0300	26	6	8	5	7	0	0	23	0	3	0	0	0	0	0	0	0	0	0	0	0	1	2	10	9	2	2	0	0	0	0	42.2	35.2	5.8
0300 - 0400	19	6	4	4	5	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	6	8	3	0	0	0	0	0	41.2	35.1	4.9
0400 - 0500	14	4	3	3	4	0	0	13	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	7	3	2	1	0	0	0	0	44	35.8	5
0500 - 0600	12	2	2	4	4	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	2	2	0	0	0	0	0	41.3	34.7	4.3
0600 - 0700	38	5	6	12	15	0	0	35	0	3	0	0	0	0	0	0	0	0	0	0	0	0	2	11	17	8	0	0	0	0	0	40.9	36.7	3.8
0700 - 0800	54	10	10	21	13	0	0	53	0	1	0	0	0	0	0	0	0	0	0	0	0	2	7	18	21	3	2	1	0	0	0	38.9	34.9	5.3
0800 - 0900	90	18	24	18	30	1	0	83	1	5	0	0	0	0	0	0	0	0	0	1	0	0	2	27	49	8	3	0	0	0	0	39.7	36.2	4.1
0900 - 1000	191	28	50	37	76	0	2	183	0	6	0	0	0	0	0	0	0	0	0	0	0	0	9	71	85	20	5	1	0	0	0	39.5	36	3.9
1000 - 1100	275	57	63	83	72	0	5	256	3	11	0	0	0	0	0	0	0	0	0	0	0	3	24	107	103	28	9	1	0	0	0	39.8	35.3	4.6
1100 - 1200	326	82	65	85	94	0	2	307	2	14	0	0	1	0	0	0	0	0	0	0	0	1	22	151	134	17	1	0	0	0	0	38	34.7	3.4
1200 - 1300	381	84	103	93	101	0	1	373	0	6	1	0	0	0	0	0	0	0	0	0	0	4	25	159	156	29	7	1	0	0	0	38.6	35.2	4.1
1300 - 1400	370	99	98	87	86	0	2	364	0	4	0	0	0	0	0	0	0	0	0	0	0	1	20	157	151	36	5	0	0	0	0	39.4	35.4	3.8
1400 - 1500	398	100	101	110	87	0	4	383	2	7	0	1	1	0	0	0	0	0	0	0	0	0	35	161	168	28	2	2	1	1	0	38.4	35.1	4.1
1500 - 1600	349	84	82	90	93	0	0	336	0	11	1	1	0	0	0	0	0	0	0	0	0	2	35	147	127	32	4	2	0	0	0	38.9	34.9	4.1
1600 - 1700	395	101	107	88	99	0	4	386	0	5	0	0	0	0	0	0	0	0	0	0	0	1	27	143	184	36	2	1	1	0	0	39.1	35.5	3.9
1700 - 1800	376	95	94	103	84	0	1	367	1	6	0	0	0	0	0	1	0	0	1	0	2	7	21	158	150	35	2	0	0	0	0	38.9	35	4.4
1800 - 1900	306	87	71	70	78	0	2	299	1	4	0	0	0	0	0	0	0	0	0	0	0	1	20	121	118	37	7	1	1	0	0	40.1	36	4.3
1900 - 2000	251	72	62	67	50	1	0	246	0	4	0	0	0	0	0	0	0	0	0	0	1	0	21	89	108	21	9	2	0	0	0	39.6	35.8	4.6
2000 - 2100	182	56	56	41	29	0	0	177	0	4	0	0	0	1	0	0	0	0	1	0	0	1	11	64	85	13	6	1	0	0	0	39.3	35.8	4.5
2100 - 2200	121	45	32	25	19	0	2	115	1	3	0	0	0	0	0	0	0	0	0	0	0	1	3	34	66	15	2	0	0	0	0	39.9	36.4	3.6
2200 - 2300	74	18	22	16	18	0	0	73	0	1	0	0	0	0	0	0	0	0	0	0	1	1	2	22	30	12	3	2	1	0	0	42.9	37.2	6
2300 - 0000	39	8	16	11	4	0	0	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	12	19	3	2	0	0	0	0	40	36.1	4.5
0700 - 1900	**3511**	**845**	**868**	**885**	**913**	**1**	**23**	**3390**	**10**	**80**	**2**	**2**	**2**	**0**	**0**	**1**	**0**	**0**	**1**	**1**	**2**	**22**	**247**	**1420**	**1446**	**309**	**49**	**10**	**3**	**1**	**0**	**39**	**35.3**	**4.1**
0600 - 2200	**4103**	**1023**	**1024**	**1030**	**1026**	**2**	**25**	**3963**	**11**	**94**	**2**	**2**	**2**	**1**	**0**	**1**	**0**	**0**	**2**	**1**	**3**	**24**	**284**	**1618**	**1722**	**366**	**66**	**13**	**3**	**1**	**0**	**39.1**	**35.4**	**4.1**
0600 - 0000	**4216**	**1049**	**1062**	**1057**	**1048**	**2**	**25**	**4075**	**11**	**95**	**2**	**2**	**2**	**1**	**0**	**1**	**0**	**0**	**2**	**1**	**4**	**25**	**289**	**1652**	**1771**	**381**	**71**	**15**	**4**	**1**	**0**	**39.2**	**35.4**	**4.2**
0000 - 0000	**4374**	**1099**	**1103**	**1091**	**1081**	**2**	**30**	**4223**	**11**	**100**	**2**	**2**	**2**	**1**	**0**	**1**	**0**	**0**	**2**	**1**	**4**	**27**	**295**	**1706**	**1840**	**400**	**78**	**16**	**4**	**1**	**0**	**39.3**	**35.5**	**4.2**

Monday 30 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	21	8	3	7	3	0	0	20	0	0	1	0	0	0	0	0	0	0	0	0	0	1	2	5	8	5	0	0	0	0	0	43.3	36.3	5.4
0100 - 0200	8	5	1	1	1	0	0	7	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	2	0	0	0	0	0	-	37.2	3.3
0200 - 0300	6	1	0	3	2	0	0	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	0	0	0	0	0	0	-	35.5	3.1
0300 - 0400	3	0	2	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	-	34.3	9.4
0400 - 0500	22	1	1	7	13	0	0	20	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	8	11	3	0	0	0	0	0	41.2	36.6	3.6
0500 - 0600	35	6	10	9	10	0	0	31	0	3	1	0	0	0	0	0	0	0	0	0	0	0	2	15	14	2	1	1	0	0	0	39.8	36.2	4.9
0600 - 0700	126	17	29	34	46	0	0	111	0	12	1	1	0	1	0	0	0	0	0	0	0	0	6	44	52	20	2	2	0	0	0	41.2	36.5	4.5
0700 - 0800	357	65	69	109	114	0	3	324	2	26	2	0	0	0	0	0	0	0	0	0	0	3	31	145	142	30	5	1	0	0	0	39.3	35.2	4
0800 - 0900	326	103	76	92	55	0	0	295	0	29	1	0	0	0	1	0	0	0	0	0	0	0	30	149	119	26	1	0	0	1	0	38.3	34.8	3.9
0900 - 1000	232	61	53	60	58	0	0	202	1	27	1	1	0	0	0	0	0	0	0	0	0	4	22	88	97	19	1	1	0	0	0	39.3	34.8	4.4
1000 - 1100	175	43	42	44	46	0	2	155	1	14	0	2	0	0	0	1	0	0	0	0	0	1	23	71	64	14	2	0	0	0	0	38.4	34.7	4
1100 - 1200	228	48	44	69	67	0	0	209	2	15	0	0	1	0	0	1	0	0	0	0	0	5	18	101	87	16	1	0	0	0	0	38.3	34.6	3.8
1200 - 1300	261	51	71	71	68	0	0	233	2	26	0	0	0	0	0	0	0	0	0	0	0	1	25	110	98	25	1	1	0	0	0	38.6	35.1	4
1300 - 1400	300	74	75	75	76	0	2	276	2	16	1	1	1	1	0	0	0	0	0	0	0	3	39	129	106	22	1	0	0	0	0	38	34.3	3.9
1400 - 1500	322	75	78	86	83	0	3	293	4	16	2	1	0	3	0	0	0	0	0	0	0	2	42	138	117	21	2	0	0	0	0	38.1	34.3	3.7
1500 - 1600	433	100	105	115	113	1	1	402	1	27	0	0	1	0	0	0	0	0	0	0	0	3	30	192	167	37	2	2	0	0	0	38.7	35.1	3.9
1600 - 1700	464	101	113	108	142	1	5	438	1	17	0	0	0	1	0	1	0	0	0	0	1	0	26	200	189	41	5	1	1	0	0	39	35.4	3.9
1700 - 1800	437	119	90	123	105	1	2	420	1	11	0	0	1	0	0	1	0	0	0	0	1	2	24	134	202	60	11	3	0	0	0	40.5	36.3	4.3
1800 - 1900	392	120	108	82	82	0	2	374	1	14	1	0	0	0	0	0	0	0	0	0	0	0	6	116	186	72	9	2	1	0	0	40.9	37.1	3.9
1900 - 2000	253	76	72	45	60	0	0	245	0	7	0	1	0	0	0	0	0	0	0	0	0	3	11	85	123	27	4	0	0	0	0	39.8	35.9	4
2000 - 2100	199	55	40	47	57	0	0	192	0	6	0	1	0	0	0	0	0	0	0	0	0	1	13	83	80	14	7	1	0	0	0	39.2	35.5	4.3
2100 - 2200	128	29	32	39	28	0	0	125	2	1	0	0	0	0	0	0	0	0	0	0	0	0	18	47	52	10	0	1	0	0	0	38.6	34.8	4.2
2200 - 2300	86	23	29	24	10	1	1	83	0	1	0	0	0	0	0	0	0	0	0	0	1	0	3	22	44	14	2	0	0	0	0	41.2	36.5	4.4
2300 - 0000	34	9	6	7	12	0	0	34	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	8	17	6	1	0	1	0	0	41.2	37.6	5.7
0700 - 1900	**3927**	**960**	**924**	**1034**	**1009**	**3**	**20**	**3621**	**18**	**238**	**8**	**5**	**4**	**5**	**1**	**4**	**0**	**0**	**0**	**0**	**2**	**24**	**316**	**1573**	**1574**	**383**	**41**	**11**	**2**	**1**	**0**	**39.1**	**35.3**	**4.1**
0600 - 2200	**4633**	**1137**	**1097**	**1199**	**1200**	**3**	**20**	**4294**	**20**	**264**	**9**	**8**	**4**	**6**	**1**	**4**	**0**	**0**	**0**	**0**	**2**	**28**	**364**	**1832**	**1881**	**454**	**54**	**15**	**2**	**1**	**0**	**39.2**	**35.3**	**4.1**
0600 - 0000	**4753**	**1169**	**1132**	**1230**	**1222**	**4**	**21**	**4411**	**20**	**265**	**9**	**8**	**4**	**6**	**1**	**4**	**0**	**0**	**0**	**0**	**3**	**29**	**367**	**1862**	**1942**	**474**	**57**	**15**	**3**	**1**	**0**	**39.3**	**35.4**	**4.1**
0000 - 0000	**4848**	**1190**	**1149**	**1258**	**1251**	**4**	**21**	**4497**	**20**	**272**	**11**	**8**	**4**	**6**	**1**	**4**	**0**	**0**	**0**	**0**	**3**	**30**	**372**	**1895**	**1983**	**487**	**58**	**16**	**3**	**1**	**0**	**39.3**	**35.4**	**4.1**

Tuesday 01 May 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	15	5	5	4	1	0	0	14	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	8	4	2	1	0	0	0	0	42	35.8	4.8
0100 - 0200	12	3	7	0	2	0	0	11	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	7	2	1	0	0	0	0	41.3	37.6	4.1
0200 - 0300	10	4	2	1	3	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4	4	0	0	0	0	0	-	37.6	4.6
0300 - 0400	3	1	0	1	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	-	36.4	5.6
0400 - 0500	14	2	1	6	5	0	0	12	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3	6	3	2	0	0	0	0	0	41.6	34	5.3
0500 - 0600	110	26	34	30	20	0	3	99	1	7	0	0	0	0	0	0	0	0	0	0	0	0	0	26	61	15	7	1	0	0	0	41	37.6	4
0600 - 0700	131	21	27	35	48	0	2	115	1	12	0	1	0	0	0	0	0	0	0	0	0	0	3	52	58	17	1	0	0	0	0	39.9	36.1	3.6
0700 - 0800	345	67	72	96	110	0	0	313	2	28	2	0	0	0	0	0	0	0	0	0	0	1	16	126	169	30	2	1	0	0	0	39	35.6	3.5
0800 - 0900	318	104	75	75	64	0	0	286	1	31	0	0	0	0	0	0	0	0	0	0	0	0	17	124	146	29	1	1	0	0	0	39	35.5	3.6
0900 - 1000	249	61	58	69	61	0	0	222	0	26	0	0	0	1	0	0	0	0	0	0	0	3	18	106	88	31	3	0	0	0	0	39.5	35.2	4.1
1000 - 1100	225	56	57	60	52	0	1	199	1	23	1	0	0	0	0	0	0	0	0	0	0	0	12	86	95	26	5	1	0	0	0	39.8	35.7	4
1100 - 1200	245	50	61	57	77	0	1	210	2	32	0	0	0	0	0	0	0	0	0	0	0	1	20	106	100	18	0	0	0	0	0	38.7	34.8	3.6
1200 - 1300	293	65	69	85	74	0	0	257	1	26	0	5	1	3	0	0	0	0	0	1	0	0	27	137	109	17	2	0	0	0	0	38.2	34.4	4
1300 - 1400	288	73	77	65	73	0	2	262	2	16	1	3	0	1	0	1	0	0	0	0	0	3	28	126	104	22	5	0	0	0	0	39.2	34.8	4.3
1400 - 1500	343	81	85	100	77	0	3	315	1	21	1	1	0	1	0	0	0	0	1	0	0	5	40	145	130	20	1	0	1	0	0	38.2	34.2	4.4
1500 - 1600	423	93	107	109	114	0	0	403	2	18	0	0	0	0	0	0	0	0	0	0	0	4	40	173	169	30	5	1	0	1	0	38.6	34.8	4.2
1600 - 1700	518	123	118	139	138	1	6	475	0	33	0	1	0	1	0	1	0	0	0	1	0	1	59	195	220	37	3	2	0	0	0	38.7	35	4
1700 - 1800	530	131	119	139	141	1	3	496	2	21	1	5	0	0	0	1	0	0	0	2	20	68	90	187	127	31	5	0	0	0	0	37.5	31.5	6.3
1800 - 1900	405	100	121	106	78	0	5	376	3	19	0	1	0	0	0	1	0	0	0	0	6	25	56	128	150	30	7	2	0	1	0	38.8	33.9	5.9
1900 - 2000	295	78	78	68	71	0	1	282	2	9	0	0	0	0	1	0	0	0	0	0	0	0	32	97	124	34	7	1	0	0	0	39.9	35.6	4.6
2000 - 2100	213	52	55	48	58	0	1	210	0	2	0	0	0	0	0	0	0	0	0	0	0	0	25	89	75	22	1	0	1	0	0	39	34.8	4.4
2100 - 2200	160	52	53	30	25	0	1	154	1	4	0	0	0	0	0	0	0	0	0	0	0	0	11	70	61	14	4	0	0	0	0	39.6	35.5	4
2200 - 2300	111	37	21	40	13	1	3	106	0	1	0	0	0	0	0	0	0	0	0	0	1	3	3	36	52	12	3	1	0	0	0	40	36	5.1
2300 - 0000	48	8	14	11	15	0	3	40	0	5	0	0	0	0	0	0	0	0	0	0	0	0	3	14	23	4	4	0	0	0	0	41.5	36.8	4.9
0700 - 1900	**4182**	**1004**	**1019**	**1100**	**1059**	**2**	**21**	**3814**	**17**	**294**	**6**	**16**	**1**	**7**	**0**	**4**	**0**	**0**	**1**	**4**	**26**	**111**	**423**	**1639**	**1607**	**321**	**39**	**8**	**1**	**2**	**0**	**38.6**	**34.4**	**4.7**
0600 - 2200	**4981**	**1207**	**1232**	**1281**	**1261**	**2**	**26**	**4575**	**21**	**321**	**6**	**17**	**1**	**7**	**1**	**4**	**0**	**0**	**1**	**4**	**26**	**111**	**494**	**1947**	**1925**	**408**	**52**	**9**	**2**	**2**	**0**	**38.8**	**34.6**	**4.7**
0600 - 0000	**5140**	**1252**	**1267**	**1332**	**1289**	**3**	**32**	**4721**	**21**	**327**	**6**	**17**	**1**	**7**	**1**	**4**	**0**	**0**	**1**	**4**	**27**	**114**	**500**	**1997**	**2000**	**424**	**59**	**10**	**2**	**2**	**0**	**38.9**	**34.7**	**4.7**
0000 - 0000	**5304**	**1293**	**1316**	**1374**	**1321**	**3**	**35**	**4870**	**22**	**338**	**6**	**17**	**1**	**7**	**1**	**4**	**0**	**0**	**1**	**4**	**27**	**114**	**505**	**2041**	**2079**	**450**	**68**	**11**	**2**	**2**	**0**	**39**	**34.7**	**4.7**

Wednesday 02 May 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	24	7	4	7	6	0	0	22	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	9	8	4	1	0	0	0	0	40.8	35.5	5.3
0100 - 0200	8	4	1	3	0	0	0	7	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	3	1	0	0	0	0	0	-	36.1	3.4
0200 - 0300	9	2	1	2	4	0	0	8	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	3	2	2	0	0	0	0	0	-	34.3	7.5
0300 - 0400	5	2	0	1	2	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	0	0	0	0	0	-	33.5	2.9
0400 - 0500	42	3	3	7	29	0	0	39	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3	18	16	4	1	0	0	0	0	39.1	34.9	3.9
0500 - 0600	84	22	22	19	21	0	3	80	0	1	0	0	0	0	0	0	0	0	0	0	0	1	6	27	40	7	3	0	0	0	0	39.4	35.9	4.2
0600 - 0700	124	23	29	30	42	0	1	113	0	10	0	0	0	0	0	0	0	0	0	0	0	0	3	59	47	12	3	0	0	0	0	39	35.7	3.5
0700 - 0800	331	55	72	97	107	1	1	297	0	30	0	1	0	1	0	0	0	0	0	0	0	2	27	154	135	11	0	2	0	0	0	37.7	34.5	3.6
0800 - 0900	317	111	57	75	74	0	0	286	2	28	0	1	0	0	0	0	0	0	0	0	0	2	28	170	101	15	1	0	0	0	0	37.6	34	3.4
0900 - 1000	243	55	70	50	68	0	0	214	0	28	1	0	0	0	0	0	0	0	0	0	0	0	25	136	70	11	0	1	0	0	0	37.2	33.8	3.5
1000 - 1100	206	58	54	46	48	0	0	179	0	26	0	1	0	0	0	0	0	0	0	0	2	4	22	95	71	10	2	0	0	0	0	38.4	34	4.3
1100 - 1200	242	61	56	65	60	0	0	210	2	22	2	4	1	1	0	0	0	0	0	0	0	2	47	106	75	10	2	0	0	0	0	37.6	33.5	4
1200 - 1300	265	56	65	76	68	0	1	234	2	27	1	0	0	0	0	0	0	0	0	0	0	1	38	130	76	16	3	0	1	0	0	37.5	34.2	3.9
1300 - 1400	305	62	96	91	56	0	0	277	3	22	0	2	0	1	0	0	0	0	0	0	0	4	45	142	89	21	4	0	0	0	0	37.9	34	4.3
1400 - 1500	340	67	88	100	85	0	1	309	1	23	2	2	0	2	0	0	0	0	0	0	0	4	42	166	110	12	5	1	0	0	0	37.6	34	4
1500 - 1600	435	88	124	110	113	0	1	411	1	21	0	1	0	0	0	0	0	0	0	0	0	0	28	199	175	29	3	0	1	0	0	38.8	35	3.7
1600 - 1700	467	124	104	123	116	2	3	438	2	20	1	1	0	0	0	0	0	0	0	0	2	3	24	171	205	51	8	3	0	0	0	39.8	35.8	4.3
1700 - 1800	462	121	103	121	117	1	1	442	0	18	0	0	0	0	0	0	0	0	0	0	0	7	29	168	203	49	5	1	0	0	0	39.5	35.7	4.1
1800 - 1900	405	120	107	88	90	0	0	382	1	21	0	1	0	0	0	0	0	0	0	0	0	0	22	157	181	31	9	5	0	0	0	39.5	35.9	4.2
1900 - 2000	295	76	89	61	69	1	0	287	1	6	0	0	0	0	0	0	0	0	1	0	0	1	28	117	110	29	7	2	0	0	0	38.9	35.2	4.5
2000 - 2100	227	68	54	57	48	0	2	215	0	10	0	0	0	0	0	0	0	0	0	0	0	1	8	86	95	27	6	3	1	0	0	40.3	36.3	4.6
2100 - 2200	160	46	45	32	37	0	5	153	0	2	0	0	0	0	0	0	0	0	0	0	0	1	12	65	59	14	8	1	0	0	0	39.9	35.6	4.6
2200 - 2300	111	16	36	38	21	1	0	110	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4	27	58	18	1	1	1	0	0	40.8	37.1	4.8
2300 - 0000	46	14	12	14	6	0	0	45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	10	23	9	1	1	0	0	0	41.5	37.5	4.5
0700 - 1900	**4018**	**978**	**996**	**1042**	**1002**	**4**	**8**	**3679**	**14**	**286**	**7**	**14**	**1**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**29**	**377**	**1794**	**1491**	**266**	**42**	**13**	**2**	**0**	**0**	**38.5**	**34.7**	**4**
0600 - 2200	**4824**	**1191**	**1213**	**1222**	**1198**	**5**	**16**	**4447**	**15**	**314**	**7**	**14**	**1**	**5**	**0**	**0**	**0**	**0**	**1**	**0**	**4**	**32**	**428**	**2121**	**1802**	**348**	**66**	**19**	**3**	**0**	**0**	**38.8**	**34.9**	**4.1**
0600 - 0000	**4981**	**1221**	**1261**	**1274**	**1225**	**6**	**16**	**4602**	**15**	**315**	**7**	**14**	**1**	**5**	**0**	**0**	**0**	**0**	**1**	**0**	**5**	**32**	**434**	**2158**	**1883**	**375**	**68**	**21**	**4**	**0**	**0**	**38.9**	**35**	**4.2**
0000 - 0000	**5153**	**1261**	**1292**	**1313**	**1287**	**6**	**19**	**4763**	**15**	**322**	**8**	**14**	**1**	**5**	**0**	**0**	**0**	**0**	**1**	**0**	**6**	**33**	**446**	**2222**	**1954**	**393**	**73**	**21**	**4**	**0**	**0**	**38.9**	**35**	**4.2**

Virtual Day (7)

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	29	11	6	7	5	0	0	28	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	10	12	5	1	0	0	0	0	41	36.3	4.5
0100 - 0200	14	5	5	2	3	0	0	13	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	7	2	1	0	0	0	0	41.1	37.3	4.5
0200 - 0300	11	3	3	2	4	0	0	10	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	3	5	2	1	0	0	0	0	41.9	36.1	5.5
0300 - 0400	16	6	4	4	2	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	7	4	1	0	0	0	0	42.7	37.7	4.8
0400 - 0500	24	3	3	6	14	0	0	22	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	9	10	3	1	0	0	0	0	40.4	36	4.4
0500 - 0600	63	17	17	17	12	0	2	57	0	4	0	0	0	0	0	0	0	0	0	0	0	0	2	20	28	9	2	1	0	0	0	40.9	36.9	4.4
0600 - 0700	111	15	24	32	40	0	1	98	0	10	0	1	0	0	0	0	0	0	0	0	1	1	4	39	49	15	2	1	0	0	0	40.2	36.2	4.2
0700 - 0800	266	48	54	80	84	0	1	240	1	22	1	0	0	1	0	0	0	0	0	0	0	1	18	110	114	21	2	1	0	0	0	38.9	35.2	3.7
0800 - 0900	257	80	62	61	54	0	0	233	1	23	0	0	0	0	0	0	0	0	0	0	0	1	18	112	102	22	2	0	0	0	0	38.7	35.1	3.9
0900 - 1000	230	52	57	57	65	0	0	210	1	19	0	0	0	0	0	0	0	0	0	0	0	1	17	99	86	23	3	1	0	0	0	39.1	35.1	4.1
1000 - 1100	236	55	59	58	64	0	2	213	2	18	0	1	0	0	0	0	0	0	0	0	1	2	22	100	87	20	4	1	0	0	0	38.8	34.8	4.3
1100 - 1200	272	63	64	70	75	0	1	247	2	21	0	1	0	0	0	0	0	0	0	0	0	2	24	121	104	19	1	0	0	0	0	38.5	34.7	3.8
1200 - 1300	325	73	83	82	86	0	1	297	1	23	0	1	0	0	0	0	0	0	0	0	0	2	33	143	119	24	3	0	0	0	0	38.4	34.7	4
1300 - 1400	340	86	90	85	79	0	1	318	2	16	0	1	0	1	0	0	0	0	0	0	0	3	35	152	119	27	4	0	0	0	0	38.7	34.6	4.1
1400 - 1500	356	85	91	94	87	0	2	332	1	18	1	1	0	1	0	0	0	0	0	0	0	2	36	152	137	24	3	1	0	0	0	38.4	34.7	4.1
1500 - 1600	402	88	101	104	109	0	1	378	1	21	0	0	0	0	0	0	0	0	0	0	0	3	29	171	163	31	4	1	0	0	0	38.8	35.1	4
1600 - 1700	447	108	108	113	118	1	4	423	1	17	0	0	0	0	0	0	0	0	0	1	0	1	27	166	201	42	7	2	1	0	0	39.3	35.6	4.1
1700 - 1800	436	112	102	113	110	1	2	418	2	12	0	1	0	0	0	0	0	0	0	0	4	13	34	158	176	44	6	1	0	0	0	39.3	35	4.9
1800 - 1900	386	108	101	90	87	0	2	368	1	14	0	0	0	0	0	0	0	0	0	0	1	4	27	139	163	41	8	2	0	0	0	39.8	35.7	4.6
1900 - 2000	289	74	81	68	67	0	1	279	1	8	0	0	0	0	0	0	0	0	0	0	1	1	23	106	121	30	6	1	0	0	0	39.5	35.5	4.4
2000 - 2100	217	58	57	51	51	0	1	209	0	6	0	0	0	0	0	0	0	0	0	0	0	1	15	81	91	23	4	1	0	0	0	39.5	35.6	4.5
2100 - 2200	147	42	41	35	29	0	2	142	1	3	0	0	0	0	0	0	0	0	0	0	0	1	11	53	63	14	4	1	0	0	0	39.7	35.8	4.5
2200 - 2300	112	27	29	34	22	0	1	109	0	2	0	0	0	0	0	0	0	0	0	0	1	1	6	34	51	15	2	1	0	0	0	40.3	36.2	4.8
2300 - 0000	57	14	17	12	13	0	1	54	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3	17	26	7	3	0	0	0	0	41.1	36.8	4.9
0700 - 1900	**3955**	**958**	**971**	**1007**	**1019**	**2**	**17**	**3676**	**15**	**223**	**5**	**7**	**2**	**4**	**1**	**2**	**0**	**0**	**0**	**1**	**6**	**38**	**319**	**1622**	**1572**	**337**	**46**	**11**	**2**	**1**	**0**	**38.9**	**35**	**4.2**
0600 - 2200	**4719**	**1147**	**1173**	**1193**	**1206**	**3**	**21**	**4405**	**17**	**249**	**5**	**9**	**2**	**5**	**1**	**2**	**0**	**0**	**1**	**2**	**8**	**42**	**371**	**1901**	**1896**	**419**	**62**	**14**	**2**	**1**	**0**	**39.1**	**35.1**	**4.2**
0600 - 0000	**4887**	**1188**	**1220**	**1239**	**1240**	**3**	**22**	**4568**	**17**	**253**	**5**	**9**	**2**	**5**	**1**	**2**	**0**	**0**	**1**	**2**	**9**	**43**	**381**	**1952**	**1973**	**441**	**67**	**16**	**3**	**1**	**0**	**39.1**	**35.2**	**4.3**
0000 - 0000	**5046**	**1232**	**1257**	**1277**	**1280**	**3**	**25**	**4715**	**18**	**261**	**5**	**9**	**2**	**5**	**1**	**2**	**0**	**0**	**1**	**2**	**9**	**44**	**388**	**2002**	**2042**	**466**	**73**	**17**	**3**	**1**	**0**	**39.2**	**35.2**	**4.3**

Virtual Week (1)

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
Mon	4848	1190	1149	1258	1251	4	21	4497	20	272	11	8	4	6	1	4	0	0	0	0	3	30	372	1895	1983	487	58	16	3	1	0	39.3	35.4	4.1
Tue	5304	1293	1316	1374	1321	3	35	4870	22	338	6	17	1	7	1	4	0	0	1	4	27	114	505	2041	2079	450	68	11	2	2	0	39	34.7	4.7
Wed	5153	1261	1292	1313	1287	6	19	4763	15	322	8	14	1	5	0	0	0	0	1	0	6	33	446	2222	1954	393	73	21	4	0	0	38.9	35	4.2
Thu	5354	1325	1316	1363	1350	4	34	4939	25	323	5	12	1	6	2	3	0	0	0	1	5	39	334	2019	2269	568	88	26	2	3	0	39.6	35.6	4.2
Fri	5260	1266	1294	1290	1410	4	21	4888	20	300	4	7	6	7	1	1	0	1	0	6	9	38	397	2114	2127	480	75	13	1	0	0	39.1	35.2	4.2
Sat	5027	1193	1327	1250	1257	1	16	4823	10	169	2	2	2	2	0	0	0	0	1	0	9	24	365	2015	2042	482	69	17	3	0	0	39.3	35.3	4.2
Sun	4374	1099	1103	1091	1081	2	30	4223	11	100	2	2	2	1	0	1	0	0	2	1	4	27	295	1706	1840	400	78	16	4	1	0	39.3	35.5	4.2

Derby, City of Derby

Report Id 237/18
Site Name Site 2 of 4
Description A5132 Twyford Road, 25m west of Hamilton Terrace
Direction Eastbound

Thursday 26 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	13	6	2	2	3	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	3	2	0	0	0	0	0	41.8	34	5.8
0100 - 0200	7	4	1	2	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	2	0	0	0	0	0	0	-	33.2	2.7
0200 - 0300	3	2	0	0	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	-	36.4	5.1
0300 - 0400	6	3	1	0	2	0	0	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	-	34.1	3.6
0400 - 0500	16	3	1	4	8	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	5	1	1	1	0	0	0	46.1	37	6.4
0500 - 0600	58	10	15	19	14	2	4	48	0	3	0	0	0	0	1	0	0	0	0	0	2	1	7	23	11	11	2	1	0	0	0	42.8	35.2	6.5
0600 - 0700	152	20	29	46	57	3	2	141	0	4	1	1	0	0	0	0	0	0	0	1	2	3	30	61	36	13	4	2	0	0	0	38.5	33.7	6
0700 - 0800	281	74	52	66	89	2	4	253	0	22	0	0	0	0	0	0	0	0	0	0	2	12	71	119	63	12	2	0	0	0	0	37.4	32.4	4.5
0800 - 0900	277	65	64	82	66	4	0	246	1	25	0	0	1	0	0	0	0	0	1	4	5	31	109	97	21	9	0	0	0	0	0	34.1	29.4	5.2
0900 - 1000	231	68	66	49	48	3	1	204	1	19	1	1	0	1	0	0	0	0	0	4	3	14	58	109	39	3	0	1	0	0	0	35.9	31.1	5.1
1000 - 1100	189	50	44	45	50	0	0	165	2	19	1	1	0	0	1	0	0	0	0	3	4	7	67	75	30	3	0	0	0	0	0	35.4	30.5	4.6
1100 - 1200	200	35	43	54	68	4	2	182	2	7	1	2	0	0	0	0	0	0	0	1	2	10	61	89	32	5	0	0	0	0	0	35.7	31.2	4.5
1200 - 1300	220	50	53	59	58	1	3	201	2	10	1	0	0	0	2	0	0	0	1	0	5	17	63	92	33	6	1	2	0	0	0	35.6	31.1	5.4
1300 - 1400	235	60	61	64	50	3	10	205	1	13	1	1	0	0	1	0	0	0	0	0	11	10	65	99	42	6	2	0	0	0	0	36.1	31.2	5.4
1400 - 1500	279	63	82	72	62	1	0	263	2	11	0	0	1	0	1	0	0	0	1	2	1	17	83	131	38	5	1	0	0	0	0	35.3	31	4.6
1500 - 1600	327	65	92	80	90	3	1	303	3	16	0	1	0	0	0	0	0	0	1	2	3	30	122	116	37	14	2	0	0	0	0	35.4	30.5	5.1
1600 - 1700	294	70	68	71	85	6	2	267	2	17	0	0	0	0	0	0	0	0	1	6	9	36	90	101	39	8	2	2	0	0	0	35.7	29.9	6.4
1700 - 1800	345	86	83	95	81	5	7	320	4	7	0	0	1	1	0	0	0	0	0	3	12	63	129	97	33	4	3	1	0	0	0	33.5	28.9	5.5
1800 - 1900	329	96	88	68	77	6	6	310	0	7	0	0	0	0	0	0	0	0	0	0	7	22	100	132	51	16	1	0	0	0	0	36.1	31.3	5
1900 - 2000	239	56	69	52	62	3	4	226	1	5	0	0	0	0	0	0	0	0	0	4	10	27	75	79	35	9	0	0	0	0	0	35.8	29.9	5.9
2000 - 2100	158	40	49	42	27	1	4	146	1	6	0	0	0	0	0	0	0	0	1	2	7	17	38	61	22	7	3	0	0	0	0	36.4	30.4	6.4
2100 - 2200	114	43	29	25	17	0	0	111	0	3	0	0	0	0	0	0	0	0	0	0	0	6	37	35	27	7	2	0	0	0	0	37.1	32	5.2
2200 - 2300	80	21	24	24	11	0	1	77	1	1	0	0	0	0	0	0	0	0	0	0	1	6	15	33	16	6	2	1	0	0	0	39.3	32.7	6.1
2300 - 0000	40	12	15	9	4	0	1	38	0	1	0	0	0	0	0	0	0	0	0	0	0	3	5	18	6	8	0	0	0	0	0	40.5	34	5.6
0700 - 1900	**3207**	**782**	**796**	**805**	**824**	**38**	**36**	**2919**	**20**	**173**	**5**	**6**	**2**	**3**	**5**	**0**	**0**	**0**	**5**	**25**	**64**	**269**	**1018**	**1257**	**458**	**91**	**14**	**6**	**0**	**0**	**0**	**35.6**	**30.6**	**5.3**
0600 - 2200	**3870**	**941**	**972**	**970**	**987**	**45**	**46**	**3543**	**22**	**191**	**6**	**7**	**2**	**3**	**5**	**0**	**0**	**0**	**6**	**32**	**83**	**322**	**1198**	**1493**	**578**	**127**	**23**	**8**	**0**	**0**	**0**	**35.8**	**30.8**	**5.4**
0600 - 0000	**3990**	**974**	**1011**	**1003**	**1002**	**45**	**48**	**3658**	**23**	**193**	**6**	**7**	**2**	**3**	**5**	**0**	**0**	**0**	**6**	**32**	**84**	**331**	**1218**	**1544**	**600**	**141**	**25**	**9**	**0**	**0**	**0**	**36**	**30.8**	**5.5**
0000 - 0000	**4093**	**1002**	**1031**	**1030**	**1030**	**47**	**52**	**3750**	**23**	**197**	**6**	**7**	**2**	**3**	**6**	**0**	**0**	**0**	**6**	**32**	**86**	**332**	**1232**	**1585**	**625**	**156**	**28**	**11**	**0**	**0**	**0**	**36.1**	**30.9**	**5.5**

Friday 27 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	19	2	8	2	7	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	8	6	2	0	0	0	0	0	39.5	34.6	4.4
0100 - 0200	5	1	0	3	1	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	1	0	0	0	0	-	37.6	5.2
0200 - 0300	5	0	3	1	1	0	0	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0	1	0	0	0	-	40.9	6.8
0300 - 0400	7	1	1	1	4	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	4	1	0	0	0	0	0	-	35.5	4.9
0400 - 0500	6	0	2	0	4	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3	0	0	1	0	0	0	-	37.3	7.8
0500 - 0600	65	14	19	20	12	0	3	58	0	3	0	0	0	0	1	0	0	0	0	0	1	0	5	22	26	9	2	0	0	0	0	40.3	35.5	5.1
0600 - 0700	143	13	36	47	47	4	2	133	1	2	1	0	0	0	0	0	0	0	0	1	3	1	24	48	47	13	5	1	0	0	0	39.4	34.2	5.9
0700 - 0800	254	55	54	70	75	2	2	234	0	13	2	0	1	0	0	0	0	0	0	2	2	9	52	119	54	15	1	0	0	0	0	36.7	32.4	4.9
0800 - 0900	254	65	57	74	58	1	2	227	0	22	1	0	1	0	0	0	0	0	0	2	4	25	104	90	24	4	1	0	0	0	0	33.9	29.9	4.7
0900 - 1000	200	73	45	50	32	0	0	175	2	20	0	0	1	1	1	0	0	0	0	1	0	12	68	82	33	3	1	0	0	0	0	35.7	31.1	4.4
1000 - 1100	189	54	40	48	47	1	1	168	0	17	1	1	0	0	0	0	0	0	0	0	4	14	65	65	34	6	1	0	0	0	0	36.3	30.9	5
1100 - 1200	199	39	56	53	51	0	1	176	0	21	0	0	0	0	1	0	0	0	0	1	4	9	63	88	28	4	1	0	1	0	0	36.1	31.3	5.1
1200 - 1300	263	67	73	71	52	0	0	247	1	13	0	0	0	0	1	0	0	1	0	0	2	18	107	91	35	9	1	0	0	0	0	35.7	30.9	4.6
1300 - 1400	241	65	68	55	53	1	0	222	3	12	0	1	1	0	1	0	0	0	0	1	2	12	84	102	33	6	1	0	0	0	0	35.2	30.8	4.4
1400 - 1500	293	70	76	72	75	1	0	275	0	13	0	0	1	0	1	2	0	0	0	2	2	16	99	119	53	2	0	0	0	0	0	35.5	30.9	4.3
1500 - 1600	305	67	83	89	66	2	6	285	0	8	1	2	0	0	1	0	0	0	1	2	2	29	121	113	34	3	0	0	0	0	0	34.5	30	4.6
1600 - 1700	335	79	89	84	83	2	1	315	1	15	0	0	0	1	0	0	0	0	0	2	2	34	103	138	43	10	2	1	0	0	0	35.9	30.8	5.1
1700 - 1800	391	98	109	94	90	2	4	370	2	13	0	0	0	0	0	0	0	0	2	1	8	38	178	123	33	4	3	0	1	0	0	33.9	29.4	5
1800 - 1900	311	98	67	70	76	0	1	305	0	4	1	0	0	0	0	0	0	0	0	1	4	24	136	102	37	4	3	0	0	0	0	34.8	30.1	4.7
1900 - 2000	251	86	63	52	50	3	0	239	2	7	0	0	0	0	0	0	0	0	1	1	4	33	108	75	21	3	2	0	0	1	2	34	29.9	7.7
2000 - 2100	184	50	46	39	49	0	0	178	1	3	0	1	0	0	1	0	0	0	0	1	7	18	76	51	26	3	1	0	0	0	1	35.4	30.1	5.9
2100 - 2200	120	28	28	32	32	0	1	114	0	5	0	0	0	0	0	0	0	0	0	1	2	13	45	40	16	2	1	0	0	0	0	35.4	30.2	5.1
2200 - 2300	110	27	34	24	25	0	0	107	0	2	0	1	0	0	0	0	0	0	0	1	1	9	35	35	25	2	2	0	0	0	0	36.8	31.2	5.5
2300 - 0000	66	20	16	18	12	0	2	61	1	1	1	0	0	0	0	0	0	0	0	1	1	4	21	22	12	4	1	0	0	0	0	39	31.9	5.8
0700 - 1900	**3235**	**830**	**817**	**830**	**758**	**12**	**18**	**2999**	**9**	**171**	**6**	**4**	**5**	**2**	**6**	**2**	**0**	**1**	**3**	**15**	**36**	**240**	**1180**	**1232**	**441**	**70**	**15**	**1**	**2**	**0**	**0**	**35.3**	**30.6**	**4.8**
0600 - 2200	**3933**	**1007**	**990**	**1000**	**936**	**19**	**21**	**3663**	**13**	**188**	**7**	**5**	**5**	**2**	**7**	**2**	**0**	**1**	**4**	**19**	**52**	**305**	**1433**	**1446**	**551**	**91**	**24**	**2**	**2**	**1**	**3**	**35.5**	**30.7**	**5.2**
0600 - 0000	**4109**	**1054**	**1040**	**1042**	**973**	**19**	**23**	**3831**	**14**	**191**	**8**	**6**	**5**	**2**	**7**	**2**	**0**	**1**	**4**	**21**	**54**	**318**	**1489**	**1503**	**588**	**97**	**27**	**2**	**2**	**1**	**3**	**35.6**	**30.7**	**5.2**
0000 - 0000	**4216**	**1072**	**1073**	**1069**	**1002**	**19**	**26**	**3930**	**14**	**195**	**8**	**6**	**5**	**2**	**8**	**2**	**0**	**1**	**4**	**21**	**55**	**319**	**1499**	**1537**	**631**	**110**	**30**	**4**	**2**	**1**	**3**	**35.8**	**30.8**	**5.3**

Saturday 28 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	30	11	4	6	9	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	7	5	7	2	0	1	0	0	44	36.2	7.3
0100 - 0200	12	2	3	3	4	0	0	11	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	6	3	2	0	0	0	0	0	41.5	34.7	5.9
0200 - 0300	14	3	5	3	3	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	4	6	0	0	1	0	0	0	39.6	34.9	7.3
0300 - 0400	31	5	10	12	4	0	1	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	7	12	4	4	0	0	0	0	42.4	36.9	5.3
0400 - 0500	7	0	2	1	4	0	0	6	0	1	0	0	0	0	0	0	0	1	1	0	0	0	1	2	2	1	0	0	0	0	0	-	31.4	10.3
0500 - 0600	16	1	5	5	5	1	0	14	0	1	0	0	0	0	0	0	0	0	0	1	0	0	2	6	5	2	0	0	0	0	0	39.7	33.5	6.5
0600 - 0700	45	11	11	8	15	1	1	36	0	7	0	0	0	0	0	0	0	0	0	0	0	3	7	17	13	4	1	0	0	0	0	39.7	33.8	5.5
0700 - 0800	71	18	8	22	23	1	0	61	0	9	0	0	0	0	0	0	0	0	0	0	2	4	18	31	10	5	1	0	0	0	0	36.6	31.7	5.4
0800 - 0900	106	13	35	28	30	1	1	99	0	5	0	0	0	0	0	0	0	0	0	2	2	7	32	38	20	5	0	0	0	0	0	37.4	31.1	5.8
0900 - 1000	199	45	50	47	57	4	0	184	2	6	0	2	0	1	0	0	0	0	0	3	5	13	72	71	30	4	1	0	0	0	0	35.3	30.4	5.2
1000 - 1100	260	62	48	75	75	0	0	247	1	11	1	0	0	0	0	0	0	0	0	2	1	13	94	113	33	3	1	0	0	0	0	34.6	30.6	4.2
1100 - 1200	284	61	78	76	69	5	1	275	0	3	0	0	0	0	0	0	0	0	1	0	6	29	107	112	26	2	1	0	0	0	0	34	29.8	4.6
1200 - 1300	302	71	75	85	71	2	1	291	2	6	0	0	0	0	0	0	0	0	0	4	11	18	120	102	39	7	1	0	0	0	0	35.1	30	5.3
1300 - 1400	305	93	68	76	68	0	1	292	2	10	0	0	0	0	0	0	0	0	1	1	5	26	109	122	38	3	0	0	0	0	0	34.8	30.2	4.6
1400 - 1500	259	70	60	58	71	2	1	247	0	9	0	0	0	0	0	0	0	0	0	0	7	23	80	112	32	5	0	0	0	0	0	34.9	30.6	4.6
1500 - 1600	262	66	60	85	51	1	2	251	0	7	0	1	0	0	0	0	0	0	0	1	2	14	87	105	48	5	0	0	0	0	0	35.9	31.3	4.4
1600 - 1700	247	60	68	55	64	0	1	238	1	7	0	0	0	0	0	0	0	0	1	0	2	7	86	95	47	7	2	0	0	0	0	37.1	31.6	4.9
1700 - 1800	293	64	71	65	93	2	1	281	0	8	1	0	0	0	0	0	0	0	0	1	5	15	85	124	50	11	2	0	0	0	0	36.1	31.7	4.9
1800 - 1900	271	59	77	74	61	2	0	264	1	4	0	0	0	0	0	0	0	0	1	0	1	36	89	95	44	5	0	0	0	0	0	35.2	30.3	4.9
1900 - 2000	191	55	58	46	32	0	0	186	2	3	0	0	0	0	0	0	0	0	0	1	3	16	58	73	32	5	1	2	0	0	0	36.2	31.1	5.5
2000 - 2100	186	43	59	42	42	0	0	179	0	7	0	0	0	0	0	0	0	0	0	2	1	5	55	82	31	8	1	0	1	0	0	37.2	32	5.3
2100 - 2200	129	27	33	33	36	0	0	126	0	3	0	0	0	0	0	0	0	0	0	0	3	13	45	45	17	4	0	1	0	1	0	35.5	30.7	5.9
2200 - 2300	142	41	40	28	33	0	0	140	0	1	0	0	0	1	0	0	0	0	0	0	3	12	48	45	27	5	2	0	0	0	0	36.7	31.3	5.5
2300 - 0000	78	15	25	18	20	0	0	77	0	1	0	0	0	0	0	0	0	0	0	0	0	4	22	26	19	5	2	0	0	0	0	37.3	32.8	5.5
0700 - 1900	**2859**	**682**	**698**	**746**	**733**	**20**	**9**	**2730**	**9**	**85**	**2**	**3**	**0**	**1**	**0**	**0**	**0**	**0**	**4**	**14**	**49**	**205**	**979**	**1120**	**417**	**62**	**9**	**0**	**0**	**0**	**0**	**35.3**	**30.7**	**4.9**
0600 - 2200	**3410**	**818**	**859**	**875**	**858**	**21**	**10**	**3257**	**11**	**105**	**2**	**3**	**0**	**1**	**0**	**0**	**0**	**0**	**4**	**17**	**56**	**242**	**1144**	**1337**	**510**	**83**	**12**	**3**	**1**	**1**	**0**	**35.6**	**30.8**	**5**
0600 - 0000	**3630**	**874**	**924**	**921**	**911**	**21**	**10**	**3474**	**11**	**107**	**2**	**3**	**0**	**2**	**0**	**0**	**0**	**0**	**4**	**17**	**59**	**258**	**1214**	**1408**	**556**	**93**	**16**	**3**	**1**	**1**	**0**	**35.7**	**30.9**	**5**
0000 - 0000	**3740**	**896**	**953**	**951**	**940**	**22**	**11**	**3579**	**11**	**110**	**2**	**3**	**0**	**2**	**0**	**0**	**0**	**0**	**5**	**18**	**59**	**261**	**1230**	**1440**	**589**	**109**	**22**	**4**	**2**	**1**	**0**	**36**	**31**	**5.1**

Sunday 29 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	46	15	6	11	14	0	1	45	0	0	0	0	0	0	0	0	0	0	0	0	3	2	7	16	13	3	2	0	0	0	0	39.9	33.5	7
0100 - 0200	22	5	7	4	6	0	3	18	0	1	0	0	0	0	0	0	0	0	0	0	0	0	7	7	5	1	0	1	0	1	0	39.7	34.4	8.7
0200 - 0300	10	5	4	0	1	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	3	3	0	0	0	0	0	0	-	32.6	3.3
0300 - 0400	9	4	3	1	1	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	2	0	0	1	0	0	-	37.4	9
0400 - 0500	11	3	2	3	3	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	6	1	1	1	0	0	0	47.5	39	5.9
0500 - 0600	21	2	8	5	6	1	2	17	0	1	0	0	0	0	0	0	0	0	0	1	1	1	1	6	5	5	1	0	0	0	0	42.5	34.7	8.2
0600 - 0700	28	9	4	6	9	0	0	27	0	0	1	0	0	0	0	0	0	0	0	0	0	0	5	9	9	3	1	1	0	0	0	42.6	35.3	5.7
0700 - 0800	40	7	7	14	12	2	0	36	0	2	0	0	0	0	0	0	0	0	0	1	1	0	8	11	13	5	1	0	0	0	0	40.8	34.3	6.5
0800 - 0900	77	21	10	23	23	9	0	63	0	5	0	0	0	0	0	0	0	0	1	6	3	0	17	26	15	8	1	0	0	0	0	39.2	31.3	8.4
0900 - 1000	144	27	36	39	42	6	0	135	0	3	0	0	0	0	0	0	0	0	0	4	6	7	37	57	27	5	1	0	0	0	0	36.9	31.1	6.2
1000 - 1100	210	45	48	65	52	3	4	192	1	6	0	3	0	0	0	0	1	0	0	2	8	16	72	74	31	6	0	0	1	0	0	36	30.4	5.6
1100 - 1200	237	53	52	62	70	3	2	223	1	7	0	0	0	1	0	0	0	0	0	2	3	23	63	93	44	8	0	1	0	0	0	36.8	31.4	5.4
1200 - 1300	305	62	79	76	88	4	5	283	0	10	0	3	0	0	0	0	0	0	1	2	6	22	100	130	35	4	2	1	0	1	1	35	30.9	7.6
1300 - 1400	275	85	67	69	54	6	5	256	1	6	0	1	0	0	0	0	0	0	0	3	6	23	109	89	38	6	1	0	0	0	0	35.3	30.2	5.2
1400 - 1500	272	72	67	69	64	4	8	254	2	3	0	1	0	0	0	0	0	0	0	3	3	18	88	104	45	10	0	1	0	0	0	35.9	31.1	5.3
1500 - 1600	229	54	59	60	56	1	2	216	2	6	1	0	1	0	0	0	0	0	1	2	0	16	85	80	37	7	0	0	0	1	0	36.1	30.9	5.3
1600 - 1700	260	67	64	76	53	2	1	251	1	5	0	0	0	0	0	0	0	0	0	2	4	24	104	94	26	5	1	0	0	0	0	34.3	29.9	4.8
1700 - 1800	267	55	73	78	61	3	7	253	1	3	0	0	0	0	0	0	0	0	0	2	11	42	96	81	27	6	1	1	0	0	0	34.8	29.2	5.7
1800 - 1900	215	61	51	36	67	0	1	209	0	4	1	0	0	0	0	0	0	0	0	0	1	18	90	63	31	11	1	0	0	0	0	36	30.7	4.9
1900 - 2000	188	67	54	37	30	1	1	182	0	4	0	0	0	0	0	0	0	0	0	0	3	13	74	62	30	6	0	0	0	0	0	35.6	30.7	4.7
2000 - 2100	116	33	34	22	27	0	0	115	0	1	0	0	0	0	0	0	0	0	0	0	1	3	34	42	25	9	1	1	0	0	0	38.1	32.7	5.3
2100 - 2200	90	25	23	25	17	0	2	86	1	1	0	0	0	0	0	0	0	0	0	2	3	8	26	31	15	4	1	0	0	0	0	36.5	30.6	6.3
2200 - 2300	38	11	9	13	5	0	1	37	0	0	0	0	0	0	0	0	0	0	0	0	1	1	9	11	7	7	1	1	0	0	0	41.2	34	7
2300 - 0000	25	4	9	7	5	1	0	24	0	0	0	0	0	0	0	0	0	0	0	1	0	2	4	11	6	0	1	0	0	0	0	37.5	31.9	6.3
0700 - 1900	**2531**	**609**	**613**	**667**	**642**	**43**	**35**	**2371**	**9**	**60**	**2**	**8**	**1**	**1**	**0**	**0**	**0**	**1**	**3**	**29**	**52**	**209**	**869**	**902**	**369**	**81**	**9**	**4**	**1**	**2**	**1**	**35.9**	**30.6**	**5.8**
0600 - 2200	**2953**	**743**	**728**	**757**	**725**	**44**	**38**	**2781**	**10**	**66**	**3**	**8**	**1**	**1**	**0**	**0**	**0**	**1**	**3**	**31**	**59**	**233**	**1008**	**1046**	**448**	**103**	**12**	**6**	**1**	**2**	**1**	**36.1**	**30.8**	**5.8**
0600 - 0000	**3016**	**758**	**746**	**777**	**735**	**45**	**39**	**2842**	**10**	**66**	**3**	**8**	**1**	**1**	**0**	**0**	**0**	**1**	**3**	**32**	**60**	**236**	**1021**	**1068**	**461**	**119**	**14**	**7**	**1**	**2**	**1**	**36.1**	**30.8**	**5.8**
0000 - 0000	**3135**	**792**	**776**	**801**	**766**	**46**	**45**	**2952**	**10**	**68**	**3**	**8**	**1**	**1**	**0**	**0**	**0**	**1**	**3**	**33**	**64**	**239**	**1044**	**1101**	**496**	**122**	**18**	**9**	**2**	**3**	**1**	**36.4**	**31**	**5.9**

Monday 30 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	11	3	5	2	1	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	2	2	1	0	0	0	0	44.6	35.5	6.2
0100 - 0200	5	3	1	0	1	0	0	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	1	0	0	0	0	0	-	33.4	6.3
0200 - 0300	8	2	3	1	2	0	0	7	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	1	5	0	0	0	0	0	0	-	33.9	5.1
0300 - 0400	12	2	4	1	5	0	0	11	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	5	4	1	0	1	0	0	0	42.3	36.1	6
0400 - 0500	10	1	3	1	5	0	0	8	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	4	4	0	0	0	0	0	0	-	32.5	3.8
0500 - 0600	48	3	7	18	20	1	3	41	0	2	0	0	0	0	1	0	0	0	0	1	1	1	7	10	15	10	2	1	0	0	0	42.1	35.2	7.4
0600 - 0700	136	19	24	34	59	2	3	125	1	5	0	0	0	0	0	0	0	0	1	1	0	6	23	57	38	8	2	0	0	0	0	38.8	33.4	5.5
0700 - 0800	281	56	58	79	88	2	1	254	1	18	1	2	0	0	1	1	0	0	0	1	2	7	75	129	51	14	2	0	0	0	0	37.2	32.3	4.7
0800 - 0900	257	60	64	65	68	1	0	240	0	14	0	2	0	0	0	0	0	0	1	0	1	9	71	113	54	7	1	0	0	0	0	36.5	32.1	4.6
0900 - 1000	177	60	38	32	47	1	0	158	1	14	0	0	1	1	1	0	0	0	0	2	0	14	57	67	30	5	2	0	0	0	0	36.9	31.3	5.1
1000 - 1100	170	52	39	37	42	1	2	144	0	16	1	4	0	1	0	1	0	0	0	2	2	18	59	61	23	5	0	0	0	0	0	35.4	30.3	5.1
1100 - 1200	161	34	32	51	44	1	1	147	1	10	0	0	0	0	1	0	0	0	0	1	3	8	49	72	26	2	0	0	0	0	0	35.5	31	4.6
1200 - 1300	226	47	60	66	53	2	0	206	3	14	0	1	0	0	0	0	0	0	1	1	1	20	53	100	42	7	1	0	0	0	0	36.3	31.4	5
1300 - 1400	236	47	60	60	69	1	1	215	1	15	1	1	1	0	0	0	0	0	1	1	7	13	104	82	22	5	1	0	0	0	0	34.2	29.8	4.9
1400 - 1500	245	58	67	52	68	0	0	227	0	15	0	0	0	1	1	1	0	0	0	2	2	12	83	89	48	8	1	0	0	0	0	36.7	31.4	4.9
1500 - 1600	294	69	81	73	71	1	1	273	4	13	0	1	0	0	1	0	0	0	0	0	5	14	120	113	37	4	0	1	0	0	0	34.9	30.6	4.3
1600 - 1700	315	70	94	75	76	3	2	295	1	14	0	0	0	0	0	0	0	0	0	2	3	13	85	151	57	4	0	0	0	0	0	35.6	31.5	4.3
1700 - 1800	335	79	94	89	73	6	5	317	2	5	0	0	0	0	0	0	0	0	0	5	5	17	91	146	54	13	3	0	1	0	0	36.5	31.6	5.5
1800 - 1900	297	92	95	49	61	2	1	288	2	4	0	0	0	0	0	0	0	0	0	1	6	10	62	126	75	16	1	0	0	0	0	37.6	32.6	5
1900 - 2000	222	65	58	51	48	3	0	211	1	7	0	0	0	0	0	0	0	0	1	1	8	19	72	68	37	12	3	0	0	1	0	37.4	31	6.5
2000 - 2100	153	50	45	29	29	1	3	145	0	4	0	0	0	0	0	0	0	0	0	1	1	7	39	54	34	11	4	0	2	0	0	38.6	33.2	6.5
2100 - 2200	93	27	27	22	17	1	0	87	1	3	0	1	0	0	0	0	0	0	1	0	0	4	25	38	13	7	3	2	0	0	0	39.1	32.9	6.2
2200 - 2300	71	20	23	14	14	0	0	71	0	0	0	0	0	0	0	0	0	0	0	0	1	2	11	29	18	6	2	1	1	0	0	40.2	34.7	6.5
2300 - 0000	30	12	6	5	7	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6	9	6	3	3	0	1	0	0	45.1	35.2	8.3
0700 - 1900	**2994**	**724**	**782**	**728**	**760**	**21**	**14**	**2764**	**16**	**152**	**3**	**11**	**2**	**3**	**5**	**3**	**0**	**0**	**3**	**18**	**37**	**155**	**909**	**1249**	**519**	**90**	**12**	**1**	**1**	**0**	**0**	**36.2**	**31.4**	**4.9**
0600 - 2200	**3598**	**885**	**936**	**864**	**913**	**28**	**20**	**3332**	**19**	**171**	**3**	**12**	**2**	**3**	**5**	**3**	**0**	**0**	**6**	**21**	**46**	**191**	**1068**	**1466**	**641**	**128**	**24**	**3**	**3**	**1**	**0**	**36.5**	**31.6**	**5.2**
0600 - 0000	**3699**	**917**	**965**	**883**	**934**	**28**	**20**	**3433**	**19**	**171**	**3**	**12**	**2**	**3**	**5**	**3**	**0**	**0**	**6**	**21**	**47**	**195**	**1085**	**1504**	**665**	**137**	**29**	**4**	**5**	**1**	**0**	**36.6**	**31.7**	**5.3**
0000 - 0000	**3793**	**931**	**988**	**906**	**968**	**29**	**23**	**3515**	**19**	**178**	**3**	**12**	**2**	**3**	**6**	**3**	**0**	**0**	**6**	**22**	**48**	**197**	**1100**	**1529**	**696**	**151**	**32**	**6**	**5**	**1**	**0**	**36.6**	**31.8**	**5.3**

Tuesday 01 May 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	16	1	6	5	4	0	1	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	4	2	2	1	0	1	0	0	45	35.4	8.2
0100 - 0200	4	2	1	1	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	-	37.6	3.5
0200 - 0300	6	2	1	1	2	0	0	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	3	1	0	0	0	0	-	38.5	7.8
0300 - 0400	5	2	1	1	1	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	-	38.8	1.5
0400 - 0500	9	2	2	2	3	0	1	7	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	6	2	0	0	0	0	0	0	-	33	4
0500 - 0600	68	8	17	26	17	1	3	61	0	2	0	0	0	0	1	0	0	0	0	0	1	0	9	17	24	16	1	0	0	0	0	42.4	36.1	5.4
0600 - 0700	172	15	34	53	70	8	2	152	2	3	3	0	1	1	0	0	0	0	0	0	15	1	20	70	45	21	0	0	0	0	0	39.8	33.2	6.4
0700 - 0800	256	71	55	58	72	1	5	235	1	12	1	0	0	0	1	0	0	0	2	1	6	8	43	121	68	6	1	0	0	0	0	37.4	32.3	5.4
0800 - 0900	292	68	70	80	74	1	0	262	1	26	0	0	0	0	1	1	0	0	1	2	0	12	74	129	62	11	1	0	0	0	0	36.5	32	4.8
0900 - 1000	200	61	49	42	48	2	0	183	0	13	0	0	0	1	1	0	0	0	0	1	4	8	63	82	32	9	1	0	0	0	0	36.4	31.4	5
1000 - 1100	166	42	44	45	35	1	2	143	0	17	1	2	0	0	0	0	0	0	2	0	4	10	48	56	40	4	2	0	0	0	0	37.3	31.6	6
1100 - 1200	184	41	51	43	49	2	2	167	0	8	3	1	0	0	1	0	0	0	0	0	5	14	54	75	27	6	3	0	0	0	0	36.1	31.2	5.1
1200 - 1300	227	54	67	44	62	3	3	201	0	17	0	1	0	2	0	0	0	0	2	1	6	11	73	80	46	6	2	0	0	0	0	36.3	31.2	5.6
1300 - 1400	238	57	55	65	61	4	3	216	1	10	0	3	0	1	0	0	0	0	0	3	6	19	94	76	33	5	0	1	0	0	1	35.3	30.5	7.5
1400 - 1500	255	64	60	64	67	2	2	237	1	10	0	1	1	1	0	0	0	0	2	3	16	26	84	89	31	4	0	0	0	0	0	34.8	29.4	5.7
1500 - 1600	339	89	97	74	79	3	4	313	3	13	0	1	1	0	1	0	0	0	3	15	21	78	121	80	19	1	0	0	1	0	0	32.7	27	6
1600 - 1700	331	83	82	95	71	2	2	312	1	13	0	1	0	0	0	0	0	0	0	2	9	18	105	131	53	11	2	0	0	0	0	36.1	31	5.1
1700 - 1800	380	96	101	99	84	6	5	353	2	12	1	1	0	0	0	0	0	0	0	3	7	30	116	149	59	14	1	1	0	0	0	36	31	5.2
1800 - 1900	359	99	101	87	72	1	8	335	2	12	0	1	0	0	0	0	0	0	0	1	2	16	103	158	64	15	0	0	0	0	0	36.5	31.8	4.6
1900 - 2000	236	50	71	58	57	5	3	222	2	2	0	0	1	0	1	0	0	0	0	3	11	33	76	69	38	3	1	0	2	0	0	35.6	29.7	6.3
2000 - 2100	155	43	44	30	38	1	1	149	0	3	0	1	0	0	0	0	0	0	1	1	3	15	47	44	32	9	2	1	0	0	0	38	31.3	6.6
2100 - 2200	102	32	33	18	19	0	3	93	0	6	0	0	0	0	0	0	0	0	0	0	1	5	34	34	21	6	1	0	0	0	0	37.6	31.7	5.3
2200 - 2300	94	25	33	23	13	1	1	91	0	1	0	0	0	0	0	0	0	0	1	0	0	3	22	39	24	4	1	0	0	0	0	37.7	32.9	5.3
2300 - 0000	43	11	13	10	9	1	2	39	0	1	0	0	0	0	0	0	0	0	0	1	0	3	8	11	13	5	1	0	1	0	0	42.4	34.5	7.3
0700 - 1900	**3227**	**825**	**832**	**796**	**774**	**28**	**36**	**2957**	**12**	**163**	**6**	**12**	**2**	**5**	**5**	**1**	**0**	**0**	**12**	**32**	**86**	**250**	**978**	**1226**	**534**	**92**	**13**	**2**	**1**	**0**	**1**	**36**	**30.8**	**5.7**
0600 - 2200	**3892**	**965**	**1014**	**955**	**958**	**42**	**45**	**3573**	**16**	**177**	**9**	**13**	**4**	**6**	**6**	**1**	**0**	**0**	**13**	**36**	**116**	**304**	**1155**	**1443**	**670**	**131**	**17**	**3**	**3**	**0**	**1**	**36.3**	**30.8**	**5.8**
0600 - 0000	**4029**	**1001**	**1060**	**988**	**980**	**44**	**48**	**3703**	**16**	**179**	**9**	**13**	**4**	**6**	**6**	**1**	**0**	**0**	**14**	**37**	**116**	**310**	**1185**	**1493**	**707**	**140**	**19**	**3**	**4**	**0**	**1**	**36.4**	**30.9**	**5.8**
0000 - 0000	**4137**	**1018**	**1088**	**1024**	**1007**	**45**	**53**	**3799**	**16**	**184**	**9**	**13**	**4**	**6**	**7**	**1**	**0**	**0**	**14**	**37**	**117**	**310**	**1203**	**1521**	**742**	**162**	**22**	**3**	**5**	**0**	**1**	**36.6**	**31.1**	**5.9**

Wednesday 02 May 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	9	2	2	3	2	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	3	2	0	0	0	0	0	-	35.4	6.7
0100 - 0200	3	1	0	1	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	-	29.9	8.1
0200 - 0300	5	0	0	1	4	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	2	0	0	0	0	0	0	-	32.4	4.7
0300 - 0400	10	2	0	3	5	0	0	9	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4	2	0	0	0	0	0	-	34.6	5.3
0400 - 0500	9	1	2	1	5	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	2	1	0	0	0	0	0	-	33.8	4.4
0500 - 0600	73	14	15	23	21	0	2	68	0	2	0	0	0	0	0	1	0	0	0	0	1	1	5	25	29	11	1	0	0	0	0	40.4	35.6	5
0600 - 0700	159	21	38	42	58	2	1	149	0	7	0	0	0	0	0	0	0	0	0	1	1	2	19	54	68	12	1	0	1	0	0	39.1	34.7	4.9
0700 - 0800	257	67	48	57	85	0	1	243	1	12	0	0	0	0	0	0	0	0	0	0	1	3	60	122	61	8	1	1	0	0	0	36.9	32.9	4.1
0800 - 0900	290	64	68	79	79	1	0	276	0	11	0	2	0	0	0	0	0	0	0	0	1	13	70	154	45	6	1	0	0	0	0	35.6	31.8	3.9
0900 - 1000	172	60	45	29	38	0	0	155	0	15	0	1	0	0	1	0	0	0	0	1	2	10	44	73	34	8	0	0	0	0	0	36.9	31.8	5
1000 - 1100	140	35	40	35	30	0	0	122	0	17	1	0	0	0	0	0	0	0	0	1	3	5	49	52	21	7	2	0	0	0	0	36.5	31.3	5.3
1100 - 1200	207	44	50	45	68	0	0	191	0	12	0	1	1	2	0	0	0	0	0	1	0	9	62	78	46	9	1	1	0	0	0	37	32.3	4.9
1200 - 1300	211	54	46	52	59	0	0	193	4	13	1	0	0	0	0	0	0	0	0	1	3	21	62	79	42	3	0	0	0	0	0	35.7	30.9	4.8
1300 - 1400	221	49	49	68	55	1	1	201	3	15	0	0	0	0	0	0	0	0	0	2	1	15	81	91	28	3	0	0	0	0	0	34.7	30.7	4.5
1400 - 1500	244	44	62	74	64	1	0	229	2	9	0	1	0	1	1	0	0	0	0	0	1	7	94	89	48	2	2	1	0	0	0	36.3	31.5	4.4
1500 - 1600	349	69	104	93	83	4	1	328	0	12	0	1	0	2	1	0	0	0	0	2	6	24	121	130	54	12	0	0	0	0	0	35.9	30.7	4.9
1600 - 1700	279	65	66	68	80	2	3	257	2	13	0	1	0	0	0	1	0	0	0	2	1	4	64	133	54	17	4	0	0	0	0	37.1	32.8	4.8
1700 - 1800	352	87	79	95	91	6	3	331	2	10	0	0	0	0	0	0	0	0	2	7	10	39	101	121	61	9	1	0	0	1	0	36.1	30.1	6.2
1800 - 1900	358	107	95	83	73	1	3	342	0	11	1	0	0	0	0	0	0	0	0	9	6	44	117	122	45	15	0	0	0	0	0	35.2	29.9	5.6
1900 - 2000	216	56	59	61	40	2	0	203	0	9	0	2	0	0	0	0	0	0	0	3	5	18	72	81	29	5	2	1	0	0	0	35.7	30.6	5.6
2000 - 2100	165	53	43	31	38	1	3	155	0	6	0	0	0	0	0	0	0	0	0	0	5	16	49	56	23	11	3	2	0	0	0	37.2	31.6	6.2
2100 - 2200	119	33	30	27	29	0	1	114	0	3	1	0	0	0	0	0	0	0	0	0	1	7	45	42	15	9	0	0	0	0	0	36.8	31.3	4.9
2200 - 2300	95	34	22	25	14	0	1	93	0	1	0	0	0	0	0	0	0	0	0	2	1	5	18	36	28	5	0	0	0	0	0	37.8	32.3	5.6
2300 - 0000	42	13	13	13	3	0	1	39	0	2	0	0	0	0	0	0	0	0	0	0	1	3	5	16	11	3	2	0	1	0	0	40.6	34	7.1
0700 - 1900	**3080**	**745**	**752**	**778**	**805**	**16**	**12**	**2868**	**14**	**150**	**3**	**7**	**1**	**5**	**3**	**1**	**0**	**0**	**2**	**26**	**35**	**194**	**925**	**1244**	**539**	**99**	**12**	**3**	**0**	**1**	**0**	**36.1**	**31.3**	**5**
0600 - 2200	**3739**	**908**	**922**	**939**	**970**	**21**	**17**	**3489**	**14**	**175**	**4**	**9**	**1**	**5**	**3**	**1**	**0**	**0**	**2**	**30**	**47**	**237**	**1110**	**1477**	**674**	**136**	**18**	**6**	**1**	**1**	**0**	**36.3**	**31.4**	**5.2**
0600 - 0000	**3876**	**955**	**957**	**977**	**987**	**21**	**19**	**3621**	**14**	**178**	**4**	**9**	**1**	**5**	**3**	**1**	**0**	**0**	**2**	**32**	**49**	**245**	**1133**	**1529**	**713**	**144**	**20**	**6**	**2**	**1**	**0**	**36.4**	**31.5**	**5.2**
0000 - 0000	**3985**	**975**	**976**	**1009**	**1025**	**21**	**21**	**3724**	**14**	**181**	**4**	**9**	**1**	**5**	**3**	**2**	**0**	**0**	**2**	**32**	**50**	**248**	**1146**	**1563**	**754**	**160**	**21**	**6**	**2**	**1**	**0**	**36.5**	**31.6**	**5.2**

Virtual Day (7)

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	21	6	5	4	6	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	6	5	3	1	0	0	0	0	42.4	34.8	6.7
0100 - 0200	8	3	2	2	2	0	0	7	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	3	2	1	0	0	0	0	0	-	34.5	6.8
0200 - 0300	7	2	2	1	2	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	3	1	0	0	0	0	0	-	35.1	6.3
0300 - 0400	11	3	3	3	3	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	5	1	1	0	0	0	0	41.3	36.3	5.6
0400 - 0500	10	1	2	2	5	0	0	9	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	4	3	1	0	0	0	0	0	-	35.1	6.4
0500 - 0600	50	7	12	17	14	1	2	44	0	2	0	0	0	0	1	0	0	0	0	0	0	1	5	16	16	9	1	0	0	0	0	41.6	35.4	6
0600 - 0700	119	15	25	34	45	3	2	109	1	4	1	0	0	0	0	0	0	0	0	1	3	2	18	45	37	11	2	1	0	0	0	39.1	33.9	5.8
0700 - 0800	206	50	40	52	63	1	2	188	0	13	1	0	0	0	0	0	0	0	0	1	2	6	47	93	46	9	1	0	0	0	0	37.1	32.5	4.8
0800 - 0900	222	51	53	62	57	3	0	202	0	15	0	1	0	0	0	0	0	0	1	2	2	14	68	92	34	7	1	0	0	0	0	36	31.1	5.1
0900 - 1000	189	56	47	41	45	2	0	171	1	13	0	1	0	1	1	0	0	0	0	2	3	11	57	77	32	5	1	0	0	0	0	36	31.2	5.1
1000 - 1100	189	49	43	50	47	1	1	169	1	15	1	2	0	0	0	0	0	0	0	1	4	12	65	71	30	5	1	0	0	0	0	35.8	30.8	5.1
1100 - 1200	210	44	52	55	60	2	1	194	1	10	1	1	0	0	0	0	0	0	0	1	3	15	66	87	33	5	1	0	0	0	0	35.7	31.1	5
1200 - 1300	251	58	65	65	63	2	2	232	2	12	0	1	0	0	0	0	0	0	1	1	5	18	83	96	39	6	1	0	0	0	0	35.6	30.9	5.7
1300 - 1400	250	65	61	65	59	2	3	230	2	12	0	1	0	0	0	0	0	0	0	2	5	17	92	94	33	5	1	0	0	0	0	35.2	30.5	5.3
1400 - 1500	264	63	68	66	67	2	2	247	1	10	0	0	0	1	1	0	0	0	0	2	5	17	87	105	42	5	1	0	0	0	0	35.6	30.9	4.9
1500 - 1600	301	68	82	79	71	2	2	281	2	11	0	1	0	0	1	0	0	0	1	3	6	29	111	105	38	7	0	0	0	0	0	35	30.1	5.2
1600 - 1700	294	71	76	75	73	2	2	276	1	12	0	0	0	0	0	0	0	0	0	2	4	19	91	120	46	9	2	0	0	0	0	36.1	31.1	5.2
1700 - 1800	338	81	87	88	82	4	5	318	2	8	0	0	0	0	0	0	0	0	1	3	8	35	114	120	45	9	2	0	0	0	0	35.4	30.2	5.5
1800 - 1900	306	87	82	67	70	2	3	293	1	7	0	0	0	0	0	0	0	0	0	2	4	24	100	114	50	12	1	0	0	0	0	36.1	31	5.1
1900 - 2000	220	62	62	51	46	2	1	210	1	5	0	0	0	0	0	0	0	0	0	2	6	23	76	72	32	6	1	0	0	0	0	35.7	30.4	6.2
2000 - 2100	160	45	46	34	36	1	2	152	0	4	0	0	0	0	0	0	0	0	0	1	4	12	48	56	28	8	2	1	0	0	0	37.2	31.5	6.1
2100 - 2200	110	31	29	26	24	0	1	104	0	3	0	0	0	0	0	0	0	0	0	0	1	8	37	38	18	6	1	0	0	0	0	36.6	31.3	5.6
2200 - 2300	90	26	26	22	16	0	1	88	0	1	0	0	0	0	0	0	0	0	0	0	1	5	23	33	21	5	1	0	0	0	0	37.9	32.4	5.8
2300 - 0000	46	12	14	11	9	0	1	44	0	1	0	0	0	0	0	0	0	0	0	0	0	3	10	16	10	4	1	0	0	0	0	39.5	33.3	6.4
0700 - 1900	**3019**	**742**	**756**	**764**	**757**	**25**	**23**	**2801**	**13**	**136**	**4**	**7**	**2**	**3**	**3**	**1**	**0**	**0**	**5**	**23**	**51**	**217**	**980**	**1176**	**468**	**84**	**12**	**2**	**1**	**0**	**0**	**35.8**	**30.9**	**5.2**
0600 - 2200	**3628**	**895**	**917**	**909**	**907**	**31**	**28**	**3377**	**15**	**153**	**5**	**8**	**2**	**3**	**4**	**1**	**0**	**0**	**5**	**27**	**66**	**262**	**1159**	**1387**	**582**	**114**	**19**	**4**	**2**	**1**	**1**	**36**	**31**	**5.4**
0600 - 0000	**3764**	**933**	**958**	**942**	**932**	**32**	**30**	**3509**	**15**	**155**	**5**	**8**	**2**	**3**	**4**	**1**	**0**	**0**	**6**	**27**	**67**	**270**	**1192**	**1436**	**613**	**123**	**21**	**5**	**2**	**1**	**1**	**36.1**	**31**	**5.4**
0000 - 0000	**3871**	**955**	**984**	**970**	**963**	**33**	**33**	**3607**	**15**	**159**	**5**	**8**	**2**	**3**	**4**	**1**	**0**	**0**	**6**	**28**	**68**	**272**	**1208**	**1468**	**648**	**139**	**25**	**6**	**3**	**1**	**1**	**36.3**	**31.2**	**5.5**

Virtual Week (1)

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
Mon	3793	931	988	906	968	29	23	3515	19	178	3	12	2	3	6	3	0	0	6	22	48	197	1100	1529	696	151	32	6	5	1	0	36.6	31.8	5.3
Tue	4137	1018	1088	1024	1007	45	53	3799	16	184	9	13	4	6	7	1	0	0	14	37	117	310	1203	1521	742	162	22	3	5	0	1	36.6	31.1	5.9
Wed	3985	975	976	1009	1025	21	21	3724	14	181	4	9	1	5	3	2	0	0	2	32	50	248	1146	1563	754	160	21	6	2	1	0	36.5	31.6	5.2
Thu	4093	1002	1031	1030	1030	47	52	3750	23	197	6	7	2	3	6	0	0	0	6	32	86	332	1232	1585	625	156	28	11	0	0	0	36.1	30.9	5.5
Fri	4216	1072	1073	1069	1002	19	26	3930	14	195	8	6	5	2	8	2	0	1	4	21	55	319	1499	1537	631	110	30	4	2	1	3	35.8	30.8	5.3
Sat	3740	896	953	951	940	22	11	3579	11	110	2	3	0	2	0	0	0	0	5	18	59	261	1230	1440	589	109	22	4	2	1	0	36	31	5.1
Sun	3135	792	776	801	766	46	45	2952	10	68	3	8	1	1	0	0	0	1	3	33	64	239	1044	1101	496	122	18	9	2	3	1	36.4	31	5.9

Derby, City of Derby

Report Id 237/18
Site Name Site 2 of 4
Description A5132 Twyford Road, 25m west of Hamilton Terrace
Direction Westbound

Thursday 26 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	19	5	7	6	1	0	0	18	0	1	0	0	0	0	0	0	0	0	0	0	0	1	5	6	2	4	1	0	0	0	0	41.1	34.3	6.4
0100 - 0200	8	3	2	2	1	0	0	6	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	2	2	3	0	0	0	0	0	-	36.8	7.2
0200 - 0300	8	3	2	2	1	0	0	6	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	3	0	0	0	0	0	-	38.1	4.7
0300 - 0400	6	2	1	0	3	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	1	0	1	0	0	0	-	39.7	6.5
0400 - 0500	25	2	5	7	11	0	0	22	0	3	0	0	0	0	0	0	0	0	0	0	0	1	3	9	2	8	1	1	0	0	0	43.2	36.2	6.7
0500 - 0600	95	17	21	35	22	1	1	87	0	6	0	0	0	0	0	0	0	0	0	2	1	6	16	27	24	15	2	2	0	0	0	41	34.3	7.3
0600 - 0700	176	24	47	54	51	2	3	162	0	6	2	1	0	0	0	0	0	0	0	2	3	6	26	47	56	21	11	3	1	0	0	42	35.1	7.1
0700 - 0800	386	72	100	107	107	2	4	346	3	26	1	3	0	0	0	1	0	0	3	3	21	60	104	135	53	7	0	0	0	0	0	35.2	29.4	6
0800 - 0900	374	83	81	99	111	0	4	336	1	27	3	3	0	0	0	0	0	0	3	25	37	87	135	71	12	3	1	0	0	0	0	31.7	25.5	6.4
0900 - 1000	276	93	58	68	57	1	1	244	6	20	2	2	0	0	0	0	0	0	2	16	22	55	99	57	23	2	0	0	0	0	0	33.1	26.7	6.3
1000 - 1100	229	67	55	56	51	1	0	203	2	21	0	1	0	0	0	1	0	0	0	10	15	51	79	64	10	0	0	0	0	0	0	32.7	26.9	5.5
1100 - 1200	216	61	58	41	56	2	3	192	2	14	1	2	0	0	0	0	0	0	0	4	20	38	74	64	12	4	0	0	0	0	0	33.2	27.6	5.7
1200 - 1300	224	52	61	60	51	2	1	203	1	14	1	1	0	0	0	1	0	0	2	5	13	39	73	72	20	0	0	0	0	0	0	33.8	28	5.9
1300 - 1400	231	53	59	53	66	1	10	205	2	10	1	1	0	0	0	1	0	0	0	8	29	44	63	67	16	3	1	0	0	0	0	33.4	27.1	6.5
1400 - 1500	243	53	60	65	65	1	2	223	3	11	0	3	0	0	0	0	0	0	1	2	17	36	81	75	26	5	0	0	0	0	0	34.6	28.8	6
1500 - 1600	310	64	89	85	72	1	4	283	2	18	0	1	0	0	0	1	0	0	1	7	23	76	127	54	20	2	0	0	0	0	0	31.5	26.8	5.4
1600 - 1700	341	74	81	99	87	4	3	313	0	15	2	2	0	0	0	2	0	0	3	21	34	65	102	89	25	1	0	1	0	0	0	33.1	26.6	6.8
1700 - 1800	296	75	67	72	82	5	3	269	4	11	2	2	0	0	0	0	0	0	0	11	36	79	99	55	14	1	0	1	0	0	0	31.8	25.9	5.9
1800 - 1900	274	62	72	76	64	5	4	256	1	7	0	0	0	1	0	0	0	0	0	1	8	16	93	101	36	18	1	0	0	0	0	36.6	31.1	5.4
1900 - 2000	209	55	52	58	44	1	2	197	0	9	0	0	0	0	0	0	0	0	0	1	4	18	50	83	38	13	1	1	0	0	0	37	31.7	5.7
2000 - 2100	156	36	51	40	29	1	7	138	2	6	0	1	0	0	0	1	0	0	0	0	2	5	35	70	32	11	1	0	0	0	0	37.5	32.5	4.9
2100 - 2200	102	25	30	21	26	1	2	96	0	3	0	0	0	0	0	0	0	0	0	2	1	3	19	50	22	4	1	0	0	0	0	36.8	32.6	5.2
2200 - 2300	66	17	11	21	17	0	0	66	0	0	0	0	0	0	0	0	0	0	0	0	1	1	15	26	19	1	2	1	0	0	0	38.3	33.2	5.5
2300 - 0000	21	4	8	5	4	0	0	20	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2	3	4	7	3	1	0	0	0	45.6	38.7	7
0700 - 1900	**3400**	**809**	**841**	**881**	**869**	**25**	**39**	**3073**	**27**	**194**	**13**	**21**	**0**	**1**	**0**	**7**	**0**	**0**	**15**	**113**	**275**	**646**	**1129**	**904**	**267**	**46**	**3**	**2**	**0**	**0**	**0**	**33.6**	**27.5**	**6.2**
0600 - 2200	**4043**	**949**	**1021**	**1054**	**1019**	**30**	**53**	**3666**	**29**	**218**	**15**	**23**	**0**	**1**	**0**	**8**	**0**	**0**	**15**	**118**	**285**	**678**	**1259**	**1154**	**415**	**95**	**17**	**6**	**1**	**0**	**0**	**34.5**	**28.4**	**6.5**
0600 - 0000	**4130**	**970**	**1040**	**1080**	**1040**	**30**	**53**	**3752**	**29**	**219**	**15**	**23**	**0**	**1**	**0**	**8**	**0**	**0**	**15**	**118**	**286**	**680**	**1276**	**1183**	**438**	**103**	**22**	**8**	**1**	**0**	**0**	**34.7**	**28.5**	**6.6**
0000 - 0000	**4291**	**1002**	**1078**	**1132**	**1079**	**31**	**54**	**3897**	**29**	**233**	**15**	**23**	**0**	**1**	**0**	**8**	**0**	**0**	**15**	**120**	**287**	**689**	**1300**	**1231**	**473**	**137**	**26**	**12**	**1**	**0**	**0**	**35**	**28.7**	**6.7**

Friday 27 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	11	1	2	2	6	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	2	2	1	0	0	0	0	44.5	34.5	8
0100 - 0200	13	3	2	2	6	0	0	12	0	1	0	0	0	0	0	0	0	0	0	0	0	3	2	2	2	1	1	1	1	0	0	50.6	35.3	11.6
0200 - 0300	11	4	1	1	5	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	2	0	3	0	2	1	0	0	53.6	38.2	11.7
0300 - 0400	9	2	1	3	3	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	2	1	0	0	0	-	39.2	8.2
0400 - 0500	23	5	3	4	11	0	0	21	0	2	0	0	0	0	0	0	0	0	0	0	0	0	5	6	4	4	2	2	0	0	0	46.8	36.9	7.9
0500 - 0600	100	18	27	33	22	1	1	93	0	5	0	0	0	0	0	0	0	0	0	1	0	4	18	21	34	16	3	2	1	0	0	41.9	35.4	6.9
0600 - 0700	151	19	49	40	43	3	2	138	0	8	0	0	0	0	0	0	0	0	0	1	3	2	17	39	44	25	15	4	0	0	1	44.4	36.7	7.7
0700 - 0800	355	75	90	94	96	2	3	331	0	18	0	0	0	0	0	1	0	0	0	2	7	41	104	135	51	13	2	0	0	0	0	35.9	30.6	5.3
0800 - 0900	365	85	76	97	107	1	5	335	0	23	0	0	0	0	0	1	0	0	1	3	10	70	149	97	31	3	1	0	0	0	0	33.6	28.4	5.1
0900 - 1000	261	77	73	59	52	0	1	229	3	27	0	0	0	0	0	1	0	0	0	2	8	40	98	79	25	7	2	0	0	0	0	34.6	29.2	5.5
1000 - 1100	222	62	56	55	49	0	0	197	1	20	3	1	0	0	0	0	0	0	0	0	4	29	89	61	32	6	1	0	0	0	0	35.5	30.1	5.2
1100 - 1200	203	54	51	48	50	0	2	182	0	18	0	0	0	0	0	1	0	0	0	2	0	23	53	79	36	8	1	1	0	0	0	36	31.3	5.4
1200 - 1300	231	51	59	53	68	1	0	212	1	16	0	0	0	0	1	0	0	0	0	1	3	15	85	91	35	1	0	0	0	0	0	35.1	30.6	4.4
1300 - 1400	258	67	55	61	75	1	1	235	2	14	0	4	1	0	0	0	0	0	0	3	10	39	91	79	31	5	0	0	0	0	0	34.8	29.2	5.5
1400 - 1500	259	66	67	55	71	0	0	240	2	14	0	1	0	0	0	2	0	0	0	0	4	23	77	122	28	5	0	0	0	0	0	34.8	30.6	4.3
1500 - 1600	293	72	57	98	66	2	0	273	1	16	0	0	0	0	0	1	0	0	58	10	15	28	96	66	16	4	0	0	0	0	0	32.5	23.6	10.4
1600 - 1700	311	61	89	72	89	1	0	294	1	12	1	0	0	1	0	1	0	0	0	1	5	34	105	123	33	9	1	0	0	0	0	34.6	30.3	4.9
1700 - 1800	311	78	87	67	79	4	4	290	0	10	0	3	0	0	0	0	0	0	0	1	9	35	131	104	27	4	0	0	0	0	0	33.9	29.2	4.6
1800 - 1900	307	77	73	77	80	3	0	295	1	7	0	0	0	1	0	0	0	0	0	1	7	29	118	116	32	2	2	0	0	0	0	34.1	29.9	4.6
1900 - 2000	230	64	60	56	50	0	1	221	2	5	0	1	0	0	0	0	0	0	0	0	8	32	81	73	30	3	2	0	0	0	1	35.3	29.8	6.5
2000 - 2100	154	47	50	25	32	0	1	150	0	3	0	0	0	0	0	0	0	0	0	0	2	7	54	64	22	4	1	0	0	0	0	35.8	31.2	4.5
2100 - 2200	108	31	21	29	27	0	0	104	0	4	0	0	0	0	0	0	0	0	0	0	2	10	34	40	12	8	2	0	0	0	0	36.7	31.4	5.5
2200 - 2300	75	24	20	12	19	0	0	75	0	0	0	0	0	0	0	0	0	0	0	0	1	6	28	22	10	6	2	0	0	0	0	36.8	31.3	6
2300 - 0000	70	17	14	21	18	0	0	69	0	1	0	0	0	0	0	0	0	0	0	0	0	6	22	24	12	5	1	0	0	0	0	37.5	31.9	5.4
0700 - 1900	**3376**	**825**	**833**	**836**	**882**	**15**	**16**	**3113**	**12**	**195**	**4**	**9**	**1**	**2**	**1**	**8**	**0**	**0**	**59**	**26**	**82**	**406**	**1196**	**1152**	**377**	**67**	**10**	**1**	**0**	**0**	**0**	**34.7**	**29.3**	**6**
0600 - 2200	**4019**	**986**	**1013**	**986**	**1034**	**18**	**20**	**3726**	**14**	**215**	**4**	**10**	**1**	**2**	**1**	**8**	**0**	**0**	**59**	**27**	**97**	**457**	**1382**	**1368**	**485**	**107**	**30**	**5**	**0**	**0**	**2**	**35.2**	**29.8**	**6.2**
0600 - 0000	**4164**	**1027**	**1047**	**1019**	**1071**	**18**	**20**	**3870**	**14**	**216**	**4**	**10**	**1**	**2**	**1**	**8**	**0**	**0**	**59**	**27**	**98**	**469**	**1432**	**1414**	**507**	**118**	**33**	**5**	**0**	**0**	**2**	**35.2**	**29.8**	**6.2**
0000 - 0000	**4331**	**1060**	**1083**	**1064**	**1124**	**19**	**21**	**4027**	**14**	**224**	**4**	**10**	**1**	**2**	**1**	**8**	**0**	**0**	**59**	**28**	**99**	**476**	**1466**	**1447**	**552**	**144**	**42**	**13**	**3**	**0**	**2**	**35.5**	**30.1**	**6.4**

Saturday 28 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	19	11	0	4	4	1	0	18	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	8	7	1	0	0	0	0	0	37.7	32.8	6.4
0100 - 0200	12	4	2	4	2	0	0	10	0	2	0	0	0	0	0	0	0	0	0	0	0	1	4	3	2	1	1	0	0	0	0	40.8	32	6.7
0200 - 0300	9	3	2	2	2	0	0	7	0	2	0	0	0	0	0	0	0	0	0	0	1	2	2	0	2	2	0	0	0	0	0	-	30.1	9.3
0300 - 0400	7	1	3	1	2	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3	1	1	1	0	0	0	-	39.8	8.4
0400 - 0500	16	4	3	4	5	0	0	15	0	1	0	0	0	0	0	0	0	0	1	0	1	1	3	3	3	2	2	0	0	0	0	43.8	32.3	10.4
0500 - 0600	47	5	20	10	12	0	1	44	0	2	0	0	0	0	0	0	0	0	0	0	1	1	10	15	10	7	2	0	0	1	0	41.3	34.8	7.3
0600 - 0700	68	7	18	23	20	2	1	61	0	4	0	0	0	0	0	0	0	0	0	0	1	2	13	17	19	11	4	1	0	0	0	41.4	35.2	6.7
0700 - 0800	114	18	28	37	31	2	0	103	3	6	0	0	0	0	0	0	0	0	0	0	2	5	31	35	30	4	4	3	0	0	0	38.9	33.2	6.6
0800 - 0900	206	48	45	49	64	3	1	195	1	5	0	1	0	0	0	0	0	0	0	2	4	12	69	77	33	9	0	0	0	0	0	36.3	31	5.3
0900 - 1000	268	50	64	81	73	2	0	257	0	7	2	0	0	0	0	0	0	0	0	2	6	28	110	91	24	5	2	0	0	0	0	33.9	29.6	4.9
1000 - 1100	283	83	67	75	58	1	2	271	0	8	0	1	0	0	0	0	0	0	0	0	3	36	109	105	22	7	0	1	0	0	0	34.1	29.9	4.7
1100 - 1200	324	64	82	79	99	4	0	306	2	12	0	0	0	0	0	0	0	0	0	4	12	41	126	107	29	4	1	0	0	0	0	33.6	29.1	5.1
1200 - 1300	320	76	85	75	84	0	2	305	1	7	0	4	0	1	0	0	0	0	1	7	19	34	131	97	28	3	0	0	0	0	0	33.9	28.7	5.5
1300 - 1400	319	93	69	73	84	0	0	305	1	13	0	0	0	0	0	0	0	0	0	0	1	52	132	101	30	3	0	0	0	0	0	34.2	29.4	4.4
1400 - 1500	259	72	65	64	58	2	1	248	1	7	0	0	0	0	0	0	0	0	4	7	29	63	85	55	13	3	0	0	0	0	0	32.2	26.2	6.3
1500 - 1600	239	44	63	55	77	0	0	229	0	10	0	0	0	0	0	0	0	0	0	0	1	15	70	93	51	7	2	0	0	0	0	36.5	31.9	4.7
1600 - 1700	263	76	47	70	70	0	1	247	0	15	0	0	0	0	0	0	0	0	0	0	4	17	68	109	52	9	4	0	0	0	0	36.7	32	5
1700 - 1800	258	68	60	53	77	1	1	242	1	12	0	1	0	0	0	0	0	0	0	1	6	33	72	96	43	5	1	0	0	0	1	35.8	30.6	5.6
1800 - 1900	251	56	75	61	59	2	1	240	0	7	0	1	0	0	0	0	0	0	1	4	7	25	73	84	37	15	4	0	1	0	0	37.1	30.8	6.7
1900 - 2000	177	52	51	35	39	0	0	174	1	2	0	0	0	0	0	0	0	0	0	1	3	9	38	77	41	8	0	0	0	0	0	37.3	32	5.3
2000 - 2100	128	36	30	33	29	0	0	123	1	4	0	0	0	0	0	0	0	0	0	0	0	9	43	50	16	7	3	0	0	0	0	36.9	31.6	5.1
2100 - 2200	81	19	18	25	19	0	0	77	0	4	0	0	0	0	0	0	0	0	0	0	4	12	25	23	12	0	3	2	0	0	0	35.9	30.3	7
2200 - 2300	77	23	20	19	15	0	0	76	0	1	0	0	0	0	0	0	0	0	0	0	1	8	22	31	12	3	0	0	0	0	0	37.1	30.9	5.2
2300 - 0000	57	21	9	16	11	0	0	56	0	1	0	0	0	0	0	0	0	0	0	0	1	1	15	27	8	4	1	0	0	0	0	37.9	32.5	5
0700 - 1900	**3104**	**748**	**750**	**772**	**834**	**17**	**9**	**2948**	**10**	**109**	**2**	**8**	**0**	**1**	**0**	**0**	**0**	**0**	**6**	**27**	**94**	**361**	**1076**	**1050**	**392**	**74**	**18**	**4**	**1**	**0**	**1**	**35.1**	**30**	**5.6**
0600 - 2200	**3558**	**862**	**867**	**888**	**941**	**19**	**10**	**3383**	**12**	**123**	**2**	**8**	**0**	**1**	**0**	**0**	**0**	**0**	**6**	**28**	**102**	**393**	**1195**	**1217**	**480**	**100**	**28**	**7**	**1**	**0**	**1**	**35.5**	**30.2**	**5.7**
0600 - 0000	**3692**	**906**	**896**	**923**	**967**	**19**	**10**	**3515**	**12**	**125**	**2**	**8**	**0**	**1**	**0**	**0**	**0**	**0**	**6**	**28**	**104**	**402**	**1232**	**1275**	**500**	**107**	**29**	**7**	**1**	**0**	**1**	**35.5**	**30.3**	**5.7**
0000 - 0000	**3802**	**934**	**926**	**948**	**994**	**20**	**11**	**3616**	**12**	**132**	**2**	**8**	**0**	**1**	**0**	**0**	**0**	**0**	**7**	**29**	**107**	**408**	**1253**	**1304**	**527**	**121**	**35**	**8**	**1**	**1**	**1**	**35.7**	**30.4**	**5.8**

Sunday 29 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	57	13	22	12	10	0	0	56	0	1	0	0	0	0	0	0	0	0	0	0	0	2	18	20	11	2	3	1	0	0	0	38.4	33.2	6.1
0100 - 0200	59	14	11	18	16	0	0	58	0	1	0	0	0	0	0	0	0	0	0	0	0	1	21	23	8	3	3	0	0	0	0	36.7	32.1	5
0200 - 0300	72	15	24	21	12	0	0	71	0	1	0	0	0	0	0	0	0	0	0	0	1	1	20	26	19	3	1	0	0	1	0	38	33.1	5.8
0300 - 0400	9	4	3	2	0	0	0	8	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	4	1	2	0	1	0	0	0	-	36.9	6.8
0400 - 0500	16	2	5	3	6	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	5	4	1	0	0	0	0	43	36.7	6
0500 - 0600	32	4	7	15	6	0	0	31	0	1	0	0	0	0	0	0	0	0	0	0	0	2	5	9	7	7	2	0	0	0	0	43	35.4	6.5
0600 - 0700	44	10	10	11	13	3	2	39	0	0	0	0	0	0	0	0	0	0	0	0	3	0	2	14	16	6	2	0	1	0	0	40.9	35.4	7.6
0700 - 0800	56	11	10	19	16	6	0	48	0	1	0	1	0	0	0	0	0	0	0	2	6	4	11	12	10	9	1	1	0	0	0	41.6	31.9	8.6
0800 - 0900	91	19	17	23	32	10	0	79	1	1	0	0	0	0	0	0	0	0	0	5	5	8	21	19	21	8	3	1	0	0	0	39.8	31.3	8.8
0900 - 1000	215	36	49	65	65	2	5	194	0	11	1	2	0	0	0	0	0	0	0	4	4	24	51	81	41	6	3	1	0	0	0	36.4	31	6.1
1000 - 1100	251	68	57	48	78	8	14	213	1	12	0	2	0	1	0	0	0	0	0	2	7	33	81	98	23	7	0	0	0	0	0	34.5	29.6	5.2
1100 - 1200	291	85	59	65	82	3	15	264	0	8	0	1	0	0	0	0	0	0	0	7	14	31	111	91	28	8	0	0	1	0	0	34.6	29.3	6
1200 - 1300	307	63	84	75	85	9	5	282	0	11	0	0	0	0	0	0	0	0	0	3	7	23	113	109	41	8	2	0	0	0	1	35.4	30.8	7.5
1300 - 1400	292	77	75	71	69	4	1	280	1	6	0	0	0	0	0	0	0	0	0	2	4	33	101	104	39	9	0	0	0	0	0	35.3	30.5	5
1400 - 1500	254	80	59	54	61	1	4	243	1	5	0	0	0	0	0	0	0	0	0	0	4	22	110	87	27	2	2	0	0	0	0	34.5	30	4.4
1500 - 1600	224	57	48	66	53	3	0	211	1	8	1	0	0	0	0	0	0	0	0	1	4	27	89	72	22	6	2	1	0	0	0	34.8	30	5.2
1600 - 1700	223	66	58	50	49	4	1	211	0	5	1	0	0	0	1	0	0	0	0	2	5	20	83	75	32	5	1	0	0	0	0	35.5	30.2	5
1700 - 1800	224	59	64	53	48	2	3	208	2	8	1	0	0	0	0	0	0	0	0	1	8	43	102	48	18	2	1	1	0	0	0	33.1	28.3	5.2
1800 - 1900	192	55	50	46	41	1	0	187	0	4	0	0	0	0	0	0	0	0	0	0	3	14	59	81	24	8	2	1	0	0	0	35.8	31.2	5.2
1900 - 2000	139	49	37	34	19	0	2	132	0	3	0	1	0	1	0	0	0	0	0	1	2	8	48	44	28	6	1	0	1	0	0	37.1	31.5	5.8
2000 - 2100	83	24	14	26	19	0	0	81	0	2	0	0	0	0	0	0	0	0	0	0	0	7	34	27	10	4	1	0	0	0	0	36.2	30.8	5.2
2100 - 2200	69	17	23	11	18	0	0	67	0	2	0	0	0	0	0	0	0	0	0	0	0	11	20	25	9	2	2	0	0	0	0	36.4	30.9	5.6
2200 - 2300	74	18	9	14	33	0	0	73	0	1	0	0	0	0	0	0	0	0	0	0	0	9	32	27	6	0	0	0	0	0	0	33	29.6	3.9
2300 - 0000	32	17	5	4	6	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	1	12	14	4	0	1	0	0	0	0	36.8	31.4	4.9
0700 - 1900	**2620**	**676**	**630**	**635**	**679**	**53**	**48**	**2420**	**7**	**80**	**4**	**6**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**29**	**71**	**282**	**932**	**877**	**326**	**78**	**17**	**6**	**1**	**0**	**1**	**35.3**	**30.2**	**5.9**
0600 - 2200	**2955**	**776**	**714**	**717**	**748**	**56**	**52**	**2739**	**7**	**87**	**4**	**7**	**0**	**2**	**1**	**0**	**0**	**0**	**0**	**30**	**76**	**308**	**1036**	**987**	**389**	**96**	**23**	**6**	**3**	**0**	**1**	**35.6**	**30.3**	**5.9**
0600 - 0000	**3061**	**811**	**728**	**735**	**787**	**56**	**52**	**2844**	**7**	**88**	**4**	**7**	**0**	**2**	**1**	**0**	**0**	**0**	**0**	**30**	**76**	**318**	**1080**	**1028**	**399**	**96**	**24**	**6**	**3**	**0**	**1**	**35.6**	**30.3**	**5.9**
0000 - 0000	**3306**	**863**	**800**	**806**	**837**	**56**	**52**	**3084**	**7**	**93**	**4**	**7**	**0**	**2**	**1**	**0**	**0**	**0**	**0**	**30**	**77**	**324**	**1146**	**1115**	**450**	**117**	**24**	**8**	**3**	**1**	**1**	**35.8**	**30.6**	**5.9**

Monday 30 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	9	0	3	2	4	0	0	8	0	1	0	0	0	0	0	0	0	0	0	0	0	2	4	0	1	2	0	0	0	0	0	-	31.2	8.6
0100 - 0200	7	1	2	3	1	0	0	6	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2	0	0	0	1	0	0	-	32.8	13.2
0200 - 0300	8	3	3	1	1	0	0	6	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	3	2	1	0	0	0	0	0	-	34.3	5.6
0300 - 0400	14	3	3	2	6	0	0	13	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	1	5	3	1	0	0	0	0	44.6	36.2	7.2
0400 - 0500	24	6	7	6	5	1	0	18	0	5	0	0	0	0	0	0	0	0	0	1	0	3	3	7	4	2	2	1	1	0	0	46	34.9	9.9
0500 - 0600	80	15	24	31	10	1	0	74	0	5	0	0	0	0	0	0	0	0	0	1	1	3	11	25	17	16	5	1	0	0	0	43.2	35.1	7.2
0600 - 0700	165	32	43	46	44	2	1	153	0	8	0	1	0	0	0	0	0	0	0	0	1	8	27	60	55	11	3	0	0	0	0	38.7	33.9	5.1
0700 - 0800	386	88	94	111	93	2	2	354	2	22	0	2	0	1	0	1	0	0	1	0	4	35	128	151	55	9	2	1	0	0	0	35.6	30.8	5
0800 - 0900	368	100	74	90	104	1	1	346	1	19	0	0	0	0	0	0	0	0	0	5	17	25	145	123	46	7	0	0	0	0	0	34.7	29.6	5.2
0900 - 1000	243	78	50	57	58	1	2	220	1	16	1	0	1	0	0	1	0	0	1	0	8	32	66	101	26	9	0	0	0	0	0	34.9	30.3	5.2
1000 - 1100	222	55	64	53	50	1	1	198	0	17	0	2	1	0	0	2	0	0	1	1	4	28	91	67	26	4	0	0	0	0	0	34.4	29.5	5.1
1100 - 1200	201	50	41	42	68	3	0	175	4	16	0	2	0	0	0	1	0	0	0	1	10	27	51	76	33	3	0	0	0	0	0	35.7	30.2	5.5
1200 - 1300	195	47	51	39	58	1	0	183	0	10	0	0	1	0	0	0	0	0	0	3	10	24	51	75	23	8	0	1	0	0	0	35.6	29.9	6.1
1300 - 1400	212	46	52	49	65	3	1	200	1	7	0	0	0	0	0	0	0	0	0	2	5	12	64	90	27	10	1	1	0	0	0	35.9	31.1	5.4
1400 - 1500	250	63	63	70	54	1	8	221	2	16	0	0	0	1	0	1	0	0	0	2	7	36	81	79	36	9	0	0	0	0	0	35.7	30.1	5.6
1500 - 1600	266	66	59	83	58	1	3	247	0	13	2	0	0	0	0	0	0	0	0	3	6	22	83	104	42	6	0	0	0	0	0	35.6	30.6	5.1
1600 - 1700	286	72	69	75	70	1	0	270	3	12	0	0	0	0	0	0	0	0	0	0	5	23	105	100	44	9	0	0	0	0	0	35.6	30.6	4.8
1700 - 1800	319	73	79	95	72	1	5	302	2	9	0	0	0	0	0	0	0	0	0	0	4	11	91	134	69	9	1	0	0	0	0	36.8	32	4.5
1800 - 1900	230	62	52	64	52	1	3	219	1	6	0	0	0	0	0	0	0	0	0	1	4	10	50	93	49	19	4	0	0	0	0	38.4	32.9	5.6
1900 - 2000	192	53	57	56	26	0	4	182	0	6	0	0	0	0	0	0	0	0	0	1	0	25	59	49	45	12	1	0	0	0	0	38.6	31.4	5.7
2000 - 2100	106	36	21	29	20	0	1	99	2	4	0	0	0	0	0	0	0	0	0	0	0	8	27	37	21	10	3	0	0	0	0	38.7	32.6	5.6
2100 - 2200	91	24	27	23	17	0	0	88	0	3	0	0	0	0	0	0	0	0	0	0	1	3	25	32	22	6	1	1	0	0	0	38.6	33	5.6
2200 - 2300	41	14	13	4	10	0	0	38	1	0	0	0	0	1	1	0	0	0	0	0	1	0	8	10	12	8	1	1	0	0	0	42.3	35.4	6.8
2300 - 0000	19	6	5	3	5	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	11	2	2	0	1	0	0	0	40.3	34.2	5.8
0700 - 1900	**3178**	**800**	**748**	**828**	**802**	**17**	**26**	**2935**	**17**	**163**	**3**	**6**	**3**	**2**	**0**	**6**	**0**	**0**	**3**	**18**	**84**	**285**	**1006**	**1193**	**476**	**102**	**8**	**3**	**0**	**0**	**0**	**35.7**	**30.6**	**5.3**
0600 - 2200	**3732**	**945**	**896**	**982**	**909**	**19**	**32**	**3457**	**19**	**184**	**3**	**7**	**3**	**2**	**0**	**6**	**0**	**0**	**3**	**19**	**86**	**329**	**1144**	**1371**	**619**	**141**	**16**	**4**	**0**	**0**	**0**	**36.2**	**30.9**	**5.4**
0600 - 0000	**3792**	**965**	**914**	**989**	**924**	**19**	**32**	**3514**	**20**	**184**	**3**	**7**	**3**	**3**	**1**	**6**	**0**	**0**	**3**	**19**	**87**	**330**	**1154**	**1392**	**633**	**151**	**17**	**6**	**0**	**0**	**0**	**36.3**	**31**	**5.4**
0000 - 0000	**3934**	**993**	**956**	**1034**	**951**	**21**	**32**	**3639**	**20**	**199**	**3**	**7**	**3**	**3**	**1**	**6**	**0**	**0**	**3**	**21**	**90**	**338**	**1178**	**1430**	**664**	**175**	**25**	**8**	**2**	**0**	**0**	**36.5**	**31.1**	**5.6**

Tuesday 01 May 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	12	2	4	2	4	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	2	2	2	0	0	0	0	47.4	37.3	6.1
0100 - 0200	11	4	3	2	2	0	0	9	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2	1	1	2	3	0	0	0	0	47.4	36	9.9
0200 - 0300	6	3	0	2	1	0	0	5	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	1	1	0	0	0	0	-	36.8	8.1
0300 - 0400	7	1	0	3	3	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	1	1	0	0	0	0	-	34.4	8.2
0400 - 0500	20	1	6	5	8	0	0	17	0	3	0	0	0	0	0	0	0	0	0	0	0	1	3	6	4	2	3	1	0	0	0	47.6	36.5	8.4
0500 - 0600	90	10	30	35	15	1	0	86	1	2	0	0	0	0	0	0	0	0	0	1	0	3	20	20	27	11	5	1	1	1	0	42.8	35.3	7.8
0600 - 0700	192	30	45	58	59	4	3	177	0	8	0	0	0	0	0	0	0	0	0	2	3	3	29	65	46	30	11	3	0	0	0	42.4	35	6.5
0700 - 0800	387	85	93	106	103	4	1	352	2	24	1	1	0	1	0	1	0	0	2	8	10	35	101	139	78	12	1	1	0	0	0	37	30.8	6.2
0800 - 0900	369	104	86	87	92	1	2	340	1	23	0	0	1	0	0	1	0	0	0	5	8	29	112	157	49	7	2	0	0	0	0	35.2	30.5	5.1
0900 - 1000	288	86	69	54	79	2	7	253	2	23	1	0	0	0	0	0	0	0	0	2	5	25	88	105	54	8	1	0	0	0	0	35.9	30.9	5.2
1000 - 1100	221	63	48	53	57	3	2	190	3	19	2	0	1	0	0	1	0	0	2	2	9	19	74	70	34	10	1	0	0	0	0	36.4	30.2	6.1
1100 - 1200	223	51	59	47	66	3	8	193	0	14	2	0	1	0	0	2	0	0	1	3	12	26	72	77	28	3	1	0	0	0	0	35	29.4	5.9
1200 - 1300	225	53	56	56	60	2	7	194	2	14	2	0	0	1	0	3	0	0	0	2	0	25	73	79	32	12	2	0	0	0	0	36.9	31.1	5.5
1300 - 1400	232	47	53	71	61	0	4	217	0	10	0	1	0	0	0	0	0	0	0	2	4	15	70	95	33	9	3	0	0	0	1	36.2	31.7	7.5
1400 - 1500	247	62	55	54	76	4	4	225	2	10	1	0	0	1	0	0	0	0	1	13	7	34	70	85	31	6	0	0	0	0	0	35	29	6.4
1500 - 1600	306	63	85	80	78	1	3	286	0	13	2	0	0	0	0	1	0	0	3	6	36	56	115	70	19	1	0	0	0	0	0	32.2	26.6	5.9
1600 - 1700	296	61	78	77	80	1	4	280	1	10	0	0	0	0	0	0	0	0	22	9	8	38	78	97	41	1	2	0	0	0	0	34.9	27.8	8.2
1700 - 1800	316	61	92	84	79	4	3	297	3	7	1	1	0	0	0	0	0	0	0	3	4	26	126	111	37	5	1	2	1	0	0	34.9	30.2	5.4
1800 - 1900	251	66	63	70	52	3	3	234	3	5	2	1	0	0	0	0	0	0	0	1	7	24	76	93	41	9	0	0	0	0	0	36.3	30.6	5.4
1900 - 2000	218	49	57	57	55	3	12	190	0	10	0	3	0	0	0	0	0	0	2	1	5	33	72	70	28	6	1	0	0	0	0	35.2	29.5	5.6
2000 - 2100	114	49	22	18	25	0	6	107	0	1	0	0	0	0	0	0	0	0	0	0	2	20	39	42	5	4	1	1	0	0	0	33.7	29.5	5.4
2100 - 2200	120	28	31	45	16	0	0	120	0	0	0	0	0	0	0	0	0	0	0	0	0	8	26	50	25	9	0	1	1	0	0	37.4	33.3	5.4
2200 - 2300	58	17	20	15	6	0	0	58	0	0	0	0	0	0	0	0	0	0	0	0	0	2	13	19	16	7	0	1	0	0	0	39.8	34	5.9
2300 - 0000	23	5	7	7	4	0	0	23	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	8	4	5	3	0	0	0	0	44.3	36.1	6.5
0700 - 1900	**3361**	**802**	**837**	**839**	**883**	**28**	**48**	**3061**	**19**	**172**	**14**	**4**	**3**	**3**	**0**	**9**	**0**	**0**	**31**	**56**	**110**	**352**	**1055**	**1178**	**477**	**83**	**14**	**3**	**1**	**0**	**1**	**35.6**	**29.9**	**6.3**
0600 - 2200	**4005**	**958**	**992**	**1017**	**1038**	**35**	**69**	**3655**	**19**	**191**	**14**	**7**	**3**	**3**	**0**	**9**	**0**	**0**	**33**	**59**	**120**	**416**	**1221**	**1405**	**581**	**132**	**27**	**8**	**2**	**0**	**1**	**35.9**	**30.2**	**6.3**
0600 - 0000	**4086**	**980**	**1019**	**1039**	**1048**	**35**	**69**	**3736**	**19**	**191**	**14**	**7**	**3**	**3**	**0**	**9**	**0**	**0**	**33**	**59**	**120**	**419**	**1236**	**1432**	**601**	**144**	**30**	**9**	**2**	**0**	**1**	**36**	**30.3**	**6.3**
0000 - 0000	**4232**	**1001**	**1062**	**1088**	**1081**	**36**	**69**	**3872**	**20**	**199**	**14**	**7**	**3**	**3**	**0**	**9**	**0**	**0**	**33**	**60**	**120**	**426**	**1264**	**1468**	**637**	**163**	**45**	**11**	**3**	**1**	**1**	**36.2**	**30.5**	**6.5**

Wednesday 02 May 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	10	3	3	3	1	0	0	9	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	2	1	1	0	0	0	-	38.5	6.4
0100 - 0200	3	1	1	0	1	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	-	33.8	7.2
0200 - 0300	7	4	1	1	1	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	1	0	0	0	0	-	39.2	6.5
0300 - 0400	8	1	1	4	2	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	1	2	0	0	0	0	0	-	34.5	6.7
0400 - 0500	29	5	7	5	12	0	0	23	0	6	0	0	0	0	0	0	0	0	0	0	0	1	7	8	5	5	3	0	0	0	0	43.6	35.1	7.2
0500 - 0600	88	13	26	27	22	0	0	85	0	3	0	0	0	0	0	0	0	0	0	0	0	4	19	20	25	12	6	1	1	0	0	42.8	35.4	6.8
0600 - 0700	177	33	48	42	54	2	3	160	0	12	0	0	0	0	0	0	0	0	0	0	3	2	26	47	60	29	10	0	0	0	0	41.8	35.5	6
0700 - 0800	371	69	103	102	97	2	0	349	1	19	0	0	0	0	0	0	0	0	0	2	5	19	121	147	61	14	2	0	0	0	0	36.1	31.3	5.1
0800 - 0900	377	90	93	90	104	1	2	349	3	20	0	2	0	0	0	0	0	0	0	3	4	42	137	138	47	6	0	0	0	0	0	34.7	30	4.7
0900 - 1000	300	83	95	58	64	0	4	269	0	25	0	0	0	1	0	1	0	0	0	0	11	39	106	108	29	6	1	0	0	0	0	34.3	29.8	5
1000 - 1100	192	58	45	51	38	1	0	179	0	11	1	0	0	0	0	0	0	0	0	0	7	21	68	61	24	11	0	0	0	0	0	36.3	30.1	5.4
1100 - 1200	189	36	47	61	45	0	0	177	1	10	1	0	0	0	0	0	0	0	0	0	3	28	52	71	24	7	4	0	0	0	0	36.1	30.7	5.6
1200 - 1300	208	40	60	41	67	2	1	195	2	8	0	0	0	0	0	0	0	0	1	2	2	30	62	73	32	5	1	0	0	0	0	35.7	30.2	5.5
1300 - 1400	222	42	52	57	71	4	0	200	1	14	3	0	0	0	0	0	0	0	0	4	2	26	74	73	32	10	1	0	0	0	0	35.8	30.5	5.8
1400 - 1500	266	63	57	69	77	1	1	245	2	16	0	0	0	1	0	0	0	0	1	0	4	12	98	105	37	5	4	0	0	0	0	35.8	31	4.8
1500 - 1600	267	60	53	85	69	0	0	248	2	11	1	1	1	2	0	1	0	0	0	1	3	23	98	111	27	4	0	0	0	0	0	34.3	30.2	4.3
1600 - 1700	315	85	77	75	78	0	1	300	2	10	0	1	0	0	0	1	0	0	0	2	7	21	102	132	47	3	1	0	0	0	0	35.2	30.6	4.9
1700 - 1800	297	72	73	81	71	1	1	286	0	8	0	1	0	0	0	0	0	0	19	11	20	33	87	87	30	9	1	0	0	0	0	34.8	27.3	8.3
1800 - 1900	296	69	70	73	84	0	13	273	1	7	0	1	0	1	0	0	0	0	1	2	11	60	98	81	39	4	0	0	0	0	0	34.9	28.8	5.6
1900 - 2000	255	64	75	58	58	1	6	234	1	10	0	1	0	0	0	2	0	0	0	0	9	42	100	76	24	3	1	0	0	0	0	34.1	29.1	5.1
2000 - 2100	154	39	37	48	30	1	1	148	2	1	1	0	0	0	0	0	0	0	0	2	3	23	40	56	27	1	2	0	0	0	0	36.1	30.4	5.9
2100 - 2200	93	30	29	20	14	0	0	88	0	5	0	0	0	0	0	0	0	0	0	0	0	3	24	35	20	10	1	0	0	0	0	38.7	33.1	5.3
2200 - 2300	46	11	13	9	13	0	1	44	0	1	0	0	0	0	0	0	0	0	0	0	0	4	12	9	11	7	3	0	0	0	0	43.2	34.1	7.3
2300 - 0000	26	12	6	3	5	0	0	24	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2	14	4	3	1	0	0	0	0	40.6	33.7	5.5
0700 - 1900	**3300**	**767**	**825**	**843**	**865**	**12**	**23**	**3070**	**15**	**159**	**6**	**6**	**1**	**5**	**0**	**3**	**0**	**0**	**22**	**27**	**79**	**354**	**1103**	**1187**	**429**	**84**	**15**	**0**	**0**	**0**	**0**	**35.1**	**30**	**5.6**
0600 - 2200	**3979**	**933**	**1014**	**1011**	**1021**	**16**	**33**	**3700**	**18**	**187**	**7**	**7**	**1**	**5**	**0**	**5**	**0**	**0**	**22**	**29**	**94**	**424**	**1293**	**1401**	**560**	**127**	**29**	**0**	**0**	**0**	**0**	**35.7**	**30.3**	**5.7**
0600 - 0000	**4051**	**956**	**1033**	**1023**	**1039**	**16**	**34**	**3768**	**18**	**190**	**7**	**7**	**1**	**5**	**0**	**5**	**0**	**0**	**22**	**29**	**94**	**430**	**1307**	**1424**	**575**	**137**	**33**	**0**	**0**	**0**	**0**	**35.8**	**30.4**	**5.7**
0000 - 0000	**4196**	**983**	**1072**	**1063**	**1078**	**16**	**34**	**3902**	**18**	**201**	**7**	**7**	**1**	**5**	**0**	**5**	**0**	**0**	**22**	**29**	**94**	**435**	**1336**	**1463**	**608**	**162**	**44**	**2**	**1**	**0**	**0**	**36.1**	**30.6**	**5.9**

Virtual Day (7)

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	20	5	6	4	4	0	0	19	0	1	0	0	0	0	0	0	0	0	0	0	0	1	5	6	4	2	1	0	0	0	0	41.1	34	6.7
0100 - 0200	16	4	3	4	4	0	0	15	0	1	0	0	0	0	0	0	0	0	0	0	0	1	4	5	2	2	1	0	0	0	0	41.6	33.3	7.5
0200 - 0300	17	5	5	4	3	0	0	16	0	1	0	0	0	0	0	0	0	0	0	0	0	1	4	5	4	2	0	0	0	0	0	41.6	34.3	7.2
0300 - 0400	9	2	2	2	3	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	1	1	0	0	0	0	-	37.1	7.3
0400 - 0500	22	4	5	5	8	0	0	19	0	3	0	0	0	0	0	0	0	0	0	0	0	1	4	6	4	4	2	1	0	0	0	44	35.6	8.1
0500 - 0600	76	12	22	27	16	1	0	71	0	3	0	0	0	0	0	0	0	0	0	1	0	3	14	20	21	12	4	1	0	0	0	42.4	35.1	7.1
0600 - 0700	139	22	37	39	41	3	2	127	0	7	0	0	0	0	0	0	0	0	0	1	2	3	20	41	42	19	8	2	0	0	0	41.8	35.2	6.6
0700 - 0800	294	60	74	82	78	3	1	269	2	17	0	1	0	0	0	1	0	0	1	2	8	28	86	108	48	10	2	1	0	0	0	36.2	30.8	5.8
0800 - 0900	307	76	67	76	88	2	2	283	1	17	0	1	0	0	0	0	0	0	1	7	12	39	110	97	34	6	1	0	0	0	0	34.6	29.1	5.8
0900 - 1000	264	72	65	63	64	1	3	238	2	18	1	1	0	0	0	0	0	0	0	4	9	35	88	89	32	6	1	0	0	0	0	35	29.6	5.6
1000 - 1100	231	65	56	56	54	2	3	207	1	15	1	1	0	0	0	1	0	0	0	2	7	31	84	75	24	6	0	0	0	0	0	34.6	29.5	5.4
1100 - 1200	235	57	57	55	67	2	4	213	1	13	1	1	0	0	0	1	0	0	0	3	10	31	77	81	27	5	1	0	0	0	0	34.8	29.6	5.7
1200 - 1300	244	55	65	57	68	2	2	225	1	11	0	1	0	0	0	1	0	0	1	3	8	27	84	85	30	5	1	0	0	0	0	35	29.9	6
1300 - 1400	252	61	59	62	70	2	2	235	1	11	1	1	0	0	0	0	0	0	0	3	8	32	85	87	30	7	1	0	0	0	0	35	29.9	5.9
1400 - 1500	254	66	61	62	66	1	3	235	2	11	0	1	0	0	0	0	0	0	1	3	10	32	86	87	28	5	1	0	0	0	0	34.6	29.4	5.7
1500 - 1600	272	61	65	79	68	1	1	254	1	13	1	0	0	0	0	1	0	0	9	4	13	35	97	81	28	4	1	0	0	0	0	34.4	28.3	6.8
1600 - 1700	291	71	71	74	75	2	1	274	1	11	1	0	0	0	0	1	0	0	4	5	10	31	92	104	39	5	1	0	0	0	0	35.2	29.6	6.1
1700 - 1800	289	69	75	72	73	3	3	271	2	9	1	1	0	0	0	0	0	0	3	4	12	37	101	91	34	5	1	1	0	0	0	34.8	29.1	6.1
1800 - 1900	257	64	65	67	62	2	3	243	1	6	0	0	0	0	0	0	0	0	0	1	7	25	81	93	37	11	2	0	0	0	0	36	30.7	5.6
1900 - 2000	203	55	56	51	42	1	4	190	1	6	0	1	0	0	0	0	0	0	0	1	4	24	64	67	33	7	1	0	0	0	0	36.1	30.6	5.8
2000 - 2100	128	38	32	31	26	0	2	121	1	3	0	0	0	0	0	0	0	0	0	0	1	11	39	49	19	6	2	0	0	0	0	36.5	31.3	5.3
2100 - 2200	95	25	26	25	20	0	0	91	0	3	0	0	0	0	0	0	0	0	0	0	1	7	25	36	17	6	1	1	0	0	0	37.4	32.2	5.7
2200 - 2300	62	18	15	13	16	0	0	61	0	0	0	0	0	0	0	0	0	0	0	0	1	4	19	21	12	5	1	0	0	0	0	38.4	32.3	6
2300 - 0000	35	12	8	8	8	0	0	35	0	1	0	0	0	0	0	0	0	0	0	0	0	2	8	14	5	4	1	0	0	0	0	40.1	33.3	5.9
0700 - 1900	**3191**	**775**	**781**	**805**	**831**	**24**	**30**	**2946**	**15**	**153**	**7**	**9**	**1**	**2**	**0**	**5**	**0**	**0**	**19**	**42**	**114**	**384**	**1071**	**1077**	**392**	**76**	**12**	**3**	**0**	**0**	**0**	**35**	**29.6**	**5.9**
0600 - 2200	**3756**	**916**	**931**	**951**	**959**	**28**	**38**	**3475**	**17**	**172**	**7**	**10**	**1**	**2**	**0**	**5**	**0**	**0**	**20**	**44**	**123**	**429**	**1219**	**1272**	**504**	**114**	**24**	**5**	**1**	**0**	**1**	**35.5**	**30**	**6**
0600 - 0000	**3854**	**945**	**954**	**973**	**982**	**28**	**39**	**3571**	**17**	**173**	**7**	**10**	**1**	**2**	**0**	**5**	**0**	**0**	**20**	**44**	**124**	**435**	**1245**	**1307**	**522**	**122**	**27**	**6**	**1**	**0**	**1**	**35.6**	**30.1**	**6**
0000 - 0000	**4013**	**977**	**997**	**1019**	**1021**	**28**	**39**	**3720**	**17**	**183**	**7**	**10**	**1**	**2**	**0**	**5**	**0**	**0**	**20**	**45**	**125**	**442**	**1278**	**1351**	**559**	**146**	**36**	**9**	**2**	**0**	**1**	**35.8**	**30.2**	**6.2**

Virtual Week (1)

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
Mon	3934	993	956	1034	951	21	32	3639	20	199	3	7	3	3	1	6	0	0	3	21	90	338	1178	1430	664	175	25	8	2	0	0	36.5	31.1	5.6
Tue	4232	1001	1062	1088	1081	36	69	3872	20	199	14	7	3	3	0	9	0	0	33	60	120	426	1264	1468	637	163	45	11	3	1	1	36.2	30.5	6.5
Wed	4196	983	1072	1063	1078	16	34	3902	18	201	7	7	1	5	0	5	0	0	22	29	94	435	1336	1463	608	162	44	2	1	0	0	36.1	30.6	5.9
Thu	4291	1002	1078	1132	1079	31	54	3897	29	233	15	23	0	1	0	8	0	0	15	120	287	689	1300	1231	473	137	26	12	1	0	0	35	28.7	6.7
Fri	4331	1060	1083	1064	1124	19	21	4027	14	224	4	10	1	2	1	8	0	0	59	28	99	476	1466	1447	552	144	42	13	3	0	2	35.5	30.1	6.4
Sat	3802	934	926	948	994	20	11	3616	12	132	2	8	0	1	0	0	0	0	7	29	107	408	1253	1304	527	121	35	8	1	1	1	35.7	30.4	5.8
Sun	3306	863	800	806	837	56	52	3084	7	93	4	7	0	2	1	0	0	0	0	30	77	324	1146	1115	450	117	34	8	3	1	1	35.8	30.6	5.9

Derby, City of Derby

Report Id 237/18
Site Name Site 3 of 4
Description B5008 Repton Road, 20m south of Beech Avenue
Direction Northbound

Thursday 26 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	16	6	6	4	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	2	6	3	0	0	0	0	0	42.5	34.4	6.4
0100 - 0200	12	6	0	4	2	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	5	1	0	0	0	0	0	0	33	29.5	4.1
0200 - 0300	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	-	42.3	-
0300 - 0400	5	1	2	0	2	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	1	0	0	0	0	0	-	32.6	5.9
0400 - 0500	15	1	3	4	7	0	1	12	0	2	0	0	0	0	0	0	0	0	0	0	0	1	2	5	3	2	2	0	0	0	0	44.8	35.3	6.8
0500 - 0600	128	20	38	39	31	0	1	122	0	5	0	0	0	0	0	0	0	0	1	1	2	5	45	54	15	4	0	1	0	0	0	35.2	30.9	5.4
0600 - 0700	400	53	81	121	145	0	2	383	2	13	0	0	0	0	0	0	0	0	0	2	23	35	198	112	24	6	0	0	0	0	0	32.9	28.9	4.7
0700 - 0800	725	166	188	181	190	0	4	673	11	30	1	5	1	0	0	0	0	0	103	140	93	173	199	17	0	0	0	0	0	0	0	27	19.4	7.1
0800 - 0900	661	184	183	149	145	0	0	623	9	23	0	2	4	0	0	0	0	0	245	227	93	53	37	6	0	0	0	0	0	0	0	19.8	13.3	5.9
0900 - 1000	469	121	129	105	114	0	0	440	3	24	1	1	0	0	0	0	0	0	9	32	98	155	152	22	1	0	0	0	0	0	0	27.9	22.6	5.4
1000 - 1100	403	100	99	106	98	0	1	367	6	28	0	0	1	0	0	0	0	0	4	23	53	148	137	35	3	0	0	0	0	0	0	28.5	23.9	5.1
1100 - 1200	458	111	109	134	104	0	4	420	5	24	1	1	1	2	0	0	0	0	8	25	71	182	149	23	0	0	0	0	0	0	0	27.5	22.9	5
1200 - 1300	429	89	104	136	100	1	5	380	9	33	0	0	0	0	1	0	0	0	11	30	49	166	148	23	2	0	0	0	0	0	0	27.8	23.1	5.3
1300 - 1400	427	114	108	118	87	0	2	394	1	28	1	1	0	0	0	0	0	0	6	46	75	171	110	17	2	0	0	0	0	0	0	26.5	22	5.3
1400 - 1500	459	115	130	104	110	0	5	421	6	22	3	2	0	0	0	0	0	0	4	25	57	159	183	29	2	0	0	0	0	0	0	28	23.7	4.8
1500 - 1600	522	104	114	154	150	0	2	474	7	36	1	1	0	1	0	0	0	0	36	83	116	166	101	18	1	0	1	0	0	0	0	26.5	20.1	6.4
1600 - 1700	577	150	140	143	144	0	0	541	11	19	0	4	1	0	0	1	0	0	148	195	74	95	51	11	1	0	1	0	0	0	1	23.7	15.4	6.8
1700 - 1800	641	150	158	148	185	0	0	600	16	10	4	8	1	0	0	1	1	0	294	276	42	20	6	1	0	0	0	0	2	0	0	14.1	11.3	4.6
1800 - 1900	550	134	158	114	144	0	0	527	4	14	1	3	0	1	0	0	0	0	58	140	85	115	138	13	1	0	0	0	0	0	0	26.7	19	6.9
1900 - 2000	379	110	99	84	86	0	5	359	2	11	0	1	0	1	0	0	0	0	3	5	30	83	204	51	3	0	0	0	0	0	0	29.9	25.9	4.4
2000 - 2100	244	62	61	66	55	0	1	232	0	10	0	1	0	0	0	0	0	0	0	0	12	86	124	19	3	0	0	0	0	0	0	29.2	26.1	3.6
2100 - 2200	237	94	55	46	42	0	2	231	1	3	0	0	0	0	0	0	0	0	0	0	4	73	121	32	6	1	0	0	0	0	0	30.4	26.6	3.7
2200 - 2300	120	41	42	26	11	0	0	118	0	1	1	0	0	0	0	0	0	0	0	3	4	14	76	20	3	0	0	0	0	0	0	30.7	27.2	4.1
2300 - 0000	77	26	19	21	11	0	2	71	0	4	0	0	0	0	0	0	0	0	0	0	0	11	38	21	4	0	3	0	0	0	0	33.7	29.5	5.3
0700 - 1900	**6321**	**1538**	**1620**	**1592**	**1571**	**1**	**23**	**5860**	**88**	**291**	**13**	**28**	**9**	**4**	**1**	**2**	**1**	**0**	**926**	**1242**	**906**	**1603**	**1411**	**215**	**13**	**0**	**2**	**0**	**2**	**0**	**1**	**26.7**	**19.1**	**7.2**
0600 - 2200	**7581**	**1857**	**1916**	**1909**	**1899**	**1**	**33**	**7065**	**93**	**328**	**13**	**30**	**9**	**5**	**1**	**2**	**1**	**0**	**929**	**1249**	**975**	**1880**	**2058**	**429**	**49**	**7**	**2**	**0**	**2**	**0**	**1**	**27.8**	**20.4**	**7.4**
0600 - 0000	**7778**	**1924**	**1977**	**1956**	**1921**	**1**	**35**	**7254**	**93**	**333**	**14**	**30**	**9**	**5**	**1**	**2**	**1**	**0**	**929**	**1252**	**979**	**1905**	**2172**	**470**	**56**	**7**	**5**	**0**	**2**	**0**	**1**	**28**	**20.6**	**7.5**
0000 - 0000	**7955**	**1958**	**2027**	**2007**	**1963**	**1**	**37**	**7421**	**93**	**341**	**14**	**30**	**9**	**5**	**1**	**2**	**1**	**0**	**930**	**1253**	**981**	**1913**	**2231**	**536**	**82**	**18**	**7**	**1**	**2**	**0**	**1**	**28.2**	**20.9**	**7.6**

Friday 27 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	30	8	7	4	11	0	0	28	0	2	0	0	0	0	0	0	0	0	0	1	0	2	11	9	3	3	1	0	0	0	0	38.7	31.3	6.5
0100 - 0200	6	3	0	1	2	0	0	5	0	1	0	0	0	0	0	0	0	0	0	0	1	0	3	0	2	0	0	0	0	0	0	-	29.7	7.8
0200 - 0300	7	4	2	1	0	0	0	5	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	2	1	0	0	0	0	-	37.9	6.1
0300 - 0400	6	0	1	1	4	0	0	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	-	33.4	4.7
0400 - 0500	20	2	4	6	8	0	1	18	0	1	0	0	0	0	0	0	0	0	0	0	0	3	5	6	4	2	0	0	0	0	0	37	31.3	6
0500 - 0600	106	14	31	32	29	0	2	97	0	5	2	0	0	0	0	0	0	0	0	3	1	2	31	55	12	1	1	0	0	0	0	34.8	30.9	5
0600 - 0700	351	38	89	107	117	0	0	338	0	12	1	0	0	0	0	0	0	0	0	0	4	45	185	101	11	4	1	0	0	0	0	32.1	28.8	3.8
0700 - 0800	711	170	152	189	200	1	1	658	11	30	3	3	0	3	0	1	0	0	111	177	137	139	126	20	0	1	0	0	0	0	0	26.4	18	7
0800 - 0900	616	147	169	158	142	0	1	570	11	26	2	4	0	1	1	0	0	0	191	158	97	111	48	8	0	1	0	1	1	0	0	23.5	15.2	7.1
0900 - 1000	476	127	106	133	110	0	1	435	9	29	0	0	1	1	0	0	0	0	55	56	92	150	108	15	0	0	0	0	0	0	0	26.7	20.1	6.5
1000 - 1100	468	140	111	114	103	0	0	419	5	39	3	1	0	1	0	0	0	0	7	40	64	176	160	16	2	0	1	0	0	0	2	27.6	23.1	6.3
1100 - 1200	488	103	138	134	113	0	1	445	4	38	0	0	0	0	0	0	0	0	11	42	58	176	179	21	0	0	0	0	0	1	0	27.6	23.1	5.5
1200 - 1300	474	118	108	150	98	0	0	438	5	27	1	2	0	1	0	0	0	0	1	29	95	156	168	23	2	0	0	0	0	0	0	27.9	23.2	4.8
1300 - 1400	489	117	120	134	118	0	0	452	6	28	0	1	0	1	0	1	0	0	1	15	39	220	190	24	0	0	0	0	0	0	0	27.7	24.1	4
1400 - 1500	581	134	142	165	140	0	3	526	5	39	1	6	0	1	0	0	0	0	57	73	110	208	118	12	3	0	0	0	0	0	0	26.3	20.1	6.3
1500 - 1600	544	128	141	138	137	1	1	498	7	30	2	3	1	1	0	0	0	0	191	151	89	84	28	1	0	0	0	0	0	0	0	21.5	13.9	6
1600 - 1700	653	167	139	164	183	0	1	606	12	23	2	8	1	0	0	0	0	0	284	256	66	35	11	1	0	0	0	0	0	0	0	15.8	11.6	4.5
1700 - 1800	754	165	193	209	187	0	3	713	10	23	3	2	0	0	0	0	0	0	87	252	163	175	75	1	1	0	0	0	0	0	0	23.8	16.9	5.9
1800 - 1900	502	144	157	102	99	0	0	473	6	20	1	1	1	0	0	0	0	0	60	48	39	171	164	17	2	1	0	0	0	0	0	27.6	21.5	6.9
1900 - 2000	321	96	100	71	54	0	0	312	1	7	0	0	0	0	0	1	0	0	1	3	20	113	149	27	6	1	1	0	0	0	0	29.3	25.5	4.4
2000 - 2100	226	64	53	52	57	0	0	221	0	4	1	0	0	0	0	0	0	0	0	0	5	66	119	33	1	0	1	1	0	0	0	30.2	26.7	4
2100 - 2200	207	87	47	43	30	0	1	202	1	3	0	0	0	0	0	0	0	0	0	4	10	71	93	25	3	0	0	1	0	0	0	29.9	25.8	4.6
2200 - 2300	118	41	35	18	24	0	0	115	0	2	0	0	1	0	0	0	0	0	0	0	1	20	52	33	11	0	1	0	0	0	0	33.7	29	4.5
2300 - 0000	97	20	26	23	28	0	2	90	1	4	0	0	0	0	0	0	0	0	0	0	1	11	57	22	6	0	0	0	0	0	0	32.1	28.5	3.7
0700 - 1900	**6756**	**1660**	**1676**	**1790**	**1630**	**2**	**12**	**6233**	**91**	**352**	**18**	**31**	**4**	**10**	**1**	**2**	**0**	**0**	**1056**	**1297**	**1049**	**1801**	**1375**	**159**	**10**	**3**	**1**	**1**	**1**	**1**	**2**	**26.4**	**18.8**	**7.2**
0600 - 2200	**7861**	**1945**	**1965**	**2063**	**1888**	**2**	**13**	**7306**	**93**	**378**	**20**	**31**	**4**	**10**	**1**	**3**	**0**	**0**	**1057**	**1304**	**1088**	**2096**	**1921**	**345**	**31**	**8**	**4**	**3**	**1**	**1**	**2**	**27.3**	**19.9**	**7.4**
0600 - 0000	**8076**	**2006**	**2026**	**2104**	**1940**	**2**	**15**	**7511**	**94**	**384**	**20**	**31**	**5**	**10**	**1**	**3**	**0**	**0**	**1057**	**1304**	**1090**	**2127**	**2030**	**400**	**48**	**8**	**5**	**3**	**1**	**1**	**2**	**27.5**	**20.1**	**7.5**
0000 - 0000	**8251**	**2037**	**2071**	**2149**	**1994**	**2**	**18**	**7669**	**94**	**396**	**22**	**31**	**5**	**10**	**1**	**3**	**0**	**0**	**1057**	**1308**	**1092**	**2134**	**2081**	**475**	**73**	**16**	**8**	**3**	**1**	**1**	**2**	**27.8**	**20.4**	**7.6**

Saturday 28 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	56	18	14	14	10	0	1	55	0	0	0	0	0	0	0	0	0	0	0	1	0	3	31	14	3	2	1	0	0	0	1	34.5	30.5	7.3
0100 - 0200	21	7	3	5	6	0	0	19	0	2	0	0	0	0	0	0	0	0	0	0	0	3	4	6	5	2	1	0	0	0	0	41.1	32.9	6.4
0200 - 0300	14	5	3	3	3	0	0	12	0	2	0	0	0	0	0	0	0	0	0	0	0	2	6	2	3	1	0	0	0	0	0	38.7	30.6	5.8
0300 - 0400	8	3	2	0	3	0	0	7	0	1	0	0	0	0	0	0	0	0	0	0	0	2	4	2	0	0	0	0	0	0	0	-	27.8	4
0400 - 0500	13	6	3	2	2	0	1	10	0	2	0	0	0	0	0	0	0	0	0	0	1	0	4	4	1	2	1	0	0	0	0	43.2	33.4	7.6
0500 - 0600	65	10	16	24	15	0	0	64	0	1	0	0	0	0	0	0	0	0	0	0	0	4	20	28	11	2	0	0	0	0	0	36	31.6	4.4
0600 - 0700	97	22	20	29	26	0	0	91	0	5	0	1	0	0	0	0	0	0	0	0	2	6	30	42	11	5	1	0	0	0	0	35.9	31.3	5.2
0700 - 0800	198	42	48	51	57	0	1	180	2	15	0	0	0	0	0	0	0	0	0	0	3	30	96	60	8	1	0	0	0	0	0	32	28.5	3.7
0800 - 0900	385	67	104	100	114	0	3	367	3	12	0	0	0	0	0	0	0	0	0	2	19	86	208	65	4	0	0	1	0	0	0	30.3	26.7	4
0900 - 1000	486	102	137	122	125	0	1	472	2	10	0	0	1	0	0	0	0	0	33	41	52	150	182	27	1	0	0	0	0	0	0	27.8	22.5	6.2
1000 - 1100	526	129	133	129	135	0	0	498	8	16	1	0	0	1	0	1	1	0	26	63	67	224	135	10	0	1	0	0	0	0	0	26.8	21.6	5.7
1100 - 1200	570	149	131	159	131	0	0	550	3	13	3	0	0	1	0	0	0	0	19	67	137	228	111	8	0	0	0	0	0	0	0	25.6	20.8	5.1
1200 - 1300	633	139	158	147	189	1	0	600	6	23	0	0	1	2	0	0	0	0	90	97	112	201	119	13	1	0	0	0	0	0	0	26.1	19.1	6.6
1300 - 1400	542	139	139	136	128	1	0	526	3	8	0	4	0	0	0	0	0	0	43	89	90	190	121	8	1	0	0	0	0	0	0	26.2	20.1	6.1
1400 - 1500	443	132	109	112	90	1	4	418	4	15	0	1	0	0	0	0	0	0	12	32	29	175	165	29	1	0	0	0	0	0	0	28.3	23.6	5.1
1500 - 1600	439	111	101	124	103	0	0	422	2	15	0	0	0	0	0	0	0	0	25	30	47	148	164	25	0	0	0	0	0	0	0	28.4	23	6
1600 - 1700	355	81	92	91	91	0	1	336	4	12	0	1	1	0	0	0	0	0	7	16	26	108	171	26	1	0	0	0	0	0	0	28.6	24.6	4.9
1700 - 1800	454	122	115	108	109	0	2	435	4	11	0	2	0	0	0	0	0	0	4	26	56	153	192	21	1	1	0	0	0	0	0	28.5	24	5
1800 - 1900	358	87	115	76	80	0	0	346	5	7	0	0	0	0	0	0	0	0	15	16	37	104	143	37	5	0	0	1	0	0	0	29.4	24.3	6.1
1900 - 2000	254	87	69	64	34	0	0	248	1	5	0	0	0	0	0	0	0	0	0	0	9	77	129	35	3	1	0	0	0	0	0	30.1	26.5	3.7
2000 - 2100	106	0	20	42	44	0	0	100	1	5	0	0	0	0	0	0	0	0	0	0	4	27	65	8	2	0	0	0	0	0	0	29.3	26.5	3.6
2100 - 2200	156	38	39	39	40	0	0	149	3	4	0	0	0	0	0	0	0	0	0	0	6	35	89	22	2	1	0	0	0	0	1	30.7	27.3	7.7
2200 - 2300	137	32	32	34	39	0	0	133	0	4	0	0	0	0	0	0	0	0	0	0	5	31	69	24	7	1	0	0	0	0	0	31.7	27.5	4.3
2300 - 0000	88	21	29	20	18	0	0	84	0	4	0	0	0	0	0	0	0	0	0	0	0	12	46	25	4	1	0	0	0	0	0	31.8	28.9	3.5
0700 - 1900	**5389**	**1300**	**1382**	**1355**	**1352**	**3**	**12**	**5150**	**46**	**157**	**4**	**8**	**3**	**4**	**0**	**1**	**1**	**0**	**274**	**479**	**675**	**1797**	**1807**	**329**	**23**	**3**	**0**	**2**	**0**	**0**	**0**	**28.2**	**22.6**	**6.1**
0600 - 2200	**6002**	**1447**	**1530**	**1529**	**1496**	**3**	**12**	**5738**	**51**	**176**	**4**	**9**	**3**	**4**	**0**	**1**	**1**	**0**	**274**	**479**	**696**	**1942**	**2120**	**436**	**41**	**10**	**1**	**2**	**0**	**0**	**1**	**28.6**	**23.1**	**6.2**
0600 - 0000	**6227**	**1500**	**1591**	**1583**	**1553**	**3**	**12**	**5955**	**51**	**184**	**4**	**9**	**3**	**4**	**0**	**1**	**1**	**0**	**274**	**479**	**701**	**1985**	**2235**	**485**	**52**	**12**	**1**	**2**	**0**	**0**	**1**	**28.7**	**23.3**	**6.2**
0000 - 0000	**6404**	**1549**	**1632**	**1631**	**1592**	**3**	**14**	**6122**	**51**	**192**	**4**	**9**	**3**	**4**	**0**	**1**	**1**	**0**	**274**	**480**	**702**	**1999**	**2304**	**541**	**75**	**21**	**4**	**2**	**0**	**0**	**2**	**28.9**	**23.5**	**6.3**

Sunday 29 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	56	11	20	12	13	0	2	52	0	1	0	0	1	0	0	0	0	0	0	1	2	3	31	9	6	2	2	0	0	0	0	35.3	29.8	6.6
0100 - 0200	23	7	5	6	5	0	0	22	0	1	0	0	0	0	0	0	0	0	0	0	0	0	11	6	3	2	0	1	0	0	0	38	32.1	6.1
0200 - 0300	17	9	2	3	3	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	7	2	0	2	0	0	0	0	40.7	32.3	7.2
0300 - 0400	15	7	3	3	2	0	0	14	0	1	0	0	0	0	0	0	0	0	0	0	0	3	4	4	2	2	0	0	0	0	0	40.6	31.5	6.5
0400 - 0500	14	5	2	3	4	0	1	13	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	4	3	2	0	0	0	0	0	42.1	32.8	6.2
0500 - 0600	36	6	11	10	9	0	0	34	0	2	0	0	0	0	0	0	0	0	0	0	0	1	6	15	5	4	5	0	0	0	0	43.8	35.3	6.5
0600 - 0700	76	7	16	29	24	0	2	72	1	1	0	0	0	0	0	0	0	0	0	0	3	5	17	31	17	2	1	0	0	0	0	37	31.9	5.2
0700 - 0800	104	31	17	27	29	1	3	97	0	3	0	0	0	0	0	0	0	0	0	0	6	16	45	26	10	0	0	1	0	0	0	33.8	28.6	5.1
0800 - 0900	169	34	41	49	45	1	2	161	0	5	0	0	0	0	0	0	0	0	0	4	10	24	74	48	7	2	0	0	0	0	0	33	28.1	5.2
0900 - 1000	380	88	77	108	107	0	3	356	5	14	0	2	0	0	0	0	0	0	0	3	21	139	177	37	3	0	0	0	0	0	0	29.2	25.6	3.6
1000 - 1100	403	92	109	99	103	0	0	392	1	10	0	0	0	0	0	0	0	0	1	13	54	134	167	30	2	1	1	0	0	0	0	28.9	24.5	4.7
1100 - 1200	425	107	110	104	104	3	1	409	3	6	1	1	0	0	1	0	0	0	20	95	95	105	94	16	0	0	0	0	0	0	0	26.7	19.9	6.2
1200 - 1300	413	112	97	116	88	1	3	398	2	5	2	1	0	0	0	1	0	0	27	122	117	87	51	8	0	1	0	0	0	0	0	24.9	18	5.9
1300 - 1400	455	122	130	109	94	1	1	432	5	12	0	3	1	0	0	0	0	0	49	96	94	89	105	21	1	0	0	0	0	0	0	27.1	19.5	7
1400 - 1500	411	120	94	101	96	0	2	397	3	5	1	2	1	0	0	0	0	0	14	55	97	119	111	15	0	0	0	0	0	0	0	27.1	21.1	5.8
1500 - 1600	403	79	95	117	112	0	1	380	5	14	0	2	0	0	0	1	0	0	4	65	78	124	115	15	1	1	0	0	0	0	0	27.3	21.6	5.9
1600 - 1700	367	95	90	94	88	0	0	357	2	7	0	0	1	0	0	0	0	0	3	12	24	127	174	27	0	0	0	0	0	0	0	28.8	24.9	4.4
1700 - 1800	364	80	89	109	86	0	1	352	4	6	1	0	0	0	0	0	0	0	1	6	48	145	138	25	1	0	0	0	0	0	0	27.8	24	4.1
1800 - 1900	308	84	74	71	79	0	2	300	2	4	0	0	0	0	0	0	0	0	1	10	23	99	141	32	2	0	0	0	0	0	0	29.5	25.2	4.6
1900 - 2000	302	79	85	72	66	0	0	293	1	8	0	0	0	0	0	0	0	0	0	4	8	76	166	44	3	1	0	0	0	0	0	30.1	26.6	3.9
2000 - 2100	186	54	53	47	32	0	1	181	0	4	0	0	0	0	0	0	0	0	0	0	2	39	107	33	5	0	0	0	0	0	0	30.6	27.5	3.2
2100 - 2200	137	38	39	28	32	0	1	133	1	2	0	0	0	0	0	0	0	0	1	0	2	30	74	22	7	1	0	0	0	0	0	31.8	27.8	4.3
2200 - 2300	64	28	10	11	15	0	0	63	0	1	0	0	0	0	0	0	0	0	0	0	1	1	26	21	10	2	2	0	0	0	1	37.1	32.1	6.8
2300 - 0000	37	14	10	7	6	0	1	35	0	1	0	0	0	0	0	0	0	0	0	0	0	3	14	11	8	0	1	0	0	0	0	35.7	31.4	5.2
0700 - 1900	**4202**	**1044**	**1023**	**1104**	**1031**	**7**	**19**	**4031**	**32**	**91**	**5**	**11**	**3**	**0**	**1**	**2**	**0**	**0**	**120**	**481**	**667**	**1208**	**1392**	**300**	**27**	**5**	**1**	**1**	**0**	**0**	**0**	**28.5**	**22.6**	**6.1**
0600 - 2200	**4903**	**1222**	**1216**	**1280**	**1185**	**7**	**23**	**4710**	**35**	**106**	**5**	**11**	**3**	**0**	**1**	**2**	**0**	**0**	**121**	**485**	**682**	**1358**	**1756**	**430**	**59**	**9**	**2**	**1**	**0**	**0**	**0**	**29**	**23.3**	**6.2**
0600 - 0000	**5004**	**1264**	**1236**	**1298**	**1206**	**7**	**24**	**4808**	**35**	**108**	**5**	**11**	**3**	**0**	**1**	**2**	**0**	**0**	**121**	**485**	**683**	**1362**	**1796**	**462**	**77**	**11**	**5**	**1**	**0**	**0**	**1**	**29.2**	**23.5**	**6.3**
0000 - 0000	**5165**	**1309**	**1279**	**1335**	**1242**	**7**	**27**	**4960**	**35**	**113**	**5**	**11**	**4**	**0**	**1**	**2**	**0**	**0**	**121**	**486**	**685**	**1373**	**1855**	**507**	**98**	**23**	**14**	**2**	**0**	**0**	**1**	**29.5**	**23.8**	**6.5**

Monday 30 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	12	2	7	3	0	0	0	11	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	6	1	0	1	0	0	0	0	37.4	32.5	5.6
0100 - 0200	7	1	3	3	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	2	1	1	0	0	0	0	-	35.1	8.2
0200 - 0300	7	2	2	1	2	0	0	6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	0	1	0	0	0	0	-	35.3	6.6
0300 - 0400	8	2	1	2	3	0	0	6	0	2	0	0	0	0	0	0	0	0	0	0	2	0	5	1	0	0	0	0	0	0	0	-	26.9	4.8
0400 - 0500	23	2	2	8	11	0	2	19	0	2	0	0	0	0	0	0	0	0	0	0	0	1	3	8	10	1	0	0	0	0	0	38	33.7	3.9
0500 - 0600	116	15	35	40	26	0	2	109	0	5	0	0	0	0	0	0	0	0	0	2	1	1	46	43	18	4	0	1	0	0	0	36.1	31.4	5.2
0600 - 0700	436	63	90	115	168	0	1	414	1	17	1	1	0	1	0	0	0	0	0	1	5	65	227	119	18	1	0	0	0	0	0	31.7	28.5	3.6
0700 - 0800	739	170	172	180	217	0	2	692	9	26	2	5	1	1	0	1	0	0	175	175	95	127	150	17	0	0	0	0	0	0	0	26.3	17.2	7.5
0800 - 0900	693	181	167	189	156	0	1	646	9	21	4	8	0	0	0	3	1	0	131	168	147	167	70	10	0	0	0	0	0	0	0	24.2	16.9	6.5
0900 - 1000	442	131	112	96	103	1	1	398	4	33	1	2	0	2	0	0	0	0	2	18	86	157	162	15	2	0	0	0	0	0	0	27.9	23.3	4.6
1000 - 1100	422	112	86	111	113	0	2	377	3	37	1	1	0	0	0	1	0	0	3	6	51	168	168	25	1	0	0	0	0	0	0	28.2	24.2	4.1
1100 - 1200	420	112	92	124	92	0	2	389	1	27	0	0	0	1	0	0	0	0	15	14	43	131	187	28	2	0	0	0	0	0	0	28.4	24	5.3
1200 - 1300	437	105	125	113	94	0	3	401	3	27	1	2	0	0	0	0	0	0	10	29	45	134	185	30	4	0	0	0	0	0	0	28.4	23.9	5.3
1300 - 1400	449	111	106	127	105	1	0	408	6	31	1	1	0	1	0	0	0	0	6	21	59	176	164	23	0	0	0	0	0	0	0	28	23.3	4.8
1400 - 1500	444	95	128	114	107	0	0	413	5	22	2	1	0	1	0	0	0	0	1	25	24	166	194	33	1	0	0	0	0	0	0	28.4	24.6	4.4
1500 - 1600	457	103	95	134	125	0	1	423	4	28	0	1	0	0	0	0	0	0	11	31	69	193	135	13	2	0	2	1	0	0	0	27.5	22.7	5.4
1600 - 1700	631	171	156	168	136	0	2	592	3	27	2	5	0	0	0	0	0	0	112	146	100	187	75	7	2	0	2	0	0	0	0	24.7	17.6	6.8
1700 - 1800	692	174	167	189	162	0	2	660	8	16	2	3	0	1	0	0	0	0	197	201	127	94	66	5	1	1	0	0	0	0	0	23.2	15	6.5
1800 - 1900	437	118	136	93	90	0	1	420	2	11	0	2	0	1	0	0	0	0	0	45	58	139	158	36	1	0	0	0	0	0	0	28.5	23.4	5.3
1900 - 2000	299	88	90	58	63	0	2	285	5	6	0	1	0	0	0	0	0	0	0	3	13	80	155	43	4	0	1	0	0	0	0	30.3	26.5	3.9
2000 - 2100	241	78	68	51	44	0	2	229	1	8	0	0	0	0	1	0	0	0	0	2	10	65	128	33	2	0	1	0	0	0	0	30	26.4	3.8
2100 - 2200	197	89	63	24	21	0	2	190	1	4	0	0	0	0	0	0	0	0	0	0	0	44	121	28	2	2	0	0	0	0	0	30.3	27.2	3.3
2200 - 2300	125	30	52	25	18	0	0	118	1	5	0	0	0	0	1	0	0	0	0	1	1	12	68	30	9	3	1	0	0	0	0	34.1	29.4	4.7
2300 - 0000	60	29	10	16	5	0	2	55	0	3	0	0	0	0	0	0	0	0	0	0	0	6	28	15	5	5	0	1	0	0	0	36.1	30.6	6
0700 - 1900	**6263**	**1583**	**1542**	**1638**	**1500**	**2**	**17**	**5819**	**57**	**306**	**16**	**31**	**1**	**8**	**0**	**5**	**1**	**0**	**663**	**879**	**904**	**1839**	**1714**	**242**	**16**	**1**	**4**	**1**	**0**	**0**	**0**	**27.3**	**20.6**	**6.8**
0600 - 2200	**7436**	**1901**	**1853**	**1886**	**1796**	**2**	**24**	**6937**	**65**	**341**	**17**	**33**	**1**	**9**	**1**	**5**	**1**	**0**	**663**	**885**	**932**	**2093**	**2345**	**465**	**42**	**4**	**6**	**1**	**0**	**0**	**0**	**28.1**	**21.7**	**6.9**
0600 - 0000	**7621**	**1960**	**1915**	**1927**	**1819**	**2**	**26**	**7110**	**66**	**349**	**17**	**33**	**1**	**9**	**2**	**5**	**1**	**0**	**663**	**886**	**933**	**2111**	**2441**	**510**	**56**	**12**	**7**	**2**	**0**	**0**	**0**	**28.3**	**21.9**	**7**
0000 - 0000	**7794**	**1984**	**1965**	**1984**	**1861**	**2**	**30**	**7268**	**66**	**360**	**17**	**33**	**1**	**9**	**2**	**5**	**1**	**0**	**663**	**888**	**936**	**2113**	**2504**	**570**	**89**	**18**	**10**	**3**	**0**	**0**	**0**	**28.5**	**22.1**	**7.1**

Tuesday 01 May 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	20	3	6	4	7	0	1	18	0	1	0	0	0	0	0	0	0	0	0	0	0	2	5	5	7	1	0	0	0	0	0	37.2	32.3	5.2
0100 - 0200	10	4	3	2	1	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	3	1	0	1	0	0	0	0	-	31.3	7.1
0200 - 0300	8	3	2	2	1	0	0	5	0	3	0	0	0	0	0	0	0	0	0	0	1	0	4	2	1	0	0	0	0	0	0	-	29.1	6.2
0300 - 0400	5	2	2	1	0	0	0	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	1	0	0	0	0	0	-	37.8	5.1
0400 - 0500	15	0	4	4	7	0	2	12	0	1	0	0	0	0	0	0	0	0	0	1	1	0	1	4	2	5	0	1	0	0	0	44.2	35.6	10.5
0500 - 0600	125	12	31	36	46	0	2	117	0	6	0	0	0	0	0	0	0	0	0	0	1	7	38	58	17	4	0	0	0	0	0	35.2	31.5	4.3
0600 - 0700	410	40	95	128	147	3	1	375	2	26	0	1	1	1	0	0	0	0	0	0	13	72	185	113	27	0	0	0	0	0	0	32.3	28.4	4.3
0700 - 0800	697	160	175	167	195	0	2	650	13	22	6	3	0	0	0	0	0	1	147	202	98	123	110	16	1	0	0	0	0	0	0	25.6	16.8	7.1
0800 - 0900	688	183	158	183	164	1	0	646	9	27	1	2	2	0	0	0	0	0	265	259	85	42	29	7	0	0	0	1	0	0	0	17.5	12.5	5.9
0900 - 1000	471	131	132	101	107	2	1	429	7	30	0	1	0	1	0	0	0	0	7	25	72	147	185	29	5	0	0	0	0	0	1	28.5	23.8	5.7
1000 - 1100	429	117	114	105	93	0	1	391	3	32	1	0	1	0	0	0	0	0	1	23	42	144	189	29	1	0	0	0	0	0	0	28.8	24.4	4.6
1100 - 1200	423	122	100	96	105	0	4	382	2	33	0	1	0	1	0	0	0	0	24	18	50	158	132	34	6	0	1	0	0	0	0	28.4	23.2	6.3
1200 - 1300	417	102	118	110	87	1	2	384	3	25	1	1	0	0	0	0	0	0	4	11	50	162	166	22	1	0	0	0	0	0	1	28.1	24.1	4.9
1300 - 1400	384	108	97	98	81	0	6	351	2	24	0	1	0	0	0	0	0	0	1	11	36	118	180	34	4	0	0	0	0	0	0	28.9	25.1	4.5
1400 - 1500	428	88	108	129	103	0	3	402	2	17	0	2	0	2	0	0	0	0	3	47	52	129	173	22	1	1	0	0	0	0	0	28.5	23.3	5.6
1500 - 1600	531	133	119	142	137	0	1	474	4	47	1	1	0	2	1	0	0	0	13	33	112	207	136	28	2	0	0	0	0	0	0	27.4	22.3	5.2
1600 - 1700	631	161	147	159	164	0	2	598	8	14	3	4	0	1	0	1	0	0	250	131	78	103	65	2	2	0	0	0	0	0	0	24	14.4	7.3
1700 - 1800	706	197	186	144	179	0	0	677	6	10	5	5	1	1	0	1	0	0	338	233	67	41	25	2	0	0	0	0	0	0	0	16.9	11.9	5.2
1800 - 1900	499	137	129	131	102	0	3	477	2	15	0	1	0	0	0	1	0	0	28	44	87	151	158	30	1	0	0	0	0	0	0	28.1	22.1	6.1
1900 - 2000	363	111	100	79	73	0	6	346	4	7	0	0	0	0	0	0	0	0	2	2	27	115	183	28	4	1	1	0	0	0	0	29	25.6	4.2
2000 - 2100	247	67	61	60	59	0	3	232	2	10	0	0	0	0	0	0	0	0	0	1	2	56	141	40	4	2	1	0	0	0	0	30.6	27.4	3.9
2100 - 2200	241	102	66	37	36	0	2	229	0	10	0	0	0	0	0	0	0	0	0	0	6	92	96	39	6	2	0	0	0	0	0	30.7	26.6	4
2200 - 2300	110	38	32	30	10	0	0	105	0	4	1	0	0	0	0	0	0	0	0	0	0	13	66	25	6	0	0	0	0	0	0	31.8	28.8	3.2
2300 - 0000	51	17	11	11	12	0	3	47	0	1	0	0	0	0	0	0	0	0	0	0	0	1	23	18	5	4	0	0	0	0	0	36.1	30.9	4.7
0700 - 1900	**6304**	**1639**	**1583**	**1565**	**1517**	**4**	**25**	**5861**	**61**	**296**	**18**	**22**	**4**	**8**	**1**	**3**	**0**	**1**	**1081**	**1037**	**829**	**1525**	**1548**	**255**	**24**	**1**	**1**	**1**	**0**	**0**	**2**	**27.2**	**19.3**	**7.7**
0600 - 2200	**7565**	**1959**	**1905**	**1869**	**1832**	**7**	**37**	**7043**	**69**	**349**	**18**	**23**	**5**	**9**	**1**	**3**	**0**	**1**	**1083**	**1040**	**877**	**1860**	**2153**	**475**	**65**	**6**	**3**	**1**	**0**	**0**	**2**	**28.1**	**20.6**	**7.8**
0600 - 0000	**7726**	**2014**	**1948**	**1910**	**1854**	**7**	**40**	**7195**	**69**	**354**	**19**	**23**	**5**	**9**	**1**	**3**	**0**	**1**	**1083**	**1040**	**877**	**1874**	**2242**	**518**	**76**	**10**	**3**	**1**	**0**	**0**	**2**	**28.3**	**20.8**	**7.8**
0000 - 0000	**7909**	**2038**	**1996**	**1959**	**1916**	**7**	**45**	**7361**	**69**	**366**	**19**	**23**	**5**	**9**	**1**	**3**	**0**	**1**	**1083**	**1041**	**880**	**1885**	**2294**	**590**	**107**	**21**	**4**	**2**	**0**	**0**	**2**	**28.6**	**21.1**	**8**

Wednesday 02 May 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	11	5	2	3	1	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	3	1	2	0	0	0	0	45.3	36	7.1
0100 - 0200	5	2	1	1	1	0	0	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	0	0	-	28.4	1.2
0200 - 0300	8	4	1	1	2	0	0	6	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	4	3	1	0	0	0	0	0	-	35.5	4.2
0300 - 0400	8	3	2	1	2	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	3	1	0	0	0	0	0	-	33.7	7.3
0400 - 0500	20	5	5	3	7	0	1	18	0	1	0	0	0	0	0	0	0	0	0	0	0	0	6	4	5	4	0	1	0	0	0	42.6	35.4	6.7
0500 - 0600	126	14	34	47	31	0	1	119	0	4	2	0	0	0	0	0	0	0	0	1	1	1	36	59	24	4	0	0	0	0	0	36.7	32	4.4
0600 - 0700	409	52	85	124	148	0	2	383	1	19	3	1	0	0	0	0	0	0	0	0	4	43	224	121	16	1	0	0	0	0	0	31.8	28.9	3.3
0700 - 0800	721	174	163	201	183	0	2	676	10	21	3	7	1	1	0	0	0	0	160	110	98	126	206	19	2	0	0	0	0	0	0	27.2	18.6	7.9
0800 - 0900	709	195	194	177	143	1	1	662	12	27	4	1	0	0	0	1	0	0	188	170	143	112	85	11	0	0	0	0	0	0	0	24.5	15.8	6.8
0900 - 1000	503	156	120	119	108	0	0	449	9	40	1	2	0	2	0	0	0	0	21	65	75	152	166	21	2	0	0	0	0	0	1	27.4	22	6.4
1000 - 1100	380	113	90	103	74	1	0	342	1	32	2	1	0	1	0	0	0	0	3	4	31	146	172	21	3	0	0	0	0	0	0	28.5	24.9	4
1100 - 1200	421	98	113	111	99	0	1	386	2	29	1	0	0	1	1	0	0	0	1	10	38	185	161	26	0	0	0	0	0	0	0	28.5	24.3	4.1
1200 - 1300	457	112	118	112	115	0	0	403	6	43	3	2	0	0	0	0	0	0	6	31	69	123	198	28	2	0	0	0	0	0	0	28.3	23.6	5.4
1300 - 1400	421	111	91	107	112	0	1	377	2	37	1	3	0	0	0	0	0	0	2	27	52	122	171	41	4	2	0	0	0	0	0	29.3	24.3	5.4
1400 - 1500	449	115	107	101	126	0	3	417	4	22	1	2	0	0	0	0	0	0	2	14	56	166	180	30	1	0	0	0	0	0	0	28.3	24.2	4.5
1500 - 1600	498	101	113	147	137	0	1	470	6	18	1	0	0	1	0	1	0	0	13	39	60	199	171	16	0	0	0	0	0	0	0	27.1	22.7	5.1
1600 - 1700	625	136	168	169	152	0	2	589	11	18	1	2	0	0	1	0	0	1	163	170	91	119	60	20	1	0	0	1	0	0	0	24.3	15.9	7.3
1700 - 1800	627	156	169	149	153	0	0	596	11	9	1	9	1	0	0	0	0	0	401	153	39	25	9	0	0	0	0	0	0	0	0	13.6	10.3	4.4
1800 - 1900	534	135	125	157	117	0	3	511	7	9	1	0	2	0	0	1	0	0	191	69	23	102	119	28	2	0	0	0	0	0	0	27.3	17.2	8.9
1900 - 2000	380	109	118	80	73	0	2	363	2	10	0	2	0	1	0	0	0	0	0	1	19	82	213	58	7	0	0	0	0	0	0	30.3	26.8	3.9
2000 - 2100	213	72	63	40	38	0	2	198	1	10	1	1	0	0	0	0	0	0	0	0	2	28	115	61	7	0	0	0	0	0	0	31.9	28.5	3.4
2100 - 2200	241	90	64	47	40	1	0	236	1	1	2	0	0	0	0	0	0	0	0	1	20	72	115	28	4	1	0	0	0	0	0	29.8	26	4.1
2200 - 2300	126	43	29	33	21	0	1	123	0	1	1	0	0	0	0	0	0	0	0	1	2	17	69	33	4	0	0	0	0	0	0	31.8	28.2	3.6
2300 - 0000	45	10	10	17	8	0	2	41	0	0	2	0	0	0	0	0	0	0	0	0	0	2	12	19	6	5	0	1	0	0	0	39.7	33	5.9
0700 - 1900	**6345**	**1602**	**1571**	**1653**	**1519**	**2**	**14**	**5878**	**81**	**305**	**20**	**29**	**4**	**6**	**2**	**3**	**0**	**1**	**1151**	**862**	**775**	**1577**	**1698**	**261**	**17**	**2**	**0**	**1**	**0**	**0**	**1**	**27.3**	**19.6**	**7.7**
0600 - 2200	**7588**	**1925**	**1901**	**1944**	**1818**	**3**	**20**	**7058**	**86**	**345**	**26**	**33**	**4**	**7**	**2**	**3**	**0**	**1**	**1151**	**864**	**820**	**1802**	**2365**	**529**	**51**	**4**	**0**	**1**	**0**	**0**	**1**	**28.4**	**20.9**	**7.8**
0600 - 0000	**7759**	**1978**	**1940**	**1994**	**1847**	**3**	**23**	**7222**	**86**	**346**	**29**	**33**	**4**	**7**	**2**	**3**	**0**	**1**	**1151**	**865**	**822**	**1821**	**2446**	**581**	**61**	**9**	**0**	**2**	**0**	**0**	**1**	**28.5**	**21.1**	**7.9**
0000 - 0000	**7937**	**2011**	**1985**	**2050**	**1891**	**3**	**25**	**7388**	**86**	**354**	**31**	**33**	**4**	**7**	**2**	**3**	**0**	**1**	**1151**	**866**	**823**	**1823**	**2496**	**653**	**99**	**20**	**2**	**3**	**0**	**0**	**1**	**28.9**	**21.3**	**8**

Virtual Day (7)

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	29	8	9	6	6	0	1	27	0	1	0	0	0	0	0	0	0	0	0	0	0	2	13	7	4	2	1	0	0	0	0	37.1	31.3	6.8
0100 - 0200	12	4	2	3	2	0	0	11	0	1	0	0	0	0	0	0	0	0	0	0	0	1	5	3	2	1	0	0	0	0	0	38.2	31.7	6.2
0200 - 0300	9	4	2	2	2	0	0	7	0	2	0	0	0	0	0	0	0	0	18	34	71	150	162	24	2	0	0	0	0	0	0	27.9	22.7	5.9
0300 - 0400	8	3	2	1	2	0	0	7	0	1	0	0	0	0	0	0	0	0	6	25	52	163	161	24	2	0	0	0	0	0	0	28.2	23.7	5.2
0400 - 0500	17	3	3	4	7	0	1	15	0	1	0	0	0	0	0	0	0	0	14	39	70	166	145	22	1	0	0	0	0	0	0	27.6	22.5	5.6
0500 - 0600	100	13	28	33	27	0	1	95	0	4	1	0	0	0	0	0	0	0	21	50	77	147	148	21	2	0	0	0	0	0	0	27.6	22	6
0600 - 0700	311	39	68	93	111	0	1	294	1	13	1	1	0	0	0	0	0	0	15	44	64	155	149	24	2	0	0	0	0	0	0	27.7	22.5	5.8
0700 - 0800	556	130	131	142	153	0	2	518	8	21	2	3	0	1	0	0	0	0	13	39	61	160	161	24	1	0	0	0	0	0	0	27.8	22.9	5.5
0800 - 0900	560	142	145	144	130	0	1	525	8	20	2	2	1	0	0	1	0	0	42	62	82	160	121	17	1	0	0	0	0	0	0	27	20.7	6.5
0900 - 1000	461	122	116	112	111	0	1	426	6	26	0	1	0	1	0	0	0	0	138	132	66	111	87	13	1	0	0	0	0	0	0	25.8	16.8	7.6
1000 - 1100	433	115	106	110	103	0	1	398	4	28	1	0	0	0	0	0	0	0	189	164	77	93	73	8	1	0	0	0	0	0	0	24.6	15.3	7.1
1100 - 1200	458	115	113	123	107	0	2	426	3	24	1	0	0	1	0	0	0	0	50	53	50	126	146	28	2	0	0	0	0	0	0	28.1	21.4	7.2
1200 - 1300	466	111	118	126	110	1	2	429	5	26	1	1	0	0	0	0	0	0	1	3	18	89	171	41	4	1	0	0	0	0	0	29.9	26.2	4.1
1300 - 1400	452	117	113	118	104	0	1	420	4	24	0	2	0	0	0	0	0	0	0	0	5	52	114	32	3	0	0	0	0	0	0	30.4	27	3.7
1400 - 1500	459	114	117	118	110	0	3	428	4	20	1	2	0	1	0	0	0	0	0	1	7	60	101	28	4	1	0	0	0	0	0	30.4	26.7	4.6
1500 - 1600	485	108	111	137	129	0	1	449	5	27	1	1	0	1	0	0	0	0	0	1	2	15	61	27	7	1	1	0	0	0	0	32.5	28.6	4.6
1600 - 1700	548	137	133	141	137	0	1	517	7	17	1	3	1	0	0	0	0	0	0	0	0	7	31	19	5	2	1	0	0	0	0	34.5	30	5
1700 - 1800	605	149	154	151	152	0	1	576	8	12	2	4	0	0	0	0	0	0	753	897	829	1621	1564	252	19	2	1	1	0	0	1	27.3	20.2	7.2
1800 - 1900	455	120	128	106	102	0	1	436	4	11	0	1	0	0	0	0	0	0	754	901	867	1862	2103	444	48	7	3	1	0	0	1	28.1	21.3	7.3
1900 - 2000	328	97	94	73	64	0	2	315	2	8	0	1	0	0	0	0	0	0	754	902	869	1884	2195	489	61	10	4	2	0	0	1	28.4	21.4	7.4
2000 - 2100	209	57	54	51	47	0	1	199	1	7	0	0	0	0	0	0	0	0	754	903	871	1891	2252	553	89	20	7	2	0	0	1	28.6	21.7	7.5
2100 - 2200	202	77	53	38	34	0	1	196	1	4	0	0	0	0	0	0	0	0																
2200 - 2300	114	36	33	25	20	0	0	111	0	3	0	0	0	0	0	0	0	0																
2300 - 0000	65	20	16	16	13	0	2	60	0	2	0	0	0	0	0	0	0	0																
0700 - 1900	**5940**	**1481**	**1485**	**1528**	**1446**	**3**	**17**	**5547**	**65**	**257**	**13**	**23**	**4**	**6**	**1**	**3**	**0**	**0**																
0600 - 2200	**6991**	**1751**	**1755**	**1783**	**1702**	**4**	**23**	**6551**	**70**	**289**	**15**	**24**	**4**	**6**	**1**	**3**	**0**	**0**																
0600 - 0000	**7170**	**1807**	**1805**	**1825**	**1734**	**4**	**25**	**6722**	**71**	**294**	**15**	**24**	**4**	**6**	**1**	**3**	**0**	**0**																
0000 - 0000	**7345**	**1841**	**1851**	**1874**	**1780**	**4**	**28**	**6884**	**71**	**303**	**16**	**24**	**4**	**6**	**1**	**3**	**0**	**0**																

Virtual Week (1)

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
Mon	7794	1984	1965	1984	1861	2	30	7268	66	360	17	33	1	9	2	5	1	0	663	888	936	2113	2504	570	89	18	10	3	0	0	0	28.5	22.1	7.1
Tue	7909	2038	1996	1959	1916	7	45	7361	69	366	19	23	5	9	1	3	0	1	1083	1041	880	1885	2294	590	107	21	4	2	0	0	2	28.6	21.1	8
Wed	7937	2011	1985	2050	1891	3	25	7388	86	354	31	33	4	7	2	3	0	1	1151	866	823	1823	2496	653	99	20	2	3	0	0	1	28.9	21.3	8
Thu	7955	1958	2027	2007	1963	1	37	7421	93	341	14	30	9	5	1	2	1	0	930	1253	981	1913	2231	536	82	18	7	1	2	0	1	28.2	20.9	7.6
Fri	8251	2037	2071	2149	1994	2	18	7669	94	396	22	31	5	10	1	3	0	0	1057	1308	1092	2134	2081	475	73	16	8	3	1	1	2	27.8	20.4	7.6
Sat	6404	1549	1632	1631	1592	3	14	6122	51	192	4	9	3	4	0	1	1	0	274	480	702	1999	2304	541	75	21	4	2	0	0	2	28.9	23.5	6.3
Sun	5165	1309	1279	1335	1242	7	27	4960	35	113	5	11	4	0	1	2	0	0	121	486	685	1373	1855	507	98	23	14	2	0	0	1	29.5	23.8	6.5

Derby, City of Derby

Report Id 237/18
Site Name Site 3 of 4
Description B5008 Repton Road, 20m south of Beech Avenue
Direction Southbound

Thursday 26 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	20	5	9	4	2	0	0	17	0	3	0	0	0	0	0	0	0	0	0	0	0	0	6	6	5	3	0	0	0	0	0	39.8	33.8	5.4
0100 - 0200	10	2	4	1	3	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	3	2	0	0	0	0	0	-	35.5	4.2
0200 - 0300	4	2	0	0	2	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	-	35.3	6.2
0300 - 0400	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	-	47.8	-
0400 - 0500	28	6	3	6	13	0	0	25	0	3	0	0	0	0	0	0	0	0	0	0	0	0	6	10	7	3	1	1	0	0	0	41.7	35	6.4
0500 - 0600	113	42	26	30	15	0	3	103	0	7	0	0	0	0	0	0	0	0	2	0	3	0	15	56	27	6	3	1	0	0	0	38.6	33.3	6.8
0600 - 0700	193	19	37	60	77	1	2	167	2	20	1	0	0	0	0	0	0	0	1	0	6	10	63	84	24	3	2	0	0	0	0	35	30.6	5
0700 - 0800	574	88	123	173	190	4	1	540	4	23	1	0	1	0	0	0	0	0	13	17	33	197	245	65	2	2	0	0	0	0	0	29.6	25	5.1
0800 - 0900	566	185	146	118	117	5	1	530	1	28	1	0	0	0	0	0	0	0	25	28	88	239	169	16	1	0	0	0	0	0	0	27.2	22.3	5.4
0900 - 1000	458	128	132	91	107	4	2	411	1	35	1	2	0	1	1	0	0	0	3	11	39	166	183	47	7	1	0	0	1	0	0	29.3	25	5
1000 - 1100	385	89	118	78	100	0	0	341	2	40	0	0	1	0	1	0	0	0	2	14	20	90	189	63	7	0	0	0	0	0	0	30.4	26.2	4.7
1100 - 1200	395	83	100	107	105	2	2	352	0	36	1	2	0	0	0	0	0	0	2	11	21	116	198	43	3	1	0	0	0	0	0	29.5	25.5	4.6
1200 - 1300	436	111	99	100	126	1	3	388	3	34	3	3	1	0	0	0	0	0	2	14	28	117	219	52	4	0	0	0	0	0	0	29.9	25.8	4.7
1300 - 1400	435	100	104	111	120	1	4	403	0	25	0	2	0	0	0	0	0	0	4	12	34	136	177	66	4	2	0	0	0	0	0	30.3	25.5	5.1
1400 - 1500	487	112	119	125	131	0	2	453	5	25	2	0	0	0	0	0	0	0	1	10	21	119	227	96	13	0	0	0	0	0	0	31	26.8	4.6
1500 - 1600	636	136	151	166	183	2	4	581	5	41	2	0	0	1	0	0	0	0	6	17	47	265	249	46	5	0	1	0	0	0	0	28.3	24.5	4.5
1600 - 1700	771	221	183	186	181	5	6	730	5	23	2	0	0	0	0	0	0	0	14	38	113	365	196	44	1	0	0	0	0	0	0	27.4	22.7	5.1
1700 - 1800	779	195	186	203	195	11	9	739	7	12	0	0	0	1	0	0	0	0	34	60	257	352	66	7	2	0	0	0	1	0	0	24.2	19.9	5.1
1800 - 1900	696	214	182	162	138	3	8	666	4	13	0	2	0	0	0	0	0	0	23	36	68	285	235	42	6	1	0	0	0	0	0	28.2	23.4	5.5
1900 - 2000	443	106	116	115	106	2	3	422	0	16	0	0	0	0	0	0	0	0	2	5	14	90	228	87	14	3	0	0	0	0	0	31.2	27.3	4.5
2000 - 2100	378	98	101	86	93	1	3	366	1	7	0	0	0	0	0	0	0	0	1	6	8	52	213	82	13	2	1	0	0	0	0	31.7	28	4.3
2100 - 2200	208	75	51	44	38	0	1	203	0	4	0	0	0	0	0	0	0	0	0	2	2	20	86	77	14	4	2	1	0	0	0	34.3	29.9	5.2
2200 - 2300	162	39	38	50	35	0	0	159	0	3	0	0	0	0	0	0	0	0	0	2	1	15	60	60	21	3	0	0	0	0	0	35	30.3	4.7
2300 - 0000	74	25	23	16	10	0	1	68	0	5	0	0	0	0	0	0	0	0	0	1	0	2	20	26	23	2	0	0	0	0	0	37.3	32.4	4.8
0700 - 1900	**6618**	**1662**	**1643**	**1620**	**1693**	**38**	**42**	**6134**	**37**	**335**	**13**	**11**	**3**	**3**	**2**	**0**	**0**	**0**	**129**	**268**	**769**	**2447**	**2353**	**587**	**55**	**7**	**1**	**0**	**2**	**0**	**0**	**28.9**	**24**	**5.4**
0600 - 2200	**7840**	**1960**	**1948**	**1925**	**2007**	**42**	**51**	**7292**	**40**	**382**	**14**	**11**	**3**	**3**	**2**	**0**	**0**	**0**	**133**	**281**	**799**	**2619**	**2943**	**917**	**120**	**19**	**6**	**1**	**2**	**0**	**0**	**29.8**	**24.7**	**5.5**
0600 - 0000	**8076**	**2024**	**2009**	**1991**	**2052**	**42**	**52**	**7519**	**40**	**390**	**14**	**11**	**3**	**3**	**2**	**0**	**0**	**0**	**133**	**284**	**800**	**2636**	**3023**	**1003**	**164**	**24**	**6**	**1**	**2**	**0**	**0**	**30**	**24.9**	**5.6**
0000 - 0000	**8252**	**2081**	**2051**	**2033**	**2087**	**42**	**55**	**7678**	**40**	**404**	**14**	**11**	**3**	**3**	**2**	**0**	**0**	**0**	**135**	**284**	**803**	**2636**	**3051**	**1081**	**206**	**40**	**11**	**3**	**2**	**0**	**0**	**30.3**	**25.1**	**5.8**

Friday 27 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	25	10	3	3	9	0	0	24	0	1	0	0	0	0	0	0	0	0	0	0	0	1	6	8	9	1	0	0	0	0	0	36.9	33	4.3
0100 - 0200	16	3	4	4	5	0	0	15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	4	5	4	1	0	0	0	0	42.9	36.3	5.8
0200 - 0300	8	4	1	2	1	0	0	6	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	3	1	2	0	0	0	0	0	-	35.7	5.6
0300 - 0400	4	1	1	1	1	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	-	37.7	5.2
0400 - 0500	43	2	6	7	28	0	0	41	0	2	0	0	0	0	0	0	0	0	0	0	0	0	10	15	12	5	1	0	0	0	0	40	34.3	4.8
0500 - 0600	84	22	17	22	23	0	2	78	0	4	0	0	0	0	0	0	0	0	0	2	0	0	14	32	25	10	1	0	0	0	0	39.9	34.2	5.6
0600 - 0700	203	14	50	56	83	1	0	190	0	11	1	0	0	0	0	0	0	0	1	0	6	10	74	77	28	6	1	0	0	0	0	35.6	30.6	5.4
0700 - 0800	564	92	91	161	220	2	1	534	3	20	1	2	1	0	0	0	0	0	7	9	44	191	230	71	10	1	1	0	0	0	0	29.9	25.4	5
0800 - 0900	557	171	163	110	113	12	1	516	3	22	3	0	0	0	0	0	0	0	48	23	95	221	135	27	3	3	0	1	1	0	0	27.5	21.8	7
0900 - 1000	407	121	94	104	88	1	5	372	0	27	1	0	0	0	1	0	0	0	5	17	26	162	163	30	3	1	0	0	0	0	0	29.2	24.7	5
1000 - 1100	418	103	103	108	104	2	1	378	3	32	0	1	0	1	0	0	0	0	5	14	24	117	189	62	5	0	1	0	0	0	1	30.1	25.8	5.6
1100 - 1200	421	107	107	92	115	1	0	385	1	28	1	4	0	1	0	0	0	0	2	11	11	130	221	39	6	0	0	0	0	1	0	29.5	25.9	4.5
1200 - 1300	484	121	113	104	146	1	0	453	1	28	0	1	0	0	0	0	0	0	1	6	36	160	217	60	3	1	0	0	0	0	0	29.6	25.6	4
1300 - 1400	500	144	108	128	120	0	2	468	2	26	0	0	1	0	0	1	0	0	2	12	29	131	243	75	8	0	0	0	0	0	0	30.5	26.1	4.6
1400 - 1500	551	129	129	149	144	4	4	505	4	31	2	0	0	1	0	0	0	0	8	27	56	211	193	51	5	0	0	0	0	0	0	29.1	24.1	5.2
1500 - 1600	652	152	150	158	192	7	2	608	2	28	2	0	1	1	0	1	0	0	24	52	162	287	115	10	2	0	0	0	0	0	0	25.7	20.9	5.2
1600 - 1700	727	165	172	198	192	10	4	692	5	14	2	0	0	0	0	0	0	0	31	49	87	407	148	5	0	0	0	0	0	0	0	25.7	21.6	5
1700 - 1800	714	196	174	183	161	4	1	692	3	12	1	1	0	0	0	0	0	0	9	22	90	274	279	38	2	0	0	0	0	0	0	27.9	23.7	4.8
1800 - 1900	568	145	140	142	141	3	2	542	2	18	0	1	0	0	0	0	0	0	6	10	29	190	264	61	8	0	0	0	0	0	0	29.5	25.5	4.6
1900 - 2000	467	117	134	113	103	0	2	456	0	8	1	0	0	0	0	0	0	0	0	3	14	114	222	98	15	1	0	0	0	0	0	31.8	27.4	4.2
2000 - 2100	309	73	82	73	81	0	1	299	2	7	0	0	0	0	0	0	0	0	0	1	4	33	169	84	15	3	0	0	0	0	0	32.4	28.7	4
2100 - 2200	180	52	40	47	41	2	0	172	1	5	0	0	0	0	0	0	0	0	4	2	6	26	82	47	9	4	0	0	0	0	0	32.9	28.1	5.9
2200 - 2300	132	36	36	23	37	0	2	129	0	1	0	0	0	0	0	0	0	0	0	3	3	4	40	52	16	10	3	1	0	0	0	37.3	31.7	6.3
2300 - 0000	102	17	38	25	22	0	0	100	0	2	0	0	0	0	0	0	0	0	0	1	2	2	34	39	20	2	2	0	0	0	0	36.6	31.7	5.3
0700 - 1900	**5563**	**1646**	**1544**	**1637**	**1736**	**47**	**23**	**6145**	**29**	**286**	**13**	**10**	**3**	**4**	**1**	**2**	**0**	**0**	**148**	**252**	**689**	**2481**	**2397**	**529**	**55**	**6**	**2**	**1**	**1**	**1**	**1**	**28.8**	**24**	**5.4**
0600 - 2200	**7722**	**1902**	**1850**	**1926**	**2044**	**50**	**26**	**7262**	**32**	**317**	**15**	**10**	**3**	**4**	**1**	**2**	**0**	**0**	**153**	**258**	**719**	**2664**	**2944**	**835**	**122**	**20**	**3**	**1**	**1**	**1**	**1**	**29.6**	**24.7**	**5.6**
0600 - 0000	**7956**	**1955**	**1924**	**1974**	**2103**	**50**	**28**	**7491**	**32**	**320**	**15**	**10**	**3**	**4**	**1**	**2**	**0**	**0**	**153**	**262**	**724**	**2670**	**3018**	**926**	**158**	**32**	**8**	**2**	**1**	**1**	**1**	**29.9**	**24.9**	**5.7**
0000 - 0000	**8136**	**1997**	**1956**	**2013**	**2170**	**50**	**30**	**7658**	**32**	**331**	**15**	**10**	**3**	**4**	**1**	**2**	**0**	**0**	**153**	**264**	**724**	**2671**	**3052**	**989**	**212**	**55**	**11**	**2**	**1**	**1**	**1**	**30.1**	**25.1**	**5.8**

Saturday 28 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	50	14	12	13	11	0	0	49	0	1	0	0	0	0	0	0	0	0	0	1	0	3	12	20	12	2	0	0	0	0	0	37.3	32	5.5
0100 - 0200	23	4	6	6	7	0	0	23	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	7	8	3	0	0	0	0	0	40	34.4	5.3
0200 - 0300	12	4	2	3	3	0	0	10	0	2	0	0	0	0	0	0	0	0	0	0	0	1	3	3	5	0	0	0	0	0	0	36.9	32.9	4.2
0300 - 0400	53	26	13	10	4	0	1	51	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5	17	19	6	4	1	1	0	0	44.4	37	5.9
0400 - 0500	24	5	5	10	3	0	0	23	0	1	0	0	0	0	0	0	0	0	0	0	1	0	3	15	2	1	1	1	0	0	0	40.1	33.4	6.5
0500 - 0600	24	5	6	4	9	0	0	21	0	2	1	0	0	0	0	0	0	0	0	0	0	0	4	6	10	2	1	0	0	1	0	40.5	36.3	7.3
0600 - 0700	88	10	19	27	32	0	1	80	0	7	0	0	0	0	0	0	0	0	0	0	2	7	32	27	15	4	1	0	0	0	0	35.9	31	5.5
0700 - 0800	156	34	35	40	47	1	0	142	2	10	0	0	0	1	0	0	0	0	1	1	4	15	72	44	15	3	1	0	0	0	0	34.1	29.1	5.2
0800 - 0900	322	72	98	67	85	2	0	303	1	14	0	0	2	0	0	0	0	0	2	3	8	56	139	104	9	0	0	0	1	0	0	32.2	28.2	4.7
0900 - 1000	390	48	111	102	129	2	3	364	2	18	0	1	0	0	0	0	0	0	5	13	20	114	182	50	6	0	0	0	0	0	0	29.9	25.5	4.8
1000 - 1100	454	106	113	114	121	5	5	426	4	12	2	0	0	0	0	0	0	0	7	23	49	136	196	38	4	1	0	0	0	0	0	28.9	24.3	5.4
1100 - 1200	492	117	136	106	133	1	1	475	0	13	1	0	1	0	0	0	0	0	2	9	58	230	171	20	2	0	0	0	0	0	0	28.1	24	4
1200 - 1300	628	143	181	145	159	1	0	608	0	17	1	1	0	0	0	0	0	0	9	31	96	264	194	32	1	0	1	0	0	0	0	27.9	23.1	4.9
1300 - 1400	539	150	156	116	117	0	0	516	2	18	1	1	1	0	0	0	0	0	4	17	56	228	196	35	3	0	0	0	0	0	0	27.7	23.9	4.5
1400 - 1500	481	101	149	102	129	1	0	460	1	18	1	0	0	0	0	0	0	0	1	6	23	113	266	66	6	0	0	0	0	0	0	30	26.4	3.9
1500 - 1600	455	98	114	113	130	1	3	437	2	12	0	0	0	0	0	0	0	0	3	6	24	137	215	61	9	0	0	0	0	0	0	30.1	26	4.5
1600 - 1700	577	120	162	136	159	1	1	559	2	14	0	0	0	0	0	0	0	0	1	5	16	180	277	90	8	0	0	0	0	0	0	30.2	26.3	3.9
1700 - 1800	557	126	159	125	147	2	1	540	0	13	0	1	0	0	0	0	0	0	8	9	30	144	301	59	6	0	0	0	0	0	0	29.7	25.7	4.7
1800 - 1900	472	123	115	120	114	0	2	464	2	2	1	1	0	0	0	0	0	0	3	4	20	124	230	81	7	2	0	1	0	0	0	30.5	26.5	4.5
1900 - 2000	273	76	91	63	43	1	1	266	0	5	0	0	0	0	0	0	0	0	2	7	17	59	125	49	12	2	0	0	0	0	0	31	26.6	5.4
2000 - 2100	130	0	36	43	51	0	0	123	0	7	0	0	0	0	0	0	0	0	0	1	5	21	55	37	10	1	0	0	0	0	0	33.5	28.6	4.9
2100 - 2200	194	51	48	49	46	0	1	190	1	2	0	0	0	0	0	0	0	0	0	1	0	25	96	53	11	7	1	0	0	0	0	33.8	29.3	4.7
2200 - 2300	156	34	42	42	38	0	0	155	0	1	0	0	0	0	0	0	0	0	0	0	1	20	67	47	13	6	0	1	1	0	0	34.2	30	5.5
2300 - 0000	106	25	27	38	16	0	0	103	0	3	0	0	0	0	0	0	0	0	0	0	2	2	36	44	16	3	2	0	1	0	0	35.7	31.9	5.3
0700 - 1900	**5523**	**1238**	**1529**	**1286**	**1470**	**17**	**16**	**5294**	**18**	**161**	**7**	**5**	**4**	**1**	**0**	**0**	**0**	**0**	**46**	**127**	**404**	**1741**	**2439**	**680**	**76**	**6**	**2**	**1**	**1**	**0**	**0**	**29.8**	**25.4**	**4.8**
0600 - 2200	**6208**	**1375**	**1723**	**1468**	**1642**	**18**	**19**	**5953**	**19**	**182**	**7**	**5**	**4**	**1**	**0**	**0**	**0**	**0**	**48**	**136**	**428**	**1853**	**2747**	**846**	**124**	**20**	**4**	**1**	**1**	**0**	**0**	**30.2**	**25.7**	**4.9**
0600 - 0000	**6470**	**1434**	**1792**	**1548**	**1696**	**18**	**19**	**6211**	**19**	**186**	**7**	**5**	**4**	**1**	**0**	**0**	**0**	**0**	**48**	**136**	**431**	**1875**	**2850**	**937**	**153**	**29**	**6**	**2**	**3**	**0**	**0**	**30.4**	**26**	**5.1**
0000 - 0000	**6656**	**1493**	**1836**	**1594**	**1733**	**18**	**20**	**6388**	**19**	**193**	**8**	**5**	**4**	**1**	**0**	**0**	**0**	**0**	**48**	**137**	**432**	**1880**	**2881**	**1005**	**209**	**43**	**12**	**4**	**4**	**1**	**0**	**30.8**	**26.2**	**5.3**

Sunday 29 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	58	20	20	13	5	0	1	57	0	0	0	0	0	0	0	0	0	0	0	0	0	1	19	19	16	3	0	0	0	0	0	38.5	32.8	4.6
0100 - 0200	23	8	7	4	4	0	0	22	0	1	0	0	0	0	0	0	0	0	0	0	1	0	6	8	4	3	0	1	0	0	0	42	33.9	7.9
0200 - 0300	27	4	7	10	6	0	0	24	0	3	0	0	0	0	0	0	0	0	0	1	0	1	5	13	5	2	0	0	0	0	0	38.4	32.3	6.1
0300 - 0400	16	4	3	5	4	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	4	7	1	1	0	0	0	0	41.1	34.7	6.8
0400 - 0500	12	2	3	2	5	0	0	11	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	6	2	1	0	0	0	0	0	37.2	32.3	3.8
0500 - 0600	20	3	4	7	6	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	10	6	1	0	0	0	0	0	38.9	34	4.2
0600 - 0700	61	8	13	15	25	3	1	57	0	0	0	0	0	0	0	0	0	0	0	0	4	1	10	26	13	4	2	1	0	0	0	38.6	32.6	6.9
0700 - 0800	84	14	15	28	27	5	1	76	0	2	0	0	0	0	0	0	0	0	0	1	7	11	23	24	14	4	0	0	0	0	0	36.5	29.6	6.6
0800 - 0900	160	32	44	28	56	7	0	150	1	2	0	0	0	0	0	0	0	0	0	3	7	17	58	63	10	1	1	0	0	0	0	34	29.3	5.2
0900 - 1000	296	47	77	78	94	4	3	282	1	6	0	0	0	0	0	0	0	0	1	7	15	49	159	56	7	2	0	0	0	0	0	30.9	27	4.8
1000 - 1100	391	93	104	95	99	7	1	364	2	14	1	1	0	0	0	1	0	0	0	4	26	118	167	66	10	0	0	0	0	0	0	30.7	26.2	4.5
1100 - 1200	450	107	107	112	124	10	5	416	1	13	1	2	1	0	0	0	1	0	9	7	33	171	189	39	2	0	0	0	0	0	0	28.9	24.5	5.1
1200 - 1300	514	128	127	120	139	20	4	479	0	9	1	1	0	0	0	0	0	0	19	20	84	216	141	30	4	0	0	0	0	0	0	27.6	22.6	5.8
1300 - 1400	517	147	115	126	129	4	0	505	2	4	0	2	0	0	0	0	0	0	3	6	32	171	252	43	6	3	1	0	0	0	0	29.2	25.5	4.6
1400 - 1500	503	115	118	143	127	9	2	481	2	9	0	0	0	0	0	0	0	0	9	12	23	167	221	64	6	1	0	0	0	0	0	29.9	25.4	5.4
1500 - 1600	484	117	122	124	121	4	2	467	1	9	0	1	0	0	0	0	0	0	2	10	30	157	221	58	4	2	0	0	0	0	0	29.6	25.5	4.6
1600 - 1700	542	131	151	121	139	1	7	528	0	6	0	0	0	0	0	0	0	0	1	2	15	175	269	69	9	1	0	0	1	0	0	30	26.4	4.1
1700 - 1800	487	127	110	121	129	2	3	472	1	8	1	0	0	0	0	0	0	0	1	1	22	167	229	62	4	0	1	0	0	0	0	29.7	26	3.9
1800 - 1900	376	102	85	89	100	1	4	361	2	7	0	1	0	0	0	0	0	0	0	5	19	103	184	58	6	0	0	1	0	0	0	30.1	26.4	4.3
1900 - 2000	307	84	74	79	70	0	0	300	2	5	0	0	0	0	0	0	0	0	0	0	4	80	143	62	16	0	1	1	0	0	0	32.4	27.9	4.5
2000 - 2100	254	66	74	62	52	0	0	242	0	11	0	0	0	1	0	0	0	0	0	2	7	41	110	73	17	4	0	0	0	0	0	33.1	28.7	4.7
2100 - 2200	130	40	42	24	24	0	0	128	0	2	0	0	0	0	0	0	0	0	0	1	0	8	55	50	14	1	1	0	0	0	0	34.5	30.4	4.3
2200 - 2300	113	33	26	23	31	0	1	109	0	3	0	0	0	0	0	0	0	0	1	2	1	9	35	43	13	7	2	0	0	0	0	36.2	31	6.3
2300 - 0000	46	15	14	13	4	0	0	45	0	1	0	0	0	0	0	0	0	0	0	0	0	1	11	22	8	3	1	0	0	0	0	37	33	4.6
0700 - 1900	**4804**	**1160**	**1175**	**1185**	**1284**	**74**	**32**	**4581**	**13**	**89**	**4**	**8**	**1**	**0**	**0**	**1**	**1**	**0**	**45**	**78**	**313**	**1522**	**2113**	**632**	**82**	**14**	**3**	**1**	**1**	**0**	**0**	**30.1**	**25.7**	**5**
0600 - 2200	**5556**	**1358**	**1378**	**1365**	**1455**	**77**	**33**	**5308**	**15**	**107**	**4**	**8**	**1**	**1**	**0**	**1**	**1**	**0**	**45**	**81**	**328**	**1652**	**2431**	**843**	**142**	**23**	**7**	**3**	**1**	**0**	**0**	**30.6**	**26.1**	**5.1**
0600 - 0000	**5715**	**1406**	**1418**	**1401**	**1490**	**77**	**34**	**5462**	**15**	**111**	**4**	**8**	**1**	**1**	**0**	**1**	**1**	**0**	**46**	**83**	**329**	**1662**	**2477**	**908**	**163**	**33**	**10**	**3**	**1**	**0**	**0**	**30.9**	**26.3**	**5.2**
0000 - 0000	**5871**	**1447**	**1462**	**1442**	**1520**	**77**	**35**	**5612**	**15**	**116**	**4**	**8**	**1**	**1**	**0**	**1**	**1**	**0**	**46**	**84**	**331**	**1664**	**2515**	**968**	**203**	**44**	**11**	**4**	**1**	**0**	**0**	**31.1**	**26.5**	**5.4**

Monday 30 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	19	4	5	4	6	0	0	18	0	0	1	0	0	0	0	0	0	0	0	0	0	5	3	8	1	1	0	1	0	0	0	39.6	31	7.1
0100 - 0200	8	3	4	1	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	1	2	0	1	0	0	0	-	36.4	8
0200 - 0300	7	1	3	2	1	0	0	6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	1	3	0	0	0	0	0	0	-	31.8	4.4
0300 - 0400	5	2	2	1	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	1	1	0	0	0	0	0	-	34	6.4
0400 - 0500	41	4	4	10	23	0	0	38	0	3	0	0	0	0	0	0	0	0	0	0	0	0	10	18	7	4	1	1	0	0	0	40.1	34	5.6
0500 - 0600	56	14	8	20	14	0	0	51	0	5	0	0	0	0	0	0	0	0	0	0	1	3	15	22	10	4	1	0	0	0	0	38.3	32.6	6
0600 - 0700	193	21	49	51	72	0	3	172	2	15	0	0	0	1	0	0	0	0	0	0	3	7	69	84	23	7	0	0	0	0	0	35.4	31	4.4
0700 - 0800	583	94	108	171	210	3	2	545	1	31	1	0	0	0	0	0	0	0	19	18	28	202	238	72	6	0	0	0	0	0	0	29.8	24.7	5.6
0800 - 0900	663	214	194	129	126	0	2	628	1	28	3	0	0	0	0	1	0	0	10	24	87	284	226	29	3	0	0	0	0	0	0	27.9	23.4	4.6
0900 - 1000	448	136	100	103	109	3	2	397	2	42	1	0	0	0	0	1	0	0	5	16	49	128	175	64	11	0	0	0	0	0	0	30.2	25.1	5.6
1000 - 1100	329	80	78	82	89	2	3	289	2	30	0	2	0	1	0	0	0	0	2	13	19	90	160	35	10	0	0	0	0	0	0	29.7	25.6	4.9
1100 - 1200	407	78	96	119	114	1	1	364	7	32	1	0	0	0	0	1	0	0	1	18	21	111	189	53	13	1	0	0	0	0	0	30.5	26	5.1
1200 - 1300	430	106	92	118	114	3	0	396	1	30	0	0	0	0	0	0	0	0	2	9	19	136	207	50	7	0	0	0	0	0	0	29.6	25.8	4.4
1300 - 1400	421	109	96	116	100	1	2	397	1	15	3	2	0	0	0	0	0	0	3	9	14	114	227	45	7	2	0	0	0	0	0	29.7	26.2	4.5
1400 - 1500	513	119	123	134	137	0	2	478	6	25	1	0	0	1	0	0	0	0	0	9	29	184	207	81	3	0	0	0	0	0	0	30.2	25.8	4.3
1500 - 1600	684	145	166	199	174	2	3	643	0	33	2	0	0	1	0	0	0	0	2	18	51	254	305	49	3	0	1	1	0	0	0	28.5	24.8	4.3
1600 - 1700	801	203	188	185	225	9	2	763	1	21	1	2	0	1	0	1	0	0	18	36	103	400	224	19	0	0	1	0	0	0	0	27.1	22.7	4.8
1700 - 1800	759	185	202	184	188	5	4	730	2	17	1	0	0	0	0	0	0	0	20	28	132	351	198	26	4	0	0	0	0	0	0	27.1	22.6	5
1800 - 1900	595	177	148	141	129	5	4	571	1	13	0	1	0	0	0	0	0	0	4	11	18	124	328	99	11	0	0	0	0	0	0	30.7	26.7	4.5
1900 - 2000	355	98	106	75	76	5	4	338	1	7	0	0	0	0	0	0	0	0	0	0	8	43	194	91	17	1	1	0	0	0	0	32	28.7	3.9
2000 - 2100	291	80	58	64	89	0	5	278	0	8	0	0	0	0	0	0	0	0	0	1	3	39	150	78	15	3	0	0	1	1	0	32.8	29.1	4.9
2100 - 2200	179	46	53	45	35	0	0	174	0	5	0	0	0	0	0	0	0	0	0	2	4	22	86	51	12	1	1	0	0	0	0	33.4	29	4.7
2200 - 2300	113	40	33	28	12	0	1	110	0	2	0	0	0	0	0	0	0	0	0	1	0	7	36	44	22	1	1	0	1	0	0	36.7	31.5	5.3
2300 - 0000	44	11	12	7	14	0	0	43	0	1	0	0	0	0	0	0	0	0	0	0	0	3	10	12	16	2	1	0	0	0	0	39.1	33.8	5.3
0700 - 1900	**6633**	**1646**	**1591**	**1681**	**1715**	**34**	**27**	**6201**	**25**	**317**	**14**	**7**	**0**	**4**	**0**	**4**	**0**	**0**	**86**	**209**	**570**	**2378**	**2684**	**622**	**78**	**3**	**2**	**1**	**0**	**0**	**0**	**29.1**	**24.7**	**5**
0600 - 2200	**7651**	**1891**	**1857**	**1916**	**1987**	**39**	**39**	**7163**	**28**	**352**	**14**	**7**	**0**	**5**	**0**	**4**	**0**	**0**	**86**	**212**	**588**	**2489**	**3183**	**926**	**145**	**15**	**4**	**1**	**1**	**1**	**0**	**29.9**	**25.3**	**5.2**
0600 - 0000	**7808**	**1942**	**1902**	**1951**	**2013**	**39**	**40**	**7316**	**28**	**355**	**14**	**7**	**0**	**5**	**0**	**4**	**0**	**0**	**86**	**213**	**588**	**2499**	**3229**	**982**	**183**	**18**	**6**	**1**	**2**	**1**	**0**	**30.1**	**25.4**	**5.3**
0000 - 0000	**7944**	**1970**	**1928**	**1989**	**2057**	**39**	**40**	**7442**	**28**	**364**	**15**	**7**	**0**	**5**	**0**	**4**	**0**	**0**	**86**	**213**	**589**	**2508**	**3262**	**1035**	**206**	**30**	**8**	**4**	**2**	**1**	**0**	**30.3**	**25.6**	**5.4**

Tuesday 01 May 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	15	3	6	2	4	0	0	13	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	5	8	0	0	0	0	0	0	38.8	34.9	3.5
0100 - 0200	14	2	6	3	3	0	0	12	0	2	0	0	0	0	0	0	0	0	0	0	0	0	6	4	2	2	0	0	0	0	0	41.6	33.6	5.6
0200 - 0300	8	2	3	2	1	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2	1	0	0	0	0	0	-	35	3.4
0300 - 0400	5	1	2	1	1	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	1	0	0	0	0	-	39.3	5
0400 - 0500	22	4	2	9	7	0	0	20	0	2	0	0	0	0	0	0	0	0	0	0	0	0	9	7	4	1	0	1	0	0	0	39.1	33.3	6.1
0500 - 0600	108	27	31	26	24	1	2	98	0	7	0	0	0	0	0	0	0	0	0	2	2	3	16	41	29	12	2	0	0	0	1	39.6	34	6.9
0600 - 0700	192	27	39	50	76	1	1	177	0	11	1	1	0	0	0	0	0	0	0	0	2	7	62	85	30	5	1	0	0	0	0	35.7	31.5	4.5
0700 - 0800	605	103	116	167	219	5	6	569	1	23	0	1	0	0	0	0	0	0	17	29	97	200	198	61	3	0	0	0	0	0	0	29.3	23.7	5.8
0800 - 0900	635	213	162	129	131	6	2	590	3	30	2	1	0	1	0	0	0	0	21	29	102	315	147	19	1	0	0	1	0	0	0	27	22.2	5.3
0900 - 1000	436	130	115	95	96	2	3	386	1	40	1	1	0	0	0	1	0	1	2	14	26	118	211	57	7	0	0	0	0	0	1	30	25.9	5.2
1000 - 1100	368	100	88	87	93	4	2	322	2	36	0	2	0	0	0	0	0	0	19	18	27	101	155	43	5	0	0	0	0	0	0	29.6	24.3	6.3
1100 - 1200	414	91	101	99	123	1	4	368	2	36	2	1	0	0	0	0	0	0	4	11	20	139	181	56	1	0	2	0	0	0	0	29.8	25.6	4.8
1200 - 1300	453	89	122	127	115	2	3	421	0	25	1	1	0	0	0	0	0	0	3	7	13	129	244	52	4	0	0	0	0	0	1	29.5	26.2	4.5
1300 - 1400	455	102	133	99	121	3	7	412	2	27	1	2	0	0	0	1	0	0	1	6	29	153	200	56	8	2	0	0	0	0	0	30	25.8	4.6
1400 - 1500	527	130	139	137	121	5	3	495	0	21	0	1	0	2	0	0	0	0	8	15	26	187	236	53	1	1	0	0	0	0	0	29.1	25.1	4.8
1500 - 1600	683	141	155	194	193	4	3	648	1	26	0	0	0	1	0	0	0	0	12	26	75	246	280	42	2	0	0	0	0	0	0	28.4	24.1	4.8
1600 - 1700	783	191	234	180	178	5	7	731	5	32	2	0	0	1	0	0	0	0	23	27	153	351	210	18	1	0	0	0	0	0	0	26.9	22.2	5
1700 - 1800	850	215	205	210	220	6	2	824	2	15	1	0	0	0	0	0	0	0	27	23	195	457	134	14	0	0	0	0	0	0	0	25.3	21.5	4.5
1800 - 1900	682	206	207	149	120	5	8	643	0	21	2	0	1	0	0	2	0	0	7	7	43	258	284	75	8	0	0	0	0	0	0	29.5	25.2	4.5
1900 - 2000	434	106	107	110	111	2	3	411	2	15	1	0	0	0	0	0	0	0	1	3	9	87	229	82	19	4	0	0	0	0	0	31.7	27.6	4.3
2000 - 2100	307	90	72	67	78	1	2	298	0	6	0	0	0	0	0	0	0	0	0	3	8	33	153	96	12	2	0	0	0	0	0	32.4	28.6	4.1
2100 - 2200	233	62	69	61	41	0	3	223	0	7	0	0	0	0	0	0	0	0	0	1	0	26	113	67	19	5	2	0	0	0	0	34.1	29.6	4.6
2200 - 2300	111	31	23	39	18	0	2	107	0	2	0	0	0	0	0	0	0	0	0	2	0	5	44	43	11	5	0	0	1	0	0	35.4	30.8	5.4
2300 - 0000	56	14	15	11	16	0	1	52	1	2	0	0	0	0	0	0	0	0	0	1	0	1	11	22	13	3	5	0	0	0	0	40.1	33.9	6.5
0700 - 1900	**6891**	**1711**	**1777**	**1673**	**1730**	**48**	**50**	**6409**	**19**	**332**	**12**	**10**	**1**	**5**	**0**	**4**	**0**	**1**	**144**	**212**	**806**	**2654**	**2480**	**546**	**41**	**3**	**2**	**1**	**0**	**0**	**2**	**28.7**	**24**	**5.2**
0600 - 2200	**8057**	**1996**	**2064**	**1961**	**2036**	**52**	**59**	**7518**	**21**	**371**	**14**	**11**	**1**	**5**	**0**	**4**	**0**	**1**	**145**	**219**	**825**	**2807**	**3037**	**876**	**121**	**19**	**5**	**1**	**0**	**0**	**2**	**29.5**	**24.7**	**5.4**
0600 - 0000	**8224**	**2041**	**2102**	**2011**	**2070**	**52**	**62**	**7677**	**22**	**375**	**14**	**11**	**1**	**5**	**0**	**4**	**0**	**1**	**145**	**222**	**825**	**2813**	**3092**	**941**	**145**	**27**	**10**	**1**	**1**	**0**	**2**	**29.7**	**24.8**	**5.5**
0000 - 0000	**8396**	**2080**	**2152**	**2054**	**2110**	**53**	**64**	**7833**	**22**	**388**	**14**	**11**	**1**	**5**	**0**	**4**	**0**	**1**	**145**	**224**	**827**	**2816**	**3125**	**1004**	**192**	**44**	**13**	**2**	**1**	**0**	**3**	**30**	**25**	**5.7**

Wednesday 02 May 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	31	7	7	11	6	0	0	30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	9	9	10	1	2	0	0	0	0	38	33.7	5.9
0100 - 0200	7	3	1	2	1	0	0	6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	1	0	0	0	0	-	31.6	6.2
0200 - 0300	10	4	2	3	1	0	0	9	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	4	1	0	2	0	0	0	0	-	34.5	7.1
0300 - 0400	3	2	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	-	35	1.9
0400 - 0500	51	5	6	9	31	1	0	47	0	2	1	0	0	0	0	0	0	0	1	1	0	0	15	19	10	4	1	0	0	0	0	38.9	32.6	7
0500 - 0600	98	23	23	22	30	1	2	93	0	2	0	0	0	0	0	0	0	0	0	1	2	5	20	39	20	9	0	1	1	0	0	38.3	32.9	6.4
0600 - 0700	171	24	41	42	64	1	0	156	0	11	1	2	0	0	0	0	0	0	1	0	1	16	44	82	23	4	0	0	0	0	0	35.1	30.8	4.7
0700 - 0800	585	96	127	163	199	5	0	551	2	26	0	1	0	0	0	0	0	0	21	26	85	169	212	62	8	2	0	0	0	0	0	29.7	23.9	6.2
0800 - 0900	675	213	178	140	144	2	0	638	1	32	1	0	0	1	0	0	0	0	11	15	95	325	197	29	1	2	0	0	0	0	0	27.4	23.2	4.6
0900 - 1000	452	131	117	95	109	1	4	405	1	35	3	2	1	0	0	0	0	0	3	17	27	168	197	34	5	0	0	0	0	0	1	29.3	25	5.1
1000 - 1100	377	99	88	101	89	1	1	340	1	31	3	0	0	0	0	0	0	0	3	18	35	97	184	37	3	0	0	0	0	0	0	29.4	25.1	5
1100 - 1200	364	104	77	106	77	0	1	320	1	36	3	2	1	0	0	0	0	0	0	17	13	100	169	60	3	2	0	0	0	0	0	30.8	26.2	4.8
1200 - 1300	414	89	97	121	107	1	2	376	2	28	2	2	0	1	0	0	0	0	3	19	31	139	174	44	3	1	0	0	0	0	0	29.5	24.9	5
1300 - 1400	431	91	112	118	110	0	0	394	4	30	1	2	0	0	0	0	0	0	0	10	16	132	206	57	10	0	0	0	0	0	0	30.1	26	4.3
1400 - 1500	492	96	119	149	128	1	2	446	3	36	2	1	0	1	0	0	0	0	0	12	14	114	277	73	2	0	0	0	0	0	0	30	26.5	4.1
1500 - 1600	703	153	177	194	179	0	2	660	3	35	0	1	0	1	1	0	0	0	1	7	56	268	314	53	3	0	1	0	0	0	0	28.8	25	4
1600 - 1700	759	187	194	185	193	5	2	732	3	14	1	1	0	0	0	0	0	1	18	31	76	308	279	45	1	0	0	1	0	0	0	28.2	23.8	5
1700 - 1800	793	199	199	201	194	8	3	762	4	14	1	0	0	0	0	1	0	0	30	60	244	359	98	2	0	0	0	0	0	0	0	24.7	20.3	4.7
1800 - 1900	589	173	126	149	141	7	13	549	3	14	0	2	0	0	1	0	0	0	11	23	30	218	250	52	5	0	0	0	0	0	0	29.2	24.6	5
1900 - 2000	417	107	126	89	95	4	3	398	0	12	0	0	0	0	0	0	0	0	2	6	10	56	216	101	24	0	2	0	0	0	0	32.7	28.1	4.9
2000 - 2100	304	89	82	65	68	1	2	292	1	8	0	0	0	0	0	0	0	0	0	2	7	43	160	77	13	0	2	0	0	0	0	31.7	28.2	4.2
2100 - 2200	231	60	51	63	57	0	2	225	0	4	0	0	0	0	0	0	0	0	0	1	0	22	116	77	14	0	1	0	0	0	0	33.3	29.3	4
2200 - 2300	133	34	40	29	30	0	1	132	0	0	0	0	0	0	0	0	0	0	0	1	1	7	35	60	22	3	3	1	0	0	0	36.4	31.8	5.5
2300 - 0000	49	20	8	14	7	0	0	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	24	14	1	1	0	0	0	0	37.9	33.7	4
0700 - 1900	**6634**	**1631**	**1611**	**1722**	**1670**	**31**	**30**	**6173**	**28**	**331**	**17**	**14**	**2**	**4**	**2**	**1**	**0**	**1**	**101**	**255**	**722**	**2397**	**2557**	**548**	**44**	**7**	**1**	**1**	**0**	**0**	**1**	**29**	**24.2**	**5.1**
0600 - 2200	**7757**	**1911**	**1911**	**1981**	**1954**	**37**	**37**	**7244**	**29**	**366**	**18**	**16**	**2**	**4**	**2**	**1**	**0**	**1**	**104**	**264**	**740**	**2534**	**3093**	**885**	**118**	**11**	**6**	**1**	**0**	**0**	**1**	**29.7**	**24.9**	**5.3**
0600 - 0000	**7939**	**1965**	**1959**	**2024**	**1991**	**37**	**38**	**7425**	**29**	**366**	**18**	**16**	**2**	**4**	**2**	**1**	**0**	**1**	**104**	**265**	**741**	**2541**	**3137**	**969**	**154**	**15**	**10**	**2**	**0**	**0**	**1**	**29.9**	**25.1**	**5.4**
0000 - 0000	**8139**	**2009**	**1998**	**2072**	**2060**	**39**	**40**	**7613**	**29**	**373**	**19**	**16**	**2**	**4**	**2**	**1**	**0**	**1**	**105**	**267**	**743**	**2546**	**3189**	**1043**	**196**	**29**	**16**	**3**	**1**	**0**	**1**	**30.2**	**25.2**	**5.6**

Virtual Day (7)

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	31	9	9	7	6	0	0	30	0	1	0	0	0	0	0	0	0	0	0	0	0	1	8	11	9	2	0	0	0	0	0	37.9	32.8	5.3
0100 - 0200	14	4	5	3	3	0	0	14	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	4	3	2	0	0	0	0	0	41.2	34.6	6.3
0200 - 0300	11	3	3	3	2	0	0	9	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	4	2	1	0	0	0	0	0	38.8	33.4	5.5
0300 - 0400	12	5	3	3	1	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	5	1	1	0	0	0	0	44	36.6	6.1
0400 - 0500	32	4	4	8	16	0	0	29	0	2	0	0	0	0	0	0	0	0	0	0	0	0	8	13	6	3	1	1	0	0	0	39.4	33.7	6
0500 - 0600	72	19	16	19	17	0	1	66	0	4	0	0	0	0	0	0	0	0	0	1	1	2	12	29	18	6	1	0	0	0	0	39.1	33.6	6.4
0600 - 0700	157	18	35	43	61	1	1	143	1	11	1	0	0	0	0	0	0	0	0	0	3	8	51	66	22	5	1	0	0	0	0	35.6	31	5
0700 - 0800	450	74	88	129	159	4	2	422	2	19	0	1	0	0	0	0	0	0	11	14	43	141	174	57	8	2	0	0	0	0	0	30	24.9	5.7
0800 - 0900	511	157	141	103	110	5	1	479	2	22	1	0	0	0	0	0	0	0	17	18	69	208	153	41	4	1	0	0	0	0	0	28.5	23.4	5.7
0900 - 1000	412	106	107	95	105	2	3	374	1	29	1	1	0	0	0	0	0	0	3	14	29	129	181	48	7	1	0	0	0	0	0	29.8	25.4	5.1
1000 - 1100	389	96	99	95	99	3	2	351	2	28	1	1	0	0	0	0	0	0	5	15	29	107	177	49	6	0	0	0	0	0	0	29.9	25.3	5.3
1100 - 1200	420	98	103	106	113	2	2	383	2	28	1	2	0	0	0	0	0	0	3	12	25	142	188	44	4	1	0	0	0	0	0	29.5	25.3	4.8
1200 - 1300	480	112	119	119	129	4	2	446	1	24	1	1	0	0	0	0	0	0	6	15	44	166	199	46	4	0	0	0	0	0	0	29.1	24.7	5
1300 - 1400	471	120	118	116	117	1	2	442	2	21	1	2	0	0	0	0	0	0	2	10	30	152	214	54	7	1	0	0	0	0	0	29.6	25.5	4.6
1400 - 1500	508	115	128	134	131	3	2	474	3	24	1	0	0	1	0	0	0	0	4	13	27	156	232	69	5	0	0	0	0	0	0	30	25.7	4.7
1500 - 1600	614	135	148	164	167	3	3	578	2	26	1	0	0	1	0	0	0	0	7	19	64	231	243	46	4	0	0	0	0	0	0	28.6	24.3	4.8
1600 - 1700	709	174	183	170	181	5	4	676	3	18	1	0	0	0	0	0	0	0	15	27	80	312	229	41	3	0	0	0	0	0	0	28	23.4	5.1
1700 - 1800	706	178	176	175	176	5	3	680	3	13	1	0	0	0	0	0	0	0	18	29	139	301	186	30	3	0	0	0	0	0	0	27.3	22.5	5.2
1800 - 1900	568	163	143	136	126	3	6	542	2	13	0	1	0	0	0	0	0	0	8	14	32	186	254	67	7	0	0	0	0	0	0	29.6	25.3	4.9
1900 - 2000	385	99	108	92	86	2	2	370	1	10	0	0	0	0	0	0	0	0	1	3	11	76	194	81	17	2	1	0	0	0	0	31.8	27.7	4.5
2000 - 2100	282	71	72	66	73	0	2	271	1	8	0	0	0	0	0	0	0	0	0	2	6	37	144	75	14	2	0	0	0	0	0	32.4	28.5	4.4
2100 - 2200	194	55	51	48	40	0	1	188	0	4	0	0	0	0	0	0	0	0	1	1	2	21	91	60	13	3	1	0	0	0	0	33.8	29.3	4.8
2200 - 2300	131	35	34	33	29	0	1	129	0	2	0	0	0	0	0	0	0	0	0	2	1	10	45	50	17	5	1	0	0	0	0	35.8	31	5.6
2300 - 0000	68	18	20	18	13	0	0	66	0	2	0	0	0	0	0	0	0	0	0	0	1	2	19	27	16	2	2	0	0	0	0	37.4	32.6	5.3
0700 - 1900	**6238**	**1528**	**1553**	**1543**	**1614**	**41**	**31**	**5848**	**24**	**264**	**11**	**9**	**2**	**3**	**1**	**2**	**0**	**0**	**100**	**200**	**610**	**2231**	**2432**	**592**	**62**	**7**	**2**	**1**	**1**	**0**	**1**	**29.1**	**24.5**	**5.2**
0600 - 2200	**7256**	**1770**	**1819**	**1792**	**1875**	**45**	**38**	**6820**	**26**	**297**	**12**	**10**	**2**	**3**	**1**	**2**	**0**	**0**	**102**	**207**	**632**	**2374**	**2911**	**875**	**127**	**18**	**5**	**1**	**1**	**0**	**1**	**29.9**	**25.1**	**5.3**
0600 - 0000	**7455**	**1824**	**1872**	**1843**	**1916**	**45**	**39**	**7014**	**26**	**300**	**12**	**10**	**2**	**3**	**1**	**2**	**0**	**0**	**102**	**209**	**634**	**2385**	**2975**	**952**	**160**	**25**	**8**	**2**	**1**	**0**	**1**	**30.1**	**25.3**	**5.4**
0000 - 0000	**7628**	**1868**	**1912**	**1885**	**1962**	**45**	**41**	**7175**	**26**	**310**	**13**	**10**	**2**	**3**	**1**	**2**	**0**	**0**	**103**	**210**	**636**	**2389**	**3011**	**1018**	**203**	**41**	**12**	**3**	**2**	**0**	**1**	**30.4**	**25.5**	**5.6**

Virtual Week (1)

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
Mon	7944	1970	1928	1989	2057	39	40	7442	28	364	15	7	0	5	0	4	0	0	86	213	589	2508	3262	1035	206	30	8	4	2	1	0	30.3	25.6	5.4
Tue	8396	2080	2152	2054	2110	53	64	7833	22	388	14	11	1	5	0	4	0	1	145	224	827	2816	3125	1004	192	44	13	2	1	0	3	30	25	5.7
Wed	8139	2009	1998	2072	2060	39	40	7613	29	373	19	16	2	4	2	1	0	1	105	267	743	2546	3189	1043	196	29	16	3	1	0	1	30.2	25.2	5.6
Thu	8252	2081	2051	2033	2087	42	55	7678	40	404	14	11	3	3	2	0	0	0	135	284	803	2636	3051	1081	206	40	11	3	2	0	0	30.3	25.1	5.8
Fri	8136	1997	1956	2013	2170	50	30	7658	32	331	15	10	3	4	1	2	0	0	153	264	724	2671	3052	989	212	55	11	2	1	1	1	30.1	25.1	5.8
Sat	6656	1493	1836	1594	1733	18	20	6388	19	193	8	5	4	1	0	0	0	0	48	137	432	1880	2881	1005	209	43	12	4	4	1	0	30.8	26.2	5.3
Sun	5871	1447	1462	1442	1520	77	35	5612	15	116	4	8	1	1	0	1	1	0	46	84	331	1664	2515	968	203	44	11	4	1	0	0	31.1	26.5	5.4

Derby, City of Derby

Report Id	237/18
Site Name	Site 4 of 4
Description	A5132 The Castle Way, 45m west of Waterside
Direction	Eastbound

Thursday 26 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	11	5	2	2	2	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	4	1	0	0	0	0	0	40.2	35	4.7
0100 - 0200	7	4	1	2	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	3	0	0	0	0	0	0	0	-	29.2	2.3
0200 - 0300	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	-	40.7	-
0300 - 0400	4	3	0	1	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	1	0	0	-	40.3	13.5
0400 - 0500	9	1	1	4	3	0	0	8	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	3	2	1	0	0	0	0	0	-	33.3	4.6
0500 - 0600	40	9	9	11	11	4	2	31	0	2	0	0	0	0	1	0	0	0	0	0	1	3	2	14	6	9	4	0	1	0	0	44.2	36.6	7.6
0600 - 0700	159	18	32	44	65	2	3	138	1	12	1	1	0	0	1	0	0	0	0	1	2	6	12	62	59	14	2	1	0	0	0	39.5	34.4	5.4
0700 - 0800	448	67	72	134	175	2	2	411	5	25	0	1	0	0	1	1	0	0	0	3	7	33	157	190	52	5	1	0	0	0	0	34.6	30.4	4.5
0800 - 0900	473	139	113	127	94	2	1	439	2	25	0	3	0	0	0	1	0	0	50	24	21	31	170	142	34	1	0	0	0	0	0	33.4	26.1	8.6
0900 - 1000	364	100	123	82	59	1	1	330	2	27	1	1	0	1	0	0	0	0	2	28	29	46	127	118	12	2	0	0	0	0	0	31.9	26.7	6.4
1000 - 1100	288	77	83	58	70	2	1	248	2	31	1	1	1	0	1	0	0	0	0	1	2	15	116	125	25	4	0	0	0	0	0	33.7	30.3	3.9
1100 - 1200	268	51	68	75	74	3	0	235	2	24	2	2	0	0	0	0	0	0	1	3	5	38	115	92	10	4	0	0	0	0	0	32.8	28.6	4.7
1200 - 1300	300	79	64	82	75	0	0	272	2	20	3	1	0	0	2	0	0	0	0	4	2	19	132	117	24	2	0	0	0	0	0	34	29.9	4.2
1300 - 1400	307	69	90	73	75	2	1	268	1	32	1	1	0	0	0	0	0	1	0	0	1	12	118	128	41	4	3	0	0	0	0	35.1	31	4
1400 - 1500	353	70	90	86	107	3	5	326	2	15	1	0	0	0	1	0	0	0	0	0	0	9	157	153	30	3	1	0	0	0	0	33.9	30.6	3.4
1500 - 1600	457	100	119	126	112	5	3	407	5	26	4	2	1	2	1	1	0	0	40	34	32	51	130	141	24	4	1	0	0	0	0	33.1	25.6	8.4
1600 - 1700	515	118	138	137	122	0	3	480	2	26	2	0	1	1	0	0	0	0	146	33	26	42	112	122	31	3	0	0	0	0	0	32.7	21.6	10.9
1700 - 1800	520	81	152	145	142	3	4	468	3	33	5	1	3	0	0	0	0	0	437	66	4	3	4	6	0	0	0	0	0	0	0	10.2	7.5	4.1
1800 - 1900	454	155	117	75	107	4	7	427	1	14	0	0	0	0	0	1	0	0	107	17	24	36	125	103	34	8	0	0	0	0	0	33.2	23.3	10.7
1900 - 2000	308	91	86	62	69	8	2	282	2	7	0	4	1	0	0	2	0	0	0	2	5	28	109	123	37	4	0	0	0	0	0	34.8	30.2	4.5
2000 - 2100	194	59	52	42	41	2	4	183	1	4	0	0	0	0	0	0	0	0	0	0	2	2	60	86	39	3	2	0	0	0	0	36.7	32.1	4.4
2100 - 2200	132	43	38	36	15	0	0	128	0	4	0	0	0	0	0	0	0	0	0	0	0	1	48	65	12	6	0	0	0	0	0	35	31.7	3.8
2200 - 2300	75	16	28	20	11	0	0	74	0	1	0	0	0	0	0	0	0	0	0	0	0	0	21	28	23	2	1	0	0	0	0	37.3	33.1	4.4
2300 - 0000	45	13	12	14	6	0	1	41	1	2	0	0	0	0	0	0	0	0	0	1	0	2	12	9	13	6	2	0	0	0	0	42.7	33.6	7.3
0700 - 1900	**4747**	**1106**	**1229**	**1200**	**1212**	**27**	**28**	**4311**	**29**	**298**	**20**	**13**	**6**	**4**	**6**	**4**	**0**	**1**	**783**	**213**	**153**	**335**	**1463**	**1437**	**317**	**40**	**6**	**0**	**0**	**0**	**0**	**33.2**	**25**	**9.8**
0600 - 2200	**5540**	**1317**	**1437**	**1384**	**1402**	**39**	**37**	**5042**	**33**	**325**	**21**	**18**	**7**	**4**	**7**	**6**	**0**	**1**	**783**	**216**	**162**	**372**	**1692**	**1773**	**464**	**67**	**10**	**1**	**0**	**0**	**0**	**33.8**	**26**	**9.6**
0600 - 0000	**5660**	**1346**	**1477**	**1418**	**1419**	**39**	**38**	**5157**	**34**	**328**	**21**	**18**	**7**	**4**	**7**	**6**	**0**	**1**	**783**	**217**	**162**	**374**	**1725**	**1810**	**500**	**75**	**13**	**1**	**0**	**0**	**0**	**33.9**	**26.1**	**9.6**
0000 - 0000	**5732**	**1369**	**1490**	**1438**	**1435**	**43**	**40**	**5218**	**34**	**332**	**21**	**18**	**7**	**4**	**8**	**6**	**0**	**1**	**783**	**217**	**163**	**377**	**1736**	**1835**	**514**	**87**	**17**	**1**	**2**	**0**	**0**	**33.9**	**26.3**	**9.6**

Friday 27 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	20	4	4	4	8	0	1	18	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	5	7	3	0	0	1	0	0	40.7	36.3	6.6
0100 - 0200	11	2	0	6	3	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	3	3	0	0	0	0	0	42.5	36.6	4.6
0200 - 0300	4	1	3	0	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	-	31.9	4.1
0300 - 0400	3	1	0	0	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	-	34.2	5
0400 - 0500	12	0	4	0	8	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	2	4	2	0	0	0	1	49.1	40.6	10.3
0500 - 0600	33	3	8	9	13	2	1	28	0	1	0	0	0	0	1	0	0	0	0	0	2	2	3	6	12	5	2	0	1	0	0	43.8	35.4	8.4
0600 - 0700	130	13	29	37	51	3	2	117	1	6	0	0	0	0	0	1	0	0	0	0	1	4	33	43	35	9	3	1	1	0	0	39.1	33.7	5.9
0700 - 0800	390	49	68	125	148	4	2	359	2	20	1	1	0	0	1	0	0	0	0	1	14	19	141	176	37	0	2	0	0	0	0	34	30.1	4.4
0800 - 0900	468	136	114	117	101	1	3	425	4	30	3	0	0	1	1	0	0	0	43	35	20	49	156	147	18	0	0	0	0	0	0	32.1	25.4	8.2
0900 - 1000	320	111	86	67	56	1	2	285	2	24	1	0	1	3	1	0	0	0	4	8	17	37	155	84	14	1	0	0	0	0	0	32.4	27.5	5.4
1000 - 1100	283	70	67	73	73	1	2	251	2	26	0	1	0	0	0	0	0	0	0	0	4	16	150	96	15	2	0	0	0	0	0	33.4	29.3	3.7
1100 - 1200	275	52	71	73	79	0	1	238	2	31	1	0	0	1	1	0	0	0	1	0	6	33	150	68	17	0	0	0	0	0	0	32.1	28.6	4.1
1200 - 1300	356	94	97	92	73	0	0	340	0	14	1	1	0	0	0	0	0	0	0	2	14	30	165	106	29	10	0	0	0	0	0	33.9	29.3	5
1300 - 1400	350	88	97	82	83	3	1	315	2	27	0	1	0	0	1	0	0	0	0	1	0	24	160	131	29	5	0	0	0	0	0	33.8	29.8	3.9
1400 - 1500	337	73	74	103	87	1	1	304	4	23	0	3	0	0	1	0	0	0	5	2	11	29	149	112	24	5	0	0	0	0	0	33.3	29	5.2
1500 - 1600	476	109	136	122	109	2	1	442	3	20	4	2	1	0	1	0	0	0	205	78	72	56	50	12	2	0	1	0	0	0	0	24.6	14.2	8.3
1600 - 1700	558	151	136	150	121	1	0	530	1	23	1	0	1	1	0	0	0	0	324	65	14	42	82	28	3	0	0	0	0	0	0	26.7	13.4	9.1
1700 - 1800	533	121	157	124	131	2	1	506	5	17	0	2	0	0	0	0	0	0	78	15	21	74	187	139	19	0	0	0	0	0	0	32.1	24.5	8.9
1800 - 1900	413	121	100	90	102	5	1	393	5	7	1	1	0	0	0	0	0	0	3	1	20	51	155	139	37	6	1	0	0	0	0	34.1	29	5.5
1900 - 2000	286	68	81	71	66	2	0	275	0	8	1	0	0	0	0	0	0	0	0	1	2	14	108	117	39	2	2	0	1	0	0	35	30.9	4.6
2000 - 2100	176	48	51	36	41	0	0	172	1	3	0	0	0	0	0	0	0	0	0	2	2	2	65	84	17	3	0	1	0	0	0	34.5	30.9	4.6
2100 - 2200	130	29	30	42	29	0	0	125	0	5	0	0	0	0	0	0	0	0	0	6	1	2	39	55	19	7	1	0	0	0	0	36.1	31.2	6
2200 - 2300	99	21	27	27	24	0	1	96	0	2	0	0	0	0	0	0	0	0	0	0	3	1	30	40	15	7	2	1	0	0	0	38.5	32.5	5.9
2300 - 0000	72	14	26	20	12	0	0	70	0	2	0	0	0	0	0	0	0	0	0	0	1	0	28	30	11	1	1	0	0	0	0	35.6	31.7	4.3
0700 - 1900	**4759**	**1175**	**1203**	**1218**	**1163**	**21**	**15**	**4388**	**32**	**262**	**13**	**12**	**3**	**6**	**7**	**0**	**0**	**0**	**663**	**208**	**213**	**460**	**1700**	**1238**	**244**	**29**	**4**	**0**	**0**	**0**	**0**	**32.4**	**24.9**	**9.1**
0600 - 2200	**5481**	**1333**	**1394**	**1404**	**1350**	**26**	**17**	**5077**	**34**	**284**	**14**	**12**	**3**	**6**	**7**	**1**	**0**	**0**	**663**	**217**	**219**	**482**	**1945**	**1537**	**354**	**50**	**10**	**2**	**2**	**0**	**0**	**33**	**25.8**	**8.9**
0600 - 0000	**5652**	**1368**	**1447**	**1451**	**1386**	**26**	**18**	**5243**	**34**	**288**	**14**	**12**	**3**	**6**	**7**	**1**	**0**	**0**	**663**	**217**	**223**	**483**	**2003**	**1607**	**380**	**58**	**13**	**3**	**2**	**0**	**0**	**33.1**	**26**	**8.9**
0000 - 0000	**5735**	**1379**	**1466**	**1470**	**1420**	**28**	**20**	**5318**	**34**	**291**	**14**	**12**	**3**	**6**	**8**	**1**	**0**	**0**	**663**	**217**	**225**	**485**	**2014**	**1626**	**407**	**73**	**17**	**3**	**4**	**0**	**1**	**33.3**	**26.1**	**9**

Saturday 28 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	32	9	8	10	5	0	0	30	0	2	0	0	0	0	0	0	0	0	0	0	0	3	8	11	9	1	0	0	0	0	0	39	32.6	5.5
0100 - 0200	14	3	1	7	3	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6	4	1	0	1	0	0	0	42.2	35.8	6.5
0200 - 0300	7	2	0	1	4	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	3	0	0	0	0	0	0	-	31.6	4.6
0300 - 0400	9	1	3	4	1	1	0	7	0	1	0	0	0	0	0	0	0	0	0	0	1	0	2	3	1	1	1	0	0	0	0	-	33.4	9.4
0400 - 0500	11	3	1	3	4	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	6	0	1	0	0	0	0	39.9	35.9	4.4
0500 - 0600	17	0	4	3	10	1	0	15	0	1	0	0	0	0	0	0	0	0	0	0	0	1	3	7	3	3	0	0	0	0	0	41.4	33.6	5.5
0600 - 0700	40	9	8	9	14	0	2	31	0	7	0	0	0	0	0	0	0	0	0	0	0	1	5	18	8	5	3	0	0	0	0	43.4	34.8	6.6
0700 - 0800	90	22	22	21	25	1	0	77	0	12	0	0	0	0	0	0	0	0	0	1	0	0	16	41	25	6	1	0	0	0	0	38.3	33.5	4.5
0800 - 0900	205	39	68	50	48	1	0	193	1	9	1	0	0	0	0	0	0	0	0	0	0	3	59	101	34	8	0	0	0	0	0	35.9	32.1	3.8
0900 - 1000	278	46	81	75	76	4	4	253	1	16	0	0	0	0	0	0	0	0	0	0	3	10	101	131	28	5	0	0	0	0	0	34.4	30.8	3.9
1000 - 1100	312	76	72	78	86	2	0	290	3	17	0	0	0	0	0	0	0	0	1	0	1	26	138	117	28	1	0	0	0	0	0	33.8	29.9	3.9
1100 - 1200	385	84	125	73	103	4	3	362	2	13	0	0	0	1	0	0	0	0	18	14	17	51	167	102	15	1	0	0	0	0	0	31.9	26.6	6.6
1200 - 1300	448	112	119	111	106	2	0	419	2	21	0	3	1	0	0	0	0	0	123	17	14	39	142	95	17	1	0	0	0	0	0	31.8	21.9	10.6
1300 - 1400	387	103	100	82	102	1	1	366	4	14	0	1	0	0	0	0	0	0	4	15	5	54	174	113	17	5	0	0	0	0	0	32.8	27.9	5.5
1400 - 1500	334	71	115	69	79	1	0	321	2	10	0	0	0	0	0	0	0	0	0	2	1	13	131	156	30	1	0	0	0	0	0	34.2	30.5	3.7
1500 - 1600	280	69	72	72	67	2	1	269	3	4	0	0	1	0	0	0	0	0	0	3	9	27	105	108	27	1	0	0	0	0	0	33.8	29.6	4.5
1600 - 1700	323	71	86	81	85	0	1	312	2	7	0	1	0	0	0	0	0	0	0	1	4	18	140	112	42	5	1	0	0	0	0	35	30.4	4.3
1700 - 1800	361	73	114	84	90	2	0	350	0	8	0	1	0	0	0	0	0	0	0	2	3	17	144	146	41	7	0	0	1	0	0	34.8	30.7	4.4
1800 - 1900	292	82	78	76	56	2	1	285	0	4	0	0	0	0	0	0	0	0	0	0	6	39	121	105	17	4	0	0	0	0	0	33.1	29.3	4.2
1900 - 2000	214	61	71	41	41	0	1	209	0	4	0	0	0	0	0	0	0	0	0	0	7	19	94	72	17	5	0	0	0	0	0	33.6	29.5	4.4
2000 - 2100	161	53	46	34	28	1	0	156	0	4	0	0	0	0	0	0	0	0	2	0	0	13	58	66	17	4	1	0	0	0	0	34.9	30.4	5.3
2100 - 2200	128	39	26	31	32	0	1	124	0	3	0	0	0	0	0	0	0	0	1	2	2	7	50	49	15	1	1	0	0	0	0	34.7	30	5.1
2200 - 2300	115	24	40	29	22	0	0	113	0	2	0	0	0	0	0	0	0	0	0	0	3	5	41	47	13	6	0	0	0	0	0	35.2	30.8	4.9
2300 - 0000	79	24	23	19	13	0	0	77	0	2	0	0	0	0	0	0	0	0	0	0	0	4	24	32	13	6	0	0	0	0	0	38.4	32.3	4.9
0700 - 1900	**3695**	**848**	**1052**	**872**	**923**	**22**	**11**	**3497**	**20**	**135**	**1**	**6**	**2**	**1**	**0**	**0**	**0**	**0**	**146**	**55**	**63**	**297**	**1438**	**1327**	**321**	**45**	**2**	**0**	**1**	**0**	**0**	**33.8**	**28.8**	**6.5**
0600 - 2200	**4238**	**1010**	**1203**	**987**	**1038**	**23**	**15**	**4017**	**20**	**153**	**1**	**6**	**2**	**1**	**0**	**0**	**0**	**0**	**149**	**57**	**72**	**337**	**1645**	**1532**	**378**	**60**	**7**	**0**	**1**	**0**	**0**	**33.9**	**29**	**6.3**
0600 - 0000	**4432**	**1058**	**1266**	**1035**	**1073**	**23**	**15**	**4207**	**20**	**157**	**1**	**6**	**2**	**1**	**0**	**0**	**0**	**0**	**149**	**57**	**75**	**346**	**1710**	**1611**	**404**	**72**	**7**	**0**	**1**	**0**	**0**	**34.1**	**29.1**	**6.3**
0000 - 0000	**4522**	**1076**	**1283**	**1063**	**1100**	**25**	**15**	**4291**	**20**	**161**	**1**	**6**	**2**	**1**	**0**	**0**	**0**	**0**	**149**	**57**	**76**	**350**	**1729**	**1642**	**430**	**78**	**9**	**1**	**1**	**0**	**0**	**34.2**	**29.2**	**6.3**

Sunday 29 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	46	18	8	10	10	0	1	45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	9	17	13	3	2	1	0	0	0	39.7	34.5	6.6
0100 - 0200	12	3	3	5	1	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	6	3	0	0	0	0	0	0	35.5	32.1	4
0200 - 0300	7	1	3	3	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	3	0	0	0	0	0	0	-	33.7	4
0300 - 0400	3	0	2	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	-	33.4	3.7
0400 - 0500	10	3	0	4	3	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	1	0	0	1	0	0	0	-	35.1	6.2
0500 - 0600	17	1	7	1	8	0	2	14	0	0	0	0	1	0	0	0	0	0	0	0	0	1	3	4	5	3	1	0	0	0	0	42.9	35.1	6.5
0600 - 0700	36	10	6	5	15	1	0	34	0	1	0	0	0	0	0	0	0	0	0	0	0	1	4	11	10	6	2	0	2	0	0	43.5	36.9	7.8
0700 - 0800	52	9	8	13	22	1	0	47	0	4	0	0	0	0	0	0	0	0	0	0	1	6	12	15	14	3	1	0	0	0	0	38.6	32.1	6
0800 - 0900	105	25	27	20	33	7	0	95	0	3	0	0	0	0	0	0	0	0	0	2	5	5	20	49	17	7	0	0	0	0	0	36.3	31.3	6.2
0900 - 1000	215	39	49	55	72	6	1	203	0	5	0	0	0	0	0	0	0	0	0	0	4	14	48	106	35	6	2	0	0	0	0	35.8	31.8	4.8
1000 - 1100	292	55	68	94	75	6	2	272	0	7	0	3	0	0	0	1	0	1	0	1	7	28	124	101	26	5	0	0	0	0	0	34.1	29.6	4.5
1100 - 1200	355	82	90	84	99	5	0	337	2	9	0	0	0	0	0	1	0	1	0	3	16	46	156	112	20	2	0	0	0	0	0	32.7	28.4	4.7
1200 - 1300	404	104	97	101	102	14	0	374	3	11	0	2	0	0	0	0	0	0	0	4	15	63	175	120	25	2	0	0	0	0	0	32.8	28.3	4.7
1300 - 1400	351	98	79	84	90	5	3	332	1	8	1	0	0	0	0	1	0	0	0	3	8	30	145	144	19	2	0	0	0	0	0	32.7	29.2	4.2
1400 - 1500	347	91	80	92	84	5	4	325	2	10	0	1	0	0	0	0	0	0	0	1	5	29	143	133	35	1	0	0	0	0	0	33.9	29.8	4.1
1500 - 1600	277	70	78	60	69	5	2	263	1	5	0	1	0	0	0	0	0	0	0	6	5	26	106	99	34	1	0	0	0	0	0	34.6	29.8	4.8
1600 - 1700	333	82	71	90	90	2	2	321	0	8	0	0	0	0	0	0	0	0	0	3	2	16	110	153	44	4	0	0	0	1	0	35	30.9	4.6
1700 - 1800	289	64	71	80	74	1	7	275	1	5	0	0	0	0	0	0	0	0	0	1	3	15	109	113	41	6	1	0	0	0	0	35.6	31	4.6
1800 - 1900	214	59	62	35	58	4	2	201	0	7	0	0	0	0	0	0	0	0	0	2	1	8	59	101	34	8	0	0	1	0	0	36.3	31.9	4.9
1900 - 2000	186	54	42	42	48	0	0	184	1	1	0	0	0	0	0	0	0	0	0	2	1	4	63	73	36	6	1	0	0	0	0	36.7	31.7	4.6
2000 - 2100	149	43	33	40	33	0	1	141	1	6	0	0	0	0	0	0	0	0	0	0	0	1	54	62	22	8	2	0	0	0	0	36.6	32	4.6
2100 - 2200	64	12	20	20	12	0	1	63	0	0	0	0	0	0	0	0	0	0	0	0	0	5	18	21	16	2	1	0	1	0	0	36.5	32.2	6.1
2200 - 2300	46	14	11	11	10	0	2	43	0	1	0	0	0	0	0	0	0	0	0	2	0	0	8	22	5	9	0	0	0	0	0	40.7	33.2	6.7
2300 - 0000	25	7	7	6	5	1	0	24	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3	12	6	0	1	1	0	0	0	39.4	33.4	6.9
0700 - 1900	**3234**	**778**	**780**	**808**	**868**	**61**	**23**	**3045**	**10**	**82**	**1**	**7**	**0**	**0**	**0**	**3**	**0**	**2**	**0**	**26**	**72**	**286**	**1207**	**1246**	**344**	**47**	**4**	**0**	**1**	**1**	**0**	**34.4**	**30**	**4.8**
0600 - 2200	**3669**	**897**	**881**	**915**	**976**	**62**	**25**	**3467**	**12**	**90**	**1**	**7**	**0**	**0**	**0**	**3**	**0**	**2**	**0**	**28**	**73**	**297**	**1346**	**1413**	**428**	**69**	**10**	**0**	**4**	**1**	**0**	**34.7**	**30.2**	**4.9**
0600 - 0000	**3749**	**918**	**899**	**932**	**991**	**63**	**27**	**3534**	**12**	**91**	**1**	**7**	**0**	**0**	**0**	**3**	**0**	**2**	**0**	**30**	**74**	**298**	**1357**	**1447**	**439**	**78**	**11**	**1**	**4**	**1**	**0**	**34.8**	**30.3**	**5**
0000 - 0000	**3835**	**944**	**922**	**956**	**1013**	**63**	**30**	**3625**	**12**	**91**	**1**	**7**	**1**	**0**	**0**	**3**	**0**	**2**	**0**	**31**	**74**	**300**	**1372**	**1487**	**465**	**84**	**14**	**3**	**4**	**1**	**0**	**35**	**30.4**	**5**

Monday 30 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	14	2	7	3	2	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4	4	3	1	0	0	0	0	43.7	36.3	6.1
0100 - 0200	4	1	2	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	1	0	0	0	0	-	40.2	6.8
0200 - 0300	6	2	2	1	1	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3	1	0	0	0	0	0	-	37	5.2
0300 - 0400	7	1	2	1	3	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	1	1	0	0	0	0	-	37.1	5.8
0400 - 0500	18	2	4	2	10	0	0	15	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3	9	4	0	1	0	0	1	0	39.8	35.4	7.7
0500 - 0600	35	5	5	14	11	2	2	27	0	3	0	0	0	0	1	0	0	0	1	0	1	2	4	6	14	5	2	0	0	0	0	41.1	34.1	8.1
0600 - 0700	138	24	27	35	52	1	4	121	2	10	0	0	0	0	0	0	0	0	0	1	1	3	22	54	40	15	1	1	0	0	0	39.8	34.2	5.5
0700 - 0800	460	77	93	137	153	4	1	427	4	21	1	1	0	0	0	1	0	0	0	3	6	31	188	187	41	3	0	0	1	0	0	33.6	30	4.3
0800 - 0900	491	159	139	86	107	0	1	457	3	25	0	2	0	1	1	1	0	0	0	5	10	57	208	169	40	2	0	0	0	0	0	33.6	29.3	4.4
0900 - 1000	322	102	78	70	72	2	1	287	3	24	2	0	1	1	1	0	0	0	3	16	29	28	117	108	19	2	0	0	0	0	0	33.2	27.6	6.4
1000 - 1100	248	70	63	48	67	2	2	211	1	25	2	3	0	1	1	0	0	0	0	0	4	18	108	96	20	1	1	0	0	0	0	33.7	29.8	4.1
1100 - 1200	265	50	66	76	73	1	1	237	1	21	1	2	0	0	1	0	0	0	0	2	0	6	108	123	25	1	0	0	0	0	0	33.6	30.4	3.7
1200 - 1300	282	63	60	79	80	4	0	255	1	17	2	1	1	0	1	0	0	0	0	2	6	15	133	99	24	1	2	0	0	0	0	33.9	29.6	4.4
1300 - 1400	258	53	57	58	90	0	1	230	1	21	1	4	0	0	0	0	0	0	0	0	1	14	92	122	25	4	0	0	0	0	0	34.6	30.8	3.8
1400 - 1500	351	72	85	89	105	0	0	326	4	19	0	1	0	1	0	0	0	0	1	0	10	50	126	132	24	6	1	1	0	0	0	33.9	29.5	4.9
1500 - 1600	465	86	143	135	101	2	2	415	6	34	3	3	0	0	0	0	0	0	9	19	53	76	190	93	21	3	0	0	1	0	0	31.8	26.1	6.5
1600 - 1700	537	113	157	121	146	3	1	505	1	23	1	1	0	2	0	0	0	0	0	2	18	69	228	186	28	5	1	0	0	0	0	32.9	28.9	4.4
1700 - 1800	571	150	158	142	121	4	3	541	2	17	1	2	0	0	0	1	0	0	79	24	36	72	202	133	23	1	0	1	0	0	0	31.6	24.4	8.6
1800 - 1900	390	122	110	86	72	3	2	381	1	3	0	0	0	0	0	0	0	0	0	9	17	24	158	146	30	5	0	1	0	0	0	33.7	29.2	5.2
1900 - 2000	252	80	60	49	63	6	0	236	1	9	0	0	0	0	0	0	0	0	1	3	24	39	90	69	22	4	0	0	0	0	0	34.1	28	5.9
2000 - 2100	170	47	46	37	40	0	4	164	0	2	0	0	0	0	0	0	0	0	1	10	8	19	52	50	24	5	1	0	0	0	0	36	28.8	6.9
2100 - 2200	96	25	25	29	17	0	0	90	1	5	0	0	0	0	0	0	0	0	0	8	1	3	17	43	15	9	0	0	0	0	0	37.6	31.1	7.3
2200 - 2300	76	24	23	15	14	0	0	75	0	1	0	0	0	0	0	0	0	0	0	0	0	0	17	28	23	5	1	1	0	0	1	38.9	34.4	6
2300 - 0000	24	8	8	3	5	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	3	8	3	3	0	1	0	0	45.7	37.2	7.4
0700 - 1900	**4640**	**1117**	**1209**	**1127**	**1187**	**25**	**15**	**4272**	**28**	**250**	**14**	**20**	**2**	**6**	**5**	**3**	**0**	**0**	**92**	**82**	**190**	**460**	**1858**	**1594**	**320**	**34**	**5**	**3**	**2**	**0**	**0**	**33.3**	**28.5**	**5.8**
0600 - 2200	**5296**	**1293**	**1367**	**1277**	**1359**	**32**	**23**	**4883**	**32**	**276**	**14**	**20**	**2**	**6**	**5**	**3**	**0**	**0**	**94**	**104**	**224**	**524**	**2039**	**1810**	**421**	**67**	**7**	**4**	**2**	**0**	**0**	**33.7**	**28.7**	**6**
0600 - 0000	**5396**	**1325**	**1398**	**1295**	**1378**	**32**	**23**	**4982**	**32**	**277**	**14**	**20**	**2**	**6**	**5**	**3**	**0**	**0**	**94**	**104**	**224**	**524**	**2062**	**1841**	**452**	**75**	**11**	**5**	**3**	**0**	**1**	**33.8**	**28.8**	**6**
0000 - 0000	**5480**	**1338**	**1420**	**1317**	**1405**	**34**	**25**	**5055**	**32**	**283**	**14**	**20**	**2**	**6**	**6**	**3**	**0**	**0**	**95**	**104**	**225**	**527**	**2071**	**1865**	**479**	**87**	**17**	**5**	**3**	**1**	**1**	**33.9**	**28.9**	**6.1**

Tuesday 01 May 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	12	1	5	2	4	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	5	1	1	1	0	0	0	0	41.6	33.4	6.2
0100 - 0200	6	0	3	1	2	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	1	1	0	0	0	0	0	-	33.8	4.9
0200 - 0300	3	0	1	1	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	-	36.5	8
0300 - 0400	6	2	1	1	2	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	4	0	0	0	0	-	43.3	3.9
0400 - 0500	8	1	1	2	4	0	0	7	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	2	2	0	0	0	0	0	0	-	30.9	4.7
0500 - 0600	36	8	9	10	9	4	2	27	0	2	0	0	0	0	1	0	0	0	0	0	0	3	2	9	13	5	2	1	0	0	0	44.2	35.9	7.5
0600 - 0700	163	21	34	51	57	6	1	143	1	9	1	2	0	0	0	0	0	0	0	1	2	14	41	50	45	8	2	0	0	0	0	38.3	32.1	5.9
0700 - 0800	442	86	82	132	142	4	3	410	4	15	0	2	1	0	1	2	0	0	5	17	33	65	120	150	43	7	2	0	0	0	0	34.3	28.1	6.8
0800 - 0900	574	175	153	122	124	0	2	533	6	29	1	2	1	0	0	0	0	0	147	75	27	26	137	131	26	5	0	0	0	0	0	32	21.3	10.8
0900 - 1000	335	95	96	71	73	5	3	287	3	34	1	2	0	0	0	0	0	0	0	11	16	25	139	105	36	1	2	0	0	0	0	33.6	28.8	5.5
1000 - 1100	240	65	55	68	52	3	1	202	2	28	1	2	0	0	1	0	0	0	0	0	0	16	77	109	31	7	0	0	0	0	0	35.2	31.2	4.2
1100 - 1200	270	64	61	75	70	6	2	237	0	17	4	2	0	1	1	0	0	0	0	0	6	24	105	111	19	3	2	0	0	0	0	33.6	29.8	4.3
1200 - 1300	303	61	83	76	83	4	2	275	2	14	1	2	0	1	0	2	0	0	15	3	15	26	127	97	17	3	0	0	0	0	0	33.5	27.9	6.8
1300 - 1400	325	77	79	70	99	3	3	279	5	28	2	5	0	0	0	0	0	0	0	0	0	18	146	131	25	5	0	0	0	0	0	34.2	30.3	3.7
1400 - 1500	321	89	74	78	80	2	4	292	1	18	0	1	1	1	0	1	0	0	0	0	3	31	130	127	29	0	0	1	0	0	0	33.7	29.9	4
1500 - 1600	476	89	131	143	113	2	4	437	3	27	0	2	0	0	1	0	0	0	11	24	36	81	169	134	19	2	0	0	0	0	0	32.3	26.5	6.5
1600 - 1700	604	148	142	161	153	3	4	556	5	32	0	2	1	1	0	0	0	0	177	81	66	90	121	57	12	0	0	0	0	0	0	28.7	18.1	9.4
1700 - 1800	600	157	145	171	127	1	4	547	5	30	6	2	1	1	0	2	0	1	433	114	26	14	6	5	0	0	0	0	2	0	0	12.4	9.2	5.4
1800 - 1900	463	134	158	96	75	5	7	435	1	13	0	1	0	0	0	0	1	0	58	20	19	47	131	144	38	5	1	0	0	0	0	33.5	25.9	9.2
1900 - 2000	292	68	73	84	67	4	0	278	1	8	0	0	1	0	0	0	0	0	0	1	1	9	93	144	37	6	1	0	0	0	0	35.1	31.4	3.9
2000 - 2100	191	57	50	40	44	1	1	184	0	4	0	1	0	0	0	0	0	0	0	0	2	5	48	98	29	6	1	2	0	0	0	36.2	32.2	4.4
2100 - 2200	104	28	34	19	23	1	2	96	0	5	0	0	0	0	0	0	0	0	0	0	1	3	29	46	18	5	2	0	0	0	0	36.4	32.3	4.8
2200 - 2300	80	17	25	24	14	0	0	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	39	11	6	1	0	0	0	0	38	32.8	4.4
2300 - 0000	46	13	13	9	11	0	0	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	22	10	7	0	0	0	0	0	40.1	34.3	5
0700 - 1900	**4953**	**1240**	**1259**	**1263**	**1191**	**38**	**39**	**4490**	**37**	**285**	**16**	**25**	**5**	**5**	**4**	**7**	**1**	**1**	**846**	**345**	**247**	**463**	**1408**	**1301**	**295**	**38**	**7**	**1**	**2**	**0**	**0**	**32.8**	**24**	**9.9**
0600 - 2200	**5703**	**1414**	**1450**	**1457**	**1382**	**50**	**43**	**5191**	**39**	**311**	**17**	**28**	**6**	**5**	**4**	**7**	**1**	**1**	**846**	**347**	**253**	**494**	**1619**	**1639**	**424**	**63**	**13**	**3**	**2**	**0**	**0**	**33.4**	**25**	**9.8**
0600 - 0000	**5829**	**1444**	**1488**	**1490**	**1407**	**50**	**43**	**5317**	**39**	**311**	**17**	**28**	**6**	**5**	**4**	**7**	**1**	**1**	**846**	**347**	**253**	**494**	**1649**	**1700**	**445**	**76**	**14**	**3**	**2**	**0**	**0**	**33.6**	**25.2**	**9.8**
0000 - 0000	**5909**	**1456**	**1508**	**1507**	**1429**	**54**	**45**	**5378**	**39**	**314**	**17**	**28**	**6**	**5**	**5**	**7**	**1**	**1**	**846**	**347**	**254**	**497**	**1661**	**1719**	**465**	**84**	**21**	**4**	**2**	**0**	**0**	**33.7**	**25.3**	**9.8**

Wednesday 02 May 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	11	2	3	3	3	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	4	1	1	0	0	0	0	41.9	35.6	4.8
0100 - 0200	4	1	0	2	1	0	0	3	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	1	1	0	0	0	0	0	0	-	28.8	8.8
0200 - 0300	7	1	1	2	3	0	0	6	0	1	0	0	0	0	0	0	0	0	0	0	0	1	4	2	0	0	0	0	0	0	0	-	28.7	4.2
0300 - 0400	9	1	0	4	4	0	0	7	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	5	1	2	1	0	0	0	0	-	35.9	5.7
0400 - 0500	13	0	3	1	9	0	0	12	0	1	0	0	0	0	0	0	0	0	0	0	0	0	6	3	1	1	1	1	0	0	0	46.8	33.3	8.2
0500 - 0600	43	4	9	12	18	2	1	36	0	3	0	0	0	0	1	0	0	0	0	1	2	2	8	14	9	5	2	0	0	0	0	40.8	32.8	7.4
0600 - 0700	153	19	45	35	54	4	1	140	0	7	1	0	0	0	0	0	0	0	0	0	0	4	2	14	49	63	20	1	0	0	0	39.9	34.9	5.4
0700 - 0800	438	67	89	130	152	3	2	408	4	19	0	1	0	1	0	0	0	0	4	11	14	48	184	134	40	2	1	0	0	0	0	34.3	28.6	5.7
0800 - 0900	548	147	153	135	113	2	2	509	5	24	4	1	1	0	0	0	0	0	60	19	25	69	188	163	23	1	0	0	0	0	0	32.5	25.6	8.4
0900 - 1000	326	106	91	67	62	1	1	298	1	20	3	0	1	1	0	0	0	0	0	20	34	60	118	85	8	1	0	0	0	0	0	31.6	26.2	5.9
1000 - 1100	242	62	64	68	48	2	1	212	1	25	1	0	0	0	0	0	0	0	1	1	0	13	137	68	20	2	0	0	0	0	0	33.4	29.5	3.9
1100 - 1200	269	69	61	61	78	1	0	235	1	28	3	1	0	0	0	0	0	0	0	0	3	17	126	101	19	3	0	0	0	0	0	33.6	29.8	3.7
1200 - 1300	283	65	78	74	66	0	0	264	2	15	1	0	0	1	0	0	0	0	0	7	7	20	104	122	22	1	0	0	0	0	0	33.6	29.5	4.8
1300 - 1400	254	60	55	69	70	0	0	224	2	25	1	0	0	1	1	0	0	0	0	2	3	7	109	109	18	5	1	0	0	0	0	33.8	30.5	4.2
1400 - 1500	308	67	75	87	79	1	1	285	1	16	1	1	0	1	1	0	0	0	0	2	2	14	112	144	30	4	0	0	0	0	0	34.4	30.8	3.9
1500 - 1600	484	89	140	143	112	1	1	449	5	23	1	2	1	0	0	1	0	0	98	31	44	77	113	103	17	1	0	0	0	0	0	31.4	22.2	9.4
1600 - 1700	517	94	131	146	146	3	3	471	3	32	1	3	0	0	0	0	1	0	108	53	24	67	126	117	20	2	0	0	0	0	0	32.1	22.2	9.9
1700 - 1800	554	150	151	128	125	4	1	515	0	23	6	0	2	1	0	1	0	1	465	61	10	2	9	5	1	1	0	0	0	0	0	10.2	8.1	4.7
1800 - 1900	469	146	133	119	71	1	3	441	4	14	1	3	0	0	0	2	0	0	135	30	30	35	108	108	20	3	0	0	0	0	0	31.9	21.2	10.9
1900 - 2000	275	75	68	71	61	5	2	255	2	10	0	0	0	1	0	0	0	0	0	0	5	15	89	116	47	3	0	0	0	0	0	35.9	31	4.5
2000 - 2100	188	59	50	38	41	1	2	181	0	4	0	0	0	0	0	0	0	0	0	7	4	11	56	73	30	6	1	0	0	0	0	36.2	30.5	5.9
2100 - 2200	146	37	42	36	31	0	1	140	1	4	0	0	0	0	0	0	0	0	0	0	0	1	54	64	23	2	1	1	0	0	0	35.7	32	3.9
2200 - 2300	85	34	20	14	17	0	2	82	0	1	0	0	0	0	0	0	0	0	0	0	0	0	12	41	18	14	0	0	0	0	0	40	34.5	4.3
2300 - 0000	22	9	8	4	1	0	0	22	0	0	0	0	0	0	0	0	0	0	0	1	0	0	4	4	6	7	0	0	0	0	0	43	35.5	7.1
0700 - 1900	**4692**	**1122**	**1221**	**1227**	**1122**	**19**	**15**	**4311**	**29**	**264**	**23**	**12**	**5**	**6**	**2**	**4**	**1**	**1**	**871**	**237**	**196**	**429**	**1434**	**1259**	**238**	**26**	**2**	**0**	**0**	**0**	**0**	**32.6**	**24**	**9.9**
0600 - 2200	**5454**	**1312**	**1426**	**1407**	**1309**	**29**	**21**	**5027**	**32**	**289**	**24**	**12**	**5**	**7**	**2**	**4**	**1**	**1**	**871**	**244**	**209**	**458**	**1647**	**1561**	**401**	**57**	**5**	**1**	**0**	**0**	**0**	**33.3**	**25.1**	**9.8**
0600 - 0000	**5561**	**1355**	**1454**	**1425**	**1327**	**29**	**23**	**5131**	**32**	**290**	**24**	**12**	**5**	**7**	**2**	**4**	**1**	**1**	**871**	**245**	**209**	**458**	**1663**	**1606**	**425**	**78**	**5**	**1**	**0**	**0**	**0**	**33.5**	**25.3**	**9.8**
0000 - 0000	**5648**	**1364**	**1470**	**1449**	**1365**	**31**	**24**	**5206**	**32**	**296**	**25**	**12**	**5**	**7**	**4**	**4**	**1**	**1**	**871**	**246**	**212**	**461**	**1683**	**1635**	**441**	**87**	**10**	**2**	**0**	**0**	**0**	**33.6**	**25.4**	**9.8**

Virtual Day (7)

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	21	6	5	5	5	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	7	6	2	1	0	0	0	0	39.9	34.5	6.1
0100 - 0200	8	2	1	3	1	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	2	1	0	0	0	0	0	-	34	6
0200 - 0300	5	1	1	1	1	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	2	0	0	0	0	0	0	-	33.1	5.4
0300 - 0400	6	1	1	2	2	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	1	1	0	0	0	0	-	36.8	7.6
0400 - 0500	12	1	2	2	6	0	0	11	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	4	3	1	1	0	0	0	0	41.3	35.2	7.4
0500 - 0600	32	4	7	9	11	2	1	25	0	2	0	0	0	0	1	0	0	0	0	0	1	2	4	9	9	5	2	0	0	0	0	42.4	34.8	7.5
0600 - 0700	117	16	26	31	44	2	2	103	1	7	0	0	0	0	0	0	0	0	0	0	1	4	19	41	37	11	2	0	0	0	0	39.6	34	5.9
0700 - 0800	331	54	62	99	117	3	1	306	3	17	0	1	0	0	0	1	0	0	1	5	11	29	117	128	36	4	1	0	0	0	0	34.5	29.7	5.4
0800 - 0900	409	117	110	94	89	2	1	379	3	21	1	1	0	0	0	0	0	0	43	23	15	34	134	129	27	3	0	0	0	0	0	33.2	26.1	8.7
0900 - 1000	309	86	86	70	67	3	2	278	2	21	1	0	0	1	0	0	0	0	1	12	19	31	115	105	22	3	1	0	0	0	0	33.4	28.3	5.9
1000 - 1100	272	68	67	70	67	3	1	241	2	23	1	1	0	0	0	0	0	0	0	0	0	3	19	121	102	24	3	0	0	0	0	33.8	29.9	4.1
1100 - 1200	298	65	77	74	82	3	1	269	1	20	2	1	0	0	0	0	0	0	3	3	8	31	132	101	18	2	0	0	0	0	0	32.9	28.7	4.9
1200 - 1300	339	83	85	88	84	3	0	314	2	16	1	1	0	0	0	0	0	0	20	6	10	30	140	108	23	3	0	0	0	0	0	33.2	27.7	7.1
1300 - 1400	319	78	80	74	87	2	1	288	2	22	1	2	0	0	0	0	0	0	1	3	3	23	135	125	25	4	1	0	0	0	0	33.7	29.8	4.4
1400 - 1500	336	76	85	86	89	2	2	311	2	16	0	1	0	0	0	0	0	0	1	1	5	25	135	137	29	3	0	0	0	0	0	33.9	30	4.3
1500 - 1600	416	87	117	114	98	3	2	383	4	20	2	2	1	0	0	0	0	0	52	28	36	56	123	99	21	2	0	0	0	0	0	32.3	24.2	8.9
1600 - 1700	484	111	123	127	123	2	2	454	2	22	1	1	0	1	0	0	0	0	108	34	22	49	131	111	26	3	0	0	0	0	0	32.3	22.6	10.3
1700 - 1800	490	114	135	125	116	2	3	457	2	19	3	1	1	0	0	1	0	0	213	40	15	28	94	78	18	2	0	0	0	0	0	31.1	17.8	11.4
1800 - 1900	385	117	108	82	77	3	3	366	2	9	0	1	0	0	0	0	0	0	43	11	17	34	122	121	30	6	0	0	0	0	0	33.6	26.5	8.9
1900 - 2000	259	71	69	60	59	4	1	246	1	7	0	1	0	0	0	0	0	0	0	1	6	18	92	102	34	4	1	0	0	0	0	35	30.4	4.8
2000 - 2100	176	52	47	38	38	1	2	169	0	4	0	0	0	0	0	0	0	0	0	3	3	8	56	74	25	5	1	0	0	0	0	36	31	5.3
2100 - 2200	114	30	31	30	23	0	1	109	0	4	0	0	0	0	0	0	0	0	0	2	1	3	36	49	17	5	1	0	0	0	0	35.8	31.4	5.3
2200 - 2300	82	21	25	20	16	0	1	80	0	1	0	0	0	0	0	0	0	0	0	0	1	1	22	35	15	7	1	0	0	0	0	38.4	32.9	5.3
2300 - 0000	45	13	14	11	8	0	0	43	0	1	0	0	0	0	0	0	0	0	0	0	0	1	12	16	10	4	1	0	0	0	0	39.4	33.3	5.9
0700 - 1900	**4389**	**1055**	**1136**	**1102**	**1095**	**30**	**21**	**4045**	**26**	**225**	**13**	**14**	**3**	**4**	**3**	**3**	**0**	**1**	**486**	**167**	**162**	**390**	**1501**	**1343**	**297**	**37**	**4**	**1**	**1**	**0**	**0**	**33.2**	**26.2**	**8.7**
0600 - 2200	**5054**	**1225**	**1308**	**1262**	**1259**	**37**	**26**	**4672**	**29**	**247**	**13**	**15**	**4**	**4**	**4**	**3**	**0**	**1**	**487**	**173**	**173**	**423**	**1705**	**1609**	**410**	**62**	**9**	**2**	**2**	**0**	**0**	**33.7**	**26.9**	**8.5**
0600 - 0000	**5181**	**1259**	**1347**	**1292**	**1283**	**37**	**27**	**4796**	**29**	**249**	**13**	**15**	**4**	**4**	**4**	**3**	**0**	**1**	**487**	**174**	**174**	**425**	**1738**	**1669**	**435**	**73**	**11**	**2**	**2**	**0**	**0**	**33.8**	**27**	**8.5**
0000 - 0000	**5265**	**1275**	**1366**	**1314**	**1310**	**40**	**28**	**4870**	**29**	**253**	**13**	**15**	**4**	**4**	**4**	**3**	**0**	**1**	**487**	**174**	**176**	**428**	**1752**	**1687**	**457**	**83**	**15**	**3**	**2**	**0**	**0**	**33.9**	**27.1**	**8.6**

Virtual Week (1)

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
Mon	5480	1338	1420	1317	1405	34	25	5055	32	283	14	20	2	6	6	3	0	0	95	104	225	527	2071	1865	479	87	17	5	3	1	1	33.9	28.9	6.1
Tue	5900	1456	1508	1507	1429	54	45	5378	39	314	17	28	6	5	5	7	1	1	846	347	254	497	1661	1719	465	84	21	4	2	0	0	33.7	25.3	9.8
Wed	5648	1364	1470	1449	1365	31	24	5206	32	296	25	12	5	7	4	4	1	1	871	246	212	461	1683	1635	441	87	10	2	0	0	0	33.6	25.4	9.8
Thu	5732	1369	1490	1438	1435	43	40	5218	34	332	21	18	7	4	8	6	0	1	783	217	163	377	1736	1835	514	87	17	1	2	0	0	33.9	26.3	9.6
Fri	5735	1379	1466	1470	1420	28	20	5318	34	291	14	12	3	6	8	1	0	0	663	217	225	485	2014	1626	407	73	17	3	4	0	1	33.3	26.1	9
Sat	4522	1076	1283	1063	1100	25	15	4291	20	161	1	6	2	1	0	0	0	0	149	57	76	350	1729	1642	430	78	9	1	1	0	0	34.2	29.2	6.3
Sun	3835	944	922	956	1013	63	30	3625	12	91	1	7	1	0	0	3	0	2	0	31	74	300	1372	1487	465	84	14	3	4	1	0	35	30.4	5

Derby, City of Derby

Report Id 237/18
Site Name Site 4 of 4
Description A5132 The Castle Way, 45m west of Waterside
Direction Westbound

Thursday 26 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	16	3	8	3	2	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	5	3	2	1	1	0	0	0	44.9	35.5	7.4
0100 - 0200	8	3	1	3	1	0	0	7	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2	4	1	0	0	0	0	0	-	36.5	4
0200 - 0300	5	3	1	1	0	0	0	3	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	1	0	0	0	0	0	-	35.9	5.6
0300 - 0400	7	3	2	1	1	0	0	6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	4	1	1	0	0	0	0	0	-	34.2	5.1
0400 - 0500	20	1	3	4	12	0	1	18	0	0	1	0	0	0	0	0	0	0	0	0	0	2	3	6	7	2	0	0	0	0	0	38.8	33.4	5.4
0500 - 0600	76	14	14	28	20	2	1	67	0	6	0	0	0	0	0	0	0	0	0	2	0	2	7	24	24	13	3	0	1	0	0	41.6	35.5	7.2
0600 - 0700	209	31	50	64	64	2	3	187	1	12	1	3	0	0	0	0	0	0	0	3	4	7	34	78	60	21	2	0	0	0	0	39	33.5	5.7
0700 - 0800	484	85	134	120	145	4	4	434	5	32	0	4	0	0	0	1	0	0	0	4	17	21	109	215	87	24	5	2	0	0	0	36.8	31.9	5.6
0800 - 0900	531	121	137	147	126	3	4	482	3	36	0	1	0	1	0	1	0	0	8	7	14	28	182	226	57	8	1	0	0	0	0	34.4	29.8	5.8
0900 - 1000	343	113	77	85	68	2	0	311	4	23	1	1	0	0	0	1	0	0	4	10	16	36	146	107	21	3	0	0	0	0	0	33.1	28.2	5.7
1000 - 1100	255	64	60	68	63	1	1	235	0	17	0	0	0	0	0	1	0	0	0	2	2	21	105	90	30	5	0	0	0	0	0	34.7	30.1	4.4
1100 - 1200	291	68	70	81	72	5	3	258	1	19	2	1	0	1	0	1	0	0	1	8	6	31	116	106	18	4	0	0	1	0	0	33.5	29	5.4
1200 - 1300	281	67	67	72	75	1	1	256	0	22	0	0	0	0	0	1	0	0	1	2	10	13	105	105	40	4	0	1	0	0	0	35.1	30.4	5.1
1300 - 1400	289	72	61	87	69	3	1	258	0	25	1	0	0	0	0	1	0	0	0	3	1	23	114	112	27	7	2	0	0	0	0	34.3	30.4	4.7
1400 - 1500	331	82	79	87	83	3	4	295	3	22	1	2	0	0	0	1	0	0	2	2	9	13	126	116	54	7	2	0	0	0	0	35.6	30.6	5.1
1500 - 1600	405	95	125	95	90	1	3	364	0	35	0	1	0	0	0	1	0	0	1	9	10	30	184	138	30	2	1	0	0	0	0	33.7	29.1	4.9
1600 - 1700	402	102	110	107	83	4	2	382	1	11	1	1	0	0	0	0	0	0	6	8	9	31	157	152	34	2	2	1	0	0	0	33.7	29.3	5.9
1700 - 1800	380	92	102	90	96	6	5	354	5	8	1	0	0	0	0	1	0	0	22	14	21	59	152	98	12	2	0	0	0	0	0	31.4	26	7.4
1800 - 1900	362	92	84	104	82	3	2	343	3	9	0	0	0	2	0	0	0	0	5	10	4	4	123	156	47	12	1	0	0	0	0	35.5	30.6	5.9
1900 - 2000	236	75	61	59	41	5	2	219	1	8	1	0	0	0	0	0	0	0	0	4	2	15	60	111	37	6	1	0	0	0	0	35.4	31.2	5
2000 - 2100	175	41	61	38	35	2	6	161	0	6	0	0	0	0	0	0	0	0	0	1	1	5	38	81	38	8	1	1	1	0	0	37.7	32.9	5.3
2100 - 2200	176	69	37	37	33	1	4	168	0	3	0	0	0	0	0	0	0	0	0	0	1	1	47	74	40	10	3	0	0	0	0	37.2	32.9	4.7
2200 - 2300	85	25	24	22	14	0	0	83	0	2	0	0	0	0	0	0	0	0	0	0	0	3	28	32	20	2	0	0	0	0	0	36.4	32	4.3
2300 - 0000	38	8	8	12	10	0	0	36	0	2	0	0	0	0	0	0	0	0	0	0	1	1	8	14	7	2	3	2	0	0	0	44.9	34.6	7.6
0700 - 1900	**4354**	**1053**	**1106**	**1143**	**1052**	**36**	**30**	**3972**	**25**	**259**	**7**	**11**	**0**	**4**	**0**	**10**	**0**	**0**	**50**	**79**	**119**	**310**	**1619**	**1621**	**457**	**80**	**14**	**4**	**1**	**0**	**0**	**34.4**	**29.7**	**5.8**
0600 - 2200	**5150**	**1269**	**1315**	**1341**	**1225**	**46**	**45**	**4707**	**27**	**288**	**9**	**14**	**0**	**4**	**0**	**10**	**0**	**0**	**50**	**87**	**127**	**338**	**1798**	**1965**	**632**	**125**	**21**	**5**	**2**	**0**	**0**	**35.1**	**30.1**	**5.8**
0600 - 0000	**5273**	**1302**	**1347**	**1375**	**1249**	**46**	**45**	**4826**	**27**	**292**	**9**	**14**	**0**	**4**	**0**	**10**	**0**	**0**	**50**	**87**	**128**	**342**	**1834**	**2011**	**659**	**129**	**24**	**7**	**2**	**0**	**0**	**35.1**	**30.2**	**5.8**
0000 - 0000	**5405**	**1329**	**1376**	**1415**	**1285**	**48**	**47**	**4943**	**27**	**302**	**10**	**14**	**0**	**4**	**0**	**10**	**0**	**0**	**50**	**89**	**128**	**346**	**1850**	**2055**	**699**	**149**	**28**	**8**	**3**	**0**	**0**	**35.3**	**30.3**	**5.9**

Friday 27 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	20	7	2	2	9	0	0	18	0	2	0	0	0	0	0	0	0	0	0	0	0	1	4	3	10	0	2	0	0	0	0	39.7	35.1	6.2
0100 - 0200	7	3	0	1	3	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	1	0	1	1	0	0	-	40.3	12.6
0200 - 0300	8	4	1	0	3	0	0	6	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	1	0	1	0	0	0	-	37.7	6.8
0300 - 0400	10	2	1	3	4	0	0	9	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	5	2	2	0	0	0	0	-	39.1	5.4
0400 - 0500	17	4	2	5	6	1	1	14	0	1	0	0	0	0	0	0	0	0	0	1	0	0	6	1	8	0	1	0	0	0	0	39.4	33	7.5
0500 - 0600	76	20	13	27	16	1	2	68	0	5	0	0	0	0	0	0	0	0	0	1	0	0	6	21	27	14	6	1	0	0	0	42.1	36.8	6.2
0600 - 0700	159	25	43	37	54	3	0	142	0	12	0	2	0	0	0	0	0	0	0	1	2	7	22	69	42	11	4	1	0	0	0	38.8	33.6	5.5
0700 - 0800	455	90	115	118	132	2	1	416	2	28	1	2	0	2	0	1	0	0	1	4	7	11	108	188	118	17	1	0	0	0	0	37.3	32.4	5.1
0800 - 0900	498	100	145	137	116	1	2	468	0	25	0	1	0	0	0	1	0	0	7	7	11	34	150	223	54	9	2	1	0	0	0	34.7	30.1	5.8
0900 - 1000	324	107	86	76	55	0	0	300	0	23	0	0	0	0	0	1	0	0	3	4	6	40	126	105	37	3	0	0	0	0	0	34.3	29.3	5.2
1000 - 1100	257	75	59	64	59	0	1	223	0	31	1	0	0	1	0	0	0	0	0	0	2	10	96	110	32	7	0	0	0	0	0	35	31.1	4
1100 - 1200	289	56	77	72	84	0	1	253	2	29	1	1	0	0	0	2	0	0	1	0	3	26	108	125	23	3	0	0	0	0	0	33.4	29.9	4.2
1200 - 1300	268	64	72	67	65	1	1	250	0	15	1	0	0	0	0	0	0	0	1	0	5	14	96	121	23	8	0	0	0	0	0	34.4	30.6	4.4
1300 - 1400	314	68	74	88	84	1	1	288	0	17	0	5	0	1	0	1	0	0	0	0	1	13	127	127	43	3	0	0	0	0	0	34.9	30.7	3.8
1400 - 1500	346	90	80	85	91	0	0	321	1	19	0	3	0	1	0	1	0	0	3	6	7	15	153	117	37	8	0	0	0	0	0	34.3	29.8	5.2
1500 - 1600	391	113	105	79	94	2	3	365	0	20	0	0	0	0	0	1	0	0	8	11	25	69	183	75	17	3	0	0	0	0	0	31.6	26.5	6.1
1600 - 1700	412	109	88	116	99	6	2	393	0	11	0	0	0	0	0	0	0	0	14	9	6	35	224	102	20	2	0	0	0	0	0	32	27.7	5.9
1700 - 1800	409	88	112	102	107	6	6	382	1	14	0	0	0	0	0	0	0	0	6	8	6	22	160	153	48	6	0	0	0	0	0	34.5	29.8	5.5
1800 - 1900	341	104	82	79	76	1	0	328	0	10	0	1	0	1	0	0	0	0	0	3	5	9	120	142	57	3	2	0	0	0	0	35.7	31.2	4.6
1900 - 2000	251	72	64	70	45	0	0	246	1	4	0	0	0	0	0	0	0	0	1	4	7	19	69	98	44	6	2	1	0	0	0	35.9	30.8	6
2000 - 2100	175	48	55	35	37	1	0	169	1	4	0	0	0	0	0	0	0	0	0	0	1	5	59	81	22	3	4	0	0	0	0	36.2	31.9	4.5
2100 - 2200	141	51	24	39	27	0	0	136	0	5	0	0	0	0	0	0	0	0	0	0	0	8	37	55	24	12	5	0	0	0	0	38.7	33	5.5
2200 - 2300	82	37	16	16	13	0	0	81	0	1	0	0	0	0	0	0	0	0	0	0	1	2	26	21	24	8	0	0	0	0	0	38.2	33	5.3
2300 - 0000	64	18	8	26	12	0	0	63	0	1	0	0	0	0	0	0	0	0	0	0	0	2	16	25	16	4	1	0	0	0	0	38.3	32.9	4.7
0700 - 1900	**4304**	**1064**	**1095**	**1083**	**1062**	**20**	**18**	**3987**	**6**	**242**	**4**	**13**	**0**	**6**	**0**	**8**	**0**	**0**	**44**	**52**	**84**	**298**	**1651**	**1588**	**509**	**72**	**5**	**1**	**0**	**0**	**0**	**34.7**	**29.9**	**5.4**
0600 - 2200	**5030**	**1260**	**1281**	**1264**	**1225**	**24**	**18**	**4680**	**8**	**267**	**4**	**15**	**0**	**6**	**0**	**8**	**0**	**0**	**45**	**57**	**94**	**337**	**1838**	**1891**	**641**	**104**	**20**	**3**	**0**	**0**	**0**	**35.1**	**30.2**	**5.5**
0600 - 0000	**5176**	**1315**	**1305**	**1306**	**1250**	**24**	**18**	**4824**	**8**	**269**	**4**	**15**	**0**	**6**	**0**	**8**	**0**	**0**	**45**	**57**	**95**	**341**	**1880**	**1937**	**681**	**116**	**21**	**3**	**0**	**0**	**0**	**35.2**	**30.3**	**5.5**
0000 - 0000	**5314**	**1355**	**1324**	**1344**	**1291**	**26**	**21**	**4946**	**8**	**280**	**4**	**15**	**0**	**6**	**0**	**8**	**0**	**0**	**45**	**59**	**95**	**342**	**1900**	**1965**	**735**	**134**	**32**	**6**	**1**	**0**	**0**	**35.4**	**30.4**	**5.6**

Saturday 28 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	37	10	7	11	9	0	1	36	0	0	0	0	0	0	0	0	0	0	0	0	0	1	13	11	5	4	1	1	0	1	0	41.6	34.3	8.2
0100 - 0200	17	6	4	1	6	0	0	14	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	5	6	3	2	0	0	0	0	44.1	37	5.9
0200 - 0300	8	2	1	2	3	0	0	7	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2	4	0	1	0	0	0	0	0	-	31.9	5
0300 - 0400	7	1	1	3	2	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	2	2	0	0	0	0	0	-	35.4	6.2
0400 - 0500	13	1	1	6	5	1	1	10	0	1	0	0	0	0	0	0	0	0	0	1	0	0	2	3	5	2	0	0	0	0	0	40.6	33.8	7.1
0500 - 0600	30	5	8	7	10	0	0	28	0	2	0	0	0	0	0	0	0	0	0	0	0	1	3	8	9	9	0	0	0	0	0	41.2	35.9	5.5
0600 - 0700	66	11	20	20	15	2	0	59	1	4	0	0	0	0	0	0	0	0	0	1	2	3	8	26	17	7	1	0	0	0	1	39.9	33.7	7.6
0700 - 0800	106	9	27	31	39	1	0	97	0	8	0	0	0	0	0	0	0	0	0	0	1	1	13	41	30	16	4	0	0	0	0	40.9	35	5.5
0800 - 0900	236	48	49	57	82	1	1	221	1	10	1	1	0	0	0	0	0	0	0	2	1	9	53	99	58	12	2	0	0	0	0	37.1	32.5	4.9
0900 - 1000	363	73	102	93	95	6	1	337	0	15	1	2	1	0	0	0	0	0	0	3	7	25	115	157	47	8	0	1	0	0	0	35	30.6	4.9
1000 - 1100	376	82	95	99	100	2	0	362	3	9	0	0	0	0	0	0	0	0	0	0	3	24	156	150	37	5	0	1	0	0	0	34.2	30.3	4
1100 - 1200	386	97	84	110	95	2	0	361	0	21	2	0	0	0	0	0	0	0	2	2	9	32	166	135	32	8	0	0	0	0	0	33.7	29.6	4.7
1200 - 1300	384	91	91	98	104	3	2	361	1	15	1	0	0	1	0	0	0	0	6	0	4	16	166	151	36	3	2	0	0	0	0	33.9	29.9	5
1300 - 1400	380	103	86	99	92	2	0	362	2	12	1	1	0	0	0	0	0	0	0	3	2	16	146	162	43	5	3	0	0	0	0	34.6	30.8	4.4
1400 - 1500	364	114	91	83	76	3	5	341	2	12	0	0	0	1	0	0	0	0	0	0	5	7	110	179	52	9	2	0	0	0	0	35.7	31.6	4.3
1500 - 1600	293	65	73	78	77	0	0	280	2	9	0	1	0	0	0	1	0	0	0	5	3	6	82	131	59	6	0	0	1	0	0	36.4	31.8	5.1
1600 - 1700	290	71	64	75	80	0	1	281	1	6	1	0	0	0	0	0	0	0	0	2	3	10	98	108	56	11	1	1	0	0	0	36.3	31.6	4.8
1700 - 1800	300	97	76	58	69	0	1	288	1	10	0	0	0	0	0	0	0	0	0	1	0	20	110	117	39	7	3	2	0	1	0	35.8	31.3	5.2
1800 - 1900	255	65	72	68	50	0	0	245	1	3	3	2	0	0	0	1	0	0	0	2	13	63	93	64	17	3	0	0	0	0	0	32.8	27.7	5.1
1900 - 2000	188	61	45	43	39	0	1	185	0	2	0	0	0	0	0	0	0	0	0	0	4	31	91	41	17	1	3	0	0	0	0	32.9	28.7	5.1
2000 - 2100	131	35	26	37	33	0	1	124	1	4	0	1	0	0	0	0	0	0	3	0	3	24	52	30	12	4	3	0	0	0	0	34.7	28.8	7.2
2100 - 2200	120	30	30	32	28	0	0	117	0	2	0	1	0	0	0	0	0	0	0	1	2	15	59	31	8	2	1	1	0	0	0	33.6	29.1	5
2200 - 2300	92	24	21	25	22	0	0	88	0	2	2	0	0	0	0	0	0	0	0	0	2	15	38	23	8	6	0	0	0	0	0	35.1	29.6	5.4
2300 - 0000	79	28	20	16	15	0	0	78	0	1	0	0	0	0	0	0	0	0	0	0	0	13	28	23	11	1	2	1	0	0	0	35.3	30.4	6.1
0700 - 1900	**3733**	**915**	**910**	**949**	**959**	**20**	**11**	**3536**	**14**	**130**	**10**	**7**	**1**	**2**	**0**	**2**	**0**	**0**	**8**	**20**	**51**	**229**	**1308**	**1494**	**506**	**93**	**17**	**5**	**1**	**1**	**0**	**35.4**	**30.8**	**4.9**
0600 - 2200	**4238**	**1052**	**1031**	**1081**	**1074**	**22**	**13**	**4021**	**16**	**142**	**10**	**9**	**1**	**2**	**0**	**2**	**0**	**0**	**11**	**22**	**62**	**302**	**1518**	**1622**	**560**	**107**	**25**	**6**	**1**	**1**	**1**	**35.3**	**30.6**	**5.1**
0600 - 0000	**4409**	**1104**	**1072**	**1122**	**1111**	**22**	**13**	**4187**	**16**	**145**	**12**	**9**	**1**	**2**	**0**	**2**	**0**	**0**	**11**	**22**	**64**	**330**	**1584**	**1668**	**579**	**114**	**27**	**7**	**1**	**1**	**1**	**35.3**	**30.6**	**5.2**
0000 - 0000	**4521**	**1129**	**1094**	**1152**	**1146**	**23**	**15**	**4289**	**16**	**152**	**12**	**9**	**1**	**2**	**0**	**2**	**0**	**0**	**11**	**23**	**64**	**333**	**1607**	**1700**	**606**	**135**	**30**	**8**	**1**	**2**	**1**	**35.5**	**30.7**	**5.2**

Sunday 29 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	52	9	23	9	11	0	2	49	0	1	0	0	0	0	0	0	0	0	0	0	0	5	17	17	8	2	3	0	0	0	0	37.8	32	6.2
0100 - 0200	30	11	3	12	4	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	4	11	8	5	1	0	1	0	0	0	37.5	31.1	6.4
0200 - 0300	34	5	12	10	7	0	0	33	0	1	0	0	0	0	0	0	0	0	0	0	0	6	15	8	3	0	0	2	0	0	0	34.7	30.1	6.5
0300 - 0400	10	4	3	3	0	0	0	8	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	5	2	1	0	0	0	0	0	-	32.8	5
0400 - 0500	11	0	2	2	7	0	1	10	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	1	3	1	1	0	0	0	0	42.8	33.9	7.6
0500 - 0600	21	2	5	9	5	0	0	20	0	1	0	0	0	0	0	0	0	0	0	0	0	2	4	4	8	2	1	0	0	0	0	40.7	34.5	5.7
0600 - 0700	39	8	9	12	10	1	0	38	0	0	0	0	0	0	0	0	0	0	0	1	0	1	14	16	5	2	0	0	0	0	0	35.2	31.2	5
0700 - 0800	58	14	8	19	17	5	0	51	0	1	0	1	0	0	0	0	0	0	0	3	3	6	15	20	8	1	2	0	0	0	0	36.3	29.7	7.3
0800 - 0900	83	18	15	20	30	9	0	70	0	4	0	0	0	0	0	0	0	0	0	5	9	5	17	32	13	0	2	0	0	0	0	35.7	29.3	7.7
0900 - 1000	220	39	53	62	66	4	4	197	0	12	1	1	0	0	0	0	0	1	1	2	7	12	41	86	53	14	3	1	0	0	0	37.8	32.3	6.2
1000 - 1100	278	73	60	64	81	13	8	241	0	13	0	3	0	0	0	0	0	0	0	8	10	18	70	115	37	11	9	0	0	0	0	36.7	31.1	6.5
1100 - 1200	412	106	79	105	122	45	14	322	3	14	0	7	0	0	0	6	1	0	0	35	47	42	130	119	30	7	2	0	0	0	0	33.5	27.2	7
1200 - 1300	464	128	122	103	111	51	3	370	1	11	1	20	0	0	0	6	1	0	2	74	61	72	124	110	14	4	2	1	0	0	0	31.8	24.6	7.8
1300 - 1400	376	100	90	93	93	26	2	324	2	7	1	12	0	0	0	1	1	0	2	19	38	35	122	131	24	5	0	0	0	0	0	33.1	27.6	6.6
1400 - 1500	401	116	99	88	98	33	3	340	3	8	0	7	0	0	0	6	0	1	2	33	47	32	108	131	37	8	2	0	1	0	0	34.2	27.6	7.6
1500 - 1600	314	81	67	75	91	22	1	272	0	9	0	7	0	0	0	2	1	0	0	36	16	21	113	103	21	3	1	0	0	0	0	33	27.4	6.8
1600 - 1700	316	92	73	74	77	6	0	296	1	11	0	1	1	0	0	0	0	0	1	7	5	15	108	122	46	8	2	0	0	2	0	35.8	30.7	6
1700 - 1800	241	60	62	64	55	0	2	230	2	6	0	0	1	0	0	0	0	0	0	0	2	3	66	105	50	12	2	1	0	0	0	36.8	32.4	4.6
1800 - 1900	205	48	59	53	45	2	0	197	0	4	0	1	0	0	0	1	0	0	1	1	1	9	52	86	43	12	0	0	0	0	0	37.7	32.1	5
1900 - 2000	202	52	65	45	40	1	2	197	0	2	0	0	0	0	0	0	0	0	0	0	1	7	61	76	39	16	2	0	0	0	0	38	32.4	5
2000 - 2100	101	27	20	35	19	0	0	97	0	4	0	0	0	0	0	0	0	0	0	0	0	5	36	37	17	3	3	0	0	0	0	37	31.6	4.9
2100 - 2200	86	22	27	20	17	0	1	84	0	1	0	0	0	0	0	0	0	0	0	0	0	3	32	30	12	8	1	0	0	0	0	38.7	32.3	5
2200 - 2300	55	11	16	10	18	0	0	54	0	1	0	0	0	0	0	0	0	0	0	0	0	2	15	15	10	7	1	2	0	0	0	40.6	33.1	7.6
2300 - 0000	31	14	4	6	7	0	1	29	0	1	0	0	0	0	0	0	0	0	0	0	0	0	10	7	8	4	0	0	2	0	0	41	35	7.2
0700 - 1900	**3368**	**875**	**787**	**820**	**886**	**216**	**37**	**2910**	**12**	**100**	**3**	**60**	**2**	**0**	**0**	**22**	**4**	**2**	**9**	**223**	**246**	**270**	**966**	**1160**	**376**	**85**	**27**	**3**	**1**	**2**	**0**	**34.9**	**28.7**	**7.2**
0600 - 2200	**3796**	**984**	**908**	**932**	**972**	**218**	**40**	**3326**	**12**	**107**	**3**	**60**	**2**	**0**	**0**	**22**	**4**	**2**	**9**	**224**	**247**	**286**	**1109**	**1319**	**449**	**114**	**33**	**3**	**1**	**2**	**0**	**35.2**	**29.1**	**7**
0600 - 0000	**3882**	**1009**	**928**	**948**	**997**	**218**	**41**	**3409**	**12**	**109**	**3**	**60**	**2**	**0**	**0**	**22**	**4**	**2**	**9**	**224**	**250**	**288**	**1134**	**1341**	**467**	**125**	**34**	**5**	**3**	**2**	**0**	**35.3**	**29.2**	**7.1**
0000 - 0000	**4040**	**1040**	**976**	**993**	**1031**	**218**	**44**	**3559**	**12**	**114**	**3**	**60**	**2**	**0**	**0**	**22**	**4**	**2**	**9**	**224**	**250**	**307**	**1186**	**1384**	**496**	**132**	**39**	**8**	**3**	**2**	**0**	**35.5**	**29.3**	**7.1**

Monday 30 April 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	11	1	3	5	2	0	0	10	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	4	1	0	0	0	0	45.3	39	4.7
0100 - 0200	7	3	3	0	1	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	1	0	0	0	0	-	38.5	6.4
0200 - 0300	5	1	1	2	1	0	0	3	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	0	0	1	0	0	-	41.4	9
0300 - 0400	6	0	0	3	3	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	1	1	0	0	0	0	0	-	34.1	5.5
0400 - 0500	21	5	6	5	5	0	1	14	0	6	0	0	0	0	0	0	0	0	0	0	0	0	3	3	9	6	0	0	0	0	0	43.5	36.8	5.4
0500 - 0600	75	13	19	27	16	1	1	68	0	5	0	0	0	0	0	0	0	0	1	0	0	1	10	26	22	10	5	0	0	0	0	40.8	35.1	6.1
0600 - 0700	200	35	39	61	65	3	1	179	0	16	0	1	0	0	0	0	0	0	0	3	2	3	29	75	63	22	3	0	0	0	0	39.3	33.9	5.5
0700 - 0800	484	85	130	118	151	3	2	445	1	28	0	2	0	2	0	1	0	0	2	9	13	19	112	219	88	20	1	0	1	0	0	36.8	31.6	5.8
0800 - 0900	531	123	141	146	121	0	1	505	0	22	1	0	0	1	0	1	0	0	0	5	9	9	118	286	86	16	2	0	0	0	0	35.9	32	4.6
0900 - 1000	302	104	63	66	69	0	2	278	1	17	1	1	1	0	0	1	0	0	2	5	16	26	126	93	31	3	0	0	0	0	0	34.2	28.8	5.5
1000 - 1100	288	83	78	69	58	0	0	260	1	23	0	1	1	0	1	1	0	0	0	0	3	13	98	135	34	5	0	0	0	0	0	34.9	31.1	3.9
1100 - 1200	265	70	70	62	63	3	1	232	3	22	0	2	0	0	0	2	0	0	0	4	4	19	85	98	50	5	0	0	0	0	0	35.8	30.7	5.1
1200 - 1300	241	57	78	49	57	0	1	223	0	16	1	0	0	0	0	0	0	0	0	7	6	8	84	90	39	4	3	0	0	0	0	35.5	30.5	5.8
1300 - 1400	255	63	61	66	65	3	0	230	1	21	0	0	0	0	0	0	0	0	0	2	4	10	90	121	25	3	0	0	0	0	0	34.2	30.7	4.2
1400 - 1500	331	63	92	85	91	1	5	294	1	23	1	4	1	1	0	0	0	0	1	1	6	22	141	122	32	4	0	2	0	0	0	34.3	30.2	4.8
1500 - 1600	360	90	78	103	89	2	1	334	2	21	0	0	0	0	0	0	0	0	1	8	12	25	138	139	33	4	0	0	0	0	0	33.9	29.4	5.1
1600 - 1700	425	108	107	116	94	0	3	397	0	23	1	1	0	0	0	0	0	0	0	1	5	22	168	178	43	5	3	0	0	0	0	34.3	30.5	4.5
1700 - 1800	476	105	137	118	116	7	5	452	0	11	1	0	0	0	0	0	0	0	3	7	18	52	148	183	58	7	0	0	0	0	0	34.9	29.6	5.6
1800 - 1900	294	65	98	58	73	5	2	273	0	12	2	0	0	0	0	0	0	0	0	9	17	42	71	101	41	11	2	0	0	0	0	35.7	29.6	6.6
1900 - 2000	194	53	62	48	31	1	3	186	0	4	0	0	0	0	0	0	0	0	0	4	6	11	60	69	31	12	1	0	0	0	0	36.2	30.9	5.9
2000 - 2100	159	38	56	28	37	0	0	154	1	4	0	0	0	0	0	0	0	0	0	0	1	11	58	45	30	13	1	0	0	0	0	38.1	31.5	5.5
2100 - 2200	127	58	34	24	11	2	0	122	1	2	0	0	0	0	0	0	0	0	0	1	2	7	45	46	20	4	2	0	0	0	0	35.6	31.1	5.2
2200 - 2300	61	12	26	10	13	0	0	60	0	0	0	0	0	1	0	0	0	0	0	0	0	3	13	20	13	11	1	0	0	0	0	42	34.1	5.9
2300 - 0000	35	19	2	8	6	0	1	31	0	3	0	0	0	0	0	0	0	0	0	0	0	1	8	10	8	6	1	1	0	0	0	41.3	34.6	6.6
0700 - 1900	**4252**	**1016**	**1133**	**1056**	**1047**	**24**	**23**	**3923**	**10**	**239**	**8**	**11**	**3**	**4**	**1**	**6**	**0**	**0**	**9**	**58**	**113**	**267**	**1379**	**1765**	**560**	**87**	**11**	**2**	**1**	**0**	**0**	**35.1**	**30.5**	**5.2**
0600 - 2200	**4932**	**1200**	**1324**	**1217**	**1191**	**30**	**27**	**4564**	**12**	**265**	**8**	**12**	**3**	**4**	**1**	**6**	**0**	**0**	**9**	**66**	**124**	**299**	**1571**	**2000**	**704**	**138**	**18**	**2**	**1**	**0**	**0**	**35.5**	**30.7**	**5.3**
0600 - 0000	**5028**	**1231**	**1352**	**1235**	**1210**	**30**	**28**	**4655**	**12**	**268**	**8**	**12**	**3**	**5**	**1**	**6**	**0**	**0**	**9**	**66**	**124**	**303**	**1592**	**2030**	**725**	**155**	**20**	**3**	**1**	**0**	**0**	**35.6**	**30.7**	**5.4**
0000 - 0000	**5153**	**1254**	**1384**	**1277**	**1238**	**31**	**30**	**4763**	**12**	**282**	**8**	**12**	**3**	**5**	**1**	**6**	**0**	**0**	**10**	**66**	**124**	**304**	**1607**	**2067**	**764**	**179**	**27**	**3**	**2**	**0**	**0**	**35.8**	**30.9**	**5.5**

Tuesday 01 May 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	17	3	5	2	7	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	4	4	3	1	1	1	0	0	47	37.8	8.7
0100 - 0200	6	1	2	1	2	0	0	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	0	0	1	0	0	0	-	36.6	8.8
0200 - 0300	6	3	0	1	2	0	0	4	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	2	1	0	0	0	0	-	35.2	9.5
0300 - 0400	11	1	3	5	2	0	0	10	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	4	4	0	2	0	0	0	0	45.9	36.4	6.6
0400 - 0500	17	1	6	3	7	0	1	15	0	1	0	0	0	0	2	0	0	0	0	0	0	1	4	2	6	4	0	0	0	0	0	44.1	35.6	6.5
0500 - 0600	79	9	20	32	18	1	1	75	0	2	0	0	0	0	0	0	0	0	0	1	0	2	5	27	34	8	1	1	0	0	0	39.6	35.2	5.4
0600 - 0700	215	34	41	65	75	7	2	189	0	17	0	0	0	0	0	0	0	0	1	4	9	3	32	56	70	33	7	0	0	0	0	40.5	34.1	7
0700 - 0800	488	96	125	129	138	4	2	442	4	33	0	2	0	0	0	1	0	0	2	7	18	23	108	210	94	20	5	1	0	0	0	36.7	31.5	6.1
0800 - 0900	529	128	118	156	127	3	0	496	1	28	0	0	1	0	0	0	0	0	8	6	3	45	181	190	79	14	3	0	0	0	0	35.5	30.4	5.9
0900 - 1000	344	116	77	64	87	4	1	303	2	32	0	0	0	1	0	1	0	0	1	8	10	28	126	136	25	10	0	0	0	0	0	34.2	29.5	5.4
1000 - 1100	293	76	72	77	68	2	1	263	1	21	2	1	1	0	0	1	0	0	0	2	0	11	125	121	25	4	5	0	0	0	0	34.3	30.6	4.2
1100 - 1200	269	79	56	51	83	6	7	221	1	25	2	3	1	0	1	2	0	0	1	10	3	19	114	85	32	5	0	0	0	0	0	34.5	29.4	5.7
1200 - 1300	272	67	82	62	61	2	9	230	2	22	3	2	0	0	0	2	0	0	2	5	9	21	123	91	18	3	0	0	0	0	0	33.1	29	5.2
1300 - 1400	288	75	62	79	72	4	5	254	2	19	2	2	0	0	0	0	0	0	0	4	2	14	123	103	37	5	0	0	0	0	0	34.8	30.4	4.6
1400 - 1500	302	57	85	85	75	3	4	269	4	21	0	0	0	0	0	1	0	0	0	6	7	22	114	123	22	7	1	0	0	0	0	33.9	29.6	5.1
1500 - 1600	423	107	110	95	111	3	1	397	0	21	0	0	0	1	0	0	0	0	1	5	12	31	165	176	26	4	3	0	0	0	0	33.4	29.6	4.9
1600 - 1700	422	81	103	128	110	8	3	396	1	14	0	0	0	0	0	0	0	0	11	5	19	46	177	135	23	6	0	0	0	0	0	32.9	28.1	6.1
1700 - 1800	411	106	95	121	89	8	8	388	0	6	0	1	0	0	0	0	0	0	29	10	19	79	161	94	17	0	1	0	1	0	0	31.5	25.8	7.7
1800 - 1900	354	108	88	86	72	8	3	331	1	7	1	2	0	0	0	1	0	0	2	5	16	13	104	148	55	8	2	1	0	0	0	35.9	30.7	5.9
1900 - 2000	237	59	65	72	41	2	15	211	0	6	0	2	0	0	1	0	0	0	0	0	7	10	70	96	42	5	2	3	0	1	1	37	32	6.4
2000 - 2100	139	37	39	30	33	1	4	126	1	6	0	1	0	0	0	0	0	0	0	1	1	3	38	57	21	10	5	3	0	0	0	39.1	33.1	6.2
2100 - 2200	179	74	42	39	24	0	1	176	0	1	1	0	0	0	0	0	0	0	0	0	0	4	58	79	27	10	1	0	0	0	0	37.2	32.2	4.5
2200 - 2300	83	28	24	24	7	1	0	82	0	0	0	0	0	0	0	0	0	0	0	0	2	1	20	31	23	6	0	0	0	0	0	37.8	33	5.2
2300 - 0000	30	6	6	8	10	0	2	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	10	7	2	3	0	0	0	0	43.1	34.5	6.1
0700 - 1900	**4395**	**1096**	**1073**	**1133**	**1093**	**55**	**44**	**3990**	**19**	**249**	**10**	**13**	**3**	**2**	**1**	**9**	**0**	**0**	**57**	**73**	**118**	**352**	**1621**	**1612**	**453**	**86**	**20**	**2**	**1**	**0**	**0**	**34.5**	**29.6**	**5.9**
0600 - 2200	**5165**	**1300**	**1260**	**1339**	**1266**	**65**	**66**	**4692**	**20**	**279**	**11**	**16**	**3**	**2**	**2**	**9**	**0**	**0**	**58**	**78**	**135**	**372**	**1819**	**1900**	**613**	**144**	**35**	**8**	**1**	**1**	**1**	**35.1**	**30**	**6.1**
0600 - 0000	**5278**	**1334**	**1290**	**1371**	**1283**	**66**	**68**	**4802**	**20**	**279**	**11**	**16**	**3**	**2**	**2**	**9**	**0**	**0**	**58**	**78**	**137**	**373**	**1847**	**1941**	**643**	**152**	**38**	**8**	**1**	**1**	**1**	**35.2**	**30.1**	**6.1**
0000 - 0000	**5414**	**1352**	**1326**	**1415**	**1321**	**67**	**70**	**4928**	**20**	**286**	**11**	**16**	**3**	**2**	**2**	**9**	**0**	**0**	**58**	**79**	**137**	**377**	**1862**	**1981**	**693**	**169**	**43**	**11**	**2**	**1**	**1**	**35.5**	**30.3**	**6.2**

Wednesday 02 May 2018

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	13	4	5	3	1	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	5	2	1	0	0	0	0	42.6	36.6	5
0100 - 0200	2	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	-	34	3.7
0200 - 0300	7	4	1	1	1	0	0	4	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	1	2	0	0	0	0	-	38.4	6.5
0300 - 0400	9	2	2	3	2	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	1	0	0	0	0	0	0	-	32.8	1.6
0400 - 0500	20	4	9	1	6	0	1	15	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4	6	5	5	0	0	0	0	0	42.6	35.2	5.2
0500 - 0600	88	14	19	36	19	1	0	82	0	5	0	0	0	0	0	0	0	0	0	1	0	1	20	29	30	7	0	0	0	0	0	38.4	33.5	4.8
0600 - 0700	225	41	44	64	76	2	2	204	0	17	0	0	0	0	0	0	0	0	0	2	0	2	25	74	89	28	4	1	0	0	0	40	35	5.1
0700 - 0800	481	88	125	135	133	1	1	453	2	21	0	1	0	0	0	2	0	0	2	9	16	18	132	216	75	12	0	1	0	0	0	35.6	30.9	5.6
0800 - 0900	539	136	123	158	122	1	2	508	2	24	2	0	0	0	0	0	0	0	2	3	12	14	167	272	66	2	1	0	0	0	0	34.6	30.8	4.4
0900 - 1000	359	114	93	74	78	1	1	327	1	25	3	0	0	1	0	0	0	0	1	9	12	34	145	137	20	1	0	0	0	0	0	33.3	28.7	5.1
1000 - 1100	238	82	39	63	54	0	0	214	1	20	3	0	0	0	0	0	0	0	0	0	0	9	109	90	27	2	1	0	0	0	0	34.3	30.6	3.7
1100 - 1200	247	41	56	84	66	0	0	223	0	21	1	2	0	0	0	0	0	0	0	1	2	16	86	112	27	3	0	0	0	0	0	34.2	30.4	4
1200 - 1300	253	64	52	70	67	0	0	235	0	16	2	0	0	0	0	0	0	0	0	1	5	11	104	101	26	3	1	1	0	0	0	34.3	30.3	4.5
1300 - 1400	261	52	63	70	76	1	1	229	0	25	3	1	0	1	0	0	0	0	0	1	2	8	105	107	33	4	1	0	0	0	0	34.9	30.7	4.1
1400 - 1500	334	97	61	74	102	4	0	309	2	15	2	1	0	0	0	1	0	0	0	10	5	21	118	131	41	8	0	0	0	0	0	34.9	30.1	5.3
1500 - 1600	364	95	89	84	96	1	0	340	1	19	1	0	1	0	0	1	0	0	6	12	6	23	169	119	23	5	1	0	0	0	0	33.1	28.7	5.7
1600 - 1700	440	102	114	108	116	2	2	414	2	18	1	0	0	1	0	0	0	0	10	10	8	24	155	172	51	7	3	0	0	0	0	34.8	29.8	6.2
1700 - 1800	377	83	104	104	86	9	0	359	1	8	0	0	0	0	0	0	0	0	20	5	13	34	184	106	13	2	0	0	0	0	0	31.8	27.1	6.7
1800 - 1900	360	89	109	90	72	1	2	346	2	6	0	1	1	0	0	1	0	0	6	11	23	29	122	127	36	5	1	0	0	0	0	33.9	28.6	6.6
1900 - 2000	239	71	63	56	49	2	3	220	1	9	0	1	0	1	1	1	0	0	0	4	5	6	50	107	57	8	2	0	0	0	0	36.4	32.1	5.2
2000 - 2100	172	50	50	47	25	3	2	157	1	7	2	0	0	0	0	0	0	0	1	2	7	6	40	74	34	5	3	0	0	0	0	36	31.4	6
2100 - 2200	139	38	46	27	28	1	0	132	0	5	1	0	0	0	0	0	0	0	0	0	2	8	30	59	29	8	2	0	1	0	0	37.6	32.6	5.5
2200 - 2300	84	25	17	21	21	0	3	77	0	3	1	0	0	0	0	0	0	0	0	0	1	3	18	34	20	2	4	2	0	0	0	38.8	33.6	6
2300 - 0000	36	11	12	6	7	0	0	35	0	1	0	0	0	0	0	0	0	0	0	1	0	3	2	18	9	1	0	1	1	0	0	38.3	34	7.8
0700 - 1900	**4253**	**1043**	**1028**	**1114**	**1068**	**21**	**9**	**3957**	**14**	**218**	**18**	**6**	**2**	**3**	**0**	**5**	**0**	**0**	**47**	**72**	**104**	**241**	**1596**	**1690**	**438**	**54**	**9**	**2**	**0**	**0**	**0**	**34.3**	**29.7**	**5.5**
0600 - 2200	**5028**	**1243**	**1231**	**1308**	**1246**	**29**	**16**	**4670**	**16**	**256**	**21**	**7**	**2**	**4**	**1**	**6**	**0**	**0**	**48**	**80**	**118**	**263**	**1741**	**2004**	**647**	**103**	**20**	**3**	**1**	**0**	**0**	**35.1**	**30.2**	**5.6**
0600 - 0000	**5148**	**1279**	**1260**	**1335**	**1274**	**29**	**19**	**4782**	**16**	**260**	**22**	**7**	**2**	**4**	**1**	**6**	**0**	**0**	**48**	**81**	**119**	**269**	**1761**	**2056**	**676**	**106**	**24**	**6**	**2**	**0**	**0**	**35.1**	**30.3**	**5.7**
0000 - 0000	**5287**	**1307**	**1297**	**1380**	**1303**	**30**	**20**	**4907**	**16**	**271**	**23**	**7**	**2**	**4**	**1**	**6**	**0**	**0**	**48**	**82**	**119**	**270**	**1786**	**2107**	**719**	**121**	**27**	**6**	**2**	**0**	**0**	**35.3**	**30.4**	**5.7**

Virtual Day (7)

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
0000 - 0100	24	5	8	5	6	0	0	23	0	1	0	0	0	0	0	0	0	0	0	0	0	1	6	7	6	2	1	0	0	0	0	41.8	34.6	7.1
0100 - 0200	11	4	2	3	2	0	0	10	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2	3	3	1	0	0	0	0	0	43.3	35	7.5
0200 - 0300	10	3	2	2	2	0	0	9	0	2	0	0	0	0	0	0	0	0	0	0	0	1	3	3	1	1	0	0	0	0	0	42	33.5	7.6
0300 - 0400	9	2	2	3	2	0	0	8	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	3	2	1	1	0	0	0	0	-	35.1	5.5
0400 - 0500	17	2	4	4	7	0	1	14	0	2	0	0	0	0	0	0	0	0	0	0	0	1	4	3	6	3	0	0	0	0	0	41.1	34.6	6.3
0500 - 0600	64	11	14	24	15	1	1	58	0	4	0	0	0	0	0	0	0	0	0	1	0	1	8	20	22	9	2	0	0	0	0	40.6	35.2	6
0600 - 0700	159	26	35	46	51	3	1	143	0	11	0	1	0	0	0	0	0	0	0	2	3	4	23	56	49	18	3	0	0	0	0	39.6	33.9	5.9
0700 - 0800	365	67	95	96	108	3	1	334	2	22	0	2	0	1	0	1	0	0	1	5	11	14	85	158	71	16	3	1	0	0	0	36.8	31.7	5.7
0800 - 0900	421	96	104	117	103	3	1	393	1	21	1	0	0	0	0	0	0	0	4	5	8	21	124	190	59	9	2	0	0	0	0	35.3	30.8	5.4
0900 - 1000	322	95	79	74	74	2	1	293	1	21	1	1	0	0	0	1	0	0	2	6	11	29	118	117	33	6	0	0	0	0	0	34.6	29.5	5.5
1000 - 1100	284	76	66	72	69	3	2	257	1	19	1	1	0	0	0	0	0	0	0	2	3	15	108	116	32	6	2	0	0	0	0	34.8	30.7	4.5
1100 - 1200	308	74	70	81	84	9	4	267	1	22	1	2	0	0	0	2	0	0	1	9	11	26	115	111	30	5	0	0	0	0	0	34.1	29.3	5.5
1200 - 1300	309	77	81	74	77	8	2	275	1	17	1	3	0	0	0	1	0	0	2	13	14	22	115	110	28	4	1	0	0	0	0	33.9	28.9	6.1
1300 - 1400	309	76	71	83	79	6	1	278	1	18	1	3	0	0	0	0	0	0	0	5	7	17	118	123	33	5	1	0	0	0	0	34.4	30.1	4.9
1400 - 1500	344	88	84	84	88	7	3	310	2	17	1	2	0	0	0	1	0	0	1	8	12	19	124	131	39	7	1	0	0	0	0	34.7	29.9	5.6
1500 - 1600	364	92	92	87	93	4	1	336	1	19	0	1	0	0	0	1	0	0	2	12	12	29	148	126	30	4	1	0	0	0	0	33.6	28.9	5.7
1600 - 1700	387	95	94	103	94	4	2	366	1	13	1	0	0	0	0	0	0	0	6	6	8	26	155	138	39	6	2	0	0	0	0	34.3	29.5	5.8
1700 - 1800	371	90	98	94	88	5	4	350	1	9	0	0	0	0	0	0	0	0	11	6	11	38	140	122	34	5	1	0	0	0	0	33.8	28.6	6.7
1800 - 1900	310	82	85	77	67	3	1	295	1	7	1	1	0	0	0	1	0	0	2	6	11	24	98	118	42	8	1	0	0	0	0	35.3	30	5.9
1900 - 2000	221	63	61	56	41	2	4	209	0	5	0	0	0	0	0	0	0	0	0	2	5	14	66	85	38	8	2	1	0	0	0	36.2	31.2	5.6
2000 - 2100	150	39	44	36	31	1	2	141	1	5	0	0	0	0	0	0	0	0	1	1	2	8	46	58	25	7	3	1	0	0	0	36.9	31.7	5.8
2100 - 2200	138	49	34	31	24	1	1	134	0	3	0	0	0	0	0	0	0	0	0	0	1	7	44	53	23	8	2	0	0	0	0	37	32	5.2
2200 - 2300	77	23	21	18	15	0	0	75	0	1	0	0	0	0	0	0	0	0	0	0	1	4	23	25	17	6	1	1	0	0	0	38.4	32.5	5.8
2300 - 0000	45	15	9	12	10	0	1	43	0	1	0	0	0	0	0	0	0	0	0	0	0	3	11	15	9	3	1	1	0	0	0	39.3	33.2	6.6
0700 - 1900	**4094**	**1009**	**1019**	**1043**	**1024**	**56**	**25**	**3754**	**14**	**205**	**9**	**17**	**2**	**3**	**0**	**9**	**1**	**0**	**32**	**82**	**119**	**281**	**1449**	**1561**	**471**	**80**	**15**	**3**	**1**	**0**	**0**	**34.7**	**29.8**	**5.7**
0600 - 2200	**4763**	**1187**	**1193**	**1212**	**1171**	**62**	**32**	**4380**	**16**	**229**	**9**	**19**	**2**	**3**	**1**	**9**	**1**	**0**	**33**	**88**	**130**	**314**	**1628**	**1814**	**607**	**119**	**25**	**4**	**1**	**1**	**0**	**35.2**	**30.2**	**5.8**
0600 - 0000	**4885**	**1225**	**1222**	**1242**	**1196**	**62**	**33**	**4498**	**16**	**232**	**10**	**19**	**2**	**3**	**1**	**9**	**1**	**0**	**33**	**88**	**131**	**321**	**1662**	**1855**	**633**	**128**	**27**	**6**	**1**	**1**	**0**	**35.3**	**30.2**	**5.8**
0000 - 0000	**5019**	**1252**	**1254**	**1282**	**1231**	**63**	**35**	**4619**	**16**	**241**	**10**	**19**	**2**	**3**	**1**	**9**	**1**	**0**	**33**	**89**	**131**	**326**	**1685**	**1894**	**673**	**146**	**32**	**7**	**2**	**1**	**0**	**35.5**	**30.3**	**5.9**

Virtual Week (1)

Time	Hourly Totals	15 Minute Bin Drops 00-15	15-30	30-45	45-00	Cycles	Number Vehicle Classes ARX Scheme Motor Cycles	Car Van	Car Van Towing	2 Axle Van Lorry	3 Axle Rigid	4 Axle Rigid	3 Axle Artic	4 Axle Artic	5 Axle Artic	6 Axle Artic	Double Road Train	Triple Road Train	Vehicle Speed MPH 0 <10mph	MPH 10 <15mph	MPH 15 <20mph	MPH 20 <25mph	MPH 25 <30mph	MPH 30 <35mph	MPH 35 <40mph	MPH 40 <45mph	MPH 45 <50mph	MPH 50 <55mph	MPH 55 <60mph	MPH 60 <65mph	MPH 65 <140mph	P-Tile 85%	Average Speed	Standard deviation
Mon	5153	1254	1384	1277	1238	31	30	4763	12	282	8	12	3	5	1	6	0	0	10	66	124	304	1607	2067	764	179	27	3	2	0	0	35.8	30.9	5.5
Tue	5414	1352	1326	1415	1321	67	70	4928	20	286	11	16	3	2	2	9	0	0	58	79	137	377	1862	1981	693	169	43	11	2	1	1	35.5	30.3	6.2
Wed	5287	1307	1297	1380	1303	30	20	4907	16	271	23	7	2	4	1	6	0	0	48	82	119	270	1786	2107	719	121	27	6	2	0	0	35.3	30.4	5.7
Thu	5405	1329	1376	1415	1285	48	47	4943	27	302	10	14	0	4	0	10	0	0	50	89	128	346	1850	2055	699	149	28	8	3	0	0	35.3	30.3	5.9
Fri	5314	1355	1324	1344	1291	26	21	4946	8	280	4	15	0	6	0	8	0	0	45	59	95	342	1900	1965	735	134	32	6	1	0	0	35.4	30.4	5.6
Sat	4521	1129	1094	1152	1146	23	15	4289	16	152	12	9	1	2	0	2	0	0	11	23	64	333	1607	1700	606	135	30	8	1	2	1	35.5	30.7	5.2
Sun	4040	1040	976	993	1031	218	44	3559	12	114	3	60	2	0	0	22	4	2	9	224	250	307	1186	1384	496	132	39	8	3	2	0	35.5	29.3	7.1

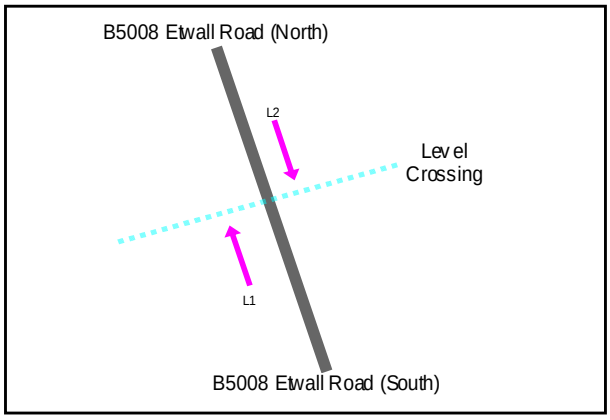
Derby, City of Derby
Level Crossing Survey

Site L
Level Crossing
B5008 Etwall Road (South)
B5008 Etwall Road (North)

Lat/Long
lat 52.857298° lon -1.564709°

Date
Tuesday 01 May 2018

Weather
Sunny Intervals
Temp: 10°C



0700 - 0900 (Weekday AM Peak)

	Queue Length		Barrier Down	Barrier Up	Total Time
Sample	L1	L2	(hh:mm:ss)	(hh:mm:ss)	(hh:mm:ss)
1	2	3	07:12:20	07:12:46	00:00:26
2	9	11	07:51:31	07:52:21	00:00:50
3	9	1	08:06:34	08:07:04	00:00:30
4	3	3	08:50:39	08:51:35	00:00:56

1600 - 1800 (Weekday PM Peak)

	Queue Length		Barrier Down	Barrier Up	Total Time
Sample	L1	L2	(hh:mm:ss)	(hh:mm:ss)	(hh:mm:ss)
1	0	4	16:13:44	16:14:22	00:00:38
2	9	26	16:52:41	16:53:32	00:00:51
3	6	28	17:13:57	17:14:29	00:00:32
4	5	31	17:53:41	17:54:30	00:00:49

For site: 9930/1
TMU Site 9930/1 on link A50 eastbound within the A38 junction; GPS Ref: 429230;329914; Eastbound

Site Name	Report Date	Time Period Ending	Time Interval	0 - 520 cm	521 - 660 cm	661 - 1160 cm	1160+ cm	Avg mph	Total Volume
9930/1	04/10/2017 00:00	01:14:00	4	9	4	2	19	59	34
9930/1	04/10/2017 00:00	01:29:00	5	10	3	1	16	59	30
9930/1	04/10/2017 00:00	01:44:00	6	7	2	1	11	58	21
9930/1	04/10/2017 00:00	01:59:00	7	4	0	0	19	56	23
9930/1	04/10/2017 00:00	02:14:00	8	10	1	0	15	63	26
9930/1	04/10/2017 00:00	02:29:00	9	3	6	0	23	57	32
9930/1	04/10/2017 00:00	02:44:00	10	8	2	2	16	59	28
9930/1	04/10/2017 00:00	02:59:00	11	11	3	2	18	61	34
9930/1	04/10/2017 00:00	03:14:00	12	4	3	0	10	60	17
9930/1	04/10/2017 00:00	03:29:00	13	11	3	3	28	59	45
9930/1	04/10/2017 00:00	03:44:00	14	13	4	4	12	63	33
9930/1	04/10/2017 00:00	03:59:00	15	10	1	2	16	60	29
9930/1	04/10/2017 00:00	04:14:00	16	15	6	1	18	63	40
9930/1	04/10/2017 00:00	04:29:00	17	16	7	6	20	61	49
9930/1	04/10/2017 00:00	04:44:00	18	25	7	2	16	63	50
9930/1	04/10/2017 00:00	04:59:00	19	29	3	5	19	63	56
9930/1	04/10/2017 00:00	05:14:00	20	37	8	14	16	65	75
9930/1	04/10/2017 00:00	05:29:00	21	46	11	12	20	66	89
9930/1	04/10/2017 00:00	05:44:00	22	75	12	9	32	66	128
9930/1	04/10/2017 00:00	05:59:00	23	67	7	8	20	68	102
9930/1	04/10/2017 00:00	06:14:00	24	111	7	20	18	68	156
9930/1	04/10/2017 00:00	06:29:00	25	136	12	7	41	68	196
9930/1	04/10/2017 00:00	06:44:00	26	153	4	6	27	68	190
9930/1	04/10/2017 00:00	06:59:00	27	188	15	14	16	71	233
9930/1	04/10/2017 00:00	07:14:00	28	204	14	13	19	70	250
9930/1	04/10/2017 00:00	07:29:00	29	273	16	8	17	71	314
9930/1	04/10/2017 00:00	07:44:00	30	293	20	9	25	71	347
9930/1	04/10/2017 00:00	07:59:00	31	301	14	7	16	73	338
9930/1	04/10/2017 00:00	08:14:00	32	324	9	8	17	73	358
9930/1	04/10/2017 00:00	08:29:00	33	254	6	6	22	73	288
9930/1	04/10/2017 00:00	08:44:00	34	262	14	12	24	72	312
9930/1	04/10/2017 00:00	08:59:00	35	224	16	12	20	73	272
9930/1	04/10/2017 00:00	09:14:00	36	208	8	13	19	72	248
9930/1	04/10/2017 00:00	09:29:00	37	199	11	16	16	71	242
9930/1	04/10/2017 00:00	09:44:00	38	152	11	7	20	69	190
9930/1	04/10/2017 00:00	09:59:00	39	148	7	12	25	69	192
9930/1	04/10/2017 00:00	10:14:00	40	160	14	4	26	70	204
9930/1	04/10/2017 00:00	10:29:00	41	122	23	15	27	67	187
9930/1	04/10/2017 00:00	10:44:00	42	128	14	9	34	68	185
9930/1	04/10/2017 00:00	10:59:00	43	109	8	11	32	67	160
9930/1	04/10/2017 00:00	11:14:00	44	109	14	5	17	67	145
9930/1	04/10/2017 00:00	11:29:00	45	180	18	18	37	66	253
9930/1	04/10/2017 00:00	11:44:00	46	165	13	17	59	65	254
9930/1	04/10/2017 00:00	11:59:00	47	107	13	10	31	67	161
9930/1	04/10/2017 00:00	12:14:00	48	120	13	7	20	68	160
9930/1	04/10/2017 00:00	12:29:00	49	135	10	9	32	67	186
9930/1	04/10/2017 00:00	12:44:00	50	122	21	14	32	67	189
9930/1	04/10/2017 00:00	12:59:00	51	128	13	8	40	67	189
9930/1	04/10/2017 00:00	13:14:00	52	151	10	17	28	67	206
9930/1	04/10/2017 00:00	13:29:00	53	125	21	14	24	67	184
9930/1	04/10/2017 00:00	13:44:00	54	145	19	18	25	68	207
9930/1	04/10/2017 00:00	13:59:00	55	155	10	14	36	68	215
9930/1	04/10/2017 00:00	14:14:00	56	171	14	15	38	66	238
9930/1	04/10/2017 00:00	14:29:00	57	161	14	19	34	67	228
9930/1	04/10/2017 00:00	14:44:00	58	169	18	29	32	66	248
9930/1	04/10/2017 00:00	14:59:00	59	155	17	16	30	68	218
9930/1	04/10/2017 00:00	15:14:00	60	175	17	9	27	69	228
9930/1	04/10/2017 00:00	15:29:00	61	191	15	10	26	69	242
9930/1	04/10/2017 00:00	15:44:00	62	181	24	13	17	70	235
9930/1	04/10/2017 00:00	15:59:00	63	196	15	10	19	71	240
9930/1	04/10/2017 00:00	16:14:00	64	202	21	11	26	69	260
9930/1	04/10/2017 00:00	16:29:00	65	278	24	10	29	69	341
9930/1	04/10/2017 00:00	16:44:00	66	306	18	10	29	70	363
9930/1	04/10/2017 00:00	16:59:00	67	270	18	8	21	71	317
9930/1	04/10/2017 00:00	17:14:00	68	319	14	6	28	70	367
9930/1	04/10/2017 00:00	17:29:00	69	310	11	7	28	69	356
9930/1	04/10/2017 00:00	17:44:00	70	264	8	9	24	69	305
9930/1	04/10/2017 00:00	17:59:00	71	231	10	3	24	72	268
9930/1	04/10/2017 00:00	18:14:00	72	243	13	5	18	71	279
9930/1	04/10/2017 00:00	18:29:00	73	202	3	8	29	70	242
9930/1	04/10/2017 00:00	18:44:00	74	183	11	4	24	69	222
9930/1	04/10/2017 00:00	18:59:00	75	162	16	6	27	68	211
9930/1	04/10/2017 00:00	19:14:00	76	132	7	8	17	69	164
9930/1	04/10/2017 00:00	19:29:00	77	106	8	2	17	69	133
9930/1	04/10/2017 00:00	19:44:00	78	85	3	9	12	69	109
9930/1	04/10/2017 00:00	19:59:00	79	41	2	1	10	67	54
9930/1	04/10/2017 00:00	20:14:00	80	37	2	0	3	70	42
9930/1	04/10/2017 00:00	20:29:00	81	104	4	4	22	69	134
9930/1	04/10/2017 00:00	20:44:00	82	104	3	8	22	67	137
9930/1	04/10/2017 00:00	20:59:00	83	88	3	5	39	65	135
9930/1	04/10/2017 00:00	21:14:00	84	79	7	8	33	65	127
9930/1	04/10/2017 00:00	21:29:00	85	49	2	2	13	67	66
9930/1	04/10/2017 00:00	21:44:00	86	51	4	3	19	66	77
9930/1	04/10/2017 00:00	21:59:00	87	25	3	1	13	63	42
9930/1	04/10/2017 00:00	22:14:00	88	42	4	2	17	65	65
9930/1	04/10/2017 00:00	22:29:00	89	41	2	2	11	68	56
9930/1	04/10/2017 00:00	22:44:00	90	28	3	2	8	66	41
9930/1	04/10/2017 00:00	22:59:00	91	32	2	1	17	64	52
9930/1	04/10/2017 00:00	23:14:00	92	23	4	3	26	61	56
9930/1	04/10/2017 00:00	23:29:00	93	29	1	1	11	64	42
9930/1	04/10/2017 00:00	23:44:00	94	6	1	0	15	59	22
9930/1	04/10/2017 00:00	23:59:00	95	14	6	2	11	58	33

For site: 9930/2
TMU Site 9930/2 on link A50 westbound within the A38 junction; GPS Ref: 429230;329900; Westbound

Site Name	Report Date	Time Period Ending	Time Interval	0 - 520 cm	521 - 660 cm	661 - 1160 cm	1160+ cm	Avg mph	Total Volume
9930/2	04/10/2017 00:00	01:14:00	4	6	0	1	10	58	17
9930/2	04/10/2017 00:00	01:29:00	5	8	1	3	16	59	28
9930/2	04/10/2017 00:00	01:44:00	6	7	1	2	16	58	26
9930/2	04/10/2017 00:00	01:59:00	7	5	4	8	17	59	34
9930/2	04/10/2017 00:00	02:14:00	8	5	0	2	12	58	19
9930/2	04/10/2017 00:00	02:29:00	9	4	0	2	13	59	19
9930/2	04/10/2017 00:00	02:44:00	10	5	0	2	7	57	14
9930/2	04/10/2017 00:00	02:59:00	11	7	3	0	17	58	27
9930/2	04/10/2017 00:00	03:14:00	12	6	4	3	22	58	35
9930/2	04/10/2017 00:00	03:29:00	13	5	2	1	15	59	23
9930/2	04/10/2017 00:00	03:44:00	14	8	4	2	12	59	26
9930/2	04/10/2017 00:00	03:59:00	15	5	4	4	18	57	31
9930/2	04/10/2017 00:00	04:14:00	16	10	6	3	18	62	37
9930/2	04/10/2017 00:00	04:29:00	17	15	6	2	20	57	43
9930/2	04/10/2017 00:00	04:44:00	18	12	4	2	14	64	32
9930/2	04/10/2017 00:00	04:59:00	19	20	1	11	20	62	52
9930/2	04/10/2017 00:00	05:14:00	20	40	3	7	23	64	73
9930/2	04/10/2017 00:00	05:29:00	21	64	6	6	25	65	101
9930/2	04/10/2017 00:00	05:44:00	22	58	11	11	29	64	109
9930/2	04/10/2017 00:00	05:59:00	23	63	14	11	30	65	118
9930/2	04/10/2017 00:00	06:14:00	24	90	18	18	20	67	146
9930/2	04/10/2017 00:00	06:29:00	25	146	22	31	24	66	223
9930/2	04/10/2017 00:00	06:44:00	26	160	15	20	26	66	221
9930/2	04/10/2017 00:00	06:59:00	27	195	18	24	32	66	269
9930/2	04/10/2017 00:00	07:14:00	28	212	13	19	39	67	283
9930/2	04/10/2017 00:00	07:29:00	29	246	23	19	30	66	318
9930/2	04/10/2017 00:00	07:44:00	30	285	19	18	15	68	337
9930/2	04/10/2017 00:00	07:59:00	31	271	19	17	25	68	332
9930/2	04/10/2017 00:00	08:14:00	32	226	14	16	30	67	286
9930/2	04/10/2017 00:00	08:29:00	33	239	21	14	31	66	305
9930/2	04/10/2017 00:00	08:44:00	34	226	16	14	29	69	285
9930/2	04/10/2017 00:00	08:59:00	35	194	14	20	24	67	252
9930/2	04/10/2017 00:00	09:14:00	36	210	16	19	31	65	276
9930/2	04/10/2017 00:00	09:29:00	37	191	19	17	32	66	259
9930/2	04/10/2017 00:00	09:44:00	38	164	15	9	29	66	217
9930/2	04/10/2017 00:00	09:59:00	39	168	17	16	32	67	233
9930/2	04/10/2017 00:00	10:14:00	40	125	15	17	33	66	190
9930/2	04/10/2017 00:00	10:29:00	41	116	7	16	27	66	166
9930/2	04/10/2017 00:00	10:44:00	42	109	11	19	33	64	172
9930/2	04/10/2017 00:00	10:59:00	43	118	15	19	31	65	183
9930/2	04/10/2017 00:00	11:14:00	44	118	8	16	28	64	170
9930/2	04/10/2017 00:00	11:29:00	45	109	17	19	29	66	174
9930/2	04/10/2017 00:00	11:44:00	46	118	13	12	36	65	179
9930/2	04/10/2017 00:00	11:59:00	47	142	13	15	38	66	208
9930/2	04/10/2017 00:00	12:14:00	48	143	14	11	37	65	205
9930/2	04/10/2017 00:00	12:29:00	49	129	11	19	43	64	202
9930/2	04/10/2017 00:00	12:44:00	50	117	17	20	32	65	186
9930/2	04/10/2017 00:00	12:59:00	51	137	20	18	35	65	210
9930/2	04/10/2017 00:00	13:14:00	52	131	13	15	29	66	188
9930/2	04/10/2017 00:00	13:29:00	53	139	12	15	32	66	198
9930/2	04/10/2017 00:00	13:44:00	54	117	20	22	32	64	191
9930/2	04/10/2017 00:00	13:59:00	55	154	16	16	29	66	215
9930/2	04/10/2017 00:00	14:14:00	56	161	20	15	38	66	234
9930/2	04/10/2017 00:00	14:29:00	57	198	17	25	47	65	287
9930/2	04/10/2017 00:00	14:44:00	58	185	9	18	37	66	249
9930/2	04/10/2017 00:00	14:59:00	59	194	11	12	20	68	237
9930/2	04/10/2017 00:00	15:14:00	60	190	11	16	27	68	244
9930/2	04/10/2017 00:00	15:29:00	61	191	13	20	31	67	255
9930/2	04/10/2017 00:00	15:44:00	62	207	17	13	35	66	272
9930/2	04/10/2017 00:00	15:59:00	63	223	16	13	24	67	276
9930/2	04/10/2017 00:00	16:14:00	64	241	27	7	36	67	311
9930/2	04/10/2017 00:00	16:29:00	65	275	13	14	26	68	328
9930/2	04/10/2017 00:00	16:44:00	66	289	10	7	29	68	335
9930/2	04/10/2017 00:00	16:59:00	67	254	15	18	27	66	314
9930/2	04/10/2017 00:00	17:14:00	68	319	8	11	41	67	379
9930/2	04/10/2017 00:00	17:29:00	69	296	15	12	25	69	348
9930/2	04/10/2017 00:00	17:44:00	70	265	9	10	34	68	318
9930/2	04/10/2017 00:00	17:59:00	71	270	10	9	24	69	313
9930/2	04/10/2017 00:00	18:14:00	72	242	11	9	26	69	288
9930/2	04/10/2017 00:00	18:29:00	73	242	5	6	24	68	277
9930/2	04/10/2017 00:00	18:44:00	74	238	9	7	24	68	278
9930/2	04/10/2017 00:00	18:59:00	75	208	6	5	24	66	243
9930/2	04/10/2017 00:00	19:14:00	76	158	5	6	19	67	188
9930/2	04/10/2017 00:00	19:29:00	77	107	8	1	12	68	128
9930/2	04/10/2017 00:00	19:44:00	78	99	3	1	16	68	119
9930/2	04/10/2017 00:00	19:59:00	79	98	3	1	13	69	115
9930/2	04/10/2017 00:00	20:14:00	80	93	1	6	17	66	117
9930/2	04/10/2017 00:00	20:29:00	81	72	2	2	12	66	88
9930/2	04/10/2017 00:00	20:44:00	82	62	2	0	11	65	75
9930/2	04/10/2017 00:00	20:59:00	83	72	5	2	22	67	101
9930/2	04/10/2017 00:00	21:14:00	84	70	6	5	20	65	101
9930/2	04/10/2017 00:00	21:29:00	85	51	3	2	18	64	74
9930/2	04/10/2017 00:00	21:44:00	86	57	1	1	10	65	69
9930/2	04/10/2017 00:00	21:59:00	87	32	1	2	21	61	56
9930/2	04/10/2017 00:00	22:14:00	88	35	0	7	14	63	56
9930/2	04/10/2017 00:00	22:29:00	89	30	1	2	15	63	48
9930/2	04/10/2017 00:00	22:44:00	90	29	2	2	17	62	50
9930/2	04/10/2017 00:00	22:59:00	91	24	2	1	15	62	42
9930/2	04/10/2017 00:00	23:14:00	92	16	1	0	12	62	29
9930/2	04/10/2017 00:00	23:29:00	93	11	1	0	8	64	20
9930/2	04/10/2017 00:00	23:44:00	94	20	0	1	6	66	27
9930/2	04/10/2017 00:00	23:59:00	95	20	0	2	11	60	33

For site: 8265/2
TMU Site 8265/2 on link A38 southbound within the A50 junction; GPS Ref: 429412;330215; Southbound

Site Name	Report Date	Time Period Ending	Time Interval	0 - 520 cm	521 - 660 cm	661 - 1160 cm	1160+ cm	Avg mph	Total Volume
8265/2	04/10/2017 00:00	01:14:00	4	12	1	1	6	61	20
8265/2	04/10/2017 00:00	01:29:00	5	8	0	3	7	61	18
8265/2	04/10/2017 00:00	01:44:00	6	11	0	1	4	66	16
8265/2	04/10/2017 00:00	01:59:00	7	10	0	0	12	59	22
8265/2	04/10/2017 00:00	02:14:00	8	5	2	2	9	60	18
8265/2	04/10/2017 00:00	02:29:00	9	8	0	2	9	60	19
8265/2	04/10/2017 00:00	02:44:00	10	7	0	0	2	63	9
8265/2	04/10/2017 00:00	02:59:00	11	12	2	2	8	63	24
8265/2	04/10/2017 00:00	03:14:00	12	8	2	1	11	58	22
8265/2	04/10/2017 00:00	03:29:00	13	14	3	3	11	61	31
8265/2	04/10/2017 00:00	03:44:00	14	18	0	2	7	61	27
8265/2	04/10/2017 00:00	03:59:00	15	14	0	2	7	64	23
8265/2	04/10/2017 00:00	04:14:00	16	20	3	3	10	63	36
8265/2	04/10/2017 00:00	04:29:00	17	22	4	3	15	63	44
8265/2	04/10/2017 00:00	04:44:00	18	22	3	7	10	62	42
8265/2	04/10/2017 00:00	04:59:00	19	24	5	5	15	61	49
8265/2	04/10/2017 00:00	05:14:00	20	59	6	10	20	64	95
8265/2	04/10/2017 00:00	05:29:00	21	102	4	12	30	54	148
8265/2	04/10/2017 00:00	05:44:00	22	120	13	6	18	67	157
8265/2	04/10/2017 00:00	05:59:00	23	134	8	10	34	66	186
8265/2	04/10/2017 00:00	06:14:00	24	155	13	11	18	68	197
8265/2	04/10/2017 00:00	06:29:00	25	223	29	17	24	68	293
8265/2	04/10/2017 00:00	06:44:00	26	292	37	19	35	65	383
8265/2	04/10/2017 00:00	06:59:00	27	280	45	23	28	67	376
8265/2	04/10/2017 00:00	07:14:00	28	350	44	26	17	64	437
8265/2	04/10/2017 00:00	07:29:00	29	357	33	19	19	66	428
8265/2	04/10/2017 00:00	07:44:00	30	416	31	14	14	65	475
8265/2	04/10/2017 00:00	07:59:00	31	384	28	16	23	67	451
8265/2	04/10/2017 00:00	08:14:00	32	402	13	16	22	66	453
8265/2	04/10/2017 00:00	08:29:00	33	381	29	23	23	66	456
8265/2	04/10/2017 00:00	08:44:00	34	295	22	19	18	67	354
8265/2	04/10/2017 00:00	08:59:00	35	274	28	25	27	67	354
8265/2	04/10/2017 00:00	09:14:00	36	228	21	20	24	67	293
8265/2	04/10/2017 00:00	09:29:00	37	256	22	22	25	67	325
8265/2	04/10/2017 00:00	09:44:00	38	232	23	21	35	67	311
8265/2	04/10/2017 00:00	09:59:00	39	220	29	44	31	64	324
8265/2	04/10/2017 00:00	10:14:00	40	219	23	21	25	66	288
8265/2	04/10/2017 00:00	10:29:00	41	184	22	27	30	64	263
8265/2	04/10/2017 00:00	10:44:00	42	179	18	25	33	65	255
8265/2	04/10/2017 00:00	10:59:00	43	172	30	27	28	64	257
8265/2	04/10/2017 00:00	11:14:00	44	166	25	20	25	66	236
8265/2	04/10/2017 00:00	11:29:00	45	184	30	24	30	64	268
8265/2	04/10/2017 00:00	11:44:00	46	176	26	24	23	65	249
8265/2	04/10/2017 00:00	11:59:00	47	205	24	21	23	66	273
8265/2	04/10/2017 00:00	12:14:00	48	171	14	26	14	66	225
8265/2	04/10/2017 00:00	12:29:00	49	209	27	25	20	65	281
8265/2	04/10/2017 00:00	12:44:00	50	164	22	19	23	65	228
8265/2	04/10/2017 00:00	12:59:00	51	214	26	29	28	65	297
8265/2	04/10/2017 00:00	13:14:00	52	218	14	20	30	65	282
8265/2	04/10/2017 00:00	13:29:00	53	233	31	22	21	65	307
8265/2	04/10/2017 00:00	13:44:00	54	223	24	27	26	65	300
8265/2	04/10/2017 00:00	13:59:00	55	198	25	32	26	65	281
8265/2	04/10/2017 00:00	14:14:00	56	209	21	39	17	67	286
8265/2	04/10/2017 00:00	14:29:00	57	227	28	27	24	66	306
8265/2	04/10/2017 00:00	14:44:00	58	234	19	32	15	67	300
8265/2	04/10/2017 00:00	14:59:00	59	238	21	34	17	66	310
8265/2	04/10/2017 00:00	15:14:00	60	255	20	19	27	65	321
8265/2	04/10/2017 00:00	15:29:00	61	262	33	25	22	64	342
8265/2	04/10/2017 00:00	15:44:00	62	277	38	23	21	66	359
8265/2	04/10/2017 00:00	15:59:00	63	313	23	22	16	67	374
8265/2	04/10/2017 00:00	16:14:00	64	313	27	19	27	66	386
8265/2	04/10/2017 00:00	16:29:00	65	409	28	17	20	66	474
8265/2	04/10/2017 00:00	16:44:00	66	405	16	12	19	67	452
8265/2	04/10/2017 00:00	16:59:00	67	350	23	9	14	66	396
8265/2	04/10/2017 00:00	17:14:00	68	386	22	11	18	66	437
8265/2	04/10/2017 00:00	17:29:00	69	388	15	7	19	67	429
8265/2	04/10/2017 00:00	17:44:00	70	353	13	8	16	69	390
8265/2	04/10/2017 00:00	17:59:00	71	352	16	5	24	67	397
8265/2	04/10/2017 00:00	18:14:00	72	287	13	10	16	68	326
8265/2	04/10/2017 00:00	18:29:00	73	273	16	12	18	67	319
8265/2	04/10/2017 00:00	18:44:00	74	231	9	8	15	68	263
8265/2	04/10/2017 00:00	18:59:00	75	207	11	7	15	68	240
8265/2	04/10/2017 00:00	19:14:00	76	223	4	11	14	67	252
8265/2	04/10/2017 00:00	19:29:00	77	175	14	4	26	66	219
8265/2	04/10/2017 00:00	19:44:00	78	146	12	5	18	66	181
8265/2	04/10/2017 00:00	19:59:00	79	162	6	5	23	65	196
8265/2	04/10/2017 00:00	20:14:00	80	160	4	3	32	65	199
8265/2	04/10/2017 00:00	20:29:00	81	129	4	3	22	65	158
8265/2	04/10/2017 00:00	20:44:00	82	89	10	6	23	65	128
8265/2	04/10/2017 00:00	20:59:00	83	80	4	0	26	65	110
8265/2	04/10/2017 00:00	21:14:00	84	110	3	0	33	64	146
8265/2	04/10/2017 00:00	21:29:00	85	123	6	3	20	65	152
8265/2	04/10/2017 00:00	21:44:00	86	89	5	3	23	65	120
8265/2	04/10/2017 00:00	21:59:00	87	78	6	2	33	64	119
8265/2	04/10/2017 00:00	22:14:00	88	74	2	4	30	64	110
8265/2	04/10/2017 00:00	22:29:00	89	64	3	3	14	65	84
8265/2	04/10/2017 00:00	22:44:00	90	49	4	3	25	63	81
8265/2	04/10/2017 00:00	22:59:00	91	48	4	5	11	65	68
8265/2	04/10/2017 00:00	23:14:00	92	43	3	6	15	63	67
8265/2	04/10/2017 00:00	23:29:00	93	38	6	2	8	68	54
8265/2	04/10/2017 00:00	23:44:00	94	31	3	1	10	65	45
8265/2	04/10/2017 00:00	23:59:00	95	20	3	3	9	59	35

For site: 8264/2
TMU Site 8264/2 on link A38 northbound within the A50 junction; GPS Ref: 428936;329616; Northbound

Site Name	Report Date	Time Period Ending	Time Interval	0 - 520 cm	521 - 660 cm	661 - 1160 cm	1160+ cm	Avg mph	Total Volume
8264/2	04/10/2017 00:00	01:14:00	4	22	5	4	16	61	47
8264/2	04/10/2017 00:00	01:29:00	5	25	4	4	31	62	64
8264/2	04/10/2017 00:00	01:44:00	6	23	2	6	19	62	50
8264/2	04/10/2017 00:00	01:59:00	7	12	5	7	30	58	54
8264/2	04/10/2017 00:00	02:14:00	8	9	0	0	26	56	35
8264/2	04/10/2017 00:00	02:29:00	9	14	3	5	32	58	54
8264/2	04/10/2017 00:00	02:44:00	10	15	4	4	30	59	53
8264/2	04/10/2017 00:00	02:59:00	11	10	2	2	27	58	41
8264/2	04/10/2017 00:00	03:14:00	12	12	3	1	33	58	49
8264/2	04/10/2017 00:00	03:29:00	13	4	2	8	27	56	41
8264/2	04/10/2017 00:00	03:44:00	14	9	4	5	22	59	40
8264/2	04/10/2017 00:00	03:59:00	15	14	7	6	43	59	70
8264/2	04/10/2017 00:00	04:14:00	16	16	3	5	28	58	52
8264/2	04/10/2017 00:00	04:29:00	17	16	6	8	31	58	61
8264/2	04/10/2017 00:00	04:44:00	18	22	7	14	23	60	66
8264/2	04/10/2017 00:00	04:59:00	19	27	5	5	27	62	64
8264/2	04/10/2017 00:00	05:14:00	20	42	10	12	23	62	87
8264/2	04/10/2017 00:00	05:29:00	21	48	10	9	29	62	96
8264/2	04/10/2017 00:00	05:44:00	22	75	12	17	26	65	130
8264/2	04/10/2017 00:00	05:59:00	23	75	13	18	23	66	129
8264/2	04/10/2017 00:00	06:14:00	24	110	16	25	22	66	173
8264/2	04/10/2017 00:00	06:29:00	25	193	21	20	31	64	265
8264/2	04/10/2017 00:00	06:44:00	26	222	27	28	20	65	297
8264/2	04/10/2017 00:00	06:59:00	27	258	33	22	21	66	334
8264/2	04/10/2017 00:00	07:14:00	28	329	33	21	19	65	402
8264/2	04/10/2017 00:00	07:29:00	29	435	38	23	12	66	508
8264/2	04/10/2017 00:00	07:44:00	30	403	28	37	18	65	486
8264/2	04/10/2017 00:00	07:59:00	31	468	27	25	21	62	541
8264/2	04/10/2017 00:00	08:14:00	32	428	40	11	24	65	503
8264/2	04/10/2017 00:00	08:29:00	33	327	34	23	19	66	403
8264/2	04/10/2017 00:00	08:44:00	34	276	26	20	24	66	346
8264/2	04/10/2017 00:00	08:59:00	35	248	21	26	19	67	314
8264/2	04/10/2017 00:00	09:14:00	36	269	19	29	26	66	343
8264/2	04/10/2017 00:00	09:29:00	37	220	25	24	36	67	305
8264/2	04/10/2017 00:00	09:44:00	38	217	13	17	30	66	277
8264/2	04/10/2017 00:00	09:59:00	39	221	19	29	23	65	292
8264/2	04/10/2017 00:00	10:14:00	40	207	21	27	31	65	286
8264/2	04/10/2017 00:00	10:29:00	41	164	21	25	29	66	239
8264/2	04/10/2017 00:00	10:44:00	42	206	31	21	28	64	286
8264/2	04/10/2017 00:00	10:59:00	43	166	16	18	29	65	229
8264/2	04/10/2017 00:00	11:14:00	44	183	26	26	33	66	268
8264/2	04/10/2017 00:00	11:29:00	45	192	26	28	26	65	272
8264/2	04/10/2017 00:00	11:44:00	46	191	23	23	39	65	276
8264/2	04/10/2017 00:00	11:59:00	47	196	15	18	25	65	254
8264/2	04/10/2017 00:00	12:14:00	48	180	21	20	41	65	262
8264/2	04/10/2017 00:00	12:29:00	49	183	17	24	30	64	254
8264/2	04/10/2017 00:00	12:44:00	50	196	24	28	29	66	277
8264/2	04/10/2017 00:00	12:59:00	51	193	22	21	31	66	267
8264/2	04/10/2017 00:00	13:14:00	52	208	25	24	28	66	285
8264/2	04/10/2017 00:00	13:29:00	53	217	16	25	26	65	284
8264/2	04/10/2017 00:00	13:44:00	54	216	28	27	33	64	304
8264/2	04/10/2017 00:00	13:59:00	55	216	33	22	41	63	312
8264/2	04/10/2017 00:00	14:14:00	56	228	20	27	20	66	295
8264/2	04/10/2017 00:00	14:29:00	57	251	19	16	40	65	326
8264/2	04/10/2017 00:00	14:44:00	58	242	39	30	23	65	334
8264/2	04/10/2017 00:00	14:59:00	59	260	26	19	22	66	327
8264/2	04/10/2017 00:00	15:14:00	60	294	33	16	20	68	363
8264/2	04/10/2017 00:00	15:29:00	61	303	31	16	31	66	381
8264/2	04/10/2017 00:00	15:44:00	62	292	40	19	31	66	382
8264/2	04/10/2017 00:00	15:59:00	63	326	41	30	16	67	413
8264/2	04/10/2017 00:00	16:14:00	64	380	44	24	22	67	470
8264/2	04/10/2017 00:00	16:29:00	65	414	42	16	20	66	492
8264/2	04/10/2017 00:00	16:44:00	66	397	30	13	18	67	458
8264/2	04/10/2017 00:00	16:59:00	67	410	29	13	29	66	481
8264/2	04/10/2017 00:00	17:14:00	68	408	22	16	16	67	462
8264/2	04/10/2017 00:00	17:29:00	69	458	29	12	21	66	520
8264/2	04/10/2017 00:00	17:44:00	70	452	21	14	12	65	499
8264/2	04/10/2017 00:00	17:59:00	71	434	24	8	13	68	479
8264/2	04/10/2017 00:00	18:14:00	72	413	20	10	23	67	466
8264/2	04/10/2017 00:00	18:29:00	73	352	16	6	16	68	390
8264/2	04/10/2017 00:00	18:44:00	74	352	15	7	16	68	390
8264/2	04/10/2017 00:00	18:59:00	75	296	14	8	14	67	332
8264/2	04/10/2017 00:00	19:14:00	76	266	15	6	17	67	304
8264/2	04/10/2017 00:00	19:29:00	77	210	9	7	12	67	238
8264/2	04/10/2017 00:00	19:44:00	78	140	13	4	19	67	176
8264/2	04/10/2017 00:00	19:59:00	79	143	12	8	8	70	171
8264/2	04/10/2017 00:00	20:14:00	80	103	4	5	8	68	120
8264/2	04/10/2017 00:00	20:29:00	81	123	9	5	15	66	152
8264/2	04/10/2017 00:00	20:44:00	82	96	5	0	18	65	119
8264/2	04/10/2017 00:00	20:59:00	83	87	3	1	13	69	104
8264/2	04/10/2017 00:00	21:14:00	84	69	2	2	5	68	78
8264/2	04/10/2017 00:00	21:29:00	85	76	3	3	11	65	93
8264/2	04/10/2017 00:00	21:44:00	86	84	1	4	10	66	99
8264/2	04/10/2017 00:00	21:59:00	87	105	3	3	19	66	130
8264/2	04/10/2017 00:00	22:14:00	88	128	7	8	19	65	162
8264/2	04/10/2017 00:00	22:29:00	89	126	5	5	23	64	159
8264/2	04/10/2017 00:00	22:44:00	90	93	8	4	13	65	118
8264/2	04/10/2017 00:00	22:59:00	91	90	5	6	18	64	119
8264/2	04/10/2017 00:00	23:14:00	92	79	3	7	20	64	109
8264/2	04/10/2017 00:00	23:29:00	93	65	6	6	15	65	92
8264/2	04/10/2017 00:00	23:44:00	94	51	3	6	27	62	87
8264/2	04/10/2017 00:00	23:59:00	95	34	2	3	21	60	60

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For site: 9930/1

TMU Site 9930/1 on link A50 eastbound within the A38 junction; GPS Ref: 429230;329914; Eastbound

Report Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
Mon 02 Oct 2017	107	61	72	106	215	483	1163	1671	1468	1014	878	828	801	960	876	942	1197	1132	776	485	382	257	196	140	16210
Tue 03 Oct 2017	115	64	87	124	177	412	953	1652	1500	984	817	765	762	753	881	1009	1210	1361	824	478	364	298	221	170	15981
Wed 04 Oct 2017	119	108	120	124	195	394	775	1249	1230	872	736	813	724	812	932	945	1281	1296	954	460	448	312	214	153	15266
Thu 05 Oct 2017	110	88	99	126	186	375	972	1570	1431	1021	884	796	859	867	898	1077	1233	1315	887	595	404	339	291	304	16727
Fri 06 Oct 2017	214	156	148	219	265	356	842	1388	1140	795	821	936	1042	1114	1099	1217	1414	1301	910	348	502	466	258	209	17160

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Daily report between 02/10/2017 and 07/10/2017

For site: 9930/2

TMU Site 9930/2 on link A50 westbound within the A38 junction; GPS Ref: 429230;329900; Westbound

Report Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
Mon 02 Oct 2017	101	71	86	99	162	435	897	1241	1017	954	870	813	827	880	986	1060	1239	1262	925	444	317	254	201	140	15281
Tue 03 Oct 2017	134	91	87	98	156	398	850	1201	1101	1029	768	720	788	801	1010	1083	1260	1339	977	534	383	271	233	140	15452
Wed 04 Oct 2017	121	105	79	115	164	401	859	1270	1128	985	711	731	803	792	1007	1047	1288	1358	1086	550	381	300	196	109	15586
Thu 05 Oct 2017	121	103	98	110	163	370	806	1212	1150	1098	854	883	880	868	1046	1197	1195	1297	1020	700	368	304	234	130	16207
Fri 06 Oct 2017	109	112	104	100	155	360	722	1139	1010	1072	1051	1037	1163	1106	1239	1263	1293	1388	1046	747	404	275	212	185	17292

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Daily report between 02/10/2017 and 07/10/2017

For site: 8265/2

TMU Site 8265/2 on link A38 southbound within the A50 junction; GPS Ref: 429412;330215; Southbound

Report Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
Mon 02 Oct 2017	111	66	75	101	201	614	1379	1802	1495	1258	1190	994	935	915	1058	1295	1668	1575	1142	707	570	469	331	214	20165
Tue 03 Oct 2017	140	76	75	102	168	599	1298	1786	1596	1240	1042	1023	1046	1127	1264	1294	1749	1624	1194	744	628	485	327	197	20824
Wed 04 Oct 2017	111	76	70	103	171	586	1249	1791	1617	1253	1063	1026	1031	1170	1202	1396	1708	1653	1148	848	595	537	343	201	20948
Thu 05 Oct 2017	121	69	83	84	180	551	1230	1786	1623	1201	1044	1088	1122	1201	1282	1345	1597	1579	1286	918	655	512	383	255	21195
Fri 06 Oct 2017	136	95	79	100	170	534	1171	1627	1432	1122	1198	1178	1260	1372	1429	1492	1811	1526	1212	887	650	551	378	254	21664

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Daily report between 02/10/2017 and 07/10/2017

For site: 8264/2

TMU Site 8264/2 on link A38 northbound within the A50 junction; GPS Ref: 428936;329616; Northbound

Report Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
Mon 02 Oct 2017	85	63	52	78	143	385	1029	1907	1530	1131	984	1089	1022	1091	1150	1290	1517	1682	1264	702	513	374	350	301	19732
Tue 03 Oct 2017	191	179	182	161	314	410	999	2002	1553	1229	987	1008	1043	1120	1201	1328	1739	1868	1319	707	505	371	524	360	21300
Wed 04 Oct 2017	281	215	183	200	243	442	1069	1937	1566	1217	1040	1070	1060	1185	1282	1539	1901	1960	1578	889	495	400	558	348	22658
Thu 05 Oct 2017	218	198	190	213	240	415	1024	1820	1728	1248	1094	1014	1161	1155	1274	1541	1851	1880	1788	1061	561	447	402	265	22788
Fri 06 Oct 2017	194	135	108	120	239	383	769	1568	1239	1145	1175	1328	1431	1689	1775	1816	1923	1851	1496	1046	667	457	440	313	23307

Pedestrian Survey, Burnaston, Derbyshire

DATE: JUNE 2018

LOCATION: A38 BURTON ROAD

TIME / CLASS	SATURDAY 16th JUNE 2018		
	WESTBOUND	EASTBOUND	TOTAL
7:00 - 7:15	0	0	0
7:15 - 7:30	0	0	0
7:30 - 7:45	0	0	0
7:45 - 8:00	0	0	0
HOURLY TOTAL	0	0	0
8:00 - 8:15	0	0	0
8:15 - 8:30	0	0	0
8:30 - 8:45	0	0	0
8:45 - 9:00	0	0	0
HOURLY TOTAL	0	0	0
9:00 - 9:15	0	0	0
9:15 - 9:30	0	0	0
9:30 - 9:45	0	0	0
9:45 - 10:00	0	0	0
HOURLY TOTAL	0	0	0
10:00 - 10:15	0	0	0
10:15 - 10:30	0	0	0
10:30 - 10:45	0	0	0
10:45 - 11:00	0	0	0
HOURLY TOTAL	0	0	0
11:00 - 11:15	0	0	0
11:15 - 11:30	0	0	0
11:30 - 11:45	0	0	0
11:45 - 12:00	0	0	0
HOURLY TOTAL	0	0	0
12:00 - 12:15	0	0	0
12:15 - 12:30	0	0	0
12:30 - 12:45	0	0	0
12:45 - 13:00	0	0	0
HOURLY TOTAL	0	0	0
13:00 - 13:15	0	0	0
13:15 - 13:30	0	0	0
13:30 - 13:45	0	0	0
13:45 - 14:00	0	0	0
HOURLY TOTAL	0	0	0
14:00 - 14:15	0	0	0
14:15 - 14:30	0	0	0
14:30 - 14:45	0	0	0
14:45 - 15:00	0	0	0
HOURLY TOTAL	0	0	0
15:00 - 15:15	0	0	0
15:15 - 15:30	0	0	0
15:30 - 15:45	0	0	0
15:45 - 16:00	0	0	0
HOURLY TOTAL	0	0	0
16:00 - 16:15	0	0	0
16:15 - 16:30	0	0	0
16:30 - 16:45	0	0	0
16:45 - 17:00	0	0	0
HOURLY TOTAL	0	0	0
17:00 - 17:15	0	0	0
17:15 - 17:30	0	0	0
17:30 - 17:45	0	0	0
17:45 - 18:00	0	0	0
HOURLY TOTAL	0	0	0
18:00 - 18:15	0	0	0
18:15 - 18:30	0	0	0
18:30 - 18:45	0	0	0
18:45 - 19:00	0	0	0
HOURLY TOTAL	0	0	0
PERIOD TOTAL	0	0	0

TIME / CLASS	SUNDAY 17th JUNE 2018		
	WESTBOUND	EASTBOUND	TOTAL
7:00 - 7:15	0	0	0
7:15 - 7:30	0	0	0
7:30 - 7:45	0	0	0
7:45 - 8:00	0	0	0
HOURLY TOTAL	0	0	0
8:00 - 8:15	0	0	0
8:15 - 8:30	0	0	0
8:30 - 8:45	0	0	0
8:45 - 9:00	0	0	0
HOURLY TOTAL	0	0	0
9:00 - 9:15	0	0	0
9:15 - 9:30	0	0	0
9:30 - 9:45	0	0	0
9:45 - 10:00	0	0	0
HOURLY TOTAL	0	0	0
10:00 - 10:15	0	0	0
10:15 - 10:30	0	0	0
10:30 - 10:45	0	0	0
10:45 - 11:00	0	0	0
HOURLY TOTAL	0	0	0
11:00 - 11:15	0	0	0
11:15 - 11:30	0	0	0
11:30 - 11:45	0	0	0
11:45 - 12:00	0	0	0
HOURLY TOTAL	0	0	0
12:00 - 12:15	0	0	0
12:15 - 12:30	0	0	0
12:30 - 12:45	0	0	0
12:45 - 13:00	0	0	0
HOURLY TOTAL	0	0	0
13:00 - 13:15	0	0	0
13:15 - 13:30	0	0	0
13:30 - 13:45	0	0	0
13:45 - 14:00	0	0	0
HOURLY TOTAL	0	0	0
14:00 - 14:15	0	0	0
14:15 - 14:30	0	0	0
14:30 - 14:45	0	0	0
14:45 - 15:00	0	0	0
HOURLY TOTAL	0	0	0
15:00 - 15:15	0	0	0
15:15 - 15:30	0	0	0
15:30 - 15:45	0	0	0
15:45 - 16:00	0	0	0
HOURLY TOTAL	0	0	0
16:00 - 16:15	0	0	0
16:15 - 16:30	0	0	0
16:30 - 16:45	0	0	0
16:45 - 17:00	0	0	0
HOURLY TOTAL	0	0	0
17:00 - 17:15	0	0	0
17:15 - 17:30	0	0	0
17:30 - 17:45	0	0	0
17:45 - 18:00	0	0	0
HOURLY TOTAL	0	0	0
18:00 - 18:15	0	0	0
18:15 - 18:30	0	0	0
18:30 - 18:45	0	0	0
18:45 - 19:00	0	0	0
HOURLY TOTAL	0	0	0
PERIOD TOTAL	0	0	0

TIME / CLASS	MONDAY 18th JUNE 2018		
	WESTBOUND	EASTBOUND	TOTAL
7:00 - 7:15	0	0	0
7:15 - 7:30	0	0	0
7:30 - 7:45	0	0	0
7:45 - 8:00	0	0	0
HOURLY TOTAL	0	0	0
8:00 - 8:15	0	0	0
8:15 - 8:30	0	0	0
8:30 - 8:45	0	0	0
8:45 - 9:00	0	0	0
HOURLY TOTAL	0	0	0
9:00 - 9:15	0	0	0
9:15 - 9:30	0	0	0
9:30 - 9:45	0	0	0
9:45 - 10:00	0	0	0
HOURLY TOTAL	0	0	0
10:00 - 10:15	0	0	0
10:15 - 10:30	0	0	0
10:30 - 10:45	0	0	0
10:45 - 11:00	0	0	0
HOURLY TOTAL	0	0	0
11:00 - 11:15	0	0	0
11:15 - 11:30	0	0	0
11:30 - 11:45	0	0	0
11:45 - 12:00	0	0	0
HOURLY TOTAL	0	0	0
12:00 - 12:15	0	0	0
12:15 - 12:30	0	0	0
12:30 - 12:45	0	0	0
12:45 - 13:00	0	0	0
HOURLY TOTAL	0	0	0
13:00 - 13:15	0	0	0
13:15 - 13:30	0	0	0
13:30 - 13:45	0	0	0
13:45 - 14:00	0	0	0
HOURLY TOTAL	0	0	0
14:00 - 14:15	0	0	0
14:15 - 14:30	0	0	0
14:30 - 14:45	0	0	0
14:45 - 15:00	0	0	0
HOURLY TOTAL	0	0	0
15:00 - 15:15	0	0	0
15:15 - 15:30	0	0	0
15:30 - 15:45	0	0	0
15:45 - 16:00	0	0	0
HOURLY TOTAL	0	0	0
16:00 - 16:15	0	0	0
16:15 - 16:30	0	0	0
16:30 - 16:45	0	0	0
16:45 - 17:00	0	0	0
HOURLY TOTAL	0	0	0
17:00 - 17:15	0	0	0
17:15 - 17:30	0	0	0
17:30 - 17:45	0	0	0
17:45 - 18:00	0	0	0
HOURLY TOTAL	0	0	0
18:00 - 18:15	0	0	0
18:15 - 18:30	0	0	0
18:30 - 18:45	0	0	0
18:45 - 19:00	0	0	0
HOURLY TOTAL	0	0	0
PERIOD TOTAL	0	0	0

TIME / CLASS	FRIDAY 22nd JUNE 2018		
	WESTBOUND	EASTBOUND	TOTAL
7:00 - 7:15	0	0	0
7:15 - 7:30	0	0	0
7:30 - 7:45	0	0	0
7:45 - 8:00	0	0	0
HOURLY TOTAL	0	0	0
8:00 - 8:15	0	0	0
8:15 - 8:30	0	0	0
8:30 - 8:45	0	0	0
8:45 - 9:00	0	0	0
HOURLY TOTAL	0	0	0
9:00 - 9:15	0	0	0
9:15 - 9:30	0	0	0
9:30 - 9:45	0	0	0
9:45 - 10:00	0	0	0
HOURLY TOTAL	0	0	0
10:00 - 10:15	0	0	0
10:15 - 10:30	0	0	0
10:30 - 10:45	0	0	0
10:45 - 11:00	0	0	0
HOURLY TOTAL	0	0	0
11:00 - 11:15	0	0	0
11:15 - 11:30	0	0	0
11:30 - 11:45	0	0	0
11:45 - 12:00	0	0	0
HOURLY TOTAL	0	0	0
12:00 - 12:15	0	0	0
12:15 - 12:30	0	0	0
12:30 - 12:45	0	0	0
12:45 - 13:00	0	0	0
HOURLY TOTAL	0	0	0
13:00 - 13:15	0	0	0
13:15 - 13:30	0	0	0
13:30 - 13:45	0	0	0
13:45 - 14:00	0	0	0
HOURLY TOTAL	0	0	0
14:00 - 14:15	0	0	0
14:15 - 14:30	0	0	0
14:30 - 14:45	0	0	0
14:45 - 15:00	0	0	0
HOURLY TOTAL	0	0	0
15:00 - 15:15	0	0	0
15:15 - 15:30	0	0	0
15:30 - 15:45	0	0	0
15:45 - 16:00	0	0	0
HOURLY TOTAL	0	0	0
16:00 - 16:15	0	0	0
16:15 - 16:30	0	0	0
16:30 - 16:45	0	0	0
16:45 - 17:00	0	0	0
HOURLY TOTAL	0	0	0
17:00 - 17:15	0	0	0
17:15 - 17:30	0	0	0
17:30 - 17:45	0	0	0
17:45 - 18:00	0	0	0
HOURLY TOTAL	0	0	0
18:00 - 18:15	0	0	0
18:15 - 18:30	0	0	0
18:30 - 18:45	0	0	0
18:45 - 19:00	0	0	0
HOURLY TOTAL	0	0	0
PERIOD TOTAL	0	0	0

Pedestrian Survey, Burnaston, Derbyshire

DATE: JUNE 2018

LOCATION: B5008 ETWALL ROAD

TIME / CLASS	SATURDAY 16th JUNE 2018		
	WESTBOUND	EASTBOUND	TOTAL
7:00 - 7:15	0	0	0
7:15 - 7:30	0	0	0
7:30 - 7:45	0	0	0
7:45 - 8:00	0	0	0
HOURLY TOTAL	0	0	0
8:00 - 8:15	0	0	0
8:15 - 8:30	0	0	0
8:30 - 8:45	0	0	0
8:45 - 9:00	0	0	0
HOURLY TOTAL	0	0	0
9:00 - 9:15	0	0	0
9:15 - 9:30	0	0	0
9:30 - 9:45	0	0	0
9:45 - 10:00	0	0	0
HOURLY TOTAL	0	0	0
10:00 - 10:15	0	0	0
10:15 - 10:30	0	0	0
10:30 - 10:45	0	0	0
10:45 - 11:00	0	0	0
HOURLY TOTAL	0	0	0
11:00 - 11:15	0	0	0
11:15 - 11:30	0	0	0
11:30 - 11:45	0	0	0
11:45 - 12:00	0	0	0
HOURLY TOTAL	0	0	0
12:00 - 12:15	0	0	0
12:15 - 12:30	0	0	0
12:30 - 12:45	0	0	0
12:45 - 13:00	0	0	0
HOURLY TOTAL	0	0	0
13:00 - 13:15	0	0	0
13:15 - 13:30	0	0	0
13:30 - 13:45	0	0	0
13:45 - 14:00	0	0	0
HOURLY TOTAL	0	0	0
14:00 - 14:15	0	0	0
14:15 - 14:30	0	0	0
14:30 - 14:45	0	0	0
14:45 - 15:00	0	0	0
HOURLY TOTAL	0	0	0
15:00 - 15:15	0	0	0
15:15 - 15:30	0	0	0
15:30 - 15:45	0	0	0
15:45 - 16:00	0	0	0
HOURLY TOTAL	0	0	0
16:00 - 16:15	0	0	0
16:15 - 16:30	0	0	0
16:30 - 16:45	0	0	0
16:45 - 17:00	0	0	0
HOURLY TOTAL	0	0	0
17:00 - 17:15	1	0	1
17:15 - 17:30	0	1	1
17:30 - 17:45	0	0	0
17:45 - 18:00	0	0	0
HOURLY TOTAL	1	1	2
18:00 - 18:15	0	0	0
18:15 - 18:30	0	0	0
18:30 - 18:45	0	0	0
18:45 - 19:00	0	0	0
HOURLY TOTAL	0	0	0
PERIOD TOTAL	1	1	2

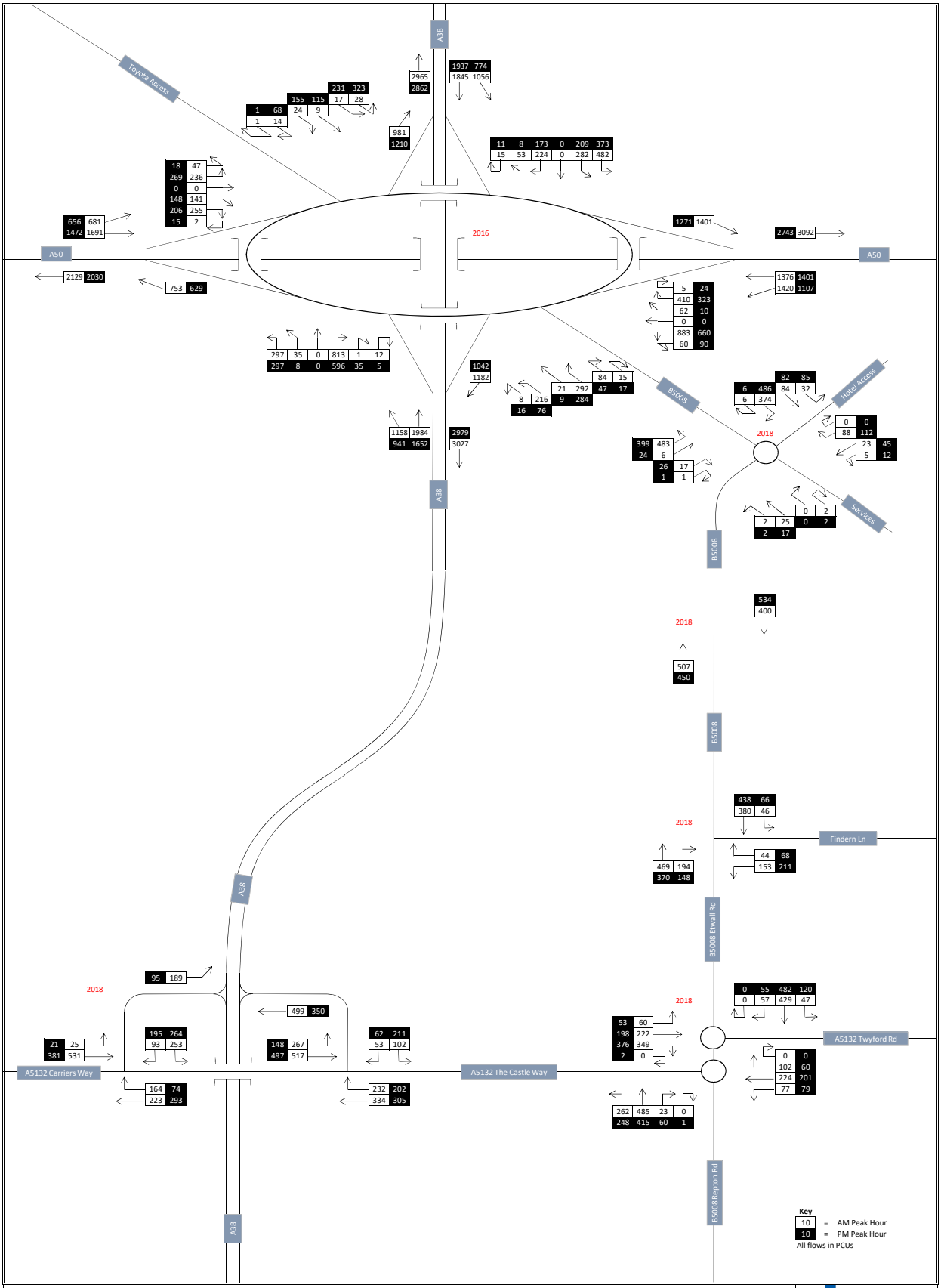
TIME / CLASS	SUNDAY 17th JUNE 2018		
	WESTBOUND	EASTBOUND	TOTAL
7:00 - 7:15	0	0	0
7:15 - 7:30	0	0	0
7:30 - 7:45	1	1	2
7:45 - 8:00	0	0	0
HOURLY TOTAL	1	1	2
8:00 - 8:15	0	0	0
8:15 - 8:30	0	0	0
8:30 - 8:45	0	0	0
8:45 - 9:00	0	0	0
HOURLY TOTAL	0	0	0
9:00 - 9:15	0	0	0
9:15 - 9:30	0	0	0
9:30 - 9:45	0	0	0
9:45 - 10:00	0	0	0
HOURLY TOTAL	0	0	0
10:00 - 10:15	0	0	0
10:15 - 10:30	0	0	0
10:30 - 10:45	0	0	0
10:45 - 11:00	0	0	0
HOURLY TOTAL	0	0	0
11:00 - 11:15	0	0	0
11:15 - 11:30	0	0	0
11:30 - 11:45	0	0	0
11:45 - 12:00	0	0	0
HOURLY TOTAL	0	0	0
12:00 - 12:15	0	0	0
12:15 - 12:30	0	0	0
12:30 - 12:45	0	0	0
12:45 - 13:00	0	0	0
HOURLY TOTAL	0	0	0
13:00 - 13:15	0	0	0
13:15 - 13:30	0	0	0
13:30 - 13:45	0	0	0
13:45 - 14:00	0	0	0
HOURLY TOTAL	0	0	0
14:00 - 14:15	0	0	0
14:15 - 14:30	0	0	0
14:30 - 14:45	0	0	0
14:45 - 15:00	0	0	0
HOURLY TOTAL	0	0	0
15:00 - 15:15	0	0	0
15:15 - 15:30	0	0	0
15:30 - 15:45	0	0	0
15:45 - 16:00	0	0	0
HOURLY TOTAL	0	0	0
16:00 - 16:15	0	0	0
16:15 - 16:30	0	0	0
16:30 - 16:45	0	0	0
16:45 - 17:00	0	0	0
HOURLY TOTAL	0	0	0
17:00 - 17:15	0	0	0
17:15 - 17:30	0	0	0
17:30 - 17:45	0	0	0
17:45 - 18:00	0	0	0
HOURLY TOTAL	0	0	0
18:00 - 18:15	0	0	0
18:15 - 18:30	0	0	0
18:30 - 18:45	0	0	0
18:45 - 19:00	0	0	0
HOURLY TOTAL	0	0	0
PERIOD TOTAL	1	1	2

TIME / CLASS	MONDAY 18th JUNE 2018		
	WESTBOUND	EASTBOUND	TOTAL
7:00 - 7:15	0	0	0
7:15 - 7:30	0	0	0
7:30 - 7:45	0	0	0
7:45 - 8:00	0	0	0
HOURLY TOTAL	0	0	0
8:00 - 8:15	1	1	2
8:15 - 8:30	0	0	0
8:30 - 8:45	0	0	0
8:45 - 9:00	0	0	0
HOURLY TOTAL	1	1	2
9:00 - 9:15	0	0	0
9:15 - 9:30	0	0	0
9:30 - 9:45	0	0	0
9:45 - 10:00	0	0	0
HOURLY TOTAL	0	0	0
10:00 - 10:15	0	0	0
10:15 - 10:30	0	0	0
10:30 - 10:45	0	0	0
10:45 - 11:00	0	0	0
HOURLY TOTAL	0	0	0
11:00 - 11:15	0	0	0
11:15 - 11:30	0	0	0
11:30 - 11:45	0	0	0
11:45 - 12:00	0	0	0
HOURLY TOTAL	0	0	0
12:00 - 12:15	1	0	1
12:15 - 12:30	0	1	1
12:30 - 12:45	0	0	0
12:45 - 13:00	0	0	0
HOURLY TOTAL	1	1	2
13:00 - 13:15	0	0	0
13:15 - 13:30	0	0	0
13:30 - 13:45	0	0	0
13:45 - 14:00	0	0	0
HOURLY TOTAL	0	0	0
14:00 - 14:15	0	0	0
14:15 - 14:30	0	0	0
14:30 - 14:45	0	0	0
14:45 - 15:00	0	0	0
HOURLY TOTAL	0	0	0
15:00 - 15:15	0	0	0
15:15 - 15:30	0	0	0
15:30 - 15:45	0	0	0
15:45 - 16:00	0	0	0
HOURLY TOTAL	0	0	0
16:00 - 16:15	0	0	0
16:15 - 16:30	0	0	0
16:30 - 16:45	0	0	0
16:45 - 17:00	0	0	0
HOURLY TOTAL	0	0	0
17:00 - 17:15	0	0	0
17:15 - 17:30	0	0	0
17:30 - 17:45	1	1	2
17:45 - 18:00	0	0	0
HOURLY TOTAL	1	1	2
18:00 - 18:15	0	0	0
18:15 - 18:30	0	0	0
18:30 - 18:45	0	0	0
18:45 - 19:00	0	0	0
HOURLY TOTAL	0	0	0
PERIOD TOTAL	3	3	6

TIME / CLASS	FRIDAY 22nd JUNE 2018		
	WESTBOUND	EASTBOUND	TOTAL
7:00 - 7:15	0	0	0
7:15 - 7:30	0	0	0
7:30 - 7:45	0	0	0
7:45 - 8:00	0	0	0
HOURLY TOTAL	0	0	0
8:00 - 8:15	0	0	0
8:15 - 8:30	0	0	0
8:30 - 8:45	0	0	0
8:45 - 9:00	0	0	0
HOURLY TOTAL	0	0	0
9:00 - 9:15	0	0	0
9:15 - 9:30	0	0	0
9:30 - 9:45	0	0	0
9:45 - 10:00	0	0	0
HOURLY TOTAL	0	0	0
10:00 - 10:15	0	0	0
10:15 - 10:30	0	0	0
10:30 - 10:45	0	0	0
10:45 - 11:00	0	0	0
HOURLY TOTAL	0	0	0
11:00 - 11:15	0	0	0
11:15 - 11:30	0	0	0
11:30 - 11:45	0	0	0
11:45 - 12:00	0	0	0
HOURLY TOTAL	0	0	0
12:00 - 12:15	0	0	0
12:15 - 12:30	0	0	0
12:30 - 12:45	0	0	0
12:45 - 13:00	0	0	0
HOURLY TOTAL	0	0	0
13:00 - 13:15	1	1	2
13:15 - 13:30	0	0	0
13:30 - 13:45	0	0	0
13:45 - 14:00	0	0	0
HOURLY TOTAL	1	1	2
14:00 - 14:15	0	0	0
14:15 - 14:30	0	0	0
14:30 - 14:45	0	0	0
14:45 - 15:00	0	0	0
HOURLY TOTAL	0	0	0
15:00 - 15:15	0	0	0
15:15 - 15:30	0	0	0
15:30 - 15:45	0	0	0
15:45 - 16:00	0	0	0
HOURLY TOTAL	0	0	0
16:00 - 16:15	0	0	0
16:15 - 16:30	0	0	0
16:30 - 16:45	0	0	0
16:45 - 17:00	0	0	0
HOURLY TOTAL	0	0	0
17:00 - 17:15	0	0	0
17:15 - 17:30	0	0	0
17:30 - 17:45	0	0	0
17:45 - 18:00	0	0	0
HOURLY TOTAL	0	0	0
18:00 - 18:15	0	0	0
18:15 - 18:30	0	0	0
18:30 - 18:45	0	0	0
18:45 - 19:00	0	0	0
HOURLY TOTAL	0	0	0
PERIOD TOTAL	1	1	2

Appendix D

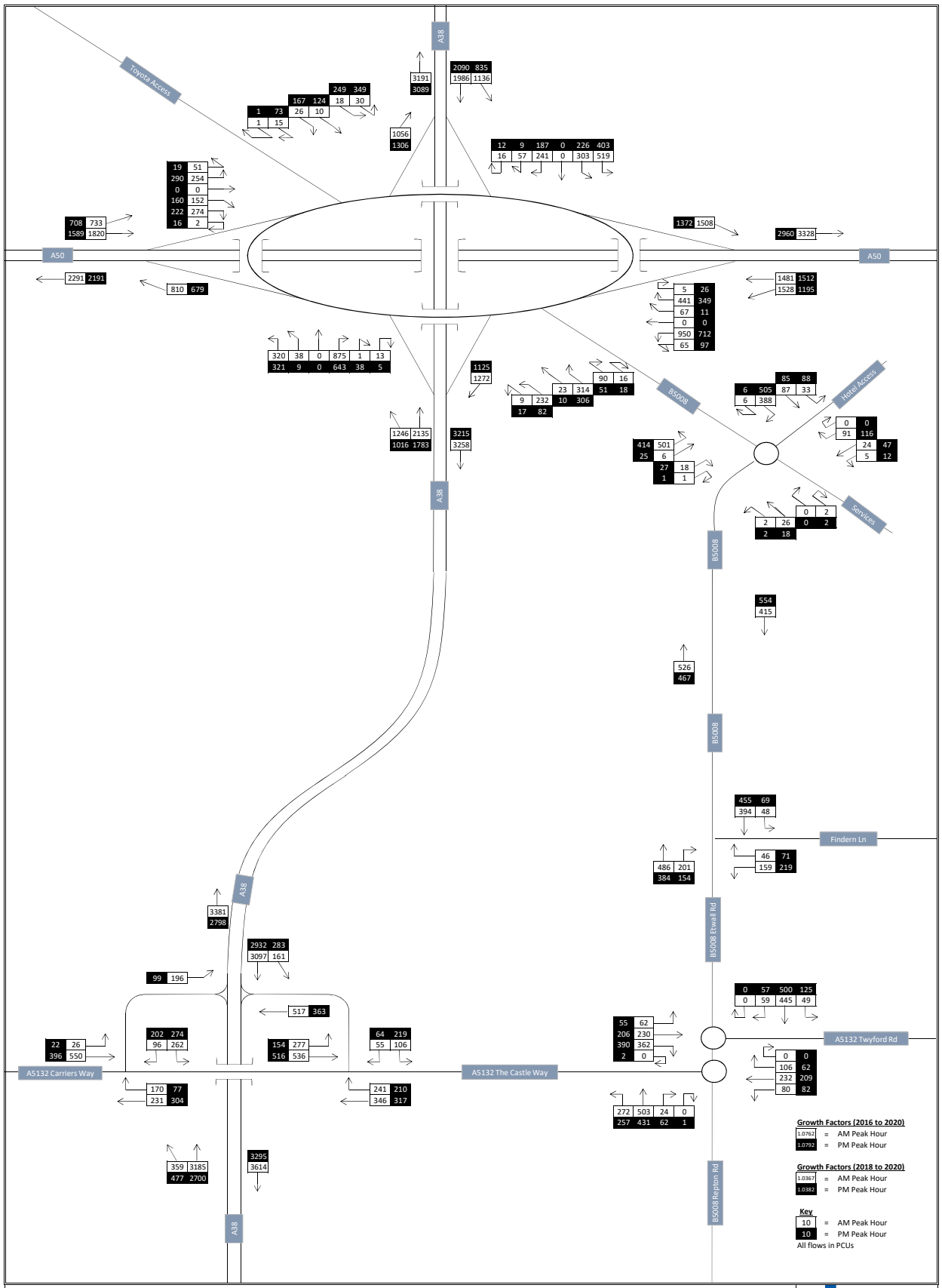
Traffic Flow Diagrams



Flow Diagram 1: Surveyed Traffic Flows

Project: Burnaston Cross, nr Willington, Derbyshire | Job Number: 18-0054

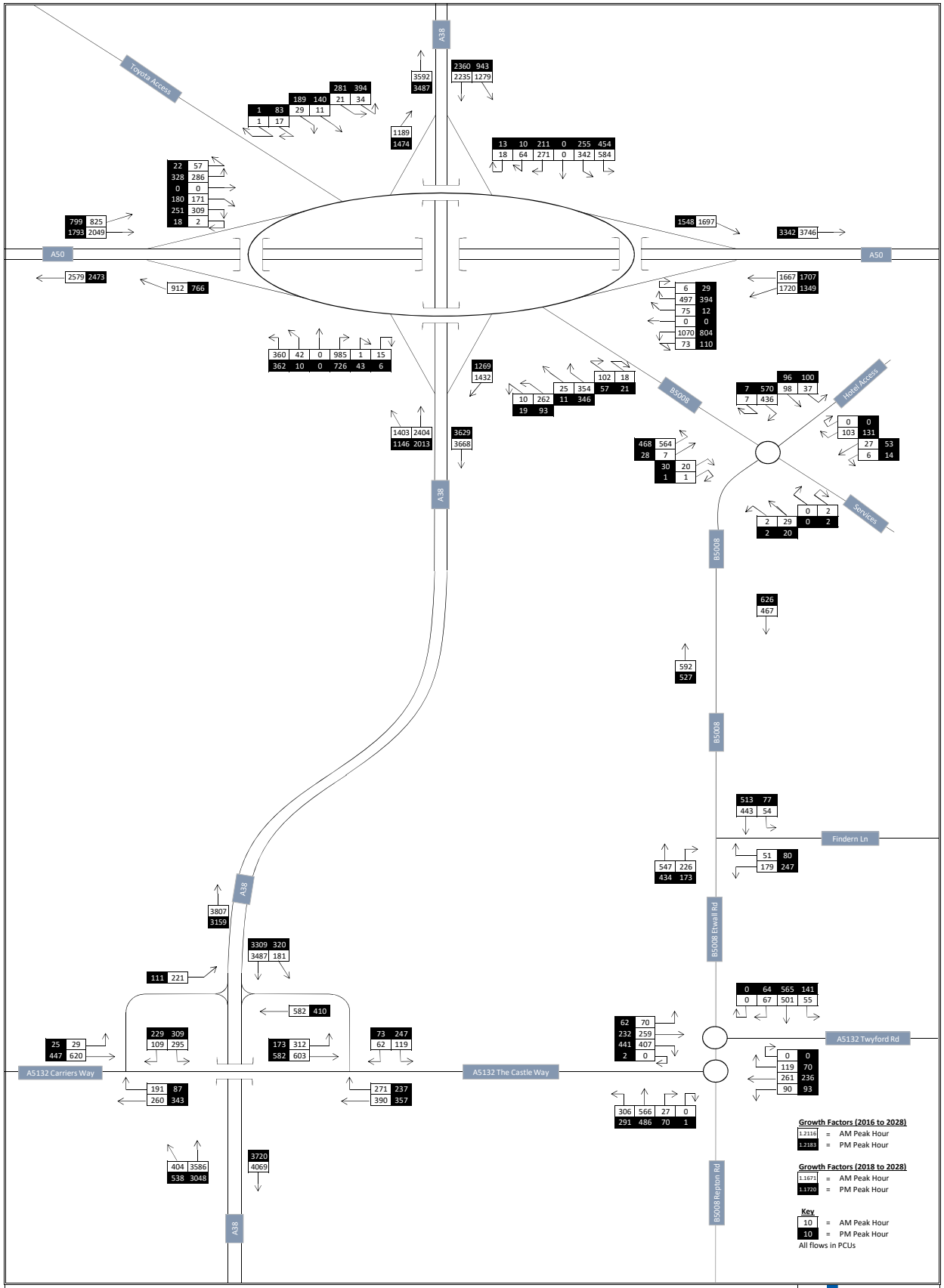
Client: Brackley Property Developments



Flow Diagram 2: 2020 Base Traffic Flows

Project: Burnaston Cross, nr Willington, Derbyshire | Job Number: 18-0054

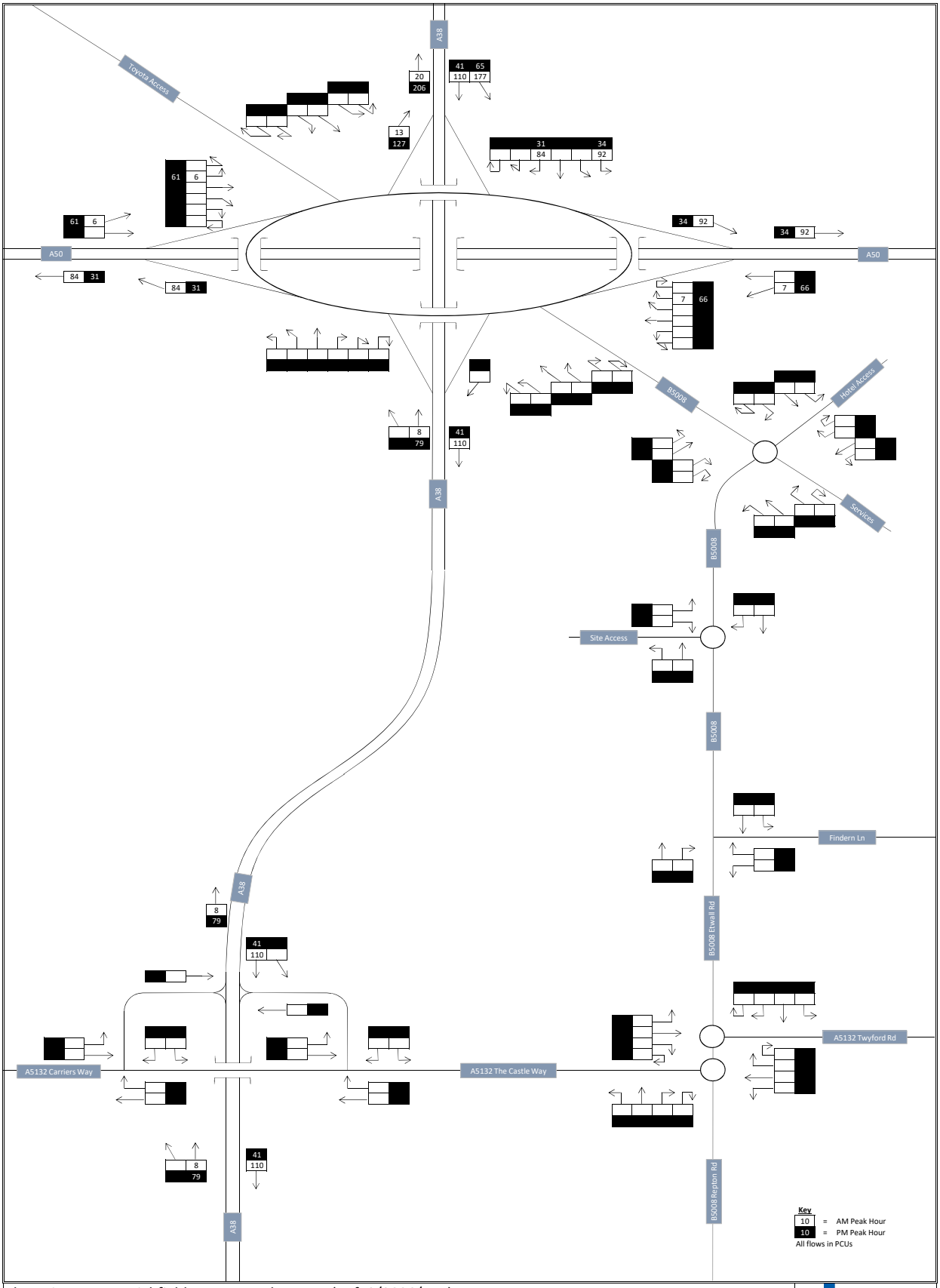
Client: Brackley Property Developments



Flow Diagram 3: 2028 Base Traffic Flows

Project: Burnaston Cross, nr Willington, Derbyshire | Job Number: 18-0054

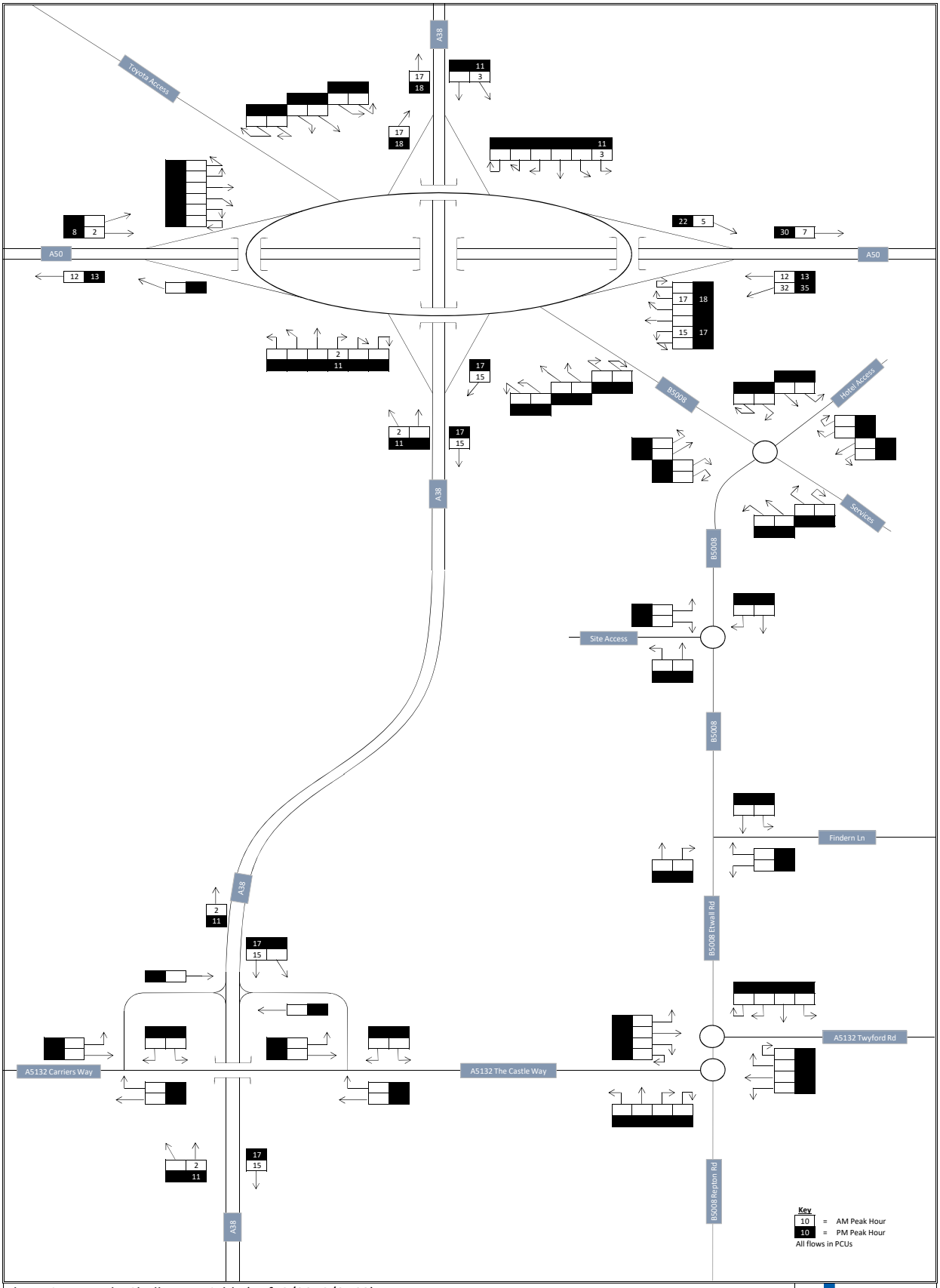
Client: Brackley Property Developments



Flow Diagram 4a: Highfields Farm Development (Ref: 9/2006/775)

Project: Burnaston Cross, nr Willington, Derbyshire | Job Number: 18-0054

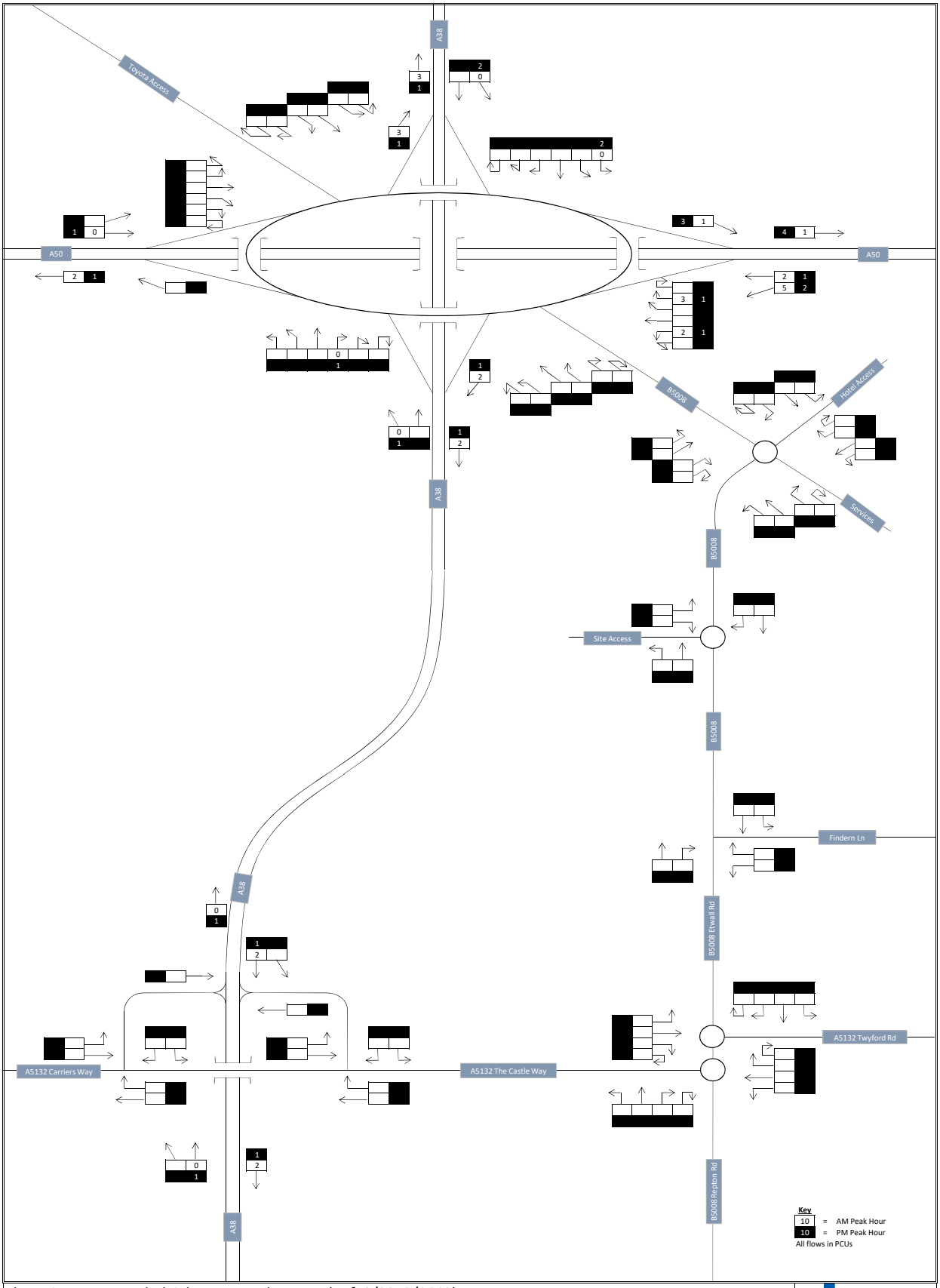
Client: Brackley Property Developments



Flow Diagram 4b: Chellaston Fields (Ref: 9/2012/0568)

Project: Burnaston Cross, nr Willington, Derbyshire | Job Number: 18-0054

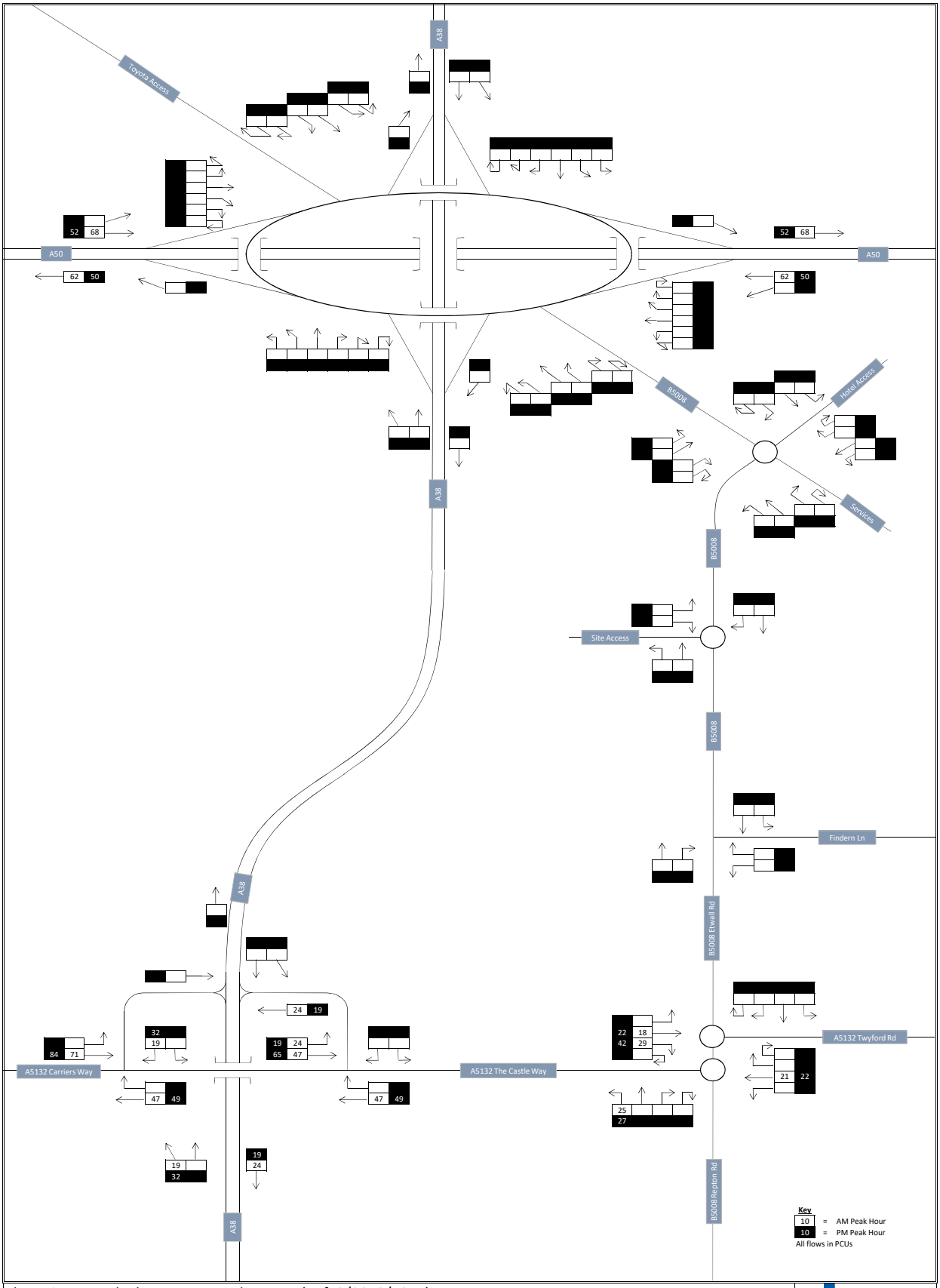
Client: Brackley Property Developments



Flow Diagram 4c: Holmleigh Way Development (Ref: 9/2013/0663)

Project: Burnaston Cross, nr Willington, Derbyshire | Job Number: 18-0054

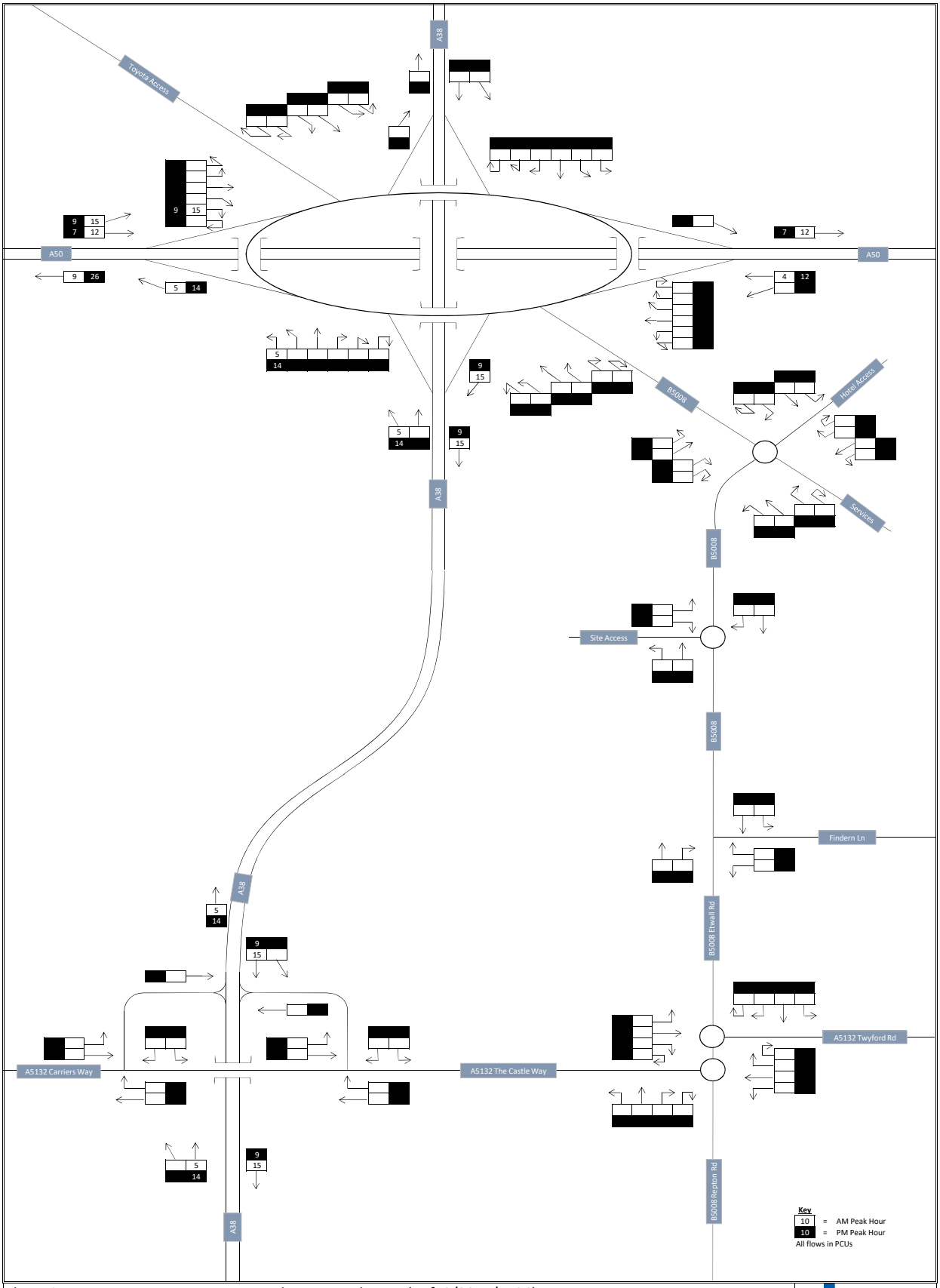
Client: Brackley Property Developments



Flow Diagram 4d: The Mease Development (Ref: 9/2013/1044)

Project: Burnaston Cross, nr Willington, Derbyshire | Job Number: 18-0054

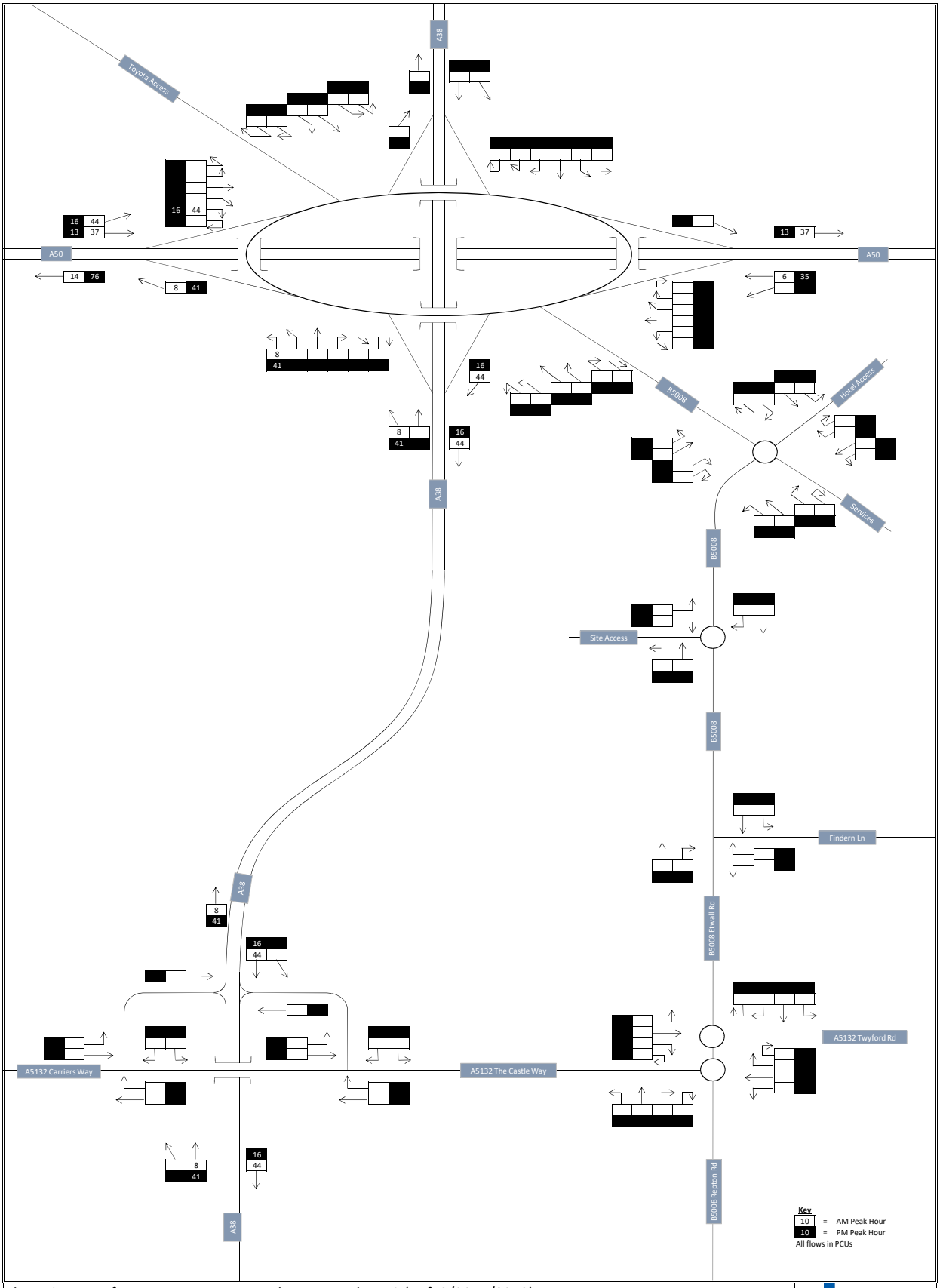
Client: Brackley Property Developments



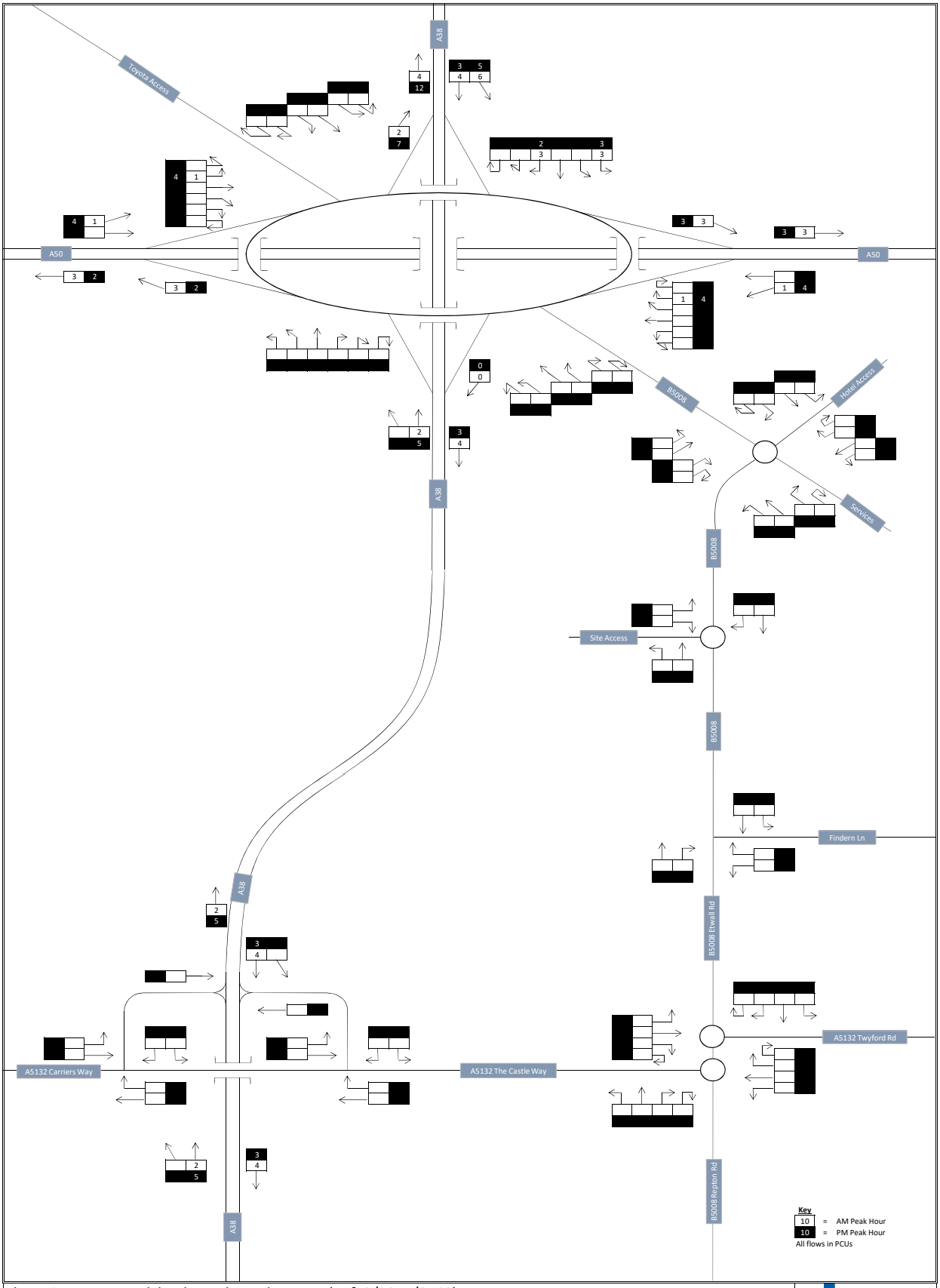
Flow Diagram 4e: New House Farm Development - Phase 1 (Ref: 9/2014/1136)

Project: Burnaston Cross, nr Willington, Derbyshire | Job Number: 18-0054

Client: Brackley Property Developments



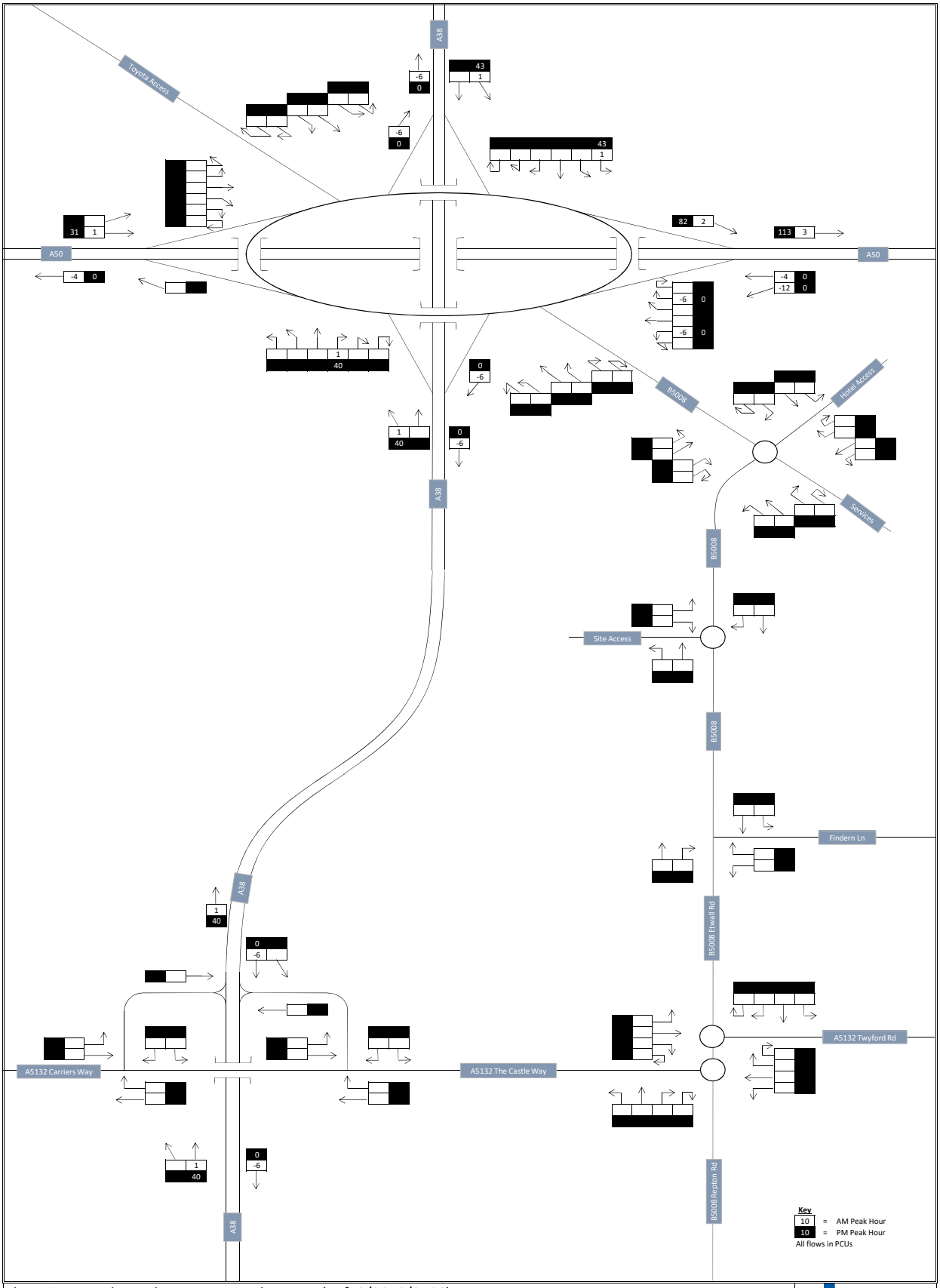
Flow Diagram 4f: New House Farm Development - Phase 2 (Ref: 9/2017/0349)	
Project: Burnaston Cross, nr Willington, Derbyshire	Job Number: 18-0054
Client: Brackley Property Developments	



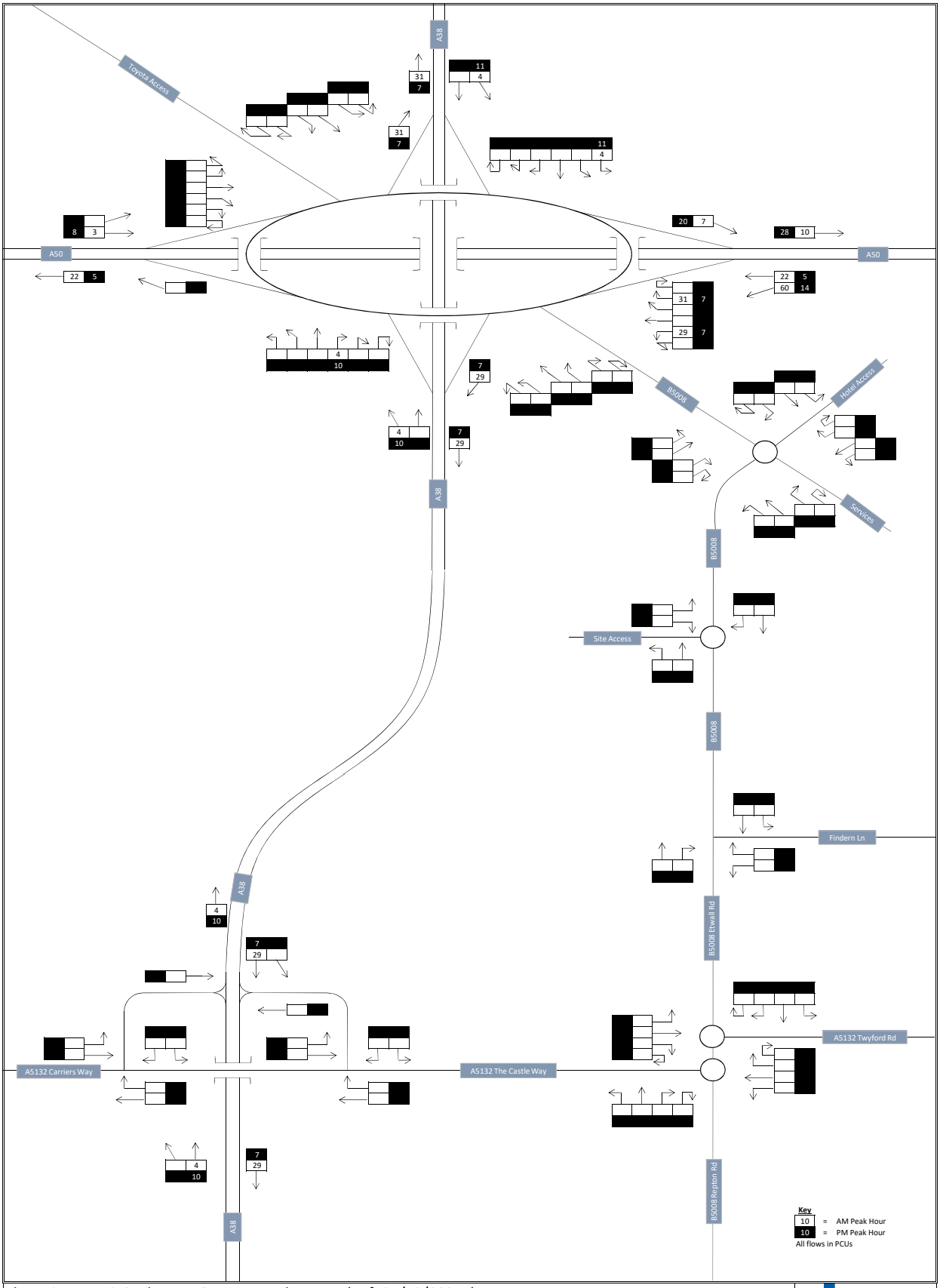
Flow Diagram 4g: Ladybank Road Development (Ref: 9/2015/0768)

Project: Burnaston Cross, nr Willington, Derbyshire | Job Number: 18-0054

Client: Brackley Property Developments



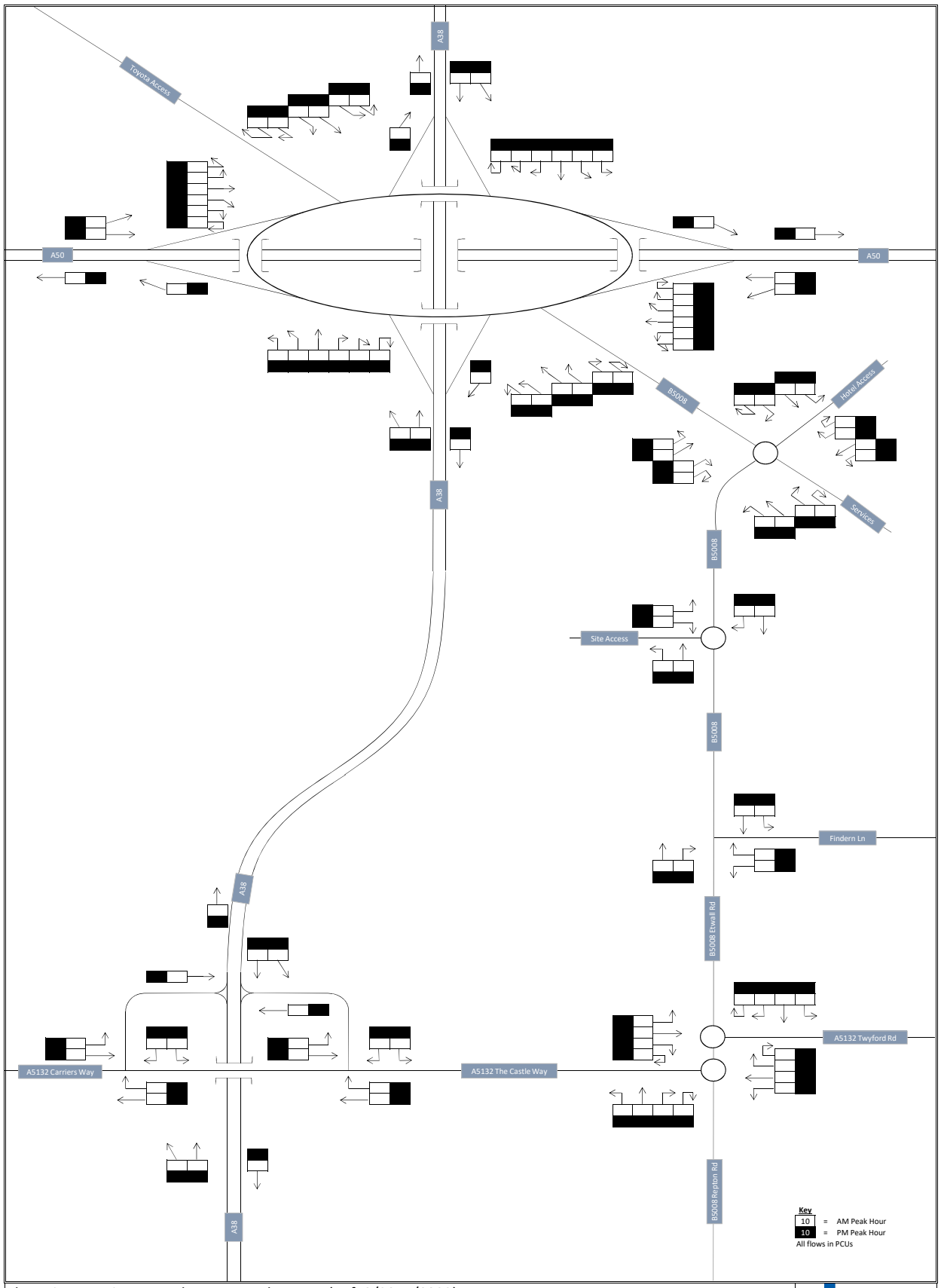
Flow Diagram 4h: Boulton Moor Development (Ref: 9/2016/0166)	
Project: Burnaston Cross, nr Willington, Derbyshire	Job Number: 18-0054
Client: Brackley Property Developments	



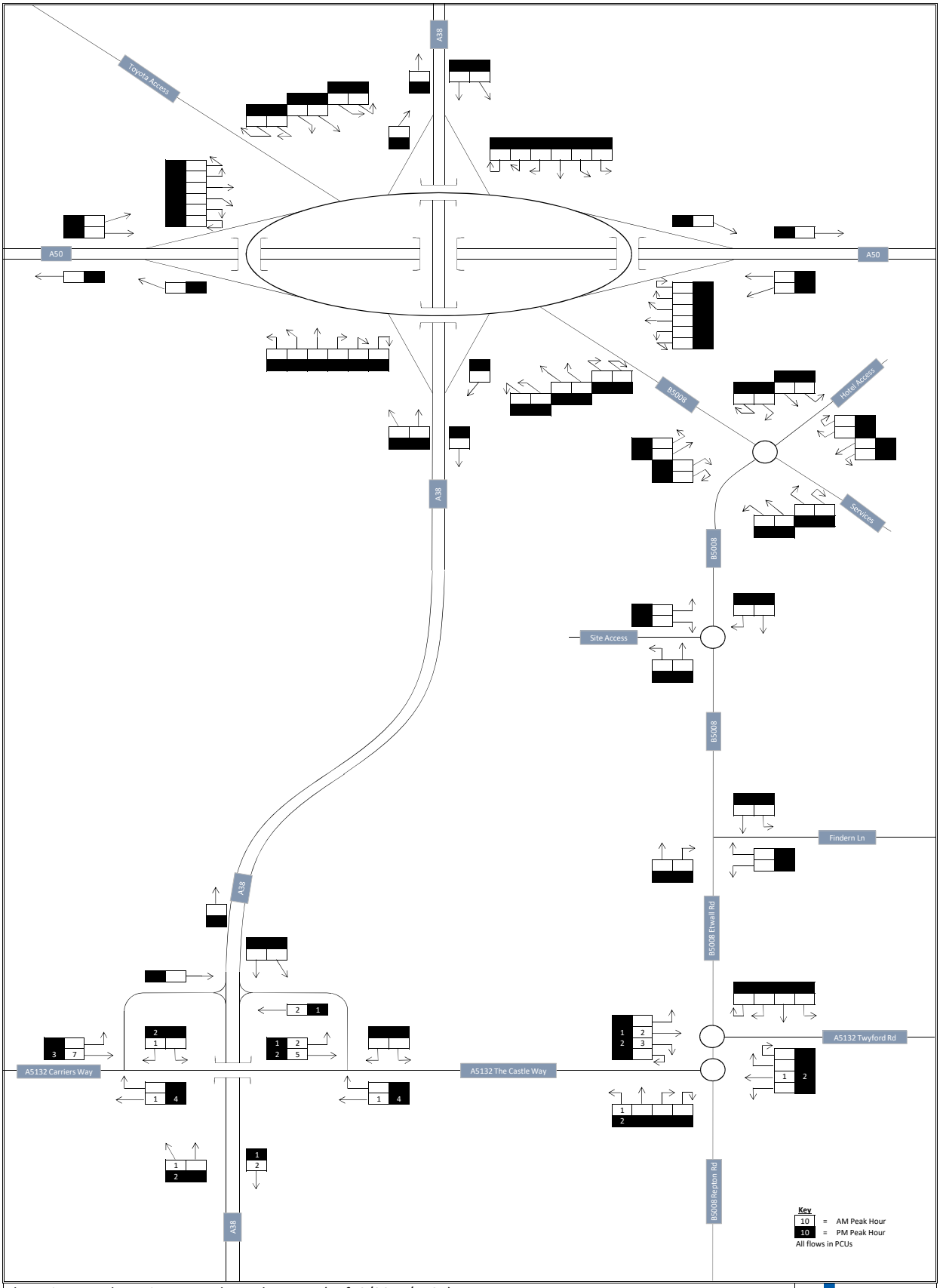
Flow Diagram 4i: Snelsmoor Grange Development (Ref: 04/13/00351)

Project: Burnaston Cross, nr Willington, Derbyshire | Job Number: 18-0054

Client: Brackley Property Developments



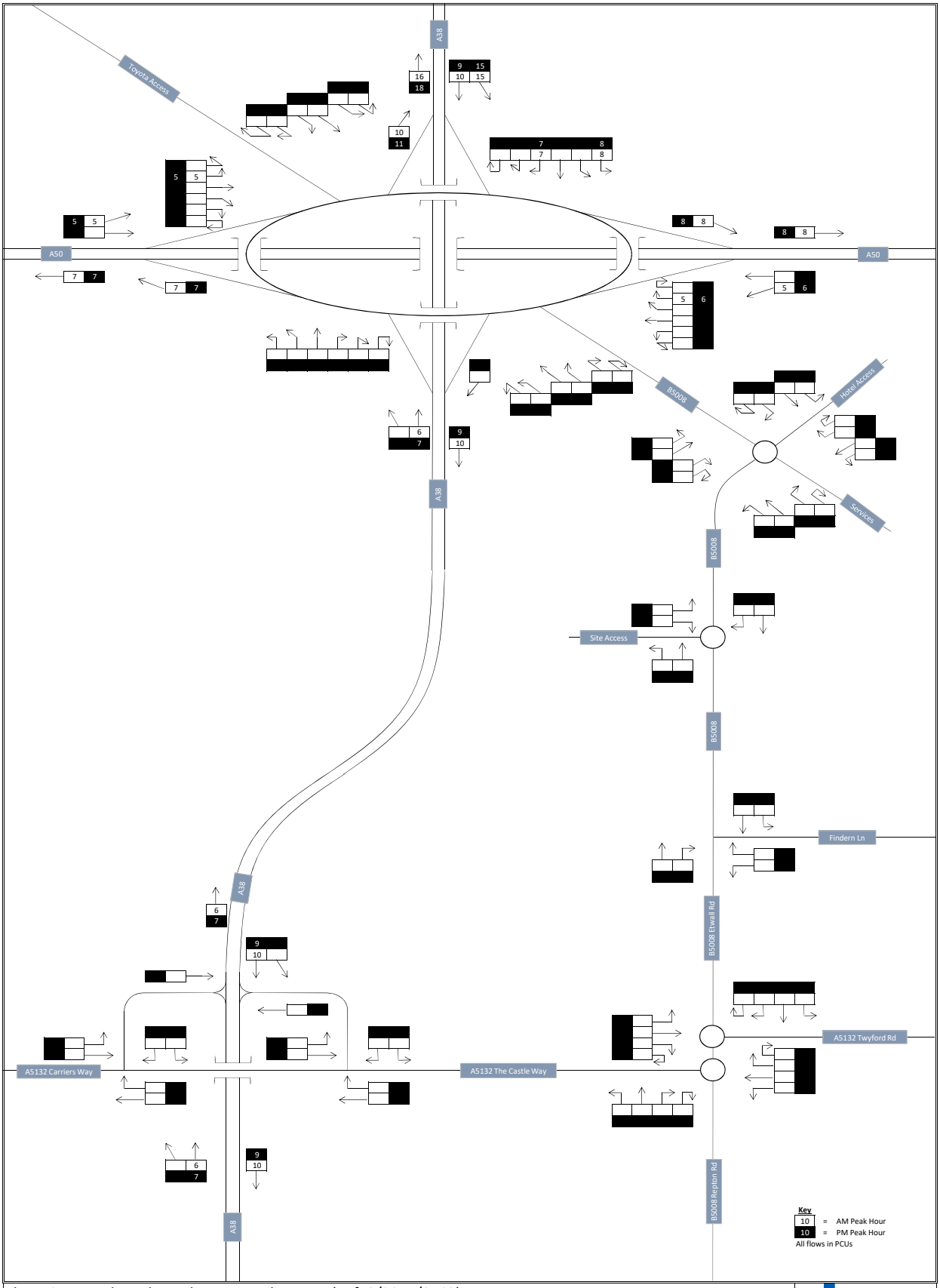
Flow Diagram 4j: Deep Dale Lane Development (Ref: 9/2017/0922)	
Project: Burnaston Cross, nr Willington, Derbyshire	Job Number: 18-0054
Client: Brackley Property Developments	



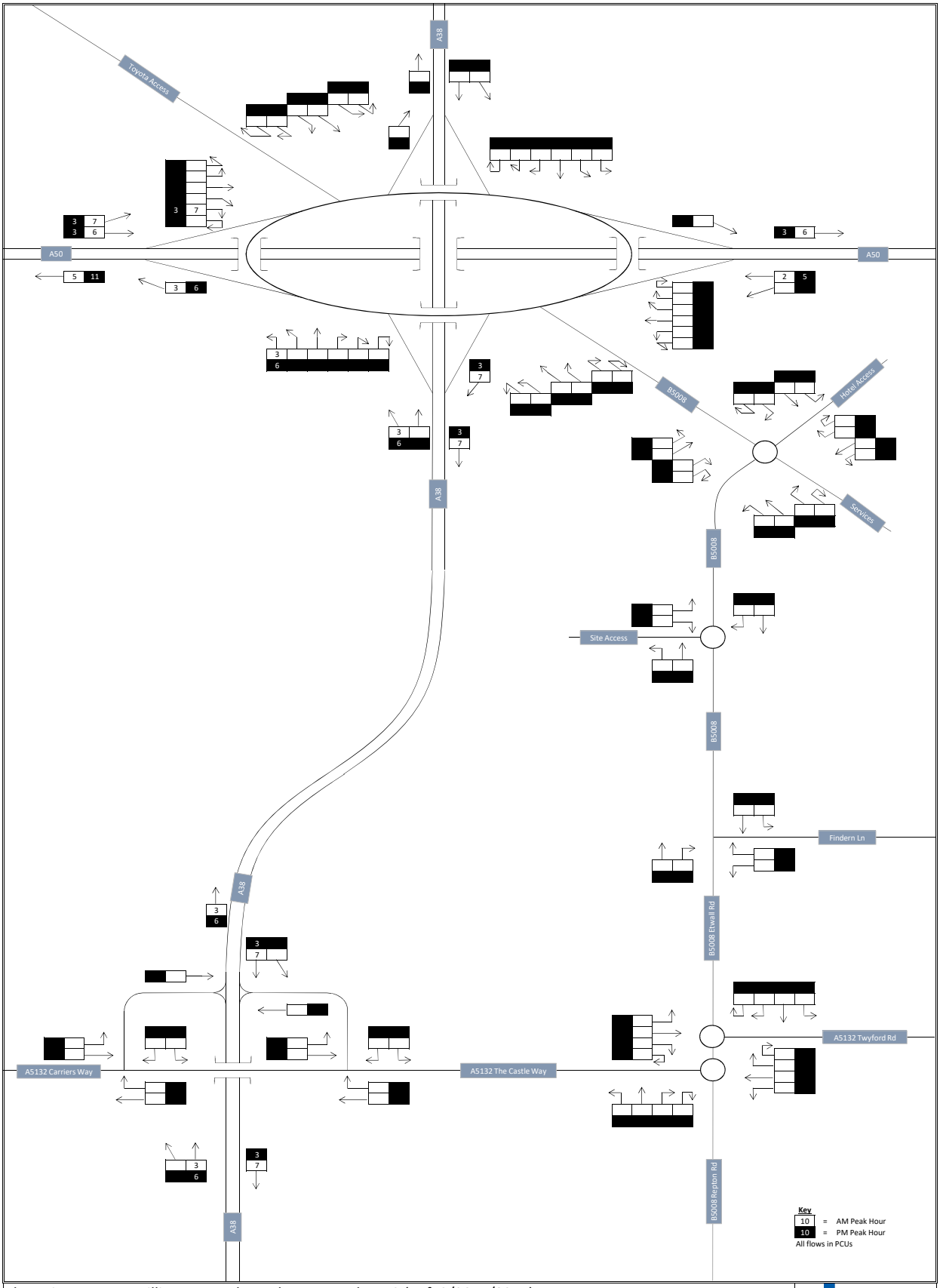
Flow Diagram 4k: Egginton Road Development (Ref: 9/2017/1191)

Project: Burnaston Cross, nr Willington, Derbyshire | Job Number: 18-0054

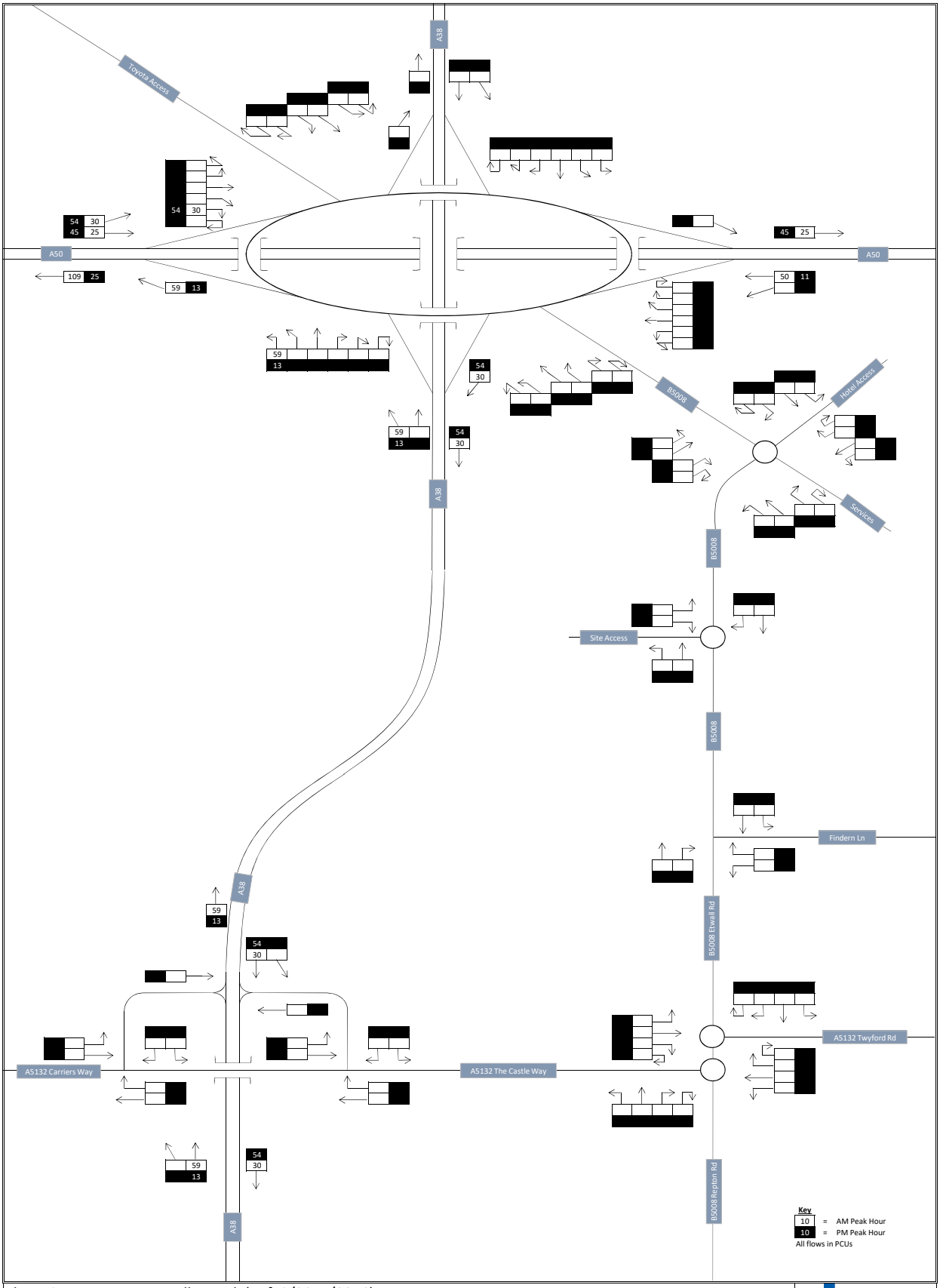
Client: Brackley Property Developments



Flow Diagram 4l: Hackwood Farm Development (Ref: 9/2014/0562)	
Project: Burnaston Cross, nr Willington, Derbyshire	Job Number: 18-0054
Client: Brackley Property Developments	



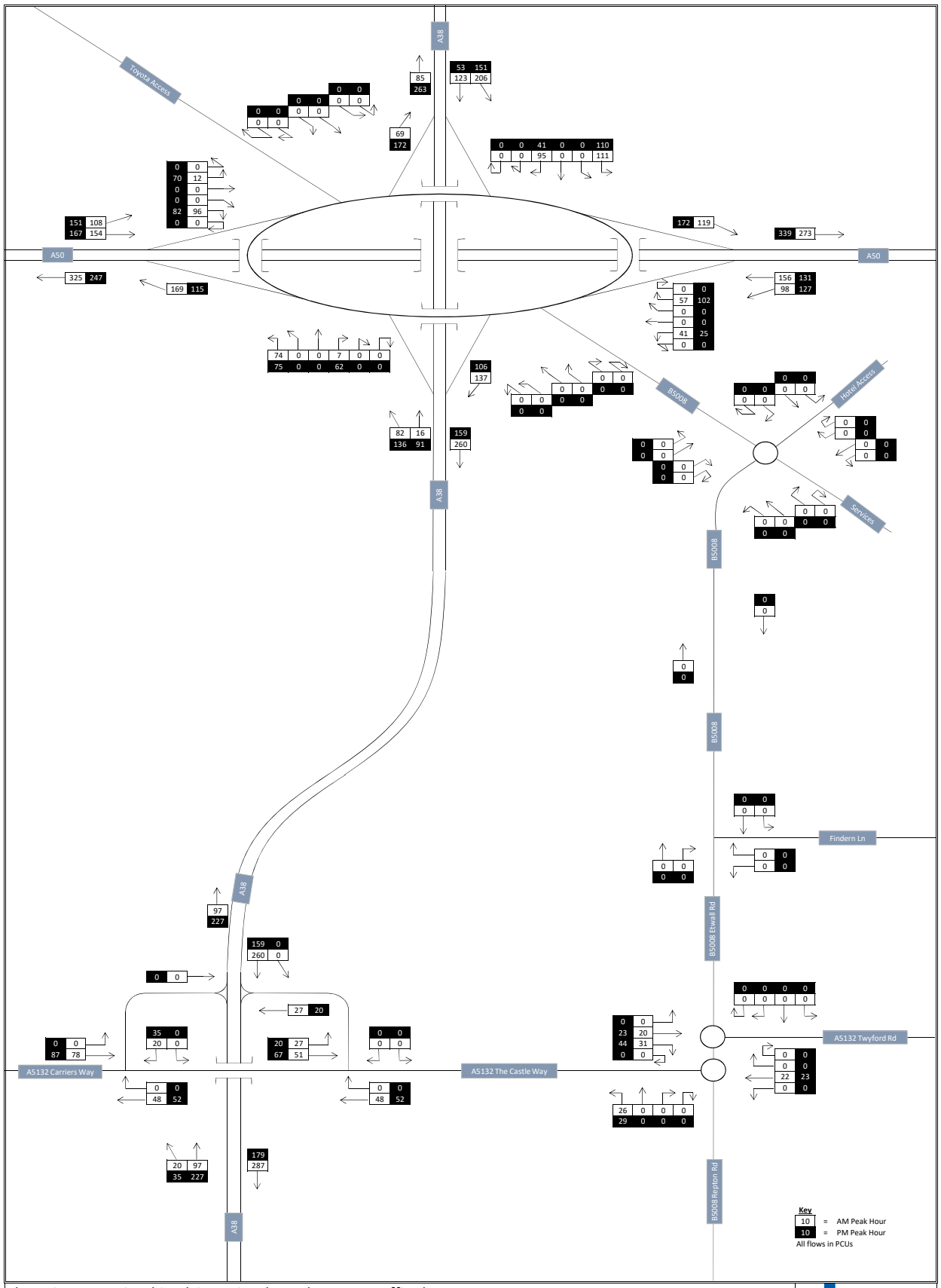
Flow Diagram 4m: Willington Road Development - Phase 2 (Ref: 9/2015/0354)	
Project: Burnaston Cross, nr Willington, Derbyshire	Job Number: 18-0054
Client: Brackley Property Developments	



Flow Diagram 4n: Dove Valley Park (Ref: 9/2017/0816)

Project: Burnaston Cross, nr Willington, Derbyshire | Job Number: 18-0054

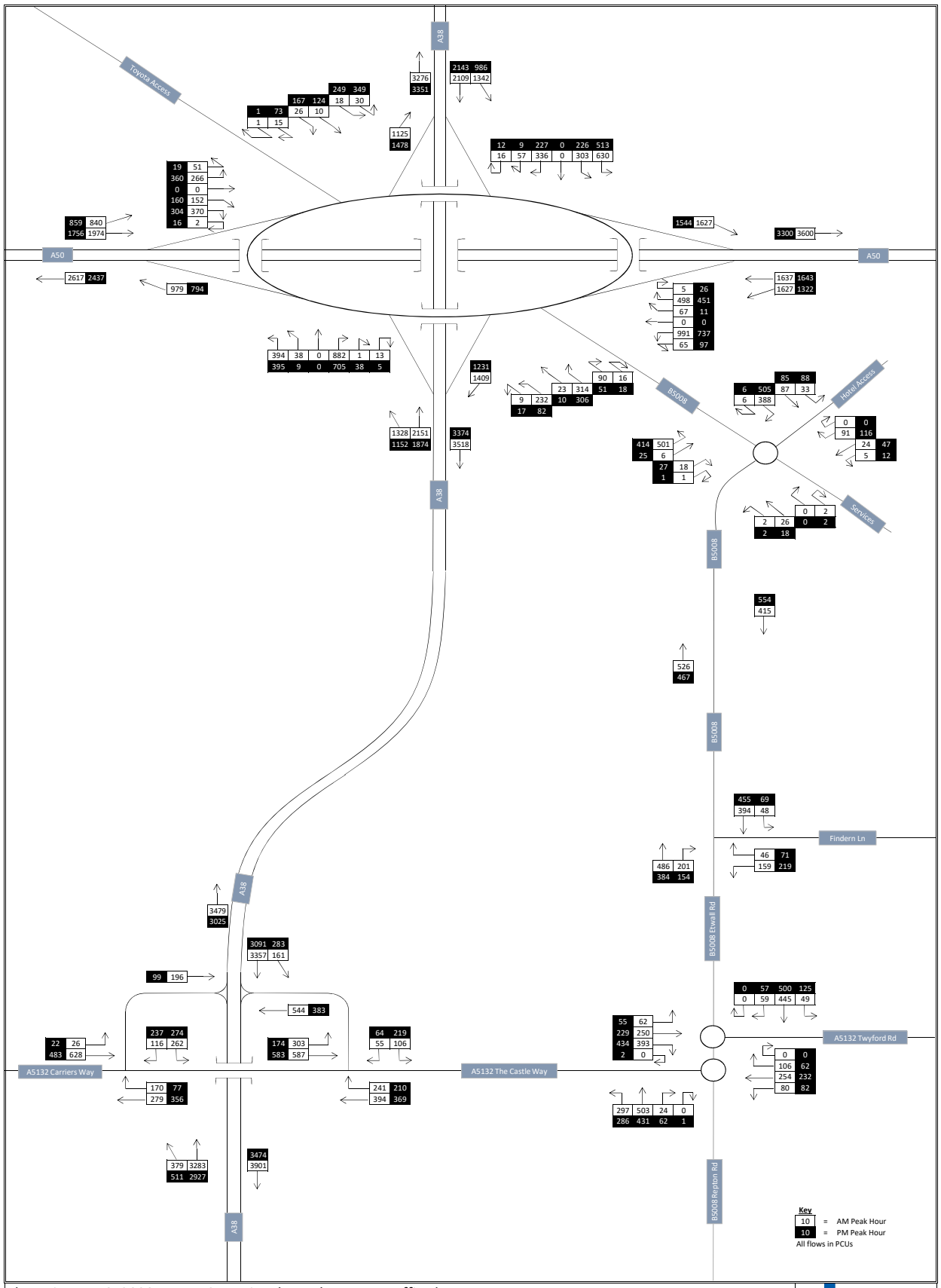
Client: Brackley Property Developments



Flow Diagram 5: Combined Committed Development Traffic Flows

Project: Burnaston Cross, nr Willington, Derbyshire | Job Number: 18-0054

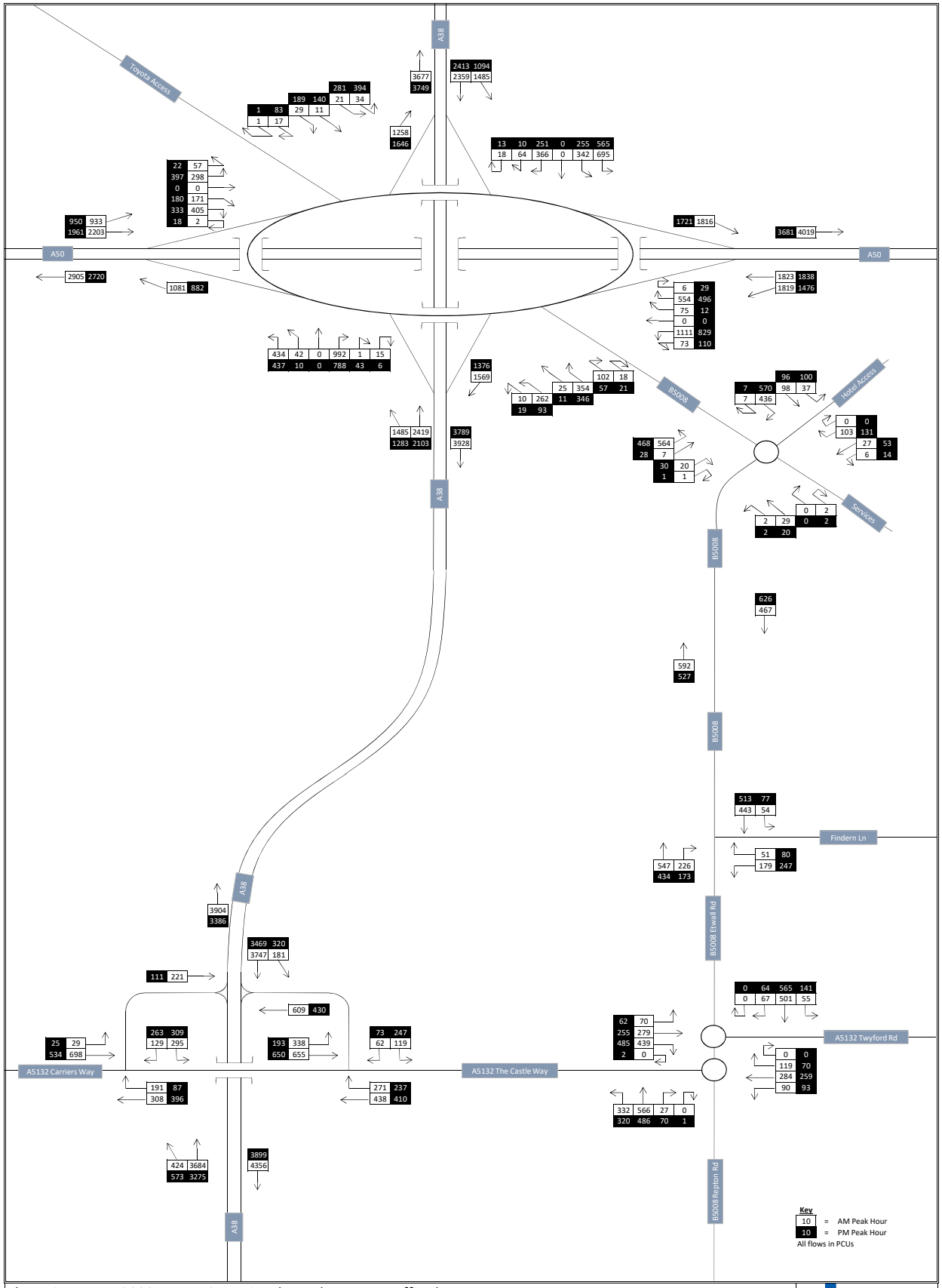
Client: Brackley Property Developments



Flow Diagram 6: 2020 Base + Committed Development Traffic Flows

Project: Burnaston Cross, nr Willington, Derbyshire | Job Number: 18-0054

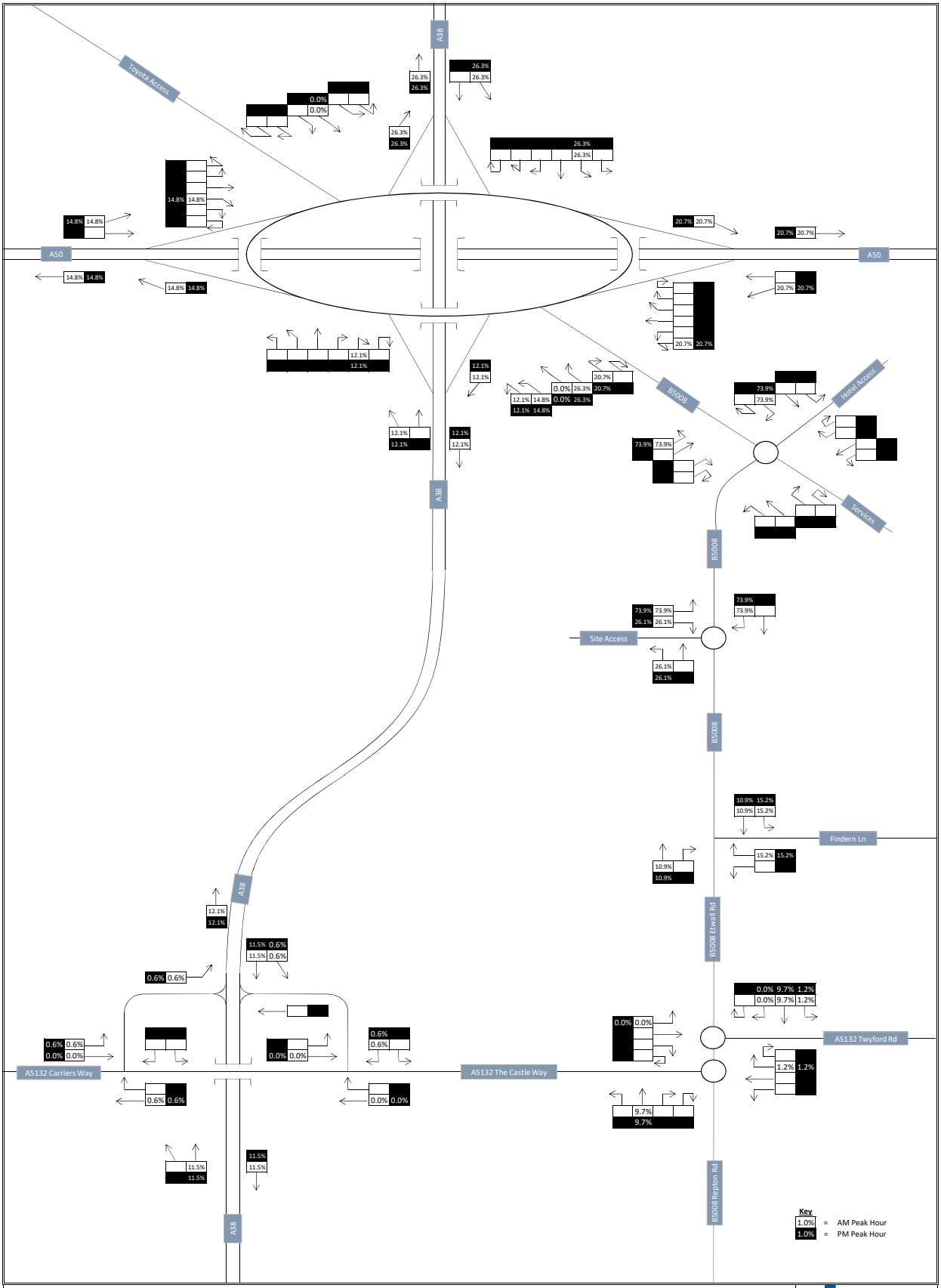
Client: Brackley Property Developments



Flow Diagram 7: 2028 Base + Committed Development Traffic Flows

Project: Burnaston Cross, nr Willington, Derbyshire | Job Number: 18-0054

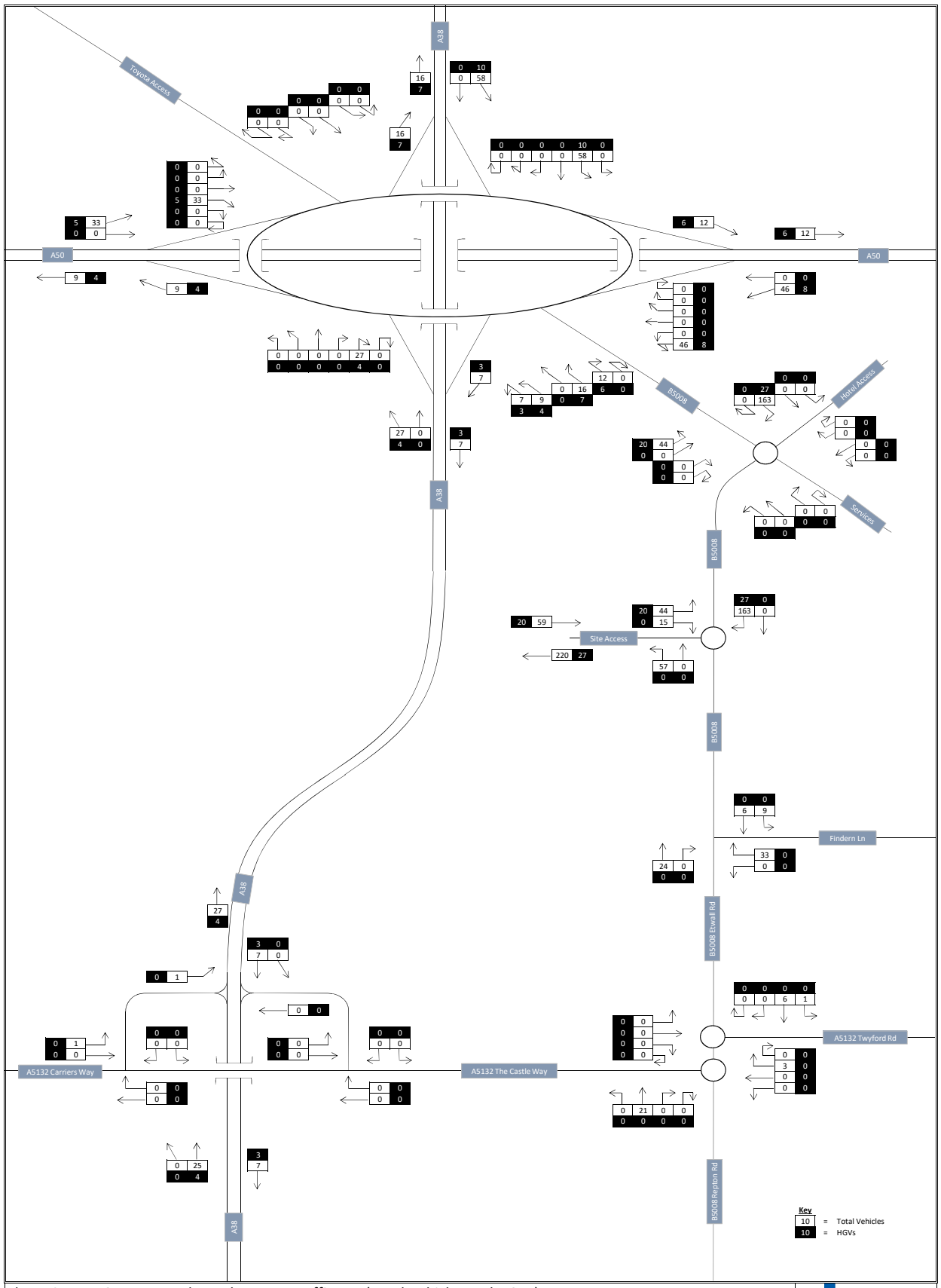
Client: Brackley Property Developments



Flow Diagram 8: Car Trip Distribution

Project: Burnaston Cross, nr Willington, Derbyshire | Job Number: 18-0054

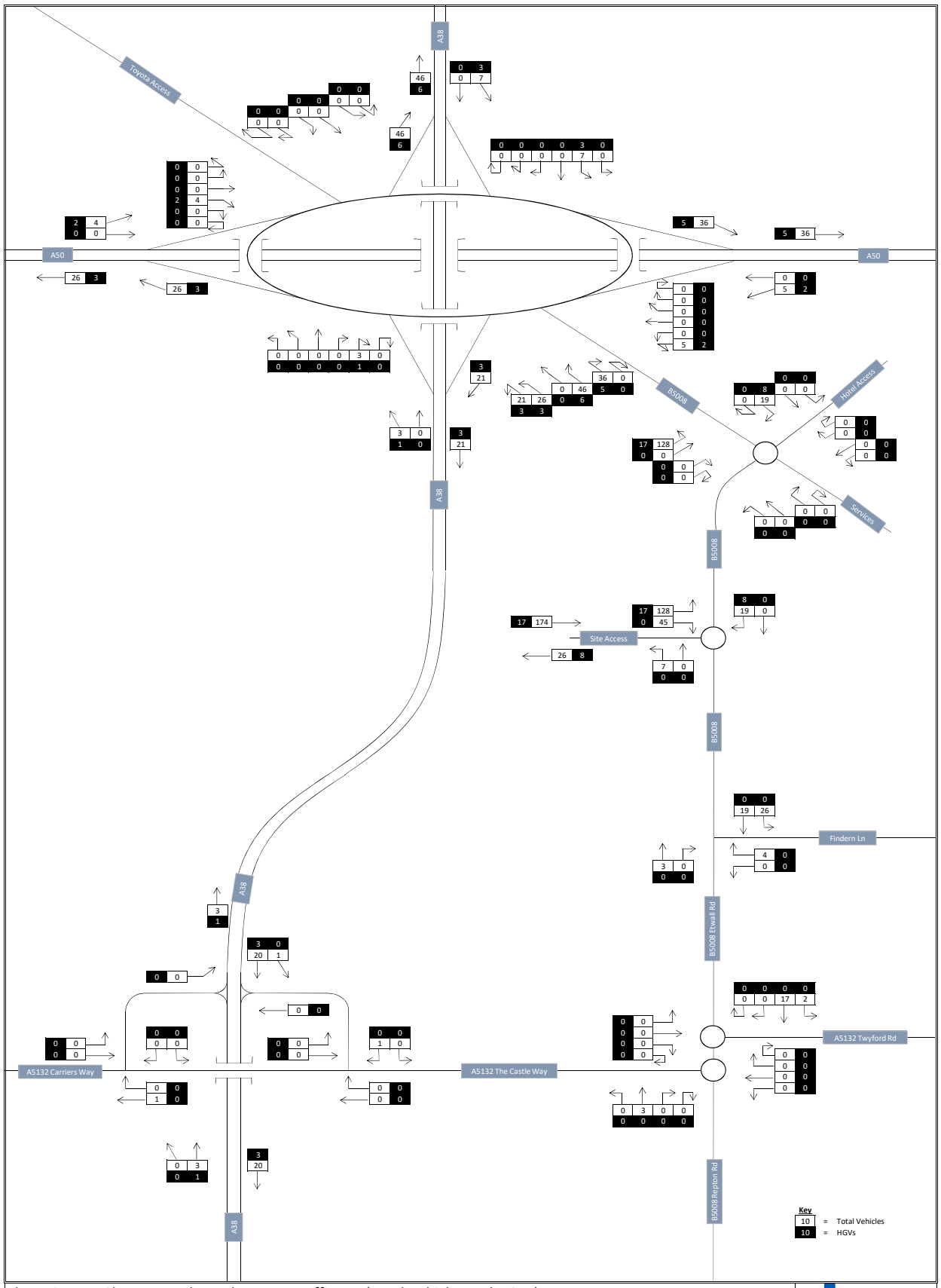
Client: Brackley Property Developments



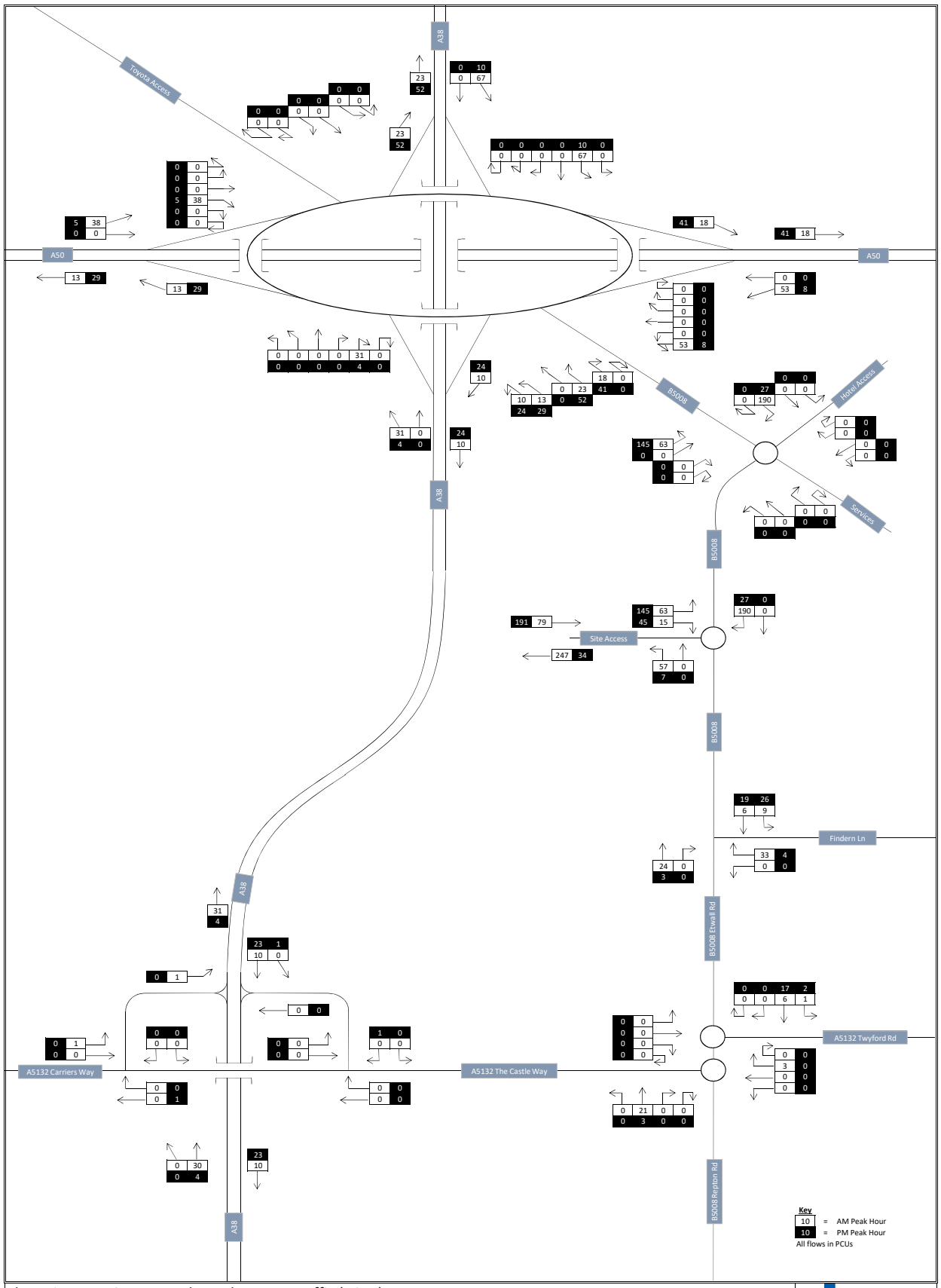
Flow Diagram 9a: Proposed Development Traffic AM (Total Vehicles and HGVs)

Project: Burnaston Cross, nr Willington, Derbyshire | Job Number: 18-0054

Client: Brackley Property Developments



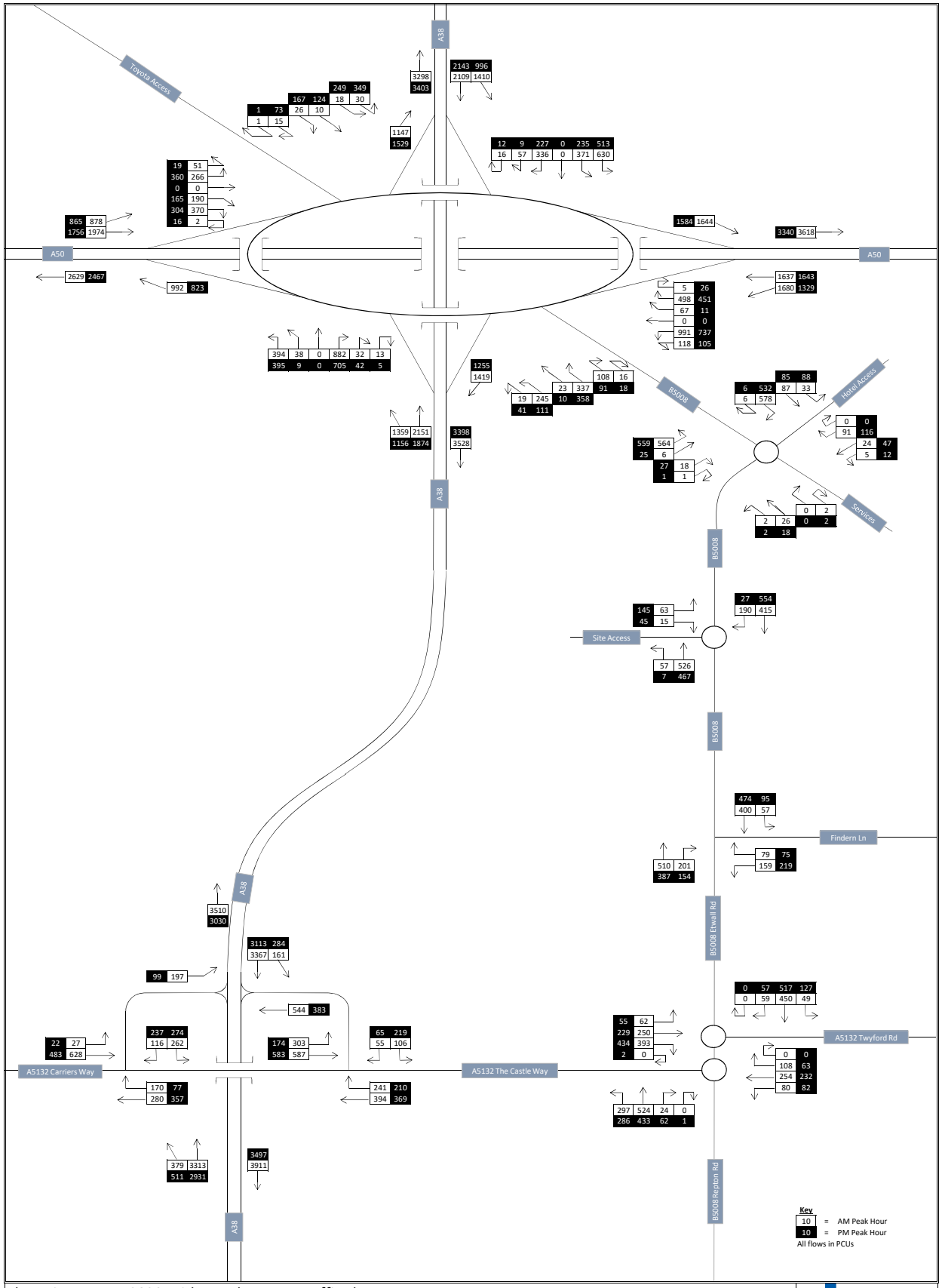
Flow Diagram 9b: Proposed Development Traffic PM (Total Vehicles and HGVs)	
Project: Burnaston Cross, nr Willington, Derbyshire	Job Number: 18-0054
Client: Brackley Property Developments	



Flow Diagram 10: Proposed Development Traffic (PCUs)

Project: Burnaston Cross, nr Willington, Derbyshire | Job Number: 18-0054

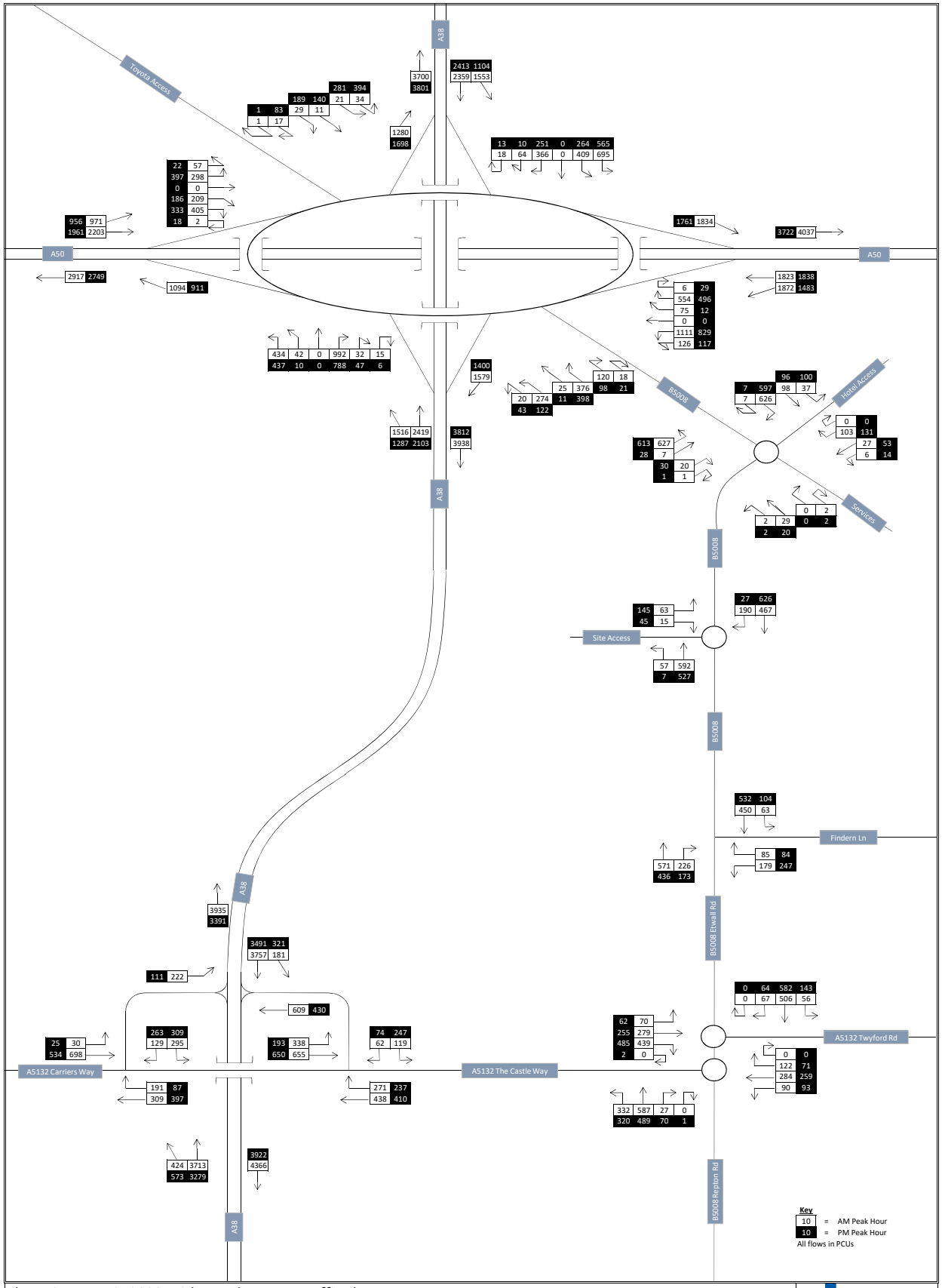
Client: Brackley Property Developments



Flow Diagram 11: 2020 With Development Traffic Flows

Project: Burnaston Cross, nr Willington, Derbyshire | Job Number: 18-0054

Client: Brackley Property Developments



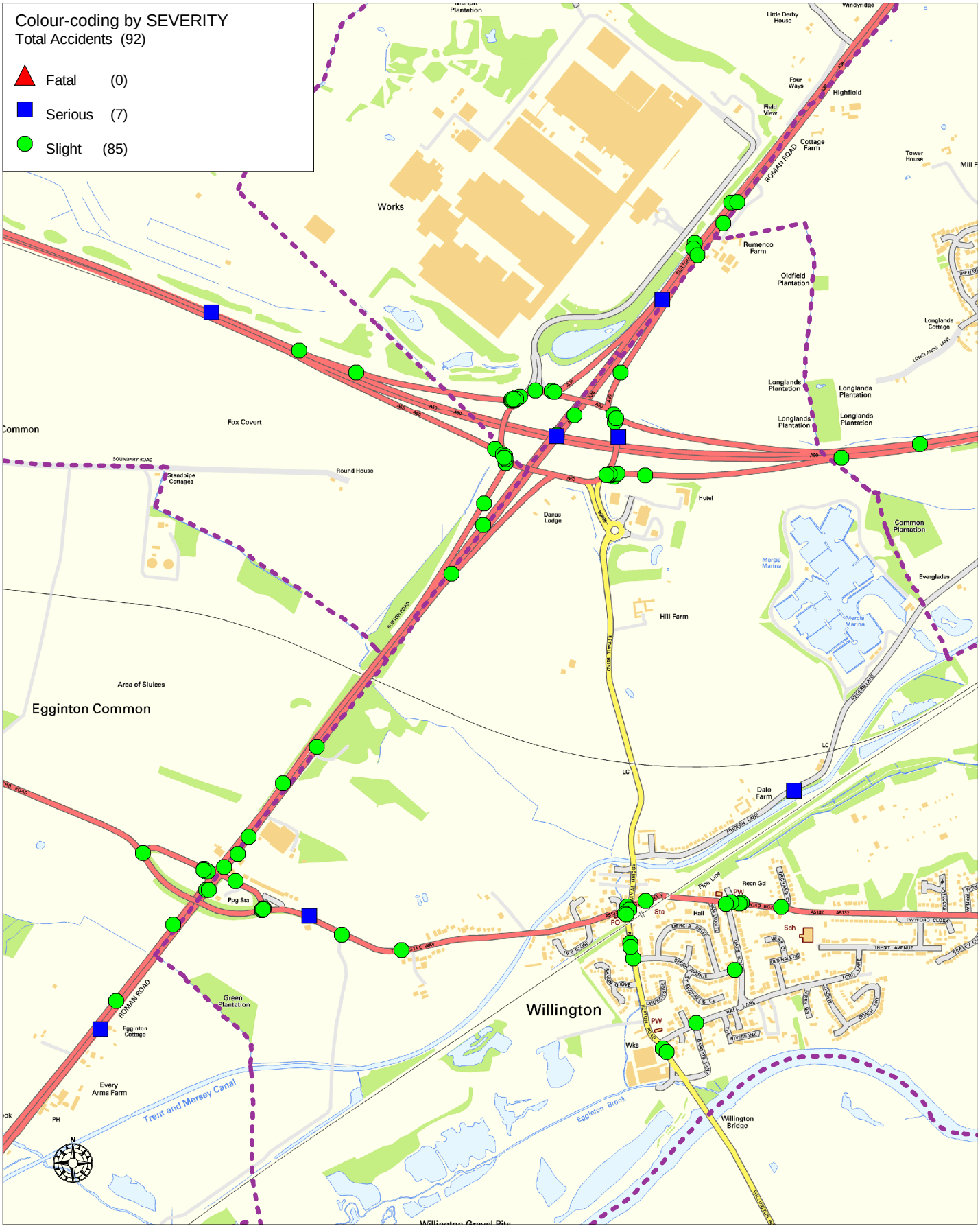
Flow Diagram 12: 2028 With Development Traffic Flows

Project: Burnaston Cross, nr Willington, Derbyshire | Job Number: 18-0054

Client: Brackley Property Developments

Appendix E

Personal Injury Accident Records



Toyota Roundabout

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Derbyshire Constabulary
Licence No. 100021015 2011

Selected Range of Accidents between dates 01/01/2013 and 31/12/2017
Selected using Manual Selection

SCALE	1 : 15350
DATE	26/04/2018
DRAWING No.	
DRAWN BY	

Details of Personal Injury Accidents for Period - **01/01/2013** **to** **31/12/2017** (60) months

Selection: **Notes:**

Selected using Pre-defined Query :

Police Ref. / Road No. / 2nd Road No. / Grid Ref.	Day / Date / Time / D/L / R.S.C / Weather / Speed	Location Description	Vehicles: Veh No / Type / Manv / Dir / Class	Casualties: Sev
D000315/13 **R1: A 50** **R2: A 50** **E 428,422** **N 330,176**	Saturday 23/02/2013 1210hrs Dry Fine without high winds 70 mph	BURNASTON A50(E) J/W A50(E) EXIT S/RD	Veh 1 Car Going ahead NW to SE Dri Veh 1 Car Going ahead NW to SE RSP Veh 1 Car Going ahead NW to SE RSP Veh 2 Car Going ahead NW to SE	Slight Slight Slight
D000386/13 **R1: A 5132** **R2: A 5132** **E 428,315** **N 328,523**	Wednesday 06/03/2013 1823hrs Darkness: street lights present a Wet/Damp Fine without high winds 40 mph	WILLINGTON A5132 CASTLE WAY J/W A5132 CASTLE WAY	Veh 1 Car Going ahead W to E Veh 2 Car Turning right N to W Dri	Slight
D000446/13 **R1: A 5132** **R2: U** **E 428,233** **N 328,606**	Friday 15/03/2013 0752hrs Wet/Damp Fine without high winds 60 mph	WILLINGTON A5132 THE CASTLE WAY J/W Y PAS FILLING STATION	Veh 1 Car Going ahead NW to SE Dri Veh 2 Car Turning right SE to NE Dri	Slight Slight
D000704/13 **R1: A 38** **E 428,154** **N 328,580**	Saturday 27/04/2013 1429hrs Wet/Damp Raining without high winds 70 mph	WILLINGTON A38(S) NEAR END OF ACCESS SLIP Y-PASS LOC N/V	Veh 1 Car Stopping NE to SW Veh 2 M/C > 125 cc Stopping NE to SW Dri	Slight
0000055/13 **R1: A 50** **R2: A 50** **E 429,054** **N 330,030**	Thursday 02/05/2013 1432hrs Dry Fine without high winds 40 mph	burnaston A50 at j/w A50	Veh 1 Car Starting W to E Veh 2 Car Starting W to E FSP	Slight

Details of Personal Injury Accidents for Period - **01/01/2013** **to** **31/12/2017** (60) months

Selection: **Notes:**
Selected using Pre-defined Query :

Police Ref. / Road No. / 2nd Road No. / Grid Ref.	Day / Date / Time / D/L / R.S.C / Weather / Speed	Location Description	Vehicles: Veh No / Type / Manv / Dir / Class	Casualties: Sev
0000227/13 **R1: A 50** **R2: A 50** **E 429,121** **N 330,057**	Saturday 11/05/2013 2005hrs Wet/Damp Raining without high winds 40 mph	willington A50 A50 at j/w A50 nr. Toyota island	Veh 1 Car Going ahead W to E FSP Veh 2 Car Going ahead RH bend S to E	Slight
0000658/13 **R1: A 50** **R2: A 50** **E 429,354** **N 329,802**	Wednesday 22/05/2013 0825hrs Wet/Damp Fine without high winds 60 mph	Derby A50 A50 west exit s/rd at j/w A50, Jctn 4 roundabout nr. JUNCTION 4 ROUNDABOUT	Veh 1 Car Stopping E to W Veh 2 Car Starting E to W Dri	Slight
0000437/13 **R1: A 5132** **R2: U** **E 428,548** **N 328,447**	Thursday 23/05/2013 1900hrs Wet/Damp Fine without high winds 40 mph	WILLINGTON A5132 THE CASTLE WAY at j/w UC, DRIVEWAY TO QUARRY	Veh 1 Car Going ahead SE to NW Dri Veh 1 Car Going ahead SE to NW FSP Veh 2 Goods < 3.5t Turning right SW to SE	Slight Slight
0000928/13 **R1: A 38** **R2: A 50** **E 429,356** **N 329,964**	Tuesday 18/06/2013 1220hrs Dry Fine without high winds 40 mph	Burnaston A38 Toyota roundabout at j/w A50	Veh 1 Car Going ahead NE to S Dri Veh 2 Goods < 3.5t Going ahead NE to S	Slight
0001110/13 **R1: A 50** **R2: A 50** **E 429,001** **N 329,884**	Thursday 27/06/2013 1644hrs Wet/Damp Raining without high winds 70 mph	Burnaston A50 at j/w A50, J4 - Toyota roundabout nr. lamp post (number not taken)	Veh 1 Goods > 7.5t Turning right NE to NW Dri	Slight

Details of Personal Injury Accidents for Period - **01/01/2013** **to** **31/12/2017** (60) months

Selection: **Notes:**
Selected using Pre-defined Query :

Police Ref. / Road No. / 2nd Road No. / Grid Ref.	Day / Date / Time / D/L / R.S.C / Weather / Speed	Location Description	Vehicles: Veh No	Type	Manv	Dir	Class	Casualties: Sev
0001222/13	Saturday 06/07/2013 1020hrs	Swadlincote A38 Burton Road	Veh 1	Car	Going ahead	NE to SW	Dri	Slight
R1: A 38								
E 428,240	Dry							
N 328,686	Fine without high winds							
	70 mph							
0001634/13	Monday 29/07/2013 1921hrs	Burnaston A50 Toyota Roundabout at j/w A38, a38 (N) entry s/rd	Veh 1	M/C < 125 cc	Going ahead	W to N	Dri	Slight
R1: A 50								
R2: A 38								
E 429,169	Dry							
N 330,056	Fine without high winds							
	40 mph							
0001737/13	Friday 02/08/2013 1804hrs	Burnaston A50 A50 Roundabout at j/w A50, (W) entry s/rd	Veh 1	Car	Going ahead	E to W	RSP	Slight
			Veh 2	Car	Going ahead RH bend	E to N	Dri	Slight
R1: A 50								
R2: A 50								
E 429,024	Dry							
N 329,868	Fine without high winds							
	40 mph							
0002208/13	Friday 30/08/2013 1835hrs	Willington A5132 TWYFORD ROAD nr. adj to layby near chinese takeaway	Veh 1	M/C > 500 cc	Going ahead	W to E	Dri	Slight
			Veh 2	Car	U turn	W to W		
R1: A 5132								
E 429,732	Dry							
N 328,542	Fine without high winds							
	40 mph							
0002634/13	Sunday 22/09/2013 1625hrs	Egginton A38 (N)	Veh 1	Car	Change lane to right	SW to NE		
			Veh 2	Car	Going ahead	SW to NE	Dri	Slight
R1: A 38								
E 427,880	Dry							
N 328,251	Fine without high winds							
	70 mph							

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Selection: **Notes:**
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Police Ref. / Road No. / 2nd Road No. / Grid Ref.	Day / Date / Time / D/L / R.S.C / Weather / Speed	Location Description	Vehicles: Veh No	Type	Manv	Dir	Class	Casualties: Sev
0002755/13	Sunday 29/09/2013	WILLINGTON A5132 CARRIERS ROAD at j/w A38	Veh 1	Car	Turning left	SW to NW	Dri	Slight
R1: A 5132	2205hrs							
R2: A 38	Darkness: street lights present a							
E 428,140	Dry							
N 328,642	Fine without high winds							
	60 mph							
0002863/13	Friday 04/10/2013	EGGINTON A38 (N)	Veh 1	Car	Going ahead	SW to NE	Dri	Slight
R1: A 38	2250hrs							
	Darkness: street lights present a							
E 428,049	Dry							
N 328,477	Fine without high winds							
	70 mph							
0003294/13	Monday 28/10/2013	Burnaston A50 Toyota T/I at j/w A50, (E) Exit S/Rd	Veh 1	Car	Starting	W to SW		
			Veh 2	M/C > 500 cc	Going ahead	SW to N		Slight
R1: A 50	0553hrs							
R2: A 50	Darkness: street lights present a							
E 429,059	Wet/Damp							
N 330,027	Raining without high winds							
	40 mph							
0003338/13	Tuesday 29/10/2013	Willington A38 (S) Exit S/Rd	Veh 1	Car	Going ahead	NE to SW		
			Veh 2	Car	Wait go ahead held	NE to SW		
R1: A 38	1730hrs		Veh 3	Car	Wait go ahead held	NE to SW	Dri	Slight
	Darkness: street lights present a		Veh 4	Car	Wait go ahead held	NE to SW	Dri	Slight
E 429,373	Wet/Damp							
N 330,110	Raining without high winds							
	70 mph							
0003512/13	Wednesday 06/11/2013	Willington A38	Veh 1	Car	Change lane to right	NE to SW	Dri	Slight
			Veh 2	Car	Going ahead	NE to SW	Dri	Slight
R1: A 38	1800hrs							
	Darkness: street lights present a							
E 428,272	Wet/Damp							
N 328,737	Raining without high winds							
	70 mph							

Details of Personal Injury Accidents for Period - **01/01/2013** **to** **31/12/2017** (60) months

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Police Ref. / Road No. / 2nd Road No. / Grid Ref.	Day / Date / Time / D/L / R.S.C / Weather / Speed	Location Description	Vehicles: Veh No	Type	Manv	Dir	Class	Casualties: Sev
0004479/13	Thursday 21/11/2013 1010hrs	Derby A5132 THE CASTLE WAY at j/w B5008, REPTON ROADY nr. Willington	Veh 1	Goods > 7.5t	Reversing	S to N		
			Veh 2	Other M/veh	Parked	0 to 0	Ped	Slight
R1: A 5132								
R2: B 5008								
E 429,399	Dry							
N 328,521	Fine without high winds							
	30 mph							
0003851/13	Thursday 21/11/2013 2004hrs	Burnaston A38 at j/w A38, exit slip southbound at Toyota nr. adjacent to southbound exit slip to Toyota roundabout	Veh 1	Car	Change lane to right	NE to SW		
			Veh 2	Car	Going ahead	NE to SW	FSP	Slight
R1: A 38			Veh 2	Car	Going ahead	NE to SW	RSP	Slight
R2: A 38	Darkness: street lights present a		Veh 2	Car	Going ahead	NE to SW	Dri	Slight
E 429,496	Dry		Veh 3	Car	Going ahead	NE to SW	Dri	Serious
N 330,326	Fine without high winds							
	70 mph							
0004891/14	Saturday 18/01/2014 1752hrs	Burnaston A50 nr. exit slip road for A38 on east bound carriageway	Veh 1	Car	Change lane to left	W to E	Dri	Slight
			Veh 1	Car	Change lane to left	W to E	RSP	Slight
R1: A 50			Veh 1	Car	Change lane to left	W to E	FSP	Slight
	Darkness: street lights present a							
E 428,591	Dry							
N 330,111	Fine without high winds							
	70 mph							
0005153/14	Sunday 02/02/2014 2014hrs	willington A50	Veh 1	Pedal cycle	Going ahead	W to E	Dri	Slight
			Veh 2	Car	Going ahead	W to E		
R1: A 50								
	Darkness: street lights present a							
E 430,259	Dry							
N 329,899	Fine without high winds							
	70 mph							
0006729/14	Sunday 20/04/2014 2253hrs	Willington A5132 at j/w B5008	Veh 1	Car	Going ahead	S to N	Ped	Slight
R1: A 5132								
R2: B 5008	Darkness: street lights present a							
E 429,393	Dry							
N 328,530	Unknown							
	30 mph							

Details of Personal Injury Accidents for Period - **01/01/2013** **to** **31/12/2017** (60) months

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0008901/14	Saturday	Willington A5132 The Castle Way	Veh 1	Car	Going ahead	E to W		
	26/04/2014		Veh 2	Car	Stopping	E to W	FSP	Slight
R1: A 5132	1030hrs							
E 428,725	Dry							
N 328,402	Fine without high winds							
	40 mph							
0006718/14	Wednesday	BURNASTON A38 (N)	Veh 1	Car	Going ahead	SW to NE	RSP	Slight
	30/04/2014							
R1: A 38	2250hrs							
	Darkness: street lights present a							
E 429,700	Dry							
N 330,614	Fine without high winds							
	70 mph							
0006998/14	Saturday	burnaston A50 at j/w A50, Toyota T/I	Veh 1	Car	Going ahead	E to W		
	17/05/2014		Veh 2	Car	Wait go ahead held	E to W	Dri	Slight
R1: A 50	0930hrs							
R2: A 50								
E 429,343	Dry							
N 329,807	Fine without high winds							
	40 mph							
0007183/14	Sunday	Findern A38 (S) nr. 100 yard marker post	Veh 1	Car	Going ahead	NE to SW	Dri	Slight
	25/05/2014							
R1: A 38	1950hrs							
E 429,677	Dry							
N 330,553	Fine without high winds							
	70 mph							
0007294/14	Monday	Willington B5008 Repton Road nr. 44	Veh 1	Car	O/take s/veh o/side	S to N	Ped	Slight
	02/06/2014		Veh 2	Goods > 7.5t	Parked	0 to 0		
R1: B 5008	0855hrs							
E 429,509	Dry							
N 328,100	Fine without high winds							
	30 mph							

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Police Ref. / Road No. / 2nd Road No. / Grid Ref.	Day / Date / Time / D/L / R.S.C / Weather / Speed	Location Description	Vehicles: Veh No / Type / Manv / Dir / Class					Casualties: Sev
0007339/14	Wednesday 04/06/2014 0810hrs	Burnaston A50 (W) Exit s/rd nr. Jct 4	Veh 1	Car	Wait go ahead held	E to W		
			Veh 2	Car	Wait go ahead held	E to W	Dri	Slight
R1: A 50			Veh 3	Car	Going ahead	E to W		
E 429,445	Wet/Damp							
N 329,807	Raining without high winds							
	70 mph							
0007846/14	Tuesday 24/06/2014 0800hrs	WILLINGTON B5008 Repton Road at j/w UC, Beech Avenue	Veh 1	Car	Starting	S to N		
			Veh 2	Pedal cycle	O/take on n/side	S to N	Dri	Slight
R1: B 5008			Veh 3	Other M/veh	Turning right	S to E		
R2: U								
E 429,411	Dry							
N 328,377	Fine without high winds							
	30 mph							
0007699/14	Wednesday 25/06/2014 0805hrs	Eggington A38 (S) nr. Lamp post 21C/40/B	Veh 1	Car	Going ahead	NE to SW	Dri	Serious
R1: A 38								
E 427,833	Dry							
N 328,168	Fine without high winds							
	70 mph							
0007750/14	Thursday 26/06/2014 1645hrs	willington B5008 REPTON ROAD at j/w UC, hall lane	Veh 1	Bus/coach	Stopping	N to S		
			Veh 2	Car	Going ahead	N to S	Dri	Slight
R1: B 5008			Veh 3	Car	Going ahead	N to S	Dri	Slight
R2: U								
E 429,498	Dry							
N 328,111	Fine without high winds							
	30 mph							
0008035/14	Sunday 13/07/2014 1040hrs	WILLINGTON A50 (E) Exit s/rd at j/w A50, Toyota T/I	Veh 1	Car	Starting	W to N	RSP	Slight
			Veh 1	Car	Starting	W to N	FSP	Slight
R1: A 50			Veh 2	Car	Starting	W to N		
R2: A 50								
E 429,052	Dry							
N 330,031	Fine without high winds							
	40 mph							

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Police Ref. / Road No. / 2nd Road No. / Grid Ref.	Day / Date / Time / D/L / R.S.C / Weather / Speed	Location Description	Vehicles: Veh No / Type / Manv / Dir / Class	Casualties: Sev
0008543/14 **R1: A 38** **R2: A 5132** **E 428,200** **N 328,647**	Saturday 09/08/2014 1148hrs Dry Fine without high winds 70 mph	WILLINGTON A38 at j/w A5132, THE CASTLE WAY	Veh 1 Car Change lane to right NE to SW Veh 2 Car Going ahead NE to SW Dri Veh 3 Car Change lane to left NE to SE	Slight
0008579/14 **R1: A 50** **R2: A 50** **E 429,342** **N 329,811**	Tuesday 12/08/2014 0835hrs Dry Fine without high winds 40 mph	Burnaston A50 (W) Exit s/rd at j/w A50, Toyota T/I	Veh 1 Car Going ahead E to W Veh 2 Car Wait go ahead held E to W Dri	Slight
0008623/14 **R1: A 38** **R2: A 50** **E 429,033** **N 329,843**	Thursday 14/08/2014 1645hrs Dry Fine without high winds 40 mph	Burnaston A38 (N) Exit s/rd at j/w A50, toyota island	Veh 1 Car Going ahead SW to NE Veh 2 Car Wait go ahead held SW to NE Dri	Slight
0008858/14 **R1: A 50** **R2: A 50** **E 429,064** **N 330,037**	Monday 25/08/2014 1645hrs Wet/Damp Raining without high winds 40 mph	Burnaston A50 A50 WEST EXIT S/RD at j/w A50, Toyota roundabout	Veh 1 Car Going ahead W to NE Veh 2 M/C > 500 cc Wait go ahead held W to NE Dri	Slight
0009014/14 **R1: A 50** **R2: A 50** **E 429,049** **N 330,028**	Thursday 04/09/2014 1820hrs Dry Fine without high winds 40 mph	Burnaston A50 A50 east exit slip road at j/w A50, A50 toyota traffic island	Veh 1 Car Going ahead W to NE Veh 2 Car Wait go ahead held W to NE Dri	Slight

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0009649/14 **R1: A 38** **E 428,373** **N 328,895**	Tuesday 07/10/2014 1800hrs Dry Fine without high winds 70 mph	WILLINGTON A38 (N)	Veh 1 Car Change lane to right SW to NE Veh 2 Car Going ahead SW to NE Dri	Slight
0009700/14 **R1: A 50** **R2: A 50** **E 429,360** **N 329,976**	Wednesday 08/10/2014 0922hrs Wet/Damp Raining without high winds 40 mph	burnaston A50 toyota roundabout at j/w A50, a50 entry s/rd	Veh 1 Goods 3.5 - 7.5t Going ahead RH bend W to SW Veh 2 Car Going ahead W to E Dri	Slight
0010551/14 **R1: A 5132** **R2: A 5132** **E 428,317** **N 328,525**	Monday 17/11/2014 1430hrs Dry Fine without high winds 40 mph	Willington A5132 Castle Way at j/w A5132, The Castle Way	Veh 1 Car Turning right E to N Veh 2 M/C < 50 cc Going ahead W to E Dri	Slight
0010641/14 **R1: U** **R2: U** **E 429,711** **N 328,343**	Sunday 23/11/2014 1635hrs Darkness: street lights present a Wet/Damp Fine without high winds 30 mph	Willington UC Beech Avenue at j/w UC, Oaks Road	Veh 1 Car Stopping W to E Ped Veh 2 Car Parked 0 to 0	Slight
0011396/14 **R1: A 38** **E 429,185** **N 329,926**	Saturday 27/12/2014 0728hrs Frost/Ice Fine without high winds 70 mph	Burnaston A38 nr. NEAREST LAMP POST REFERENCE 23C/20B	Veh 1 Car Going ahead NE to SW Dri	Slight

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0011611/15 **R1: A 50** **R2: A 50** **E 429,075** **N 330,039**	Saturday 10/01/2015 1837hrs Darkness: no street lighting Dry Fine without high winds 40 mph	Burnaston A50 T/I at j/w A50, (E) Exit s/rd	Veh 1 Goods < 3.5t Going ahead RH bend S to E Dri Veh 2 Car Going ahead W to E Dri	Slight Slight
0011897/15 **R1: A 50** **R2: A 50** **E 429,031** **N 329,863**	Monday 26/01/2015 1045hrs Dry Fine without high winds 40 mph	findern A50 toyota island at j/w A50, (W) s/rd	Veh 1 Car Going ahead E to W Veh 2 Car Going ahead RH bend NE to N Dri	Slight
0012923/15 **R1: B 5008** **E 429,403** **N 328,411**	Tuesday 24/03/2015 2019hrs Darkness: street lights present a Dry Fine without high winds 30 mph	WILLINGTON B5008 REPTON ROAD	Veh 1 Car Going ahead S to N Ped	Slight
0013571/15 **R1: A 38** **R2: A 50** **E 429,352** **N 329,987**	Wednesday 29/04/2015 1712hrs Dry Fine without high winds 40 mph	willington A38 at j/w A50	Veh 1 Car Going ahead N to S RSP Veh 1 Car Going ahead N to S Dri Veh 1 Car Going ahead N to S FSP Veh 2 Goods > 7.5t Change lane to left N to S	Slight Slight Slight
0013628/15 **R1: B 5008** **E 429,401** **N 328,422**	Monday 04/05/2015 1527hrs Dry Fine without high winds 30 mph	WILLINGTON B5008 REPTON ROAD	Veh 1 Car Going ahead N to S Ped	Slight

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0014327/15	Tuesday 09/06/2015 1915hrs	Willington A5132 Twyford Road	Veh 1	Car	Change lane to left	E to W		
			Veh 2	Pedal cycle	Going ahead	E to W	Dri	Slight
R1: A 5132								
E 429,725	Dry							
N 328,540	Fine without high winds							
	30 mph							
0014496/15	Friday 19/06/2015 0630hrs	Eggington A5132 Carriers Road at j/w A5132, Carriers Road	Veh 1	Car	Starting	NE to NW	Dri	Slight
			Veh 2	Car	Going ahead	W to E		
R1: A 5132								
R2: A 5132								
E 427,959	Dry							
N 328,689	Fine without high winds							
	40 mph							
0014537/15	Tuesday 23/06/2015 0655hrs	Willington A50 (W) Exit s/rd at j/w A50, R/bt	Veh 1	Car	Going ahead	E to W	Dri	Slight
			Veh 2	Car	Wait go ahead held	E to W	Dri	Slight
R1: A 50								
R2: A 50								
E 429,341	Dry							
N 329,811	Fine without high winds							
	40 mph							
0014641/15	Tuesday 30/06/2015 0700hrs	Burnaston A50 at j/w A50, Toyota T/I	Veh 1	Car	Wait go ahead held	W to E	Dri	Slight
			Veh 2	Car	Going ahead	W to E		
R1: A 50								
R2: A 50								
E 429,050	Dry							
N 330,031	Fine without high winds							
	40 mph							
0014943/15	Saturday 18/07/2015 2150hrs	willington A38 southbound	Veh 1	Car	O/take m/veh o/side	NE to SW		
			Veh 2	Car	Going ahead	NE to SW	FSP	Slight
R1: A 38								
E 428,474	Dry							
N 329,003	Fine without high winds							
	70 mph							

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0015561/15 **R1: A 50** **R2: A 38** **E 429,033** **N 329,854**	Wednesday 26/08/2015 1850hrs Dry Fine without high winds 40 mph	Burnaston A50 T/I at j/w A38, (N) Exit s/rd	Veh 1 Car Going ahead S to N Dri Veh 2 Car Going ahead E to W Dri	Slight Slight
0016134/15 **R1: B 5008** **R2: A 5132** **E 429,390** **N 328,507**	Monday 21/09/2015 1650hrs Dry Fine without high winds 30 mph	Willington B5008 Repton Road at j/w A5132, the castle way	Veh 1 Car Going ahead S to N Veh 2 Car Wait go ahead held S to N Dri	 Slight
0016068/15 **R1: A 38** **E 429,592** **N 330,494**	Thursday 01/10/2015 1905hrs Darkness: street lights present a Dry Fine without high winds 70 mph	Findern A38 burnaston	Veh 1 Car Going ahead SW to NE Veh 2 M/C < 50 cc Going ahead SW to NE Dri	 Slight
0016093/15 **R1: A 5132** **R2: A 38** **E 428,147** **N 328,633**	Saturday 03/10/2015 1546hrs Dry Fine without high winds 70 mph	Willington A5132 Carriers Road at j/w A38	Veh 1 M/C > 500 cc Turning left SW to NW Dri Veh 1 M/C > 500 cc Turning left SW to NW Veh 2 Car Turning left NW to NE	Slight Slight
0016292/15 **R1: A 50** **E 429,366** **N 329,920**	Thursday 15/10/2015 1606hrs Dry Fine without high winds 40 mph	Burnaston A50 Toyota Roundabout	Veh 1 M/C < 50 cc Change lane to left N to S Dri	Serious

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0016576/15 **R1: A 38** **E 429,718** **N 330,615**	Thursday 05/11/2015 0645hrs Darkness: street lights present a Wet/Damp Raining without high winds 70 mph	BURNASTON A38 A38(S)	Veh 1 Car Stopping NE to SW Veh 2 Car Going ahead NE to SW Dri Veh 3 Car Going ahead NE to SW Veh 4 Car Change lane to right NE to SW	Slight
0016582/15 **R1: A 38** **E 429,588** **N 330,477**	Thursday 05/11/2015 0730hrs Flood Raining with high winds 70 mph	burnaston A38	Veh 1 Car Going ahead RH bend SW to NE Dri Veh 2 Car Stopping SW to NE Veh 3 Car Going ahead SW to NE	Slight
0017108/15 **R1: A 38** **E 428,969** **N 329,723**	Friday 11/12/2015 1634hrs Darkness: street lights present a Dry Fine without high winds 70 mph	Willington A38	Veh 1 Goods < 3.5t Going ahead SW to NE Veh 2 Taxi Going ahead SW to NE Dri Veh 3 Car Going ahead SW to NE	Slight
0017352/15 **R1: A 5132** **R2: B 5008** **E 429,386** **N 328,510**	Thursday 31/12/2015 1245hrs Dry Fine with high winds 30 mph	Willington A5132 at j/w B5008, REPTON RD	Veh 1 Car Going ahead S to N Veh 2 Pedal cycle Going ahead E to W Dri	Slight
0017459/16 **R1: A 5132** **E 429,447** **N 328,547**	Friday 08/01/2016 0644hrs Darkness: street lights present a Dry Fine without high winds 30 mph	Willington A5132 The Green	Veh 1 Car O/take s/veh o/side E to W Dri Veh 2 Car Going ahead W to E Dri Veh 3 Other M/veh Parked 0 to 0	Slight Slight

Details of Personal Injury Accidents for Period - **01/01/2013** **to** **31/12/2017** (60) months

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Notes:

Police Ref. / Road No. / 2nd Road No. / Grid Ref.	Day / Date / Time / D/L / R.S.C / Weather / Speed	Location Description	Vehicles: Veh No / Type / Manv / Dir / Class	Casualties: Sev
0017460/16 **R1: A 50** **R2: A 38** **E 429,176** **N 330,053**	Friday 08/01/2016 0755hrs Dry Fine without high winds 40 mph	BURNASTON A50 TOYOTA ISLAND LEADING ONTO A38 at j/w A38, S/rd	Veh 1 Car Change lane to left W to E Veh 2 Goods < 3.5t Going ahead W to E Dri	Slight
0018474/16 **R1: A 5132** **E 428,452** **N 328,503**	Friday 18/03/2016 0735hrs Dry Fine without high winds 40 mph	Willington A5132 castle way	Veh 1 Car Going ahead SE to NW Dri Veh 2 Car Going ahead NW to SE Veh 3 Car Going ahead NW to SE Dri	Slight Serious
0019093/16 **R1: A 50** **E 429,183** **N 329,922**	Wednesday 04/05/2016 1919hrs Dry Fine without high winds 70 mph	Burnaston A50	Veh 1 Car Going ahead E to W Dri Veh 2 Goods > 7.5t Parked 0 to 0	Serious
0019196/16 **R1: A 38** **R2: A 50** **E 429,029** **N 329,858**	Wednesday 11/05/2016 1944hrs Wet/Damp Raining without high winds 40 mph	BURNASTON A38 TOYOTA ROUNDABOUT AT JUNCTION OF WEST BOUND A50 ENTRY SLIP at j/w	Veh 1 Car Going ahead RH bend E to N Veh 2 Car Going ahead E to W Dri Veh 3 Car Going ahead E to W Dri	 Slight Slight
0019272/16 **R1: A 5132** **R2: A 38** **E 428,151** **N 328,634**	Tuesday 17/05/2016 1305hrs Dry Fine without high winds 60 mph	Willington A5132 at j/w A38	Veh 1 Car Turning left SW to NW Dri	Slight

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0019390/16 **R1: A 38** **E 428,146** **N 328,580**	Friday 27/05/2016 1719hrs Dry Fine without high winds 70 mph	Willington A38	Veh 1 Car Going ahead NE to SW RSP	Slight
1600065 **R1: A 5132** **R2: U** **E 429,849** **N 328,529**	Friday 08/07/2016 1040hrs Daylight:street lights present Dry Fine without high winds 40 mph	WILLINGTON A5132 TWYFORD RD WEST J/W ORCHARD CLOSE (IPQA)	Veh 1 Goods < 3.5t Turning left W to N Veh 2 Pedal cycle Going ahead W to E Dri	Slight
1600175 **R1: A 50** **R2: A 50** **E 429,062** **N 330,031**	Wednesday 10/08/2016 0630hrs Daylight:street lights present Dry Fine without high winds 40 mph	FINDERN A50 T/I J/W A50 (E) EXIT S/RD (IPQA)	Veh 1 Car Turning left W to N Dri Veh 2 Goods > 7.5t Turning right W to SE	Slight
1600340 **R1: A 5132** **R2: U** **E 429,700** **N 328,543**	Friday 02/09/2016 1555hrs Daylight:street lights present Dry Fine without high winds 30 mph	WILLINGTON A5132 TWYFORD RD J/W OAKS RD (IPQA)	Veh 1 Car Stopping E to W Dri Veh 1 Car Stopping E to W FSP Veh 2 Car Going ahead E to W	Slight Slight
1600604 **R1: A 5132** **E 428,138** **N 328,638**	Saturday 01/10/2016 1410hrs Daylight:street lights present Wet/Damp Raining without high winds 60 mph	EGGINTON A5132 CARRIERS RD WEST A38(N) (IPQA)	Veh 1 Car Going ahead SE to NW Dri Veh 2 Car Going ahead NW to SE Dri Veh 2 Car Going ahead NW to SE FSP	Slight Slight Slight

Details of Personal Injury Accidents for Period - **01/01/2013** **to** **31/12/2017** (60) months

Selection:
Selected using Pre-defined Query :

Notes:

Police Ref. / Road No. / 2nd Road No. / Grid Ref.	Day / Date / Time / D/L / R.S.C / Weather / Speed	Location Description	Vehicles: Veh No / Type / Manv / Dir / Class	Casualties: Sev
1700536 **R1: A 38** **E 429,600** **N 330,457**	Friday 20/01/2017 1528hrs Daylight:street lights present Dry Fine without high winds 70 mph	FINDERN A38(S) APPROX 100 YDS N/E A38 EXIT S/RD ONTO A50 (IPQA)	Veh 1 Car Going ahead NE to SW Dri Veh 2 Car Going ahead NE to SW Veh 3 Car Change lane to right NE to SW	Slight
1700230 **R1: A 50** **E 428,162** **N 330,289**	Tuesday 07/02/2017 1740hrs Darkness: street lights present a Wet/Damp Fine without high winds 70 mph	ETWALL A50(E) (IPQA)	Veh 1 Goods < 3.5t Wait go ahead held NW to SE Dri Veh 2 Car Going ahead NW to SE Dri	Serious Slight
1700722 **R1: A 50** **R2: A 50** **E 429,364** **N 329,812**	Monday 27/02/2017 1600hrs Daylight:street lights present Frost/Ice Other 70 mph	WILLINGTON A50 exit slip road Toyota	Veh 1 Car Stopping E to W Veh 2 Car Wait go ahead held E to W Dri Veh 3 Car Wait go ahead held E to W	Slight
1700392 **R1: A 50** **R2: A 50** **E 429,063** **N 330,032**	Monday 06/03/2017 1350hrs Daylight:street lights present Dry Fine without high winds 70 mph	BURNASTON - A50 (E) EXIT S/RD J/W A50 TOYOTA R/BT - IPQA	Veh 1 Car Going ahead NW to SE Dri Veh 2 Goods < 3.5t Going ahead NW to SE Dri	Slight Slight
1700751 **R1: A 38** **R2: A 38** **E 428,872** **N 329,516**	Monday 01/05/2017 1925hrs Daylight:street lights present Dry Fine without high winds 70 mph	FINDERN A38(S) J/W A38(S) ENTRY S/RD (IPQA)	Veh 1 Car Change lane to right NE to SW Dri Veh 2 Car Going ahead NE to SW	Slight

Details of Personal Injury Accidents for Period - **01/01/2013** **to** **31/12/2017** (60) months

Selection: **Notes:**
Selected using Pre-defined Query :

Police Ref. / Road No. / 2nd Road No. / Grid Ref.	Day / Date / Time / D/L / R.S.C / Weather / Speed	Location Description	Vehicles: Veh No / Type / Manv / Dir / Class					Casualties: Sev
1701061	Wednesday 10/05/2017 1645hrs	WILLINGTON OAKS RD J/W A5132 TWYFORD RD (IPQA)	Veh 1	Pedal cycle	Going ahead	E to W	Dri	Slight
R1: A 5132			Veh 2	Car	Turning right	W to S		
R2: U	Daylight:street lights present							
E 429,685	Dry							
N 328,538	Fine without high winds							
	30 mph							
1700890	Thursday 25/05/2017 0825hrs	WILLINGTON A5132 THE CASTLE WAY J/W A5132 THE CASTLE WAY (IPQA)	Veh 1	Car	Turning right	N to W		
R1: A 5132			Veh 2	Car	Going ahead	E to W	FSP	Slight
R2: A 5132	Daylight:street lights present							
E 428,311	Dry							
N 328,520	Fine without high winds							
	40 mph							
1701032	Tuesday 20/06/2017 0800hrs	WILLINGTON - HALL LANE J/W BARGATE LANE - IPQA	Veh 1	M/C < 125 cc	Going ahead	NE to SW	Dri	Slight
R1: U			Veh 2	Car	Turning left	S to SW		
R2: U	Daylight:street lights present							
E 429,597	Dry							
N 328,186	Fine without high winds							
	30 mph							
1701185	Tuesday 27/06/2017 2000hrs	EGGINTON A5132 THE CASTLE WAY J/W A5132 - IPQA	Veh 1	Car	Going ahead	W to E		
R1: A 5132			Veh 2	Car	Starting	N to E	Dri	Slight
R2: A 5132	Daylight:street lights present							
E 428,313	Dry							
N 328,522	Fine without high winds							
	40 mph							
1701364	Monday 14/08/2017 0730hrs	Findern - A50(W) Slip road to toyota island (IPQA)	Veh 1	Car	Going ahead	E to W		
R1: A 50			Veh 2	Car	Wait go ahead held	E to W	Dri	Slight
R2: U	Daylight:street lights present							
E 430,027	Wet/Damp							
N 329,859	Fine without high winds							
	70 mph							

Details of Personal Injury Accidents for Period - **01/01/2013** **to** **31/12/2017** (60) months

Selection: **Notes:**

Selected using Pre-defined Query :

Police Ref. / Road No. / 2nd Road No. / Grid Ref.	Day / Date / Time / D/L / R.S.C / Weather / Speed	Location Description	Vehicles: Veh No / Type / Manv / Dir / Class	Casualties: Sev
1701424 **R1: A 50** **R2: B 5008** **E 429,331** **N 329,808**	Tuesday 15/08/2017 0840hrs Daylight:street lights present Dry Fine without high winds 60 mph	Willington, A50 exit slip onto toyota island (IPQA)	Veh 1 Goods > 7.5t Going ahead E to W Veh 2 Car Going ahead E to W Dri	Slight
1701428 **R1: C** **E 429,886** **N 328,874**	Tuesday 29/08/2017 1745hrs Daylight:street lights present Dry Fine without high winds 40 mph	Willington - Findern Lane (IPQA)	Veh 1 M/C < 125 cc Going ahead NE to SW Dri	Serious
1702099 **R1: A 50** **R2: A 38** **E 429,331** **N 329,808**	Saturday 30/09/2017 1845hrs Darkness: street lights present a Dry Fine without high winds 70 mph	Willington - A50 slip road RBT (IPQA)	Veh 1 Car Starting E to W Dri Veh 1 Car Starting E to W FSP Veh 1 Car Starting E to W RSP Veh 2 Car Starting E to W	Slight Slight Slight
1701860 **R1: A 50** **R2: A 50** **E 429,340** **N 329,810**	Sunday 08/10/2017 1740hrs Daylight:street lights present Dry Fine without high winds 70 mph	WILLINGTON - A50(W) EXIT S/RD J/W A38/A50 TOYOTA R/BOUT - IPQA	Veh 1 Car Going ahead E to W Veh 2 Car Going ahead E to W Dri	Slight
1701842 **R1: A 38** **E 428,966** **N 329,659**	Friday 17/11/2017 2217hrs Darkness: street lights present a Dry Fine without high winds 70 mph	WILLINGTON - A38(N) - OVER 100MT FROM J/W A38(N) EXIT S/RD - LOC NV	Veh 1 Car Going ahead SW to NE Veh 2 Car Going ahead SW to NE Dri Veh 2 Car Going ahead SW to NE FSP Veh 2 Car Going ahead SW to NE RSP Veh 3 Car Going ahead SW to NE Dri Veh 3 Car Going ahead SW to NE FSP Veh 4 Car Going ahead SW to NE	Slight Slight Slight Slight Slight

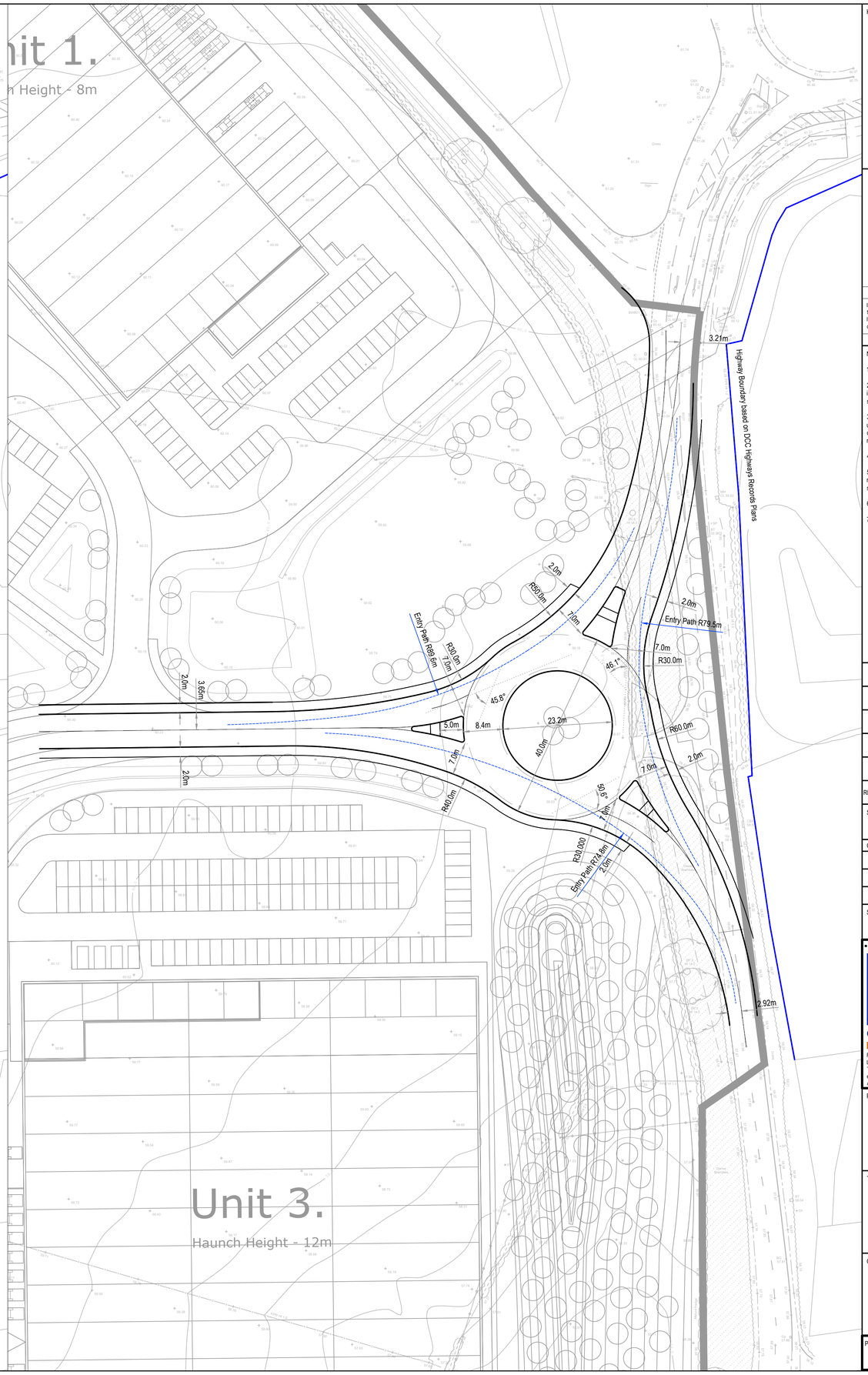
Details of Personal Injury Accidents for Period - **01/01/2013** **to** **31/12/2017** (60) months

Selection: **Notes:**
Selected using Pre-defined Query :

Police Ref. / Road No. / 2nd Road No. / Grid Ref.	Day / Date / Time / D/L / R.S.C / Weather / Speed	Location Description	Vehicles: Veh No / Type / Manv / Dir / Class						Casualties: Sev
1701948	Tuesday	Eggington - A38 (IPQA)	Veh 1	Goods > 7.5t	Going ahead	N to S	Dri		Slight
	28/11/2017		Veh 2	Goods Unknown	Parked	0 to 0			
R1: A 38	2305 hrs		Veh 3	Car	Going ahead	N to S			
	Darkness: no street lighting								
E 429,236	Dry								
N 329,985	Fine without high winds								
	70 mph								
1800122	Wednesday	BURNASTON - A50 S/RD J/W A50 R/BOUT - LOC N/V	Veh 1	Car	Going ahead	NW to SW			
	27/12/2017		Veh 2	Car	Wait go ahead held	NW to SW	Dri		Slight
R1: A 50	1023 hrs								
R2: A 50	Daylight:street lights present								
E 429,056	Dry								
N 330,031	Fine without high winds								
	60 mph								

Appendix F

Site Access Roundabout Design & S1 RSA



KEY PLAN

Construction Risks	Maintenance/cleaning Risks	Demolition/adaptation Risks

In addition to the hazard/risks normally associated with the type of works detailed on this drawing take note of the above.
It is assumed that all works on this drawing will be carried out by a competent contractor working, where appropriate, to an appropriate method statement.

SAFETY HEALTH AND ENVIRONMENTAL INFORMATION BOX.

NOTES

1. DO NOT SCALE.

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4. All dimensions are in millimetres unless otherwise stated.

5. The BSP Hazard Identification and Risk Assessment information for this project must be reviewed and understood by the contractor PRIOR to the commencement of any works on site.

6. This drawing contains the following model files:

7. This drawing to be viewed in conjunction with:

REV	COMMENT / DRAWN BY	DATE	CHECKED BY	DATE	APPROVED BY	DATE
P4	UPDATED ARCHITECTS LAYOUT ADDED / JSP	01.08.18	CE	01.08.18	CE	01.08.18
P3	NORTH ARM AMENDED TO NEW SWEPT PATHS AND FOOTWAYS ADDED / JSP	29.06.18	CE	29.06.18	CE	29.06.18
P2	ENTRY ANGLES REVIEWED / JSP	19.06.18	CE	19.06.18	CE	19.06.18
P1	INITIAL ISSUE / JSP	18.06.18	CE	19.06.18	CE	19.06.18

SCALE @ A1	ISSUING OFFICE	PROJECT NUMBER
1:500	LEICESTER	18-0054

CLIENT APPROVAL

- A - APPROVED
- B - APPROVED WITH COMMENTS
- C - DO NOT USE

STATUS	PURPOSE OF ISSUE
S2	PRELIMINARY

▪ CIVIL ▪ STRUCTURAL ▪ TRANSPORTATION ▪ GEOTECHNICAL ▪ ENVIRONMENTAL

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PROJECT

BURNASTON CROSS

TITLE

SITE ACCESS ARRANGEMENTS

CLIENT

BRACKLEY PROPERTY DEVELOPMENTS LTD

PROJECT	ORIGINATOR	ZONE	LEVEL	TYPE	ROLE	NUMBER	REV
BUR	BSP	ZZ	ZZ	DR	D	001	P4

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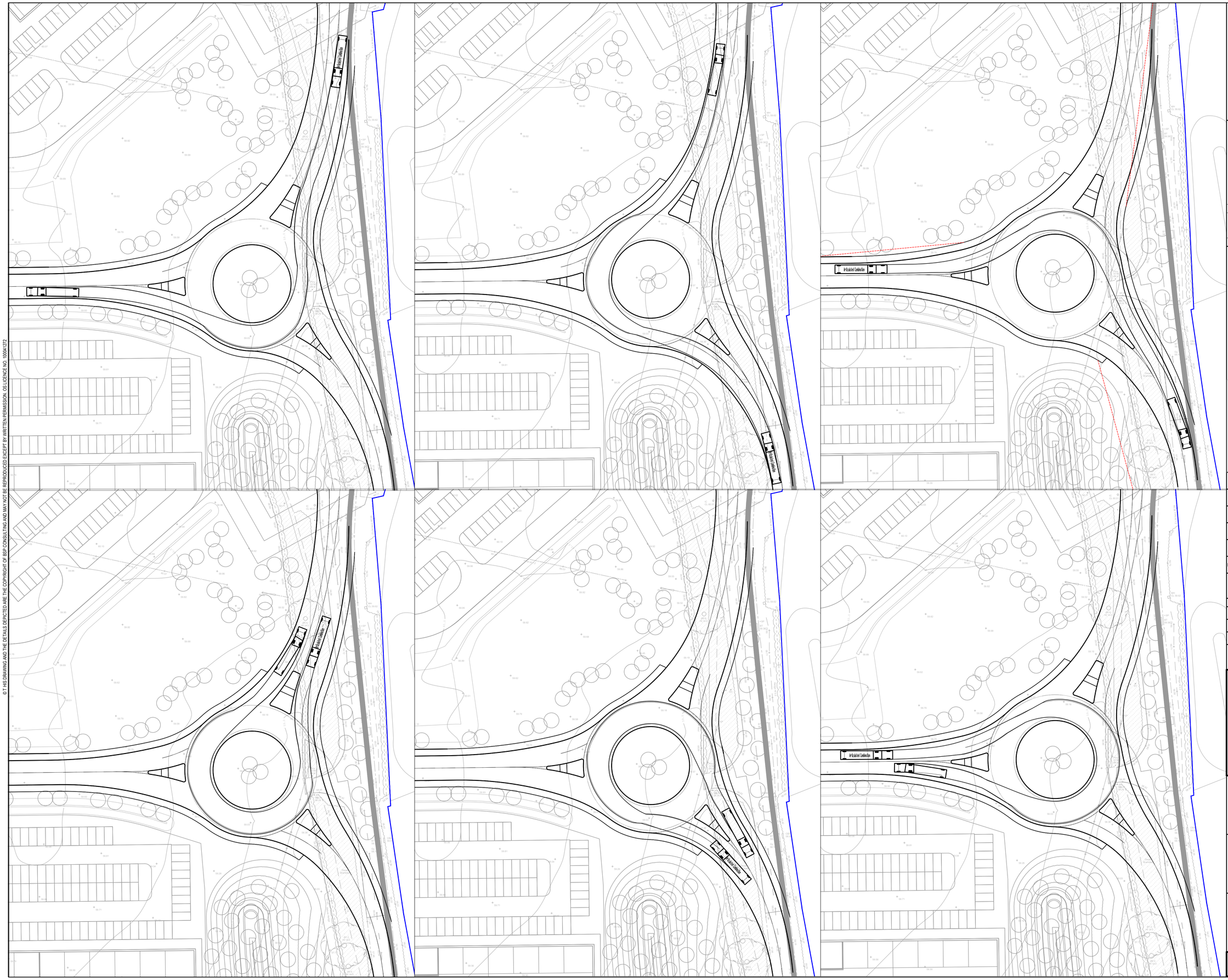

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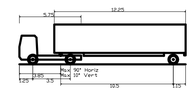

Articulated Combination	
Overall Length	15.500m
Overall Width	2.500m
Overall Body Height	3.713m
Min Body Ground Clearance	0.435m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	7.500m

REV	COMMENT / DRAWN BY	DATE	CHECKED BY	DATE	APPROVED BY	DATE
P4	UPDATED ARCHITECTS LAYOUT ADDED / JSP	01.08.18	CE	01.08.18	CE	01.08.18
P3	VEHICLE TYPE AMENDED U-TURNS ADDED VEHICLE SPEC ADDED / JSP	29.06.18	CE	29.06.18	CE	29.06.18
P2	ENTRY ANGLES REVIEWED / JSP	19.06.18	CE	19.06.18	CE	19.06.18
P1	INITIAL ISSUE / MV	19.06.18	JSP	19.06.18	CE	19.06.18

SCALE @ A1	ISSUING OFFICE	PROJECT NUMBER
1:500	LEICESTER	18-0054

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PROJECT

BURNASTON CROSS

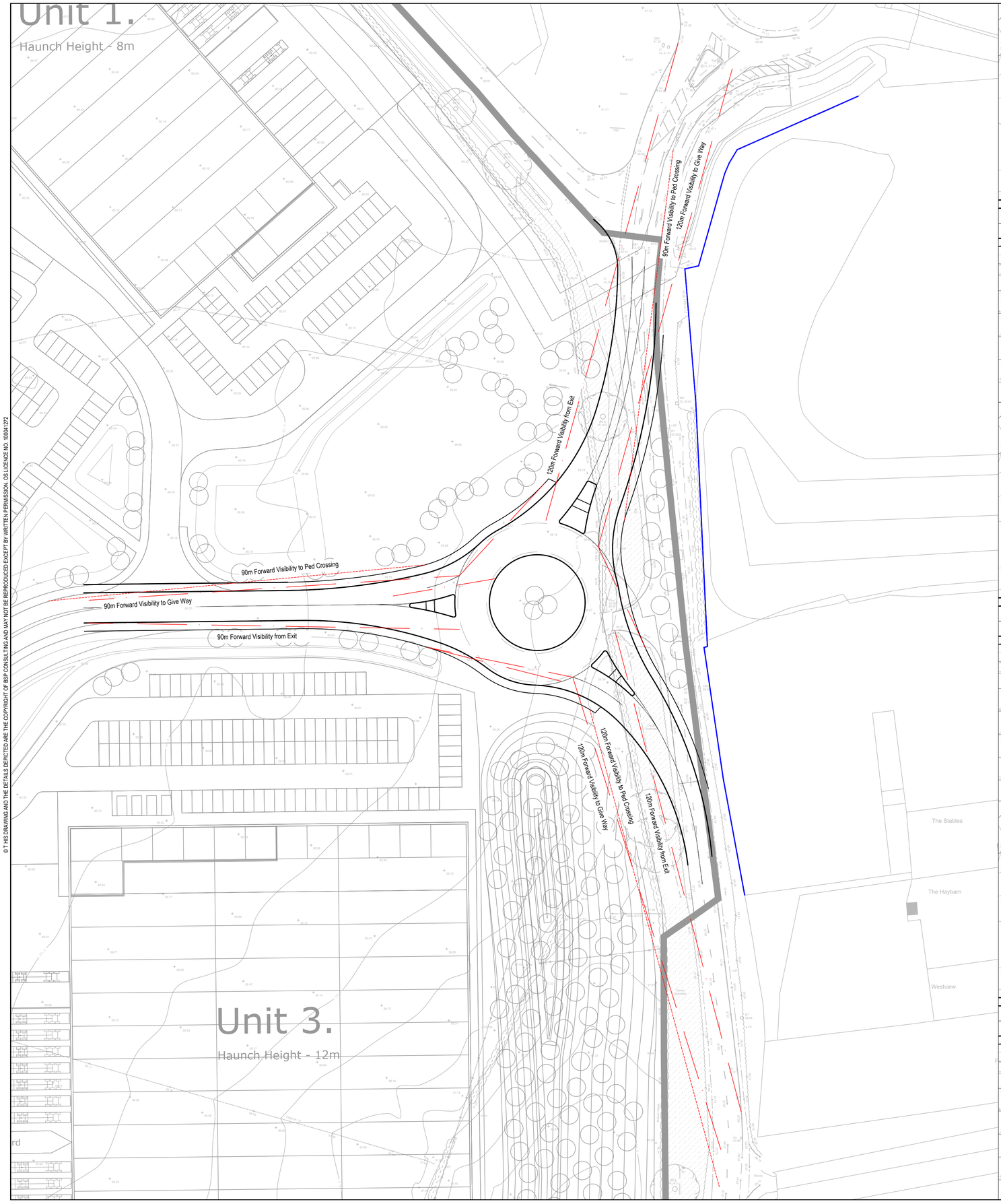
TITLE

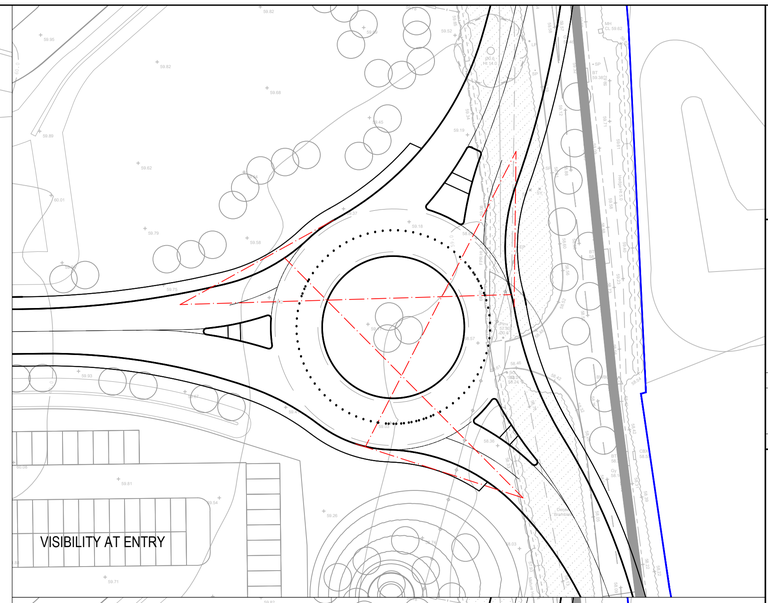
VEHICLE TRACKING ANALYSIS
ACCESS JUNCTION

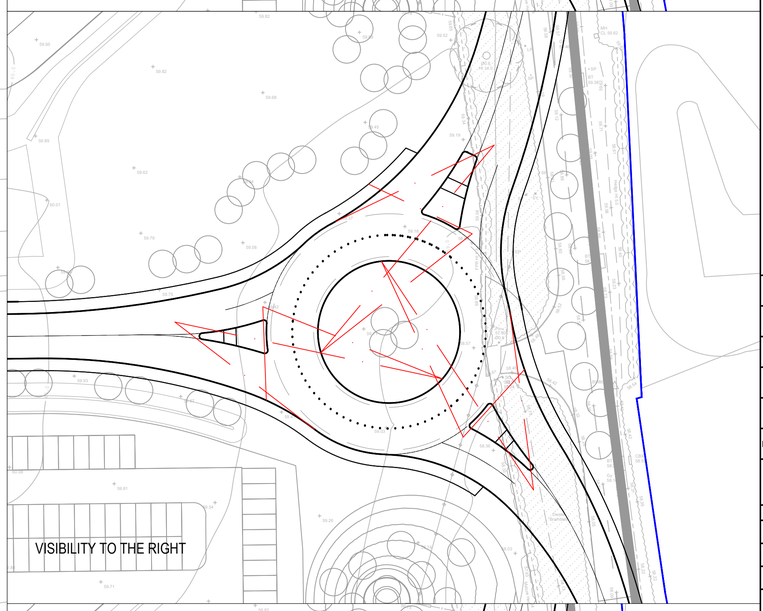
CLIENT

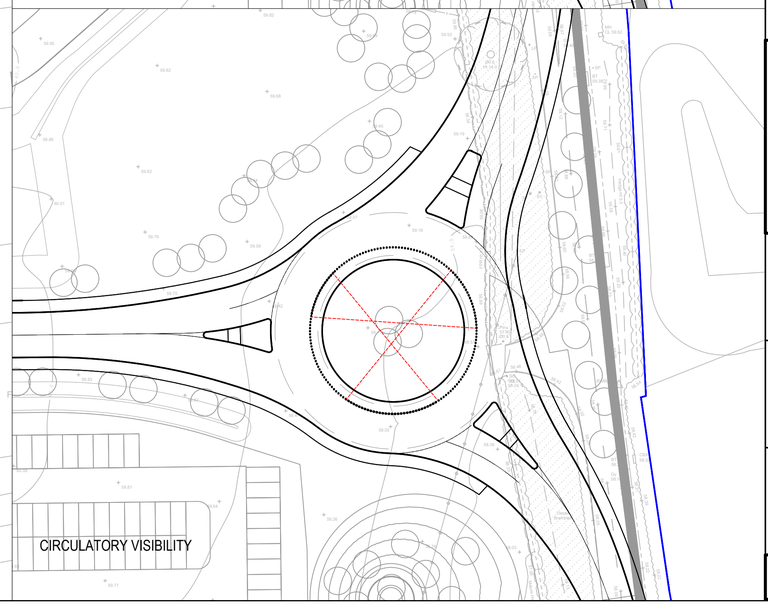
BRACKLEY PROPERTY
DEVELOPMENTS LTD

PROJECT	ORIGINATOR	ZONE	LEVEL	TYPE	ROLE	NUMBER	REV
BUR	BSP	ZZ	ZZ	DR	D	002	P4









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PROJECT

BURNASTON CROSS

TITLE

VISIBILITY DIMENSIONS
ACCESS JUNCTION

CLIENT

BRACKLEY PROPERTY
DEVELOPMENTS LTD

PROJECT	ORIGINATOR	ZONE	LEVEL	TYPE	ROLE	NUMBER	REV
BUR	BSP	ZZ	ZZ	DR	D	001	P2

structural civil transportation environmental geotechnical

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Proposed Site Access Roundabout For Development at Burnaston Cross, Derbyshire by Brackley Property Developments

Design Team Response to Stage 1 Road Safety Audit

Document Number: BUR-BSP-ZZ-XX-RP-D-004

Project Ref: 18-0054/DTR-S1RSA

Original: 29/06/2018

By: J. Posnett

Managing Director: Eur Ing **David Sumner** BSc(Hons) MSc CEng FICE MCIHT
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Associate Directors: **Jason Davenport** BEng(Hons) MCIHT **Matthew Viggars** MEng(Hons) CEng MICE **Tim Wilson** BEng(Hons) **Tony Goddard** BEng (Hons) CEng MICE
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Breakwell Sumner Partnership Ltd. Registered Office: 12 Oxford Street, Nottingham NG1 5BG. Registered in England and Wales No. 3669014

Design Team Response to Stage 1 Road Safety Audit Ref JAD/18-0054 (BSP Nottingham Office) RE: Burnaston Cross, Proposed Site Access Roundabout

The design team have reviewed the problems identified and recommendations made in the Stage 1 Road Safety Audit and would comment as follows:

A1 General

Problem (A1.1)
Location: Throughout the proposals.
Summary: Limited drainage details or levels information.
The information provided for audit details limited drainage proposals. It is therefore not possible to determine if any low spots may be evident, or if the site will be adequately drained. If such low spots do exist within the design and are not adequately drained this may result in ponding of water and a potential slip hazard. No details of contours for the proposed access have been provided.

Recommendations
Both within the site and around the site access, the design team must ensure that the carriageway and footway areas are adequately drained to prevent the ponding of water.

Design Team Response
The full drainage and levels information will be provided at the detailed design stage.

Problem A1.2
Location: Adjacent to proposed site access.
Summary: The information provided for the audit does not have any details of landscaping and planting to be used around the project (within the site boundary). Inappropriate landscaping may restrict visibility or obscure signs etc.

Recommendation
The design team must ensure that all landscaping and planting is appropriate and does not impede visibility or create a hazard.

Design Team Response
The visibility dimensions required for the site access junction have been shown on new Drawing 003 and will be provided to the landscape architect with notes to ensure the visibility splays are not impeded. The landscaping proposals will be confirmed at the detailed design stage.

Problem A1.3
Location: Throughout the proposals.
Summary: No planting information.
The information provided for audit does not show any planting details to verges and other surrounding areas. It is possible that inappropriate planting result in leaf fall on footways and carriageways potentially causing a slip hazard.

Recommendations
The design team must ensure that planting around the proposals is appropriate to the location and that leaves will not cause problems within footways and carriageways. An adequate maintenance regime should be in place to ensure that vegetation does not become a problem.

Design Team Response
The landscape architect will be advised to ensure that planting that would create leaf fall is not proposed near the site access. The landscaping proposals will be confirmed at the detailed design stage.

Problem A1.4
Location: Approach arms to the roundabout.
Summary: No surfacing details provided.
The information provided for audit does not show any surfacing details. It is unclear as to the potential surface friction that will be allowed by the proposed surfacing. Without suitable surface friction vehicles approaching the facility at speed may find it difficult to stop in an emergency with the potential for a collision.

Recommendations
Consideration should be given to the type of surfacing to be applied on the approaches to the proposed roundabout. Consideration should be given to the details within HD 36/06 of the Design Manual for Roads and Bridges and suitable surfacing materials applied.

Design Team Response
The surfacing proposals will be confirmed at the detailed design stage and will be in accordance with HD 36/06 of DMRB.

A2 Local Alignment

Problem A2.1
Location: Approaches to the proposed site access roundabout
Summary: Although the forward visibilities to the roundabout have been detailed on the proposals, none of the other visibility criteria for a roundabout have been

identified. In accordance with TD 16/07, other visibility criteria include Forward Visibility at Entry, Visibility to the Right, Circulatory Visibility, Exit Visibility and Pedestrian Crossing Visibility. Although it is agreed that these issue can be dealt with at detail design stage, a check at preliminary design stage would be prudent to ensure the correct positioning of the roundabout.

Recommendations
The developer/designers must ensure that the appropriate land is safeguarded to ensure that the appropriate visibility splays are achievable on the approach to and when navigating the roundabout.

Design Team Response
The various visibility requirements set out in TD16/07 of DMRB have been checked and are now all illustrated on new Drawing 003. This information will be provided to the design team with notes to ensure that these remain achievable and are not impeded.

A3 Junctions

Problem A3.1
Location: Adjacent to proposed site access
Summary: The information provided for audit has no details of advance warning signs for the access. Without adequate warning drivers may be unaware of the nature of the junction and access they are approaching.

Recommendation
The design team must ensure that all drivers are fully aware of the nature of the facility they are approaching. Given the accesses location (following a left hand bend southbound), consideration should be given to the introduction of a Roundabout Ahead sign (diag. 510), located at the appropriate distance from the access in either direction along the major carriageway.

Design Team Response
The signage proposals will be confirmed at the detailed design stage and will be in accordance with the Traffic Signs Regulations and General Directions (TSRGD) 2016 and the Traffic Signs Manuals. Recommendation noted.

Problem A3.2
Location: Adjacent to proposed site access
Summary: The information provided for the audit contains details of proposed temporary advanced warning sign of a New Roundabout Ahead. It is considered that prior warning of the revised layout should be provided until regular motorist become

aware of the new access road. Therefore, the temporary New Roundabout Ahead sign should be provided in either direction from the access at the appropriate stopping sight distance.

Recommendation
The designer should give further consideration to providing the temporary New Roundabout Ahead sign.

Design Team Response
The signage proposals will be confirmed at the detailed design stage and will be in accordance with the Traffic Signs Regulations and General Directions (TSRGD) 2016 and the Traffic Signs Manuals. Recommendation noted.

Problem A3.3
Location: Site Access Roundabout
Summary: Appropriate design vehicle used for swept path analysis.
In accordance with TD16/07, the design vehicle used for swept path analysis is an articulated vehicle with a single axle to the rear of the trailer, of length 15.5m. Although this vehicle of vehicle is not common on UK roads, its turning requirements are greater than those for all other vehicles within the normal maximum dimensions permitted in the current Vehicle Construction and Use Regulations, or likely to be permitted in the near future. It is not clear from the analysis work whether the appropriate design vehicle has been used for the most onerous movements.

Recommendations
The design team should confirm/ensure that the swept path analysis works is undertaken using the appropriate design vehicle. The road may be subject to an imposed weight restriction, which may impact on the design vehicle to be used.

Design Team Response
The originally swept path analysis work was using a 15.5m vehicle but with a double axel. These have been amended using the design vehicle specified in TD16/07 of DMRB, with the vehicle specifications added to the drawing. A slightly amendment to the exit of the north arm has been made to suit the amended swept paths. See revised Drawings 001 (Rev P3) and 002 (Rev P3).

A4 Non Motorised User Provision

Problem A4.1
Location: Footway adjacent to the proposed development.

Summary: Within the proposed footways/verge areas within the development there are likely to be existing utility apparatus covers, which if not reset to the level of the proposed footway could pose potential trip hazards.

Recommendation
Ensure that all utility covers are reset to the proposed footway/verge levels to ensure that trip hazards are not created.

Design Team Response
The utility equipment affected by the proposed roundabout, including those in the proposed footways and verges will be confirmed at the detailed design stage. Levels information and reinstatement of utility covers will be set out at the detailed design stage. Recommendation noted.

Problem A4.2
Location: Proposed pedestrian crossings
Summary: The information provided appear to include for uncontrolled pedestrian crossing points at the site access roundabout. These crossing point should be clearly visible at the appropriate stopping sight distance from either direction,

Recommendation
The designer should ensure that the pedestrian crossing is clearly visible at the appropriate stopping sight distance at the approaches to the roundabout.

Design Team Response
The various visibility requirements set out in TD16/07 of DMRB have been checked and are now illustrated on new Drawing 003. This information will be provided to the design team with notes to ensure that these remain achievable and are not impeded. A one step below desirable minimum is proposed on the approach to the pedestrian crossing from the northern arm, where the speed of traffic between the two roundabouts is expected to be below the 40mph speed limit.

A5 Road Signs, Carriageway Markings and Lighting

Problem A5.1
Location: Site Access Roundabout
Summary: The road layout will require street lighting to ensure the appropriate levels of illuminations are provided for both motorists and pedestrians. However, no details of the street lighting evaluation/design have been provided.

Recommendation
Through the design process the designers should ensure that the appropriate level of street lighting is provided within the development.

Design Team Response
The lighting proposals will be confirmed at the detailed design stage. Recommendation noted.

Problem A5.2
Location: Throughout the proposals.
Summary: No details of signage or road markings.
The information provided for audit does not show any signage details or road marking details within the proposals. Without adequate signage or markings drivers may be confused as which direction to take or how to negotiate the proposals safely. This may result in erratic last minute changes of direction, or sudden sharp braking.

Recommendations
The design team must ensure that adequate and appropriate signage and road markings are provided for the proposed development.

Design Team Response
The signing and lining proposals will be confirmed at the detailed design stage and will be in accordance with the Traffic Signs Regulations and General Directions (TSRGD) 2016 and the Traffic Signs Manuals. Recommendation noted.

Comment
Tactile paving should be shown at all the pedestrian crossings on the proposals. Buff coloured tactile paving in accordance with the DTLR's 'Guidelines on the use of Tactile Paving Surfaces' (GotuoTPS) should be provided on each side of the site access and on all central refuges and crossing points.

Design Team Response
Tactile paving is to be proposed and full details will be provided at the detailed design stage. Recommendation noted.

List of Amended / New Drawings:
BUR-BSP-ZZ-ZZ-DR-D-001 P3 - Site Access Arrangements
BUR-BSP-ZZ-ZZ-DR-D-001 P3 - Vehicle Tracking Analysis Access Junction
BUR-BSP-ZZ-ZZ-DR-D-001 P1 - Visibility Dimensions Access Junction

Appendix G

Pedestrian/Cycle Access and Pedestrian Crossing on Etwall Road

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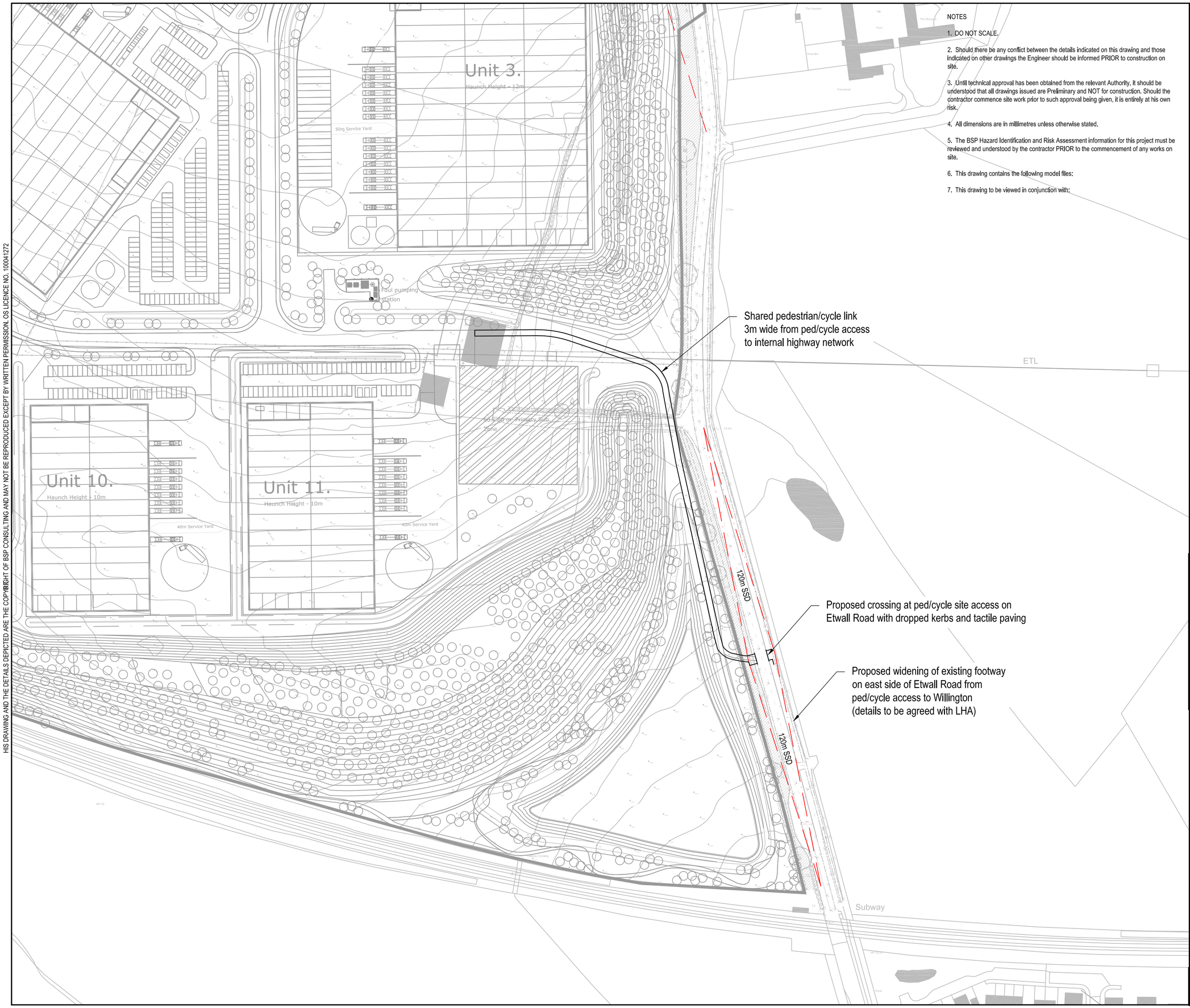

NOTES

1. DO NOT SCALE.

2. Should there be any conflict between the details indicated on this drawing and those indicated on other drawings the Engineer should be informed PRIOR to construction on site.

3. Until technical approval has been obtained from the relevant Authority, it should be understood that all drawings issued are Preliminary and NOT for construction. Should the contractor commence site work prior to such approval being given, it is entirely at his own risk.

4. All dimensions are in millimetres unless otherwise stated.

5. The BSP Hazard Identification and Risk Assessment information for this project must be reviewed and understood by the contractor PRIOR to the commencement of any works on site.

6. This drawing contains the following model files:

7. This drawing to be viewed in conjunction with:

KEY PLAN

Construction Risks	Maintenance/cleaning Risks	Demolition/adaptation Risks

In addition to the hazard/risks normally associated with the type of works detailed on this drawing take note of the above.
It is assumed that all works on this drawing will be carried out by a competent contractor working, where appropriate, to an appropriate method statement.

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REV	COMMENT / DRAWN BY	DATE	CHECKED BY	DATE	APPROVED BY	DATE
P2	UPDATED ARCHITECTS LAYOUT ADDED & CROSSING SUITABLE FOR CYCLISTS					
	JSP	01.08.18	JSP	01.08.18	CE	01.08.18
P1	INITIAL ISSUE					
	MV	18.07.18	JSP	18.07.18	CE	18.07.18

SCALE @ A2	ISSUING OFFICE	PROJECT NUMBER
1:1250	LEICESTER	18-0054

CLIENT APPROVAL

- A - APPROVED
- B - APPROVED WITH COMMENTS
- C - DO NOT USE

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e-mail: info@bsp-consulting.co.uk
Also offices in Nottingham, Derby and Sheffield

PROJECT

BURNASTON CROSS

TITLE

PROPOSED ETWALL ROAD CROSSING

CLIENT

BRACKLEY PROPERTY DEVELOPMENT LTD

PROJECT ORIGINATOR ZONE LEVEL TYPE ROLE NUMBER	REV
BUR-BSP-ZZ-ZZ-DR-D-004	P2

Appendix H

Extract of DCC Cycle Map

DERBY
Mickleover
Littleover
Normanton
Hillcross
Heatherton Village
Sinfin
Sinfin Moor
Sunny Hill
Pear Tree
Rose Hill
54
68
66
DERBY CITY COUNCIL

Appendix I

Correspondence regarding Bus Services

Joanna Posnett

From: Vicky Williams <VWilliams@trentbarton.co.uk>
Sent: 03 July 2018 15:59
To: Joanna Posnett
Subject: RE: 18-0054 - Burnaston Cross

Hi Joanna,

Thanks for the email and the additional information. We have reviewed the villager 3 service and it could be accommodated within the existing timetable but a lot of that would depend on other section 106 developments on line with the route. Whilst I appreciate this would give a public transport link to the site the maps show that public transport could be achieved but in some occasions with interchange between services. As the East Midlands Gateway area grows these options will improve so I would suggest that there is a need for multi operator ticketing as a solution (likely to be delivered by 2021 in conjunction with Midlands Connect on an account based ticketing scheme including contactless) and also that a higher frequency of service to the site itself is desirable. People don't mind interchange if the frequencies are good on the routes, and hourly on villager 3 wouldn't be overly appealing for this principle in modal shift encouragement.

As with everything this is based on our current commercial situation which may well change in the future and any provision should accommodate that.

Kind Regards

Vicky Williams | Commercial Manager | trentbarton

t 01773 536497 | f 01773 536333 | m 07964478162
Mansfield Road, Heanor, Derbyshire, DE75 7BG

From: Joanna Posnett <J.Posnett@bsp-consulting.co.uk>
Sent: 26 June 2018 19:19
To: Vicky Williams <VWilliams@trentbarton.co.uk>
Subject: RE: 18-0054 - Burnaston Cross

<<< This email is from an external sender >>>

Hi Vicky

As it is just a planning application at this stage, there is lots of flexibility in terms of end users and specific types of uses and shift patterns. As set out in the attached note, the planning permission would be for 100,000sqm of industrial buildings, with 75% B8 Warehousing and Distribution and 25% B2 General Industrial, with a higher ratio of employees per floor area.

The Phasing is still being finalised and would be market led, but the opening year has been assumed as 2020 (phase 1) and there are 6 further phases, one phase per annum. You could broadly assume 1/7th per year from 2020-2026.

The TA calculations expect 321 total trips (by all modes) during the AM peak hour and 229 during the PM peak hour, when fully completed. The basic data for the land use suggests c. 1% public transport, but the 2011 Census data suggests 2.6% is achieved for journeys to work in the local area. There are some constraints in terms of access to/from this site by sustainable modes of transport, and so a bus service directly serving the site, and promotion of the service via the employers, is expected to be required to get good proportions using public transport.

The TA uses a distribution model based on 2011 Census data for where people live who currently work in this area, to give an idea of where employees may be travelling from. This is summarised in the above table, and the most common locations are illustrated on the plans of each authority area, with areas starred which have the highest numbers of employees.

Hope this is useful. Please confirm if you would consider a diversion feasible, and if there is any slack in the timetable/requirement for an additional bus, etc.

Kind regards

Joanna Posnett BA(Hons) MCIHT
Principal Transport Planner

On Behalf Of
BSP Consulting
Floor 4
24 De Montfort Street
Leicester
LE1 7GB
Tel: 0116 204 7766
Extension No: 205

email: j.posnett@bsp-consulting.co.uk
web: www.bsp-consulting.co.uk

From: Vicky Williams <VWilliams@trentbarton.co.uk>
Sent: 22 June 2018 15:30
To: Milan Vadher <M.Vadher@bsp-consulting.co.uk>
Subject: RE: 18-0054 - Burnaston Cross

Hi Milan,

Thank you for your email, we would consider it but we'd need to know a little bit more before we can commit. Do you have information of build out, proposed type of industrial/warehousing, potential employees and their catchment area, shift patterns and those types of further information?

As much as you can provide would be helpful to enable us to make a fuller response,

Kind Regards

Vicky Williams | Commercial Manager | trentbarton

t 01773 536497 | f 01773 536333 | m 07964478162
Mansfield Road, Heanor, Derbyshire, DE75 7BG

Vicky Williams | Commercial Manager | trentbarton

t 01773 536497 | **f** 01773 536333 | **m** 07964478162
Mansfield Road, Heanor, Derbyshire, DE75 7BG

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From: Milan Vadher <M.Vadher@bsp-consulting.co.uk>
Sent: 21 June 2018 14:19
To: Vicky Williams <VWilliams@trentbarton.co.uk>
Cc: Joanna Posnett <J.Posnett@bsp-consulting.co.uk>
Subject: 18-0054 - Burnaston Cross

<<< This email is from an external sender >>>

Good Afternoon Vicky,

We are undertaking work for a client who is looking to develop a site just south of the A38 / A50 (Toyota Island) roundabout for employment use (industrial / warehousing units). I've attached an indicative layout of the scheme, for information. There are currently no bus services operating along Etwall Road, which runs along the eastern boundary of the proposed site, however your existing Villager V3 service runs through Willington, approximately 1km to the south of the site.

Would you consider diverting the route of the Villager V3 to travel north along Etwall Road, to the proposed site access roundabout or the services station roundabout, before performing a U-turn and heading back south along Etwall Road, to the existing service route through Willington?

If this is considered feasible, would this diversion require an additional bus service and what would the expected costs be?

Please get in touch should you have any queries.

Kind regards

Milan Vadher BSc(Hons)
Graduate Transport Planner

On Behalf Of
BSP Consulting
Floor 4
24 De Montfort Street
Leicester
LE1 7GB
Tel: 0116 204 7766
Extension No: 237

email: m.vadher@bsp-consulting.co.uk
web: www.bsp-consulting.co.uk

www.bsp-consulting.co.uk

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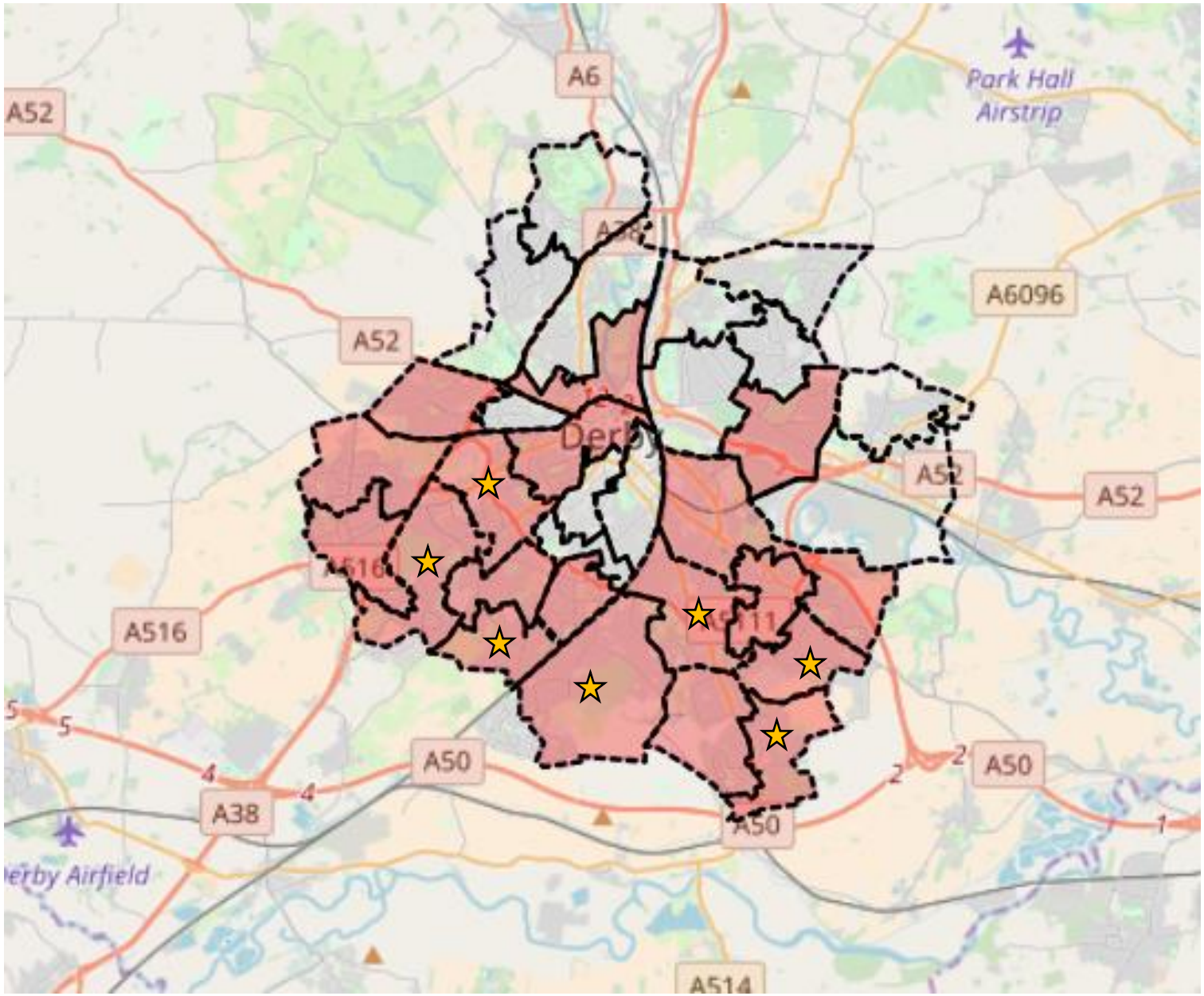
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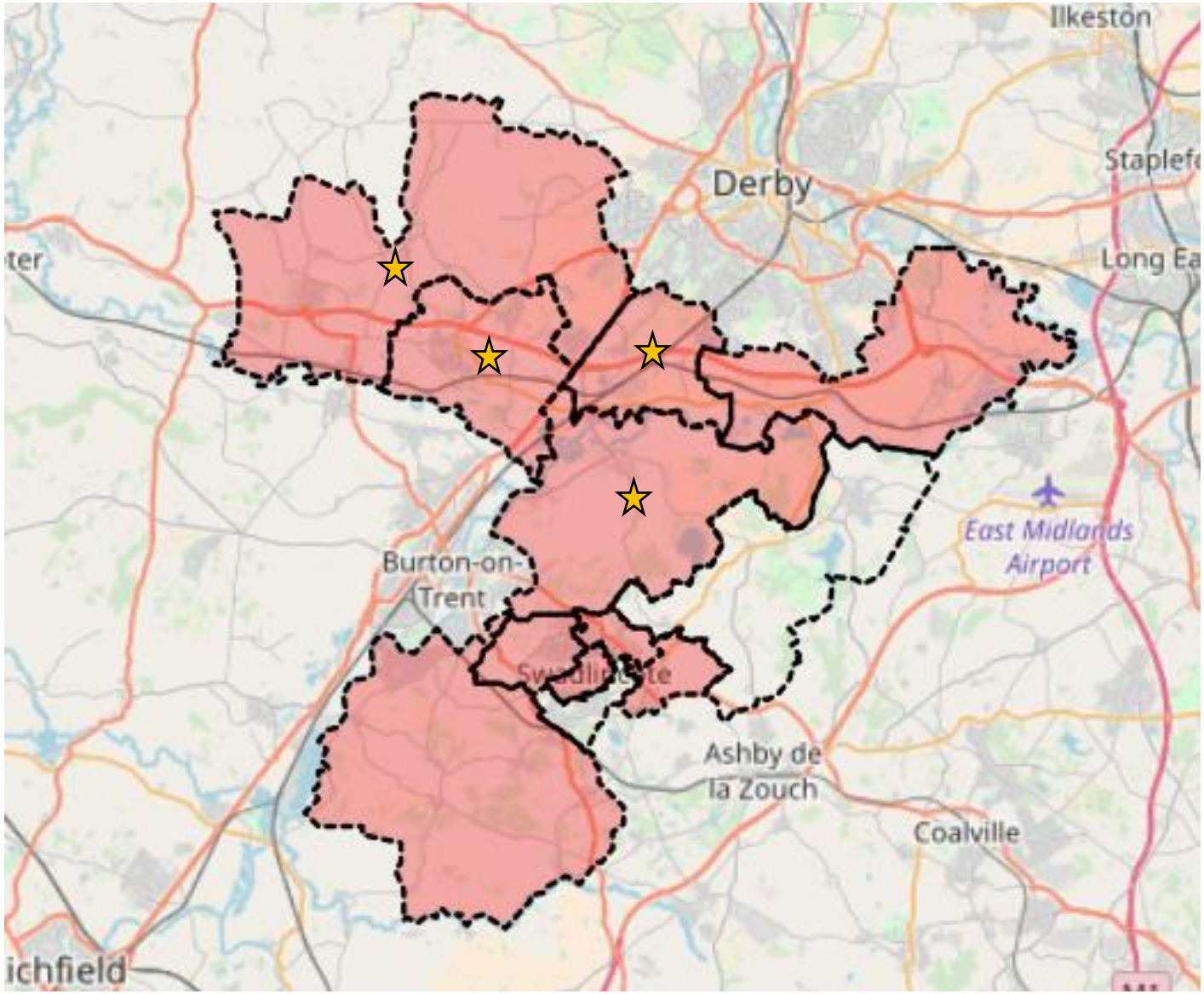
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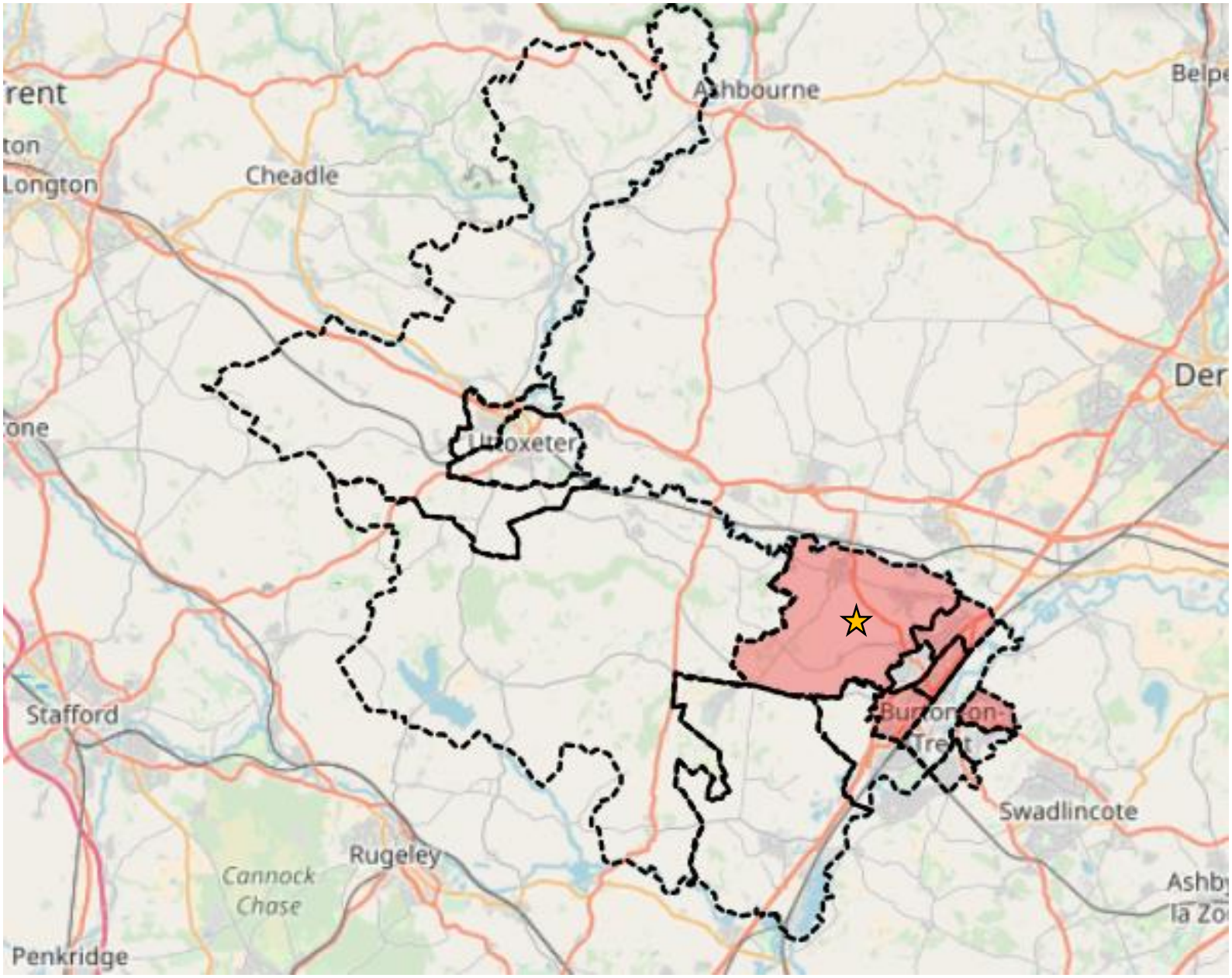
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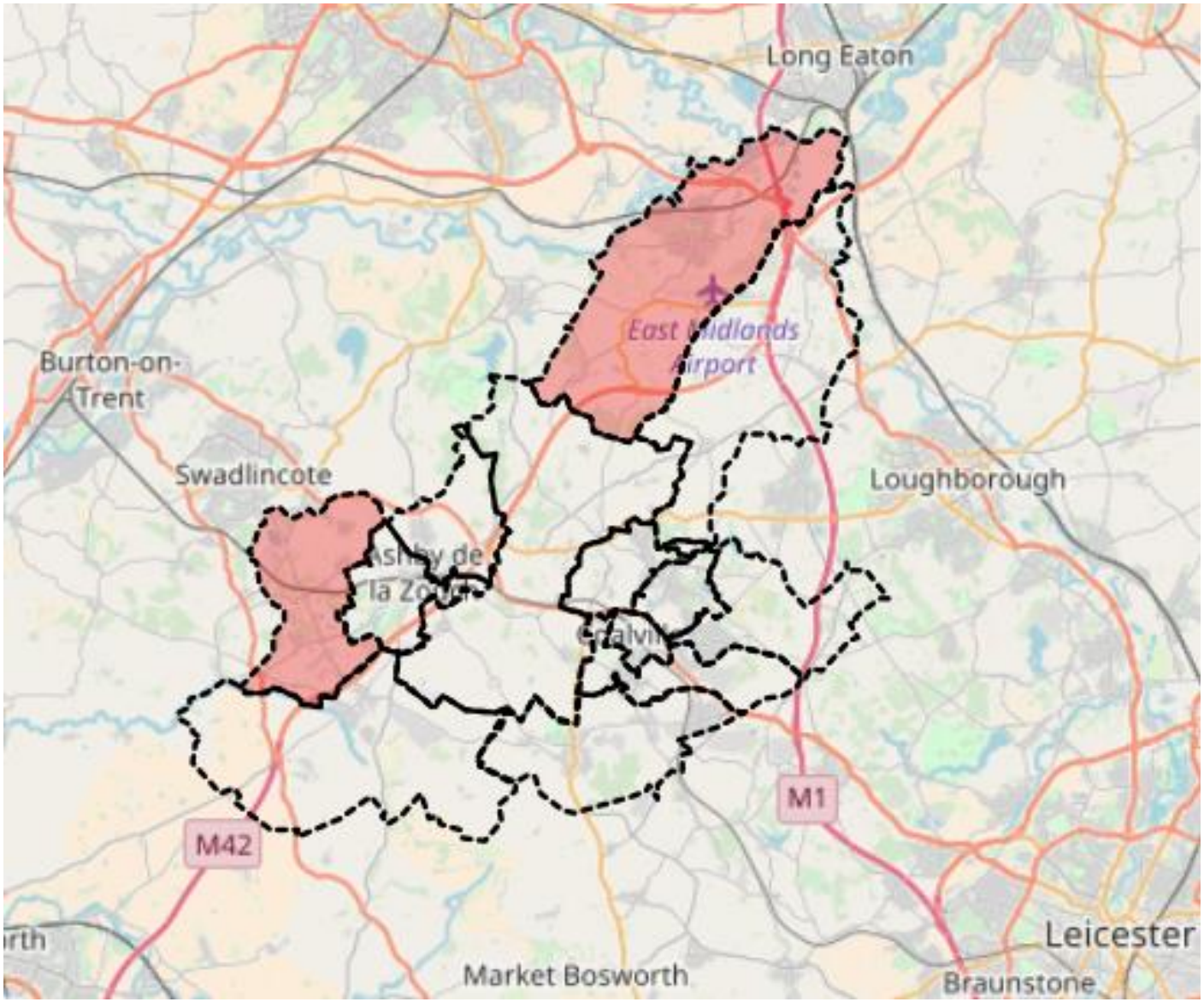
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Braunstone

Joanna Posnett

From: Nicola Lees <Nicola.Lees@southderbyshire.gov.uk>
Sent: 29 May 2019 10:27
To: Joanna Posnett
Cc: 'sustainable.travel@derbyshire.gov.uk'; 'Chris.Hegarty@derbyshire.gov.uk'; Richard Groves
Subject: RE: Bus Services Willington

Hi Joanna, good to meet you all. In terms of a link from Swadlincote to Willington I have raised this with our Chief Executive, as well as the wider transport infrastructure in the area as discussed at the meeting.

In terms of a route / service I would recommend a new hourly service with 2 buses for a capacity of 18-32 seats that travels from Swadlincote, through Bretby, Repton and Willington (link with the train station, V3 service and your site). Would also be good to have a loop in to Toyota, this may be something the Chief Exec can help support, or facilitate a conversation. This would require initial S106 contributions, but I would anticipate the route is commercial within a 3 to 5 year period, both Trent Barton and Midland Classic will be able to advise further with regards costings and sustainability.

Let me know if you require any further information.

Best wishes,

Nicola

Nicola Lees
Economic Development Officer
T: 01283 595755
E: nicola.lees@southderbyshire.gov.uk
www.southderbyshire.gov.uk

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Dist

From: Joanna Posnett [mailto:J.Posnett@bsp-consulting.co.uk]
Sent: 28 May 2019 15:54
To: Nicola Lees
Subject: Bus Services Willington

Hi Nicola

Thank you for meeting us last week. You were going to make some enquiries and provide some information.

I've been in touch with Vicky at Trent Barton and I am waiting a response to a few follow up queries.

- She noted their experience of Toyota being reluctant to promote buses to their site in the past, heavily car bias modal split, perks on car purchases, etc.
- She was not confident a DRT minibus solution would be commercially viable given the software set up cost, and potentially needing 4-6 minibuses for a good coverage in a predominantly rural area.
- I've gone back to her to ask about just having a timetabled minibus add-on to the V3 between the site and the services (and possibly Toyota), Willington and Swadlincote.
- An additional idea Vicky had, but said the principal of doing something like this would need to be signed off internally, was to split the V3 route at Repton, with Derby to Repton and then the route splits to Burton or Swadlincote, via Hartshorne and Woodville.

Let me know if you have anything to add. I'm putting together a list of options and budget costs for Brackley tomorrow, ahead of them meeting the Chief Exec on Monday. I am on leave on Thursday and Friday, but may be able to pick up e-mails occasionally.

Kind regards

Joanna Posnett
BA(Hons) MCIHT
Associate - Transport Planner

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Joanna Posnett

From: Keith Myatt <keith.myatt@centrebus.co.uk>
Sent: 18 June 2019 14:26
To: Joanna Posnett
Subject: RE: Burton - Swadlincote Bus Services

Hi Joanna,

Toyota site could be served on that basis if the bus doesn't need to serve Burton or the Burton Railway Station.

I'll draft a timetable and costs.

Regards

Keith

From: Joanna Posnett <J.Posnett@bsp-consulting.co.uk>
Sent: 18 June 2019 14:04
To: Keith Myatt <keith.myatt@centrebus.co.uk>
Subject: RE: Burton - Swadlincote Bus Services

Hi Keith

It was just Willington train station although we are aware there are limited services. If not going to Burton, would this make it possible to serve Toyota too? SDDC were thinking a mini-bus would be more appropriate given the rural lanes.

Kind regards

Joanna Posnett
BA(Hons) MCIHT
Associate - Transport Planner

BSP Consulting (Leicester)
p: 0116 204 7766 ext: 205
e: j.posnett@bsp-consulting.co.uk

From: Keith Myatt <keith.myatt@centrebus.co.uk>
Sent: 18 June 2019 14:00
To: Joanna Posnett <J.Posnett@bsp-consulting.co.uk>
Subject: RE: Burton - Swadlincote Bus Services

Hi Joanna,

For the service SDDC has suggested could you clarify a few points please so I can work a route and timetable out:

Is it Burton Railway Station you refer to or Willington Railway Station? – (Willington only has a limited number of trains that stop there – approx. 3 per day).

To run into the Toyota site and retain an hourly service with 2 buses would not be achievable – the lanes between Swadlincote, Bretby, Repton and Willington are quite narrow.

Kind Regards

Keith

M: 07720 088 675

From: Joanna Posnett <J.Posnett@bsp-consulting.co.uk>
Sent: 18 June 2019 11:36
To: Keith Myatt <keith.myatt@centrebus.co.uk>
Subject: RE: Burton - Swadlincote Bus Services

Hi Keith

Are you able to provide an indication of cost for extending your no. 9 or no. 19 service?

Also SDDC have suggested that we obtain costs for "a new hourly service with 2 buses for a capacity of 18-32 seats that travels from Swadlincote, through Bretby, Repton and Willington (link with the train station, V3 service and your site). Would also be good to have a loop into Toyota." Are you able to give an indication of cost to provide this service?

Look forward to hearing from you.

Kind regards

Joanna Posnett
BA(Hons) MCIHT
Associate - Transport Planner

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p: 0116 204 7766 ext: 205
e: j.posnett@bsp-consulting.co.uk

From: Joanna Posnett
Sent: 28 May 2019 14:37
To: Keith Myatt <keith.myatt@centrebus.co.uk>
Subject: RE: Burton - Swadlincote Bus Services

Thanks Keith

I've added comments to your e-mail below.

Kind regards

Joanna Posnett
BA(Hons) MCIHT
Associate - Transport Planner

BSP Consulting (Leicester)
p: 0116 204 7766 ext: 205
e: j.posnett@bsp-consulting.co.uk

From: Keith Myatt <keith.myatt@centrebus.co.uk>
Sent: 28 May 2019 14:25
To: Joanna Posnett <J.Posnett@bsp-consulting.co.uk>
Subject: RE: Burton - Swadlincote Bus Services

Hi Joanna,

Thank you for your email, could you send me a little bit of further information please, and I'll send the costs to provide service levels to meet shift patterns.

- Shift times: start / finish: is it 0600, 1400, 2200 to start shift and end of shifts?

Shift patterns / end users are not confirmed yet, so would assume the times you have.

- Will it be 7 days per week at these times?

Could you price for Mon-Sat, with a separate cost for a Sunday

- Would you require a quote for 29 and 44 seat single deck buses?

Yes please

- Would the services be required on bank holidays? We would not operate on Christmas Day.

I would assume not for now.

I look forward to hearing from you.

Kind Regards

Keith

M: 07720 088 675

From: Joanna Posnett <J.Posnett@bsp-consulting.co.uk>
Sent: 28 May 2019 14:07
To: Keith Myatt <keith.myatt@centrebus.co.uk>
Subject: RE: Burton - Swadlincote Bus Services

Hi Keith

We spoke about this a couple of weeks ago, and you were going to send be some information, including estimated cost, to potentially extend your hourly Mon-Sat no.9 or 19 service from Swadlincote via Burton to our proposed development site near to the Burton with Derby services, just south of the A50/A38 Toyota island junction. I understood this could be feasible with a S106 contribution.

I also understood that if a service was needed on a Sunday, your only existing service option would be the no.8 which already serves Horninglow and the Hospital, and would require an additional bus.

Please can you confirm the above and provide some budget costings.

Kind regards

Joanna Posnett
BA(Hons) MCIHT
Associate - Transport Planner

BSP Consulting (Leicester)
p: 0116 204 7766 ext: 205
e: j.posnett@bsp-consulting.co.uk

From: Keith Myatt <keith.myatt@centrebus.co.uk>
Sent: 07 May 2019 14:19
To: Joanna Posnett <J.Posnett@bsp-consulting.co.uk>
Cc: James Boddice <james@midlandclassic.com>; John Mitcheson <johnm@midlandclassic.com>
Subject: FW: Burton - Swadlincote Bus Services

Hello Joanna,

Thank you for your email concerning the possible introduction of a bus service to the new development which is to be constructed near to the Derby with Burton services just north of Willington.

I would welcome further dialogue with you to consider options of serving the site through S106 funding arrangements.

I look forward to hearing from you.

Kind Regards

Keith Myatt
Head of Business Development

Midland Classic Limited

M: 07720 088 675

From: Joanna Posnett <J.Posnett@bsp-consulting.co.uk>
Sent: 07 May 2019 13:57
To: Info Midland Classic <info@midlandclassic.com>
Subject: RE: Burton - Swadlincote Bus Services

Dear Midland Classic

Just following this up. Please let me know if there is a person I should contact directly regarding this.

Kind regards

Joanna Posnett
BA(Hons) MCIHT
Associate - Transport Planner

BSP Consulting (Leicester)
p: 0116 204 7766 ext: 205
e: j.posnett@bsp-consulting.co.uk

From: Joanna Posnett
Sent: 30 April 2019 09:45
To: info@midlandclassic.com
Subject: Burton - Swadlincote Bus Services
Importance: High

Dear Midland Classic

Apologies we do not have contact details for the correct person to enquire about this, but I was advised when I called if I e-mail this address this would be passed through for a response.

We are working on a proposed development scheme for a large new employment site, and looking into potentially diverting an existing bus service to serve the site

We are interested to know if it would be viable to extend one of your services between Swadlincote and Burton (e.g. 4, 9, 19, 8, 21) to serve the site, which is near to the Derby with Burton services just north of Willington. This could be done either via the A38/A50 junction or through Willington village, which would have the benefit of also connecting to the train station and bus services in the village.

If this is something you would consider, please confirm if this could be done using slack in the existing timetable or if an additional bus would be needed (via S106 funding).

Look forward to hearing from you. Please contact me if you have any queries.

Kind regards

Joanna Posnett
BA(Hons) MCIHT
Associate - Transport Planner

BSP Consulting (Leicester)
p: 0116 204 7766 ext: 205
e: j.posnett@bsp-consulting.co.uk

www.bsp-consulting.co.uk

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Where design information is issued in CAD format it is only the information which is displayed in the paper-space which is to be used, furthermore should any discrepancies be present between the CAD and the pdf drawings issued the contents of the pdf are to take precedence. Finally, we note that, whilst we endeavour to coordinate all our drawings, we are not responsible for the setting out of the private works.

BSP accept no responsibility for any infections found in this email. This email has been scanned for viruses and was free from infection upon leaving our network.

Breakwell Sumner Partnership is registered in England and Wales No.3669014

Registered office: 12 Oxford Street, Nottingham. NG1 5BG

Appendix J

TRICS Output – Vehicles

Calculation Reference: AUDIT-724101-180329-0322

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : C - INDUSTRIAL UNIT
VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	HC	HAMPSHIRE	1 days
	RE	READING	1 days
	WS	WEST SUSSEX	1 days
03	SOUTH WEST		
	BR	BRISTOL CITY	1 days
	DV	DEVON	1 days
04	EAST ANGLIA		
	SF	SUFFOLK	1 days
06	WEST MIDLANDS		
	HE	HEREFORDSHIRE	1 days
	WM	WEST MIDLANDS	1 days
08	NORTH WEST		
	CH	CHESHIRE	2 days
16	ULSTER (REPUBLIC OF IRELAND)		
	MG	MONAGHAN	1 days

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

Secondary Filtering selection:

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

Parameter:	Gross floor area
Actual Range:	645 to 20000 (units: sqm)
Range Selected by User:	300 to 43325 (units: sqm)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 06/07/17

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

Selected survey days:

Monday	1 days
Tuesday	5 days
Wednesday	1 days
Thursday	3 days
Friday	1 days

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

Selected survey types:

Manual count	11 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town	10
Free Standing (PPS6 Out of Town)	1

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

Selected Location Sub Categories:

Industrial Zone	7
Commercial Zone	1
Development Zone	1
Out of Town	1
No Sub Category	1

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

Secondary Filtering selection:

Use Class:

B1	7 days
B2	2 days

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

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	2 days
5,001 to 10,000	2 days
10,001 to 15,000	4 days
15,001 to 20,000	1 days
20,001 to 25,000	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	3 days
75,001 to 100,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	4 days
250,001 to 500,000	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	8 days
1.6 to 2.0	1 days

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

Travel Plan:

Yes	1 days
No	10 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	11 days

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

LIST OF SITES relevant to selection parameters

1 BR-02-C-02 STAINLESS FITTINGS BRISTOL CITY
SOUTH LIBERTY LANE

BRISTOL
Edge of Town
Industrial Zone
Total Gross floor area: 1475 sqm
Survey date: TUESDAY 22/09/15 Survey Type: MANUAL

2 CH-02-C-02 INDUSTRIAL MATERIALS CHESHIRE
JUPITER DRIVE
CHESTER W. EMP. PARK
CHESTER
Edge of Town
Industrial Zone
Total Gross floor area: 8100 sqm
Survey date: WEDNESDAY 19/11/14 Survey Type: MANUAL

3 CH-02-C-03 OFFICE FURNITURE CHESHIRE
BRUNEL ROAD
LYME GREEN BUS. PARK
MACCLESFIELD
Edge of Town
Development Zone
Total Gross floor area: 6658 sqm
Survey date: MONDAY 19/09/16 Survey Type: MANUAL

4 DV-02-C-01 TUBE MANUFACTURE DEVON
PLYMBRIDGE ROAD
ESTOVER
PLYMOUTH
Edge of Town
Industrial Zone
Total Gross floor area: 20000 sqm
Survey date: TUESDAY 17/07/12 Survey Type: MANUAL

5 HC-02-C-01 ENGINEERING COMPANY HAMPSHIRE
JAYS CLOSE

BASINGSTOKE
Edge of Town
Industrial Zone
Total Gross floor area: 3000 sqm
Survey date: THURSDAY 16/06/16 Survey Type: MANUAL

6 HE-02-C-02 THERMAL PROCESSING HEREFORDSHIRE
COLLEGE ROAD
BURCOTT
HEREFORD
Edge of Town
Commercial Zone
Total Gross floor area: 1880 sqm
Survey date: TUESDAY 22/10/13 Survey Type: MANUAL

7 MG-02-C-01 ENGINEERING MONAGHAN
COOLSHANNAGH ROAD
COOLSHANNAGH
NEAR MONAGHAN
Edge of Town
No Sub Category
Total Gross floor area: 3240 sqm
Survey date: TUESDAY 04/12/12 Survey Type: MANUAL

8 RE-02-C-01 SHEET METAL FABRICATION READING
COMMERCIAL ROAD

READING
Edge of Town
Industrial Zone
Total Gross floor area: 645 sqm
Survey date: THURSDAY 22/11/12 Survey Type: MANUAL

9 SF-02-C-01 JOINERY SUFFOLK
ANSON ROAD
MARTLESHAM HEATH
IPSWICH
Edge of Town
Industrial Zone
Total Gross floor area: 1100 sqm
Survey date: FRIDAY 12/07/13 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

10 WM-02-C-03 INDUSTRIAL GLASS WEST MIDLANDS
DOWNING STREET

SMETHWICK
Edge of Town
Industrial Zone
Total Gross floor area: 5070 sqm
Survey date: TUESDAY 06/11/12 Survey Type: MANUAL

11 WS-02-C-02 AVIATION COMPANY WEST SUSSEX
MAYDWELL AVENUE
SLINFOLD
NEAR HORSHAM
Free Standing (PPS6 Out of Town)
Out of Town
Total Gross floor area: 11375 sqm
Survey date: THURSDAY 23/01/14 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 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	11375	0.149	1	11375	0.044	1	11375	0.193
07:00 - 08:00	11	5686	0.294	11	5686	0.043	11	5686	0.337
08:00 - 09:00	11	5686	0.502	11	5686	0.062	11	5686	0.564
09:00 - 10:00	11	5686	0.179	11	5686	0.072	11	5686	0.251
10:00 - 11:00	11	5686	0.126	11	5686	0.096	11	5686	0.222
11:00 - 12:00	11	5686	0.069	11	5686	0.086	11	5686	0.155
12:00 - 13:00	11	5686	0.109	11	5686	0.139	11	5686	0.248
13:00 - 14:00	11	5686	0.201	11	5686	0.144	11	5686	0.345
14:00 - 15:00	11	5686	0.086	11	5686	0.169	11	5686	0.255
15:00 - 16:00	11	5686	0.059	11	5686	0.122	11	5686	0.181
16:00 - 17:00	11	5686	0.056	11	5686	0.256	11	5686	0.312
17:00 - 18:00	11	5686	0.037	11	5686	0.454	11	5686	0.491
18:00 - 19:00	11	5686	0.037	11	5686	0.189	11	5686	0.226
19:00 - 20:00	1	11375	0.044	1	11375	0.132	1	11375	0.176
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.948			2.008			3.956

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:	645 - 20000 (units: sqm)
Survey date date range:	01/01/10 - 06/07/17
Number of weekdays (Monday-Friday):	11
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	2
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	11375	0.000	1	11375	0.000	1	11375	0.000
07:00 - 08:00	11	5686	0.005	11	5686	0.006	11	5686	0.011
08:00 - 09:00	11	5686	0.019	11	5686	0.013	11	5686	0.032
09:00 - 10:00	11	5686	0.021	11	5686	0.016	11	5686	0.037
10:00 - 11:00	11	5686	0.029	11	5686	0.030	11	5686	0.059
11:00 - 12:00	11	5686	0.014	11	5686	0.024	11	5686	0.038
12:00 - 13:00	11	5686	0.010	11	5686	0.013	11	5686	0.023
13:00 - 14:00	11	5686	0.016	11	5686	0.013	11	5686	0.029
14:00 - 15:00	11	5686	0.010	11	5686	0.005	11	5686	0.015
15:00 - 16:00	11	5686	0.008	11	5686	0.006	11	5686	0.014
16:00 - 17:00	11	5686	0.006	11	5686	0.013	11	5686	0.019
17:00 - 18:00	11	5686	0.003	11	5686	0.002	11	5686	0.005
18:00 - 19:00	11	5686	0.002	11	5686	0.000	11	5686	0.002
19:00 - 20:00	1	11375	0.000	1	11375	0.000	1	11375	0.000
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.143			0.141			0.284

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:	645 - 20000 (units: sqm)
Survey date date range:	01/01/10 - 06/07/17
Number of weekdays (Monday-Friday):	11
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	2
Surveys manually removed from selection:	0

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

Calculation Reference: AUDIT-724101-180329-0304

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : F - WAREHOUSING (COMMERCIAL)
VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	KC	KENT	1 days
04	EAST ANGLIA		
	SF	SUFFOLK	1 days
05	EAST MIDLANDS		
	LN	LINCOLNSHIRE	1 days
06	WEST MIDLANDS		
	WM	WEST MIDLANDS	1 days
09	NORTH		
	CB	CUMBRIA	1 days
	TW	TYNE & WEAR	1 days

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

Secondary Filtering selection:

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

Parameter: Gross floor area
Actual Range: 2950 to 32300 (units: sqm)
Range Selected by User: 634 to 80066 (units: sqm)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 22/09/17

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

Selected survey days:

Monday	2 days
Tuesday	1 days
Friday	3 days

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

Selected survey types:

Manual count	6 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town	6

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:

Industrial Zone	4
Commercial Zone	1
No Sub Category	1

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

Secondary Filtering selection:

Use Class:

B8	6 days

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

Population within 1 mile:

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

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

Population within 5 miles:

5,001 to 25,000	2 days
25,001 to 50,000	1 days
125,001 to 250,000	1 days
250,001 to 500,000	1 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	3 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	6 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	6 days

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

LIST OF SITES relevant to selection parameters

1 CB-02-F-01 DOMINO'S PIZZA CUMBRIA
COWPER ROAD
GILWILLY IND. ESTATE
PENRITH
Edge of Town
Industrial Zone
Total Gross floor area: 2950 sqm
Survey date: TUESDAY 10/06/14 Survey Type: MANUAL

2 KC-02-F-02 COMMERCIAL WAREHOUSING KENT
MILLS ROAD
QUARRY WOOD
AYLESFORD
Edge of Town
Industrial Zone
Total Gross floor area: 11200 sqm
Survey date: FRIDAY 22/09/17 Survey Type: MANUAL

3 LN-02-F-01 BOOK SERVICE LINCOLNSHIRE
TRENT ROAD

GRANTHAM
Edge of Town
No Sub Category
Total Gross floor area: 32300 sqm
Survey date: MONDAY 29/11/10 Survey Type: MANUAL

4 SF-02-F-03 ROAD HAULAGE SUFFOLK
CENTRAL AVENUE
WARREN HEATH
IPSWICH
Edge of Town
Industrial Zone
Total Gross floor area: 4700 sqm
Survey date: FRIDAY 18/09/15 Survey Type: MANUAL

5 TW-02-F-01 ASDA DISTRIBUTION CENTRE TYNE & WEAR
MANDARIN WAY
PATTISON IND. ESTATE
WASHINGTON
Edge of Town
Industrial Zone
Total Gross floor area: 31000 sqm
Survey date: FRIDAY 13/11/15 Survey Type: MANUAL

6 WM-02-F-02 LOGISTICS FIRM WEST MIDLANDS
SOVEREIGN ROAD
KINGS NORTON
BIRMINGHAM
Edge of Town
Commercial Zone
Total Gross floor area: 3625 sqm
Survey date: MONDAY 09/11/15 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 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	2950	0.102	1	2950	0.000	1	2950	0.102
06:00 - 07:00	1	2950	0.136	1	2950	0.034	1	2950	0.170
07:00 - 08:00	6	14296	0.108	6	14296	0.036	6	14296	0.144
08:00 - 09:00	6	14296	0.126	6	14296	0.058	6	14296	0.184
09:00 - 10:00	6	14296	0.084	6	14296	0.055	6	14296	0.139
10:00 - 11:00	6	14296	0.069	6	14296	0.070	6	14296	0.139
11:00 - 12:00	6	14296	0.061	6	14296	0.068	6	14296	0.129
12:00 - 13:00	6	14296	0.061	6	14296	0.055	6	14296	0.116
13:00 - 14:00	6	14296	0.112	6	14296	0.075	6	14296	0.187
14:00 - 15:00	6	14296	0.056	6	14296	0.085	6	14296	0.141
15:00 - 16:00	6	14296	0.049	6	14296	0.083	6	14296	0.132
16:00 - 17:00	6	14296	0.034	6	14296	0.101	6	14296	0.135
17:00 - 18:00	6	14296	0.022	6	14296	0.080	6	14296	0.102
18:00 - 19:00	6	14296	0.023	6	14296	0.055	6	14296	0.078
19:00 - 20:00	1	2950	0.203	1	2950	0.203	1	2950	0.406
20:00 - 21:00	1	2950	0.102	1	2950	0.136	1	2950	0.238
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.348			1.194			2.542

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:	2950 - 32300 (units: sqm)
Survey date date range:	01/01/10 - 22/09/17
Number of weekdays (Monday-Friday):	6
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	2950	0.000	1	2950	0.000	1	2950	0.000
06:00 - 07:00	1	2950	0.068	1	2950	0.000	1	2950	0.068
07:00 - 08:00	6	14296	0.016	6	14296	0.020	6	14296	0.036
08:00 - 09:00	6	14296	0.030	6	14296	0.022	6	14296	0.052
09:00 - 10:00	6	14296	0.026	6	14296	0.021	6	14296	0.047
10:00 - 11:00	6	14296	0.034	6	14296	0.035	6	14296	0.069
11:00 - 12:00	6	14296	0.024	6	14296	0.026	6	14296	0.050
12:00 - 13:00	6	14296	0.029	6	14296	0.020	6	14296	0.049
13:00 - 14:00	6	14296	0.037	6	14296	0.029	6	14296	0.066
14:00 - 15:00	6	14296	0.024	6	14296	0.015	6	14296	0.039
15:00 - 16:00	6	14296	0.023	6	14296	0.020	6	14296	0.043
16:00 - 17:00	6	14296	0.013	6	14296	0.016	6	14296	0.029
17:00 - 18:00	6	14296	0.010	6	14296	0.022	6	14296	0.032
18:00 - 19:00	6	14296	0.007	6	14296	0.009	6	14296	0.016
19:00 - 20:00	1	2950	0.000	1	2950	0.203	1	2950	0.203
20:00 - 21:00	1	2950	0.000	1	2950	0.102	1	2950	0.102
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.341			0.560			0.901

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:	2950 - 32300 (units: sqm)
Survey date date range:	01/01/10 - 22/09/17
Number of weekdays (Monday-Friday):	6
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

Appendix K

TRICS Output – Multi-Modal

Calculation Reference: AUDIT-724101-180502-0509

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : C - INDUSTRIAL UNIT
MULTI-MODAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	WS	WEST SUSSEX	1 days
06	WEST MIDLANDS		
	HE	HEREFORDSHIRE	1 days
	WM	WEST MIDLANDS	1 days

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

Secondary Filtering selection:

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

Parameter: Gross floor area
Actual Range: 1880 to 11375 (units: sqm)
Range Selected by User: 1100 to 43325 (units: sqm)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 06/07/17

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

Selected survey days:

Tuesday	2 days
Thursday	1 days

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

Selected survey types:

Manual count	3 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town	2
Free Standing (PPS6 Out of Town)	1

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

Selected Location Sub Categories:

Industrial Zone	1
Commercial Zone	1
Out of Town	1

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

Secondary Filtering selection:

Use Class:

B1	2 days
B2	1 days

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

Secondary Filtering selection (Cont.):

Population within 1 mile:

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

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

Population within 5 miles:

50,001 to 75,000	2 days
125,001 to 250,000	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	1 days
1.6 to 2.0	1 days

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

Travel Plan:

Yes	1 days
No	2 days

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

PTAL Rating:

No PTAL Present	3 days

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

LIST OF SITES relevant to selection parameters

1	HE-02-C-02	THERMAL PROCESSING	HEREFORDSHIRE
	COLLEGE ROAD		
	BURCOTT		
	HEREFORD		
	Edge of Town		
	Commercial Zone		
	Total Gross floor area:	1880 sqm	
	Survey date: TUESDAY	*22/10/13*	*Survey Type: MANUAL*
2	WM-02-C-03	INDUSTRIAL GLASS	WEST MIDLANDS
	DOWNING STREET		
	SMETHWICK		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	5070 sqm	
	Survey date: TUESDAY	*06/11/12*	*Survey Type: MANUAL*
3	WS-02-C-02	AVIATION COMPANY	WEST SUSSEX
	MAYDWELL AVENUE		
	SLINFOLD		
	NEAR HORSHAM		
	Free Standing (PPS6 Out of Town)		
	Out of Town		
	Total Gross floor area:	11375 sqm	
	Survey date: THURSDAY	*23/01/14*	*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 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
MULTI-MODAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	11375	0.149	1	11375	0.044	1	11375	0.193
07:00 - 08:00	3	6108	0.284	3	6108	0.022	3	6108	0.306
08:00 - 09:00	3	6108	1.042	3	6108	0.071	3	6108	1.113
09:00 - 10:00	3	6108	0.246	3	6108	0.055	3	6108	0.301
10:00 - 11:00	3	6108	0.126	3	6108	0.109	3	6108	0.235
11:00 - 12:00	3	6108	0.071	3	6108	0.082	3	6108	0.153
12:00 - 13:00	3	6108	0.109	3	6108	0.186	3	6108	0.295
13:00 - 14:00	3	6108	0.093	3	6108	0.087	3	6108	0.180
14:00 - 15:00	3	6108	0.087	3	6108	0.082	3	6108	0.169
15:00 - 16:00	3	6108	0.055	3	6108	0.126	3	6108	0.181
16:00 - 17:00	3	6108	0.076	3	6108	0.327	3	6108	0.403
17:00 - 18:00	3	6108	0.044	3	6108	0.857	3	6108	0.901
18:00 - 19:00	3	6108	0.093	3	6108	0.338	3	6108	0.431
19:00 - 20:00	1	11375	0.044	1	11375	0.132	1	11375	0.176
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.519			2.518			5.037

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:	1880 - 11375 (units: sqm)
Survey date date range:	01/01/10 - 06/07/17
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	2
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
MULTI-MODAL CYCLISTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	11375	0.000	1	11375	0.000	1	11375	0.000
07:00 - 08:00	3	6108	0.005	3	6108	0.000	3	6108	0.005
08:00 - 09:00	3	6108	0.005	3	6108	0.000	3	6108	0.005
09:00 - 10:00	3	6108	0.000	3	6108	0.000	3	6108	0.000
10:00 - 11:00	3	6108	0.000	3	6108	0.000	3	6108	0.000
11:00 - 12:00	3	6108	0.000	3	6108	0.000	3	6108	0.000
12:00 - 13:00	3	6108	0.000	3	6108	0.000	3	6108	0.000
13:00 - 14:00	3	6108	0.000	3	6108	0.000	3	6108	0.000
14:00 - 15:00	3	6108	0.000	3	6108	0.000	3	6108	0.000
15:00 - 16:00	3	6108	0.000	3	6108	0.000	3	6108	0.000
16:00 - 17:00	3	6108	0.005	3	6108	0.011	3	6108	0.016
17:00 - 18:00	3	6108	0.000	3	6108	0.005	3	6108	0.005
18:00 - 19:00	3	6108	0.000	3	6108	0.011	3	6108	0.011
19:00 - 20:00	1	11375	0.000	1	11375	0.000	1	11375	0.000
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.015			0.027			0.042

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:	1880 - 11375 (units: sqm)
Survey date date range:	01/01/10 - 06/07/17
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	2
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
MULTI-MODAL VEHICLE OCCUPANTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	11375	0.193	1	11375	0.053	1	11375	0.246
07:00 - 08:00	3	6108	0.333	3	6108	0.022	3	6108	0.355
08:00 - 09:00	3	6108	1.168	3	6108	0.076	3	6108	1.244
09:00 - 10:00	3	6108	0.262	3	6108	0.055	3	6108	0.317
10:00 - 11:00	3	6108	0.142	3	6108	0.120	3	6108	0.262
11:00 - 12:00	3	6108	0.082	3	6108	0.087	3	6108	0.169
12:00 - 13:00	3	6108	0.120	3	6108	0.191	3	6108	0.311
13:00 - 14:00	3	6108	0.093	3	6108	0.098	3	6108	0.191
14:00 - 15:00	3	6108	0.087	3	6108	0.082	3	6108	0.169
15:00 - 16:00	3	6108	0.060	3	6108	0.131	3	6108	0.191
16:00 - 17:00	3	6108	0.082	3	6108	0.371	3	6108	0.453
17:00 - 18:00	3	6108	0.049	3	6108	0.988	3	6108	1.037
18:00 - 19:00	3	6108	0.109	3	6108	0.355	3	6108	0.464
19:00 - 20:00	1	11375	0.044	1	11375	0.132	1	11375	0.176
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.824			2.761			5.585

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.

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Parameter summary

Trip rate parameter range selected:	1880 - 11375 (units: sqm)
Survey date date range:	01/01/10 - 06/07/17
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	2
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
MULTI-MODAL PEDESTRIANS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	11375	0.000	1	11375	0.000	1	11375	0.000
07:00 - 08:00	3	6108	0.000	3	6108	0.005	3	6108	0.005
08:00 - 09:00	3	6108	0.005	3	6108	0.000	3	6108	0.005
09:00 - 10:00	3	6108	0.000	3	6108	0.000	3	6108	0.000
10:00 - 11:00	3	6108	0.000	3	6108	0.005	3	6108	0.005
11:00 - 12:00	3	6108	0.000	3	6108	0.000	3	6108	0.000
12:00 - 13:00	3	6108	0.000	3	6108	0.005	3	6108	0.005
13:00 - 14:00	3	6108	0.000	3	6108	0.000	3	6108	0.000
14:00 - 15:00	3	6108	0.000	3	6108	0.000	3	6108	0.000
15:00 - 16:00	3	6108	0.000	3	6108	0.000	3	6108	0.000
16:00 - 17:00	3	6108	0.000	3	6108	0.000	3	6108	0.000
17:00 - 18:00	3	6108	0.000	3	6108	0.000	3	6108	0.000
18:00 - 19:00	3	6108	0.000	3	6108	0.000	3	6108	0.000
19:00 - 20:00	1	11375	0.000	1	11375	0.000	1	11375	0.000
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.005			0.015			0.020

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:	1880 - 11375 (units: sqm)
Survey date date range:	01/01/10 - 06/07/17
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	2
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	11375	0.000	1	11375	0.000	1	11375	0.000
07:00 - 08:00	3	6108	0.000	3	6108	0.000	3	6108	0.000
08:00 - 09:00	3	6108	0.005	3	6108	0.000	3	6108	0.005
09:00 - 10:00	3	6108	0.000	3	6108	0.000	3	6108	0.000
10:00 - 11:00	3	6108	0.000	3	6108	0.000	3	6108	0.000
11:00 - 12:00	3	6108	0.000	3	6108	0.000	3	6108	0.000
12:00 - 13:00	3	6108	0.000	3	6108	0.000	3	6108	0.000
13:00 - 14:00	3	6108	0.000	3	6108	0.000	3	6108	0.000
14:00 - 15:00	3	6108	0.000	3	6108	0.000	3	6108	0.000
15:00 - 16:00	3	6108	0.000	3	6108	0.000	3	6108	0.000
16:00 - 17:00	3	6108	0.000	3	6108	0.005	3	6108	0.005
17:00 - 18:00	3	6108	0.000	3	6108	0.005	3	6108	0.005
18:00 - 19:00	3	6108	0.000	3	6108	0.000	3	6108	0.000
19:00 - 20:00	1	11375	0.000	1	11375	0.000	1	11375	0.000
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.005			0.010			0.015

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.

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Parameter summary

Trip rate parameter range selected:	1880 - 11375 (units: sqm)
Survey date date range:	01/01/10 - 06/07/17
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	2
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	11375	0.193	1	11375	0.053	1	11375	0.246
07:00 - 08:00	3	6108	0.338	3	6108	0.027	3	6108	0.365
08:00 - 09:00	3	6108	1.184	3	6108	0.076	3	6108	1.260
09:00 - 10:00	3	6108	0.262	3	6108	0.055	3	6108	0.317
10:00 - 11:00	3	6108	0.142	3	6108	0.126	3	6108	0.268
11:00 - 12:00	3	6108	0.082	3	6108	0.087	3	6108	0.169
12:00 - 13:00	3	6108	0.120	3	6108	0.196	3	6108	0.316
13:00 - 14:00	3	6108	0.093	3	6108	0.098	3	6108	0.191
14:00 - 15:00	3	6108	0.087	3	6108	0.082	3	6108	0.169
15:00 - 16:00	3	6108	0.060	3	6108	0.131	3	6108	0.191
16:00 - 17:00	3	6108	0.087	3	6108	0.387	3	6108	0.474
17:00 - 18:00	3	6108	0.049	3	6108	0.999	3	6108	1.048
18:00 - 19:00	3	6108	0.109	3	6108	0.366	3	6108	0.475
19:00 - 20:00	1	11375	0.044	1	11375	0.132	1	11375	0.176
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.850			2.815			5.665

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.

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Parameter summary

Trip rate parameter range selected:	1880 - 11375 (units: sqm)
Survey date date range:	01/01/10 - 06/07/17
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	2
Surveys manually removed from selection:	0

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

Calculation Reference: AUDIT-724101-180502-0532

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : F - WAREHOUSING (COMMERCIAL)
MULTI-MODAL VEHICLES

Selected regions and areas:

05	EAST MIDLANDS		
	LN	LINCOLNSHIRE	1 days
09	NORTH		
	CB	CUMBRIA	1 days

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

Secondary Filtering selection:

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

Parameter:	Gross floor area
Actual Range:	2950 to 32300 (units: sqm)
Range Selected by User:	2950 to 80066 (units: sqm)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 10/06/14

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

Selected survey days:

Monday	1 days
Tuesday	1 days

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

Selected survey types:

Manual count	2 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town	2

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

Selected Location Sub Categories:

Industrial Zone	1
No Sub Category	1

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

Secondary Filtering selection:

Use Class:

B8	2 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®.

Secondary Filtering selection (Cont.):

Population within 1 mile:

5,001 to 10,000	1 days
10,001 to 15,000	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
25,001 to 50,000	1 days

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

Car ownership within 5 miles:

1.1 to 1.5	2 days

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

Travel Plan:

No	2 days

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

PTAL Rating:

No PTAL Present	2 days

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

LIST OF SITES relevant to selection parameters

1 CB-02-F-01 DOMINO'S PIZZA CUMBRIA
COWPER ROAD
GILWILLY IND. ESTATE
PENRITH
Edge of Town
Industrial Zone
Total Gross floor area: 2950 sqm
Survey date: TUESDAY 10/06/14 Survey Type: MANUAL

2 LN-02-F-01 BOOK SERVICE LINCOLNSHIRE
TRENT ROAD

GRANTHAM
Edge of Town
No Sub Category
Total Gross floor area: 32300 sqm
Survey date: MONDAY 29/11/10 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 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
MULTI-MODAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	2950	0.102	1	2950	0.000	1	2950	0.102
06:00 - 07:00	1	2950	0.136	1	2950	0.034	1	2950	0.170
07:00 - 08:00	2	17625	0.045	2	17625	0.014	2	17625	0.059
08:00 - 09:00	2	17625	0.082	2	17625	0.023	2	17625	0.105
09:00 - 10:00	2	17625	0.054	2	17625	0.034	2	17625	0.088
10:00 - 11:00	2	17625	0.031	2	17625	0.037	2	17625	0.068
11:00 - 12:00	2	17625	0.020	2	17625	0.034	2	17625	0.054
12:00 - 13:00	2	17625	0.028	2	17625	0.028	2	17625	0.056
13:00 - 14:00	2	17625	0.094	2	17625	0.017	2	17625	0.111
14:00 - 15:00	2	17625	0.011	2	17625	0.068	2	17625	0.079
15:00 - 16:00	2	17625	0.017	2	17625	0.034	2	17625	0.051
16:00 - 17:00	2	17625	0.011	2	17625	0.054	2	17625	0.065
17:00 - 18:00	2	17625	0.009	2	17625	0.040	2	17625	0.049
18:00 - 19:00	2	17625	0.023	2	17625	0.045	2	17625	0.068
19:00 - 20:00	1	2950	0.203	1	2950	0.203	1	2950	0.406
20:00 - 21:00	1	2950	0.102	1	2950	0.136	1	2950	0.238
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.968			0.801			1.769

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.

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Parameter summary

Trip rate parameter range selected:	2950 - 32300 (units: sqm)
Survey date date range:	01/01/10 - 10/06/14
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
MULTI-MODAL CYCLISTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	2950	0.000	1	2950	0.000	1	2950	0.000
06:00 - 07:00	1	2950	0.034	1	2950	0.000	1	2950	0.034
07:00 - 08:00	2	17625	0.000	2	17625	0.000	2	17625	0.000
08:00 - 09:00	2	17625	0.003	2	17625	0.000	2	17625	0.003
09:00 - 10:00	2	17625	0.006	2	17625	0.000	2	17625	0.006
10:00 - 11:00	2	17625	0.000	2	17625	0.000	2	17625	0.000
11:00 - 12:00	2	17625	0.000	2	17625	0.003	2	17625	0.003
12:00 - 13:00	2	17625	0.000	2	17625	0.000	2	17625	0.000
13:00 - 14:00	2	17625	0.006	2	17625	0.006	2	17625	0.012
14:00 - 15:00	2	17625	0.000	2	17625	0.009	2	17625	0.009
15:00 - 16:00	2	17625	0.000	2	17625	0.000	2	17625	0.000
16:00 - 17:00	2	17625	0.000	2	17625	0.000	2	17625	0.000
17:00 - 18:00	2	17625	0.000	2	17625	0.003	2	17625	0.003
18:00 - 19:00	2	17625	0.000	2	17625	0.006	2	17625	0.006
19:00 - 20:00	1	2950	0.000	1	2950	0.000	1	2950	0.000
20:00 - 21:00	1	2950	0.000	1	2950	0.000	1	2950	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.049			0.027			0.076

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.

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Parameter summary

Trip rate parameter range selected:	2950 - 32300 (units: sqm)
Survey date date range:	01/01/10 - 10/06/14
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
MULTI-MODAL VEHICLE OCCUPANTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	2950	0.136	1	2950	0.000	1	2950	0.136
06:00 - 07:00	1	2950	0.203	1	2950	0.034	1	2950	0.237
07:00 - 08:00	2	17625	0.048	2	17625	0.014	2	17625	0.062
08:00 - 09:00	2	17625	0.085	2	17625	0.023	2	17625	0.108
09:00 - 10:00	2	17625	0.060	2	17625	0.034	2	17625	0.094
10:00 - 11:00	2	17625	0.031	2	17625	0.040	2	17625	0.071
11:00 - 12:00	2	17625	0.020	2	17625	0.034	2	17625	0.054
12:00 - 13:00	2	17625	0.031	2	17625	0.028	2	17625	0.059
13:00 - 14:00	2	17625	0.091	2	17625	0.023	2	17625	0.114
14:00 - 15:00	2	17625	0.011	2	17625	0.077	2	17625	0.088
15:00 - 16:00	2	17625	0.017	2	17625	0.040	2	17625	0.057
16:00 - 17:00	2	17625	0.011	2	17625	0.057	2	17625	0.068
17:00 - 18:00	2	17625	0.011	2	17625	0.043	2	17625	0.054
18:00 - 19:00	2	17625	0.026	2	17625	0.057	2	17625	0.083
19:00 - 20:00	1	2950	0.237	1	2950	0.203	1	2950	0.440
20:00 - 21:00	1	2950	0.102	1	2950	0.136	1	2950	0.238
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.120			0.843			1.963

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:	2950 - 32300 (units: sqm)
Survey date date range:	01/01/10 - 10/06/14
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
MULTI-MODAL PEDESTRIANS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	2950	0.068	1	2950	0.000	1	2950	0.068
06:00 - 07:00	1	2950	0.068	1	2950	0.000	1	2950	0.068
07:00 - 08:00	2	17625	0.014	2	17625	0.000	2	17625	0.014
08:00 - 09:00	2	17625	0.006	2	17625	0.000	2	17625	0.006
09:00 - 10:00	2	17625	0.034	2	17625	0.000	2	17625	0.034
10:00 - 11:00	2	17625	0.000	2	17625	0.000	2	17625	0.000
11:00 - 12:00	2	17625	0.000	2	17625	0.000	2	17625	0.000
12:00 - 13:00	2	17625	0.003	2	17625	0.006	2	17625	0.009
13:00 - 14:00	2	17625	0.026	2	17625	0.009	2	17625	0.035
14:00 - 15:00	2	17625	0.003	2	17625	0.026	2	17625	0.029
15:00 - 16:00	2	17625	0.003	2	17625	0.009	2	17625	0.012
16:00 - 17:00	2	17625	0.006	2	17625	0.037	2	17625	0.043
17:00 - 18:00	2	17625	0.000	2	17625	0.003	2	17625	0.003
18:00 - 19:00	2	17625	0.003	2	17625	0.014	2	17625	0.017
19:00 - 20:00	1	2950	0.000	1	2950	0.000	1	2950	0.000
20:00 - 21:00	1	2950	0.000	1	2950	0.000	1	2950	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.234			0.104			0.338

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:	2950 - 32300 (units: sqm)
Survey date date range:	01/01/10 - 10/06/14
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	2950	0.000	1	2950	0.000	1	2950	0.000
06:00 - 07:00	1	2950	0.000	1	2950	0.000	1	2950	0.000
07:00 - 08:00	2	17625	0.009	2	17625	0.000	2	17625	0.009
08:00 - 09:00	2	17625	0.003	2	17625	0.000	2	17625	0.003
09:00 - 10:00	2	17625	0.006	2	17625	0.003	2	17625	0.009
10:00 - 11:00	2	17625	0.000	2	17625	0.000	2	17625	0.000
11:00 - 12:00	2	17625	0.000	2	17625	0.000	2	17625	0.000
12:00 - 13:00	2	17625	0.009	2	17625	0.000	2	17625	0.009
13:00 - 14:00	2	17625	0.003	2	17625	0.003	2	17625	0.006
14:00 - 15:00	2	17625	0.000	2	17625	0.006	2	17625	0.006
15:00 - 16:00	2	17625	0.000	2	17625	0.003	2	17625	0.003
16:00 - 17:00	2	17625	0.000	2	17625	0.014	2	17625	0.014
17:00 - 18:00	2	17625	0.000	2	17625	0.000	2	17625	0.000
18:00 - 19:00	2	17625	0.000	2	17625	0.009	2	17625	0.009
19:00 - 20:00	1	2950	0.000	1	2950	0.000	1	2950	0.000
20:00 - 21:00	1	2950	0.000	1	2950	0.000	1	2950	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.030			0.038			0.068

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:	2950 - 32300 (units: sqm)
Survey date date range:	01/01/10 - 10/06/14
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	2950	0.203	1	2950	0.000	1	2950	0.203
06:00 - 07:00	1	2950	0.305	1	2950	0.034	1	2950	0.339
07:00 - 08:00	2	17625	0.071	2	17625	0.014	2	17625	0.085
08:00 - 09:00	2	17625	0.096	2	17625	0.023	2	17625	0.119
09:00 - 10:00	2	17625	0.105	2	17625	0.037	2	17625	0.142
10:00 - 11:00	2	17625	0.031	2	17625	0.040	2	17625	0.071
11:00 - 12:00	2	17625	0.020	2	17625	0.037	2	17625	0.057
12:00 - 13:00	2	17625	0.043	2	17625	0.034	2	17625	0.077
13:00 - 14:00	2	17625	0.125	2	17625	0.040	2	17625	0.165
14:00 - 15:00	2	17625	0.014	2	17625	0.116	2	17625	0.130
15:00 - 16:00	2	17625	0.020	2	17625	0.051	2	17625	0.071
16:00 - 17:00	2	17625	0.017	2	17625	0.108	2	17625	0.125
17:00 - 18:00	2	17625	0.011	2	17625	0.048	2	17625	0.059
18:00 - 19:00	2	17625	0.028	2	17625	0.085	2	17625	0.113
19:00 - 20:00	1	2950	0.237	1	2950	0.203	1	2950	0.440
20:00 - 21:00	1	2950	0.102	1	2950	0.136	1	2950	0.238
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.428			1.006			2.434

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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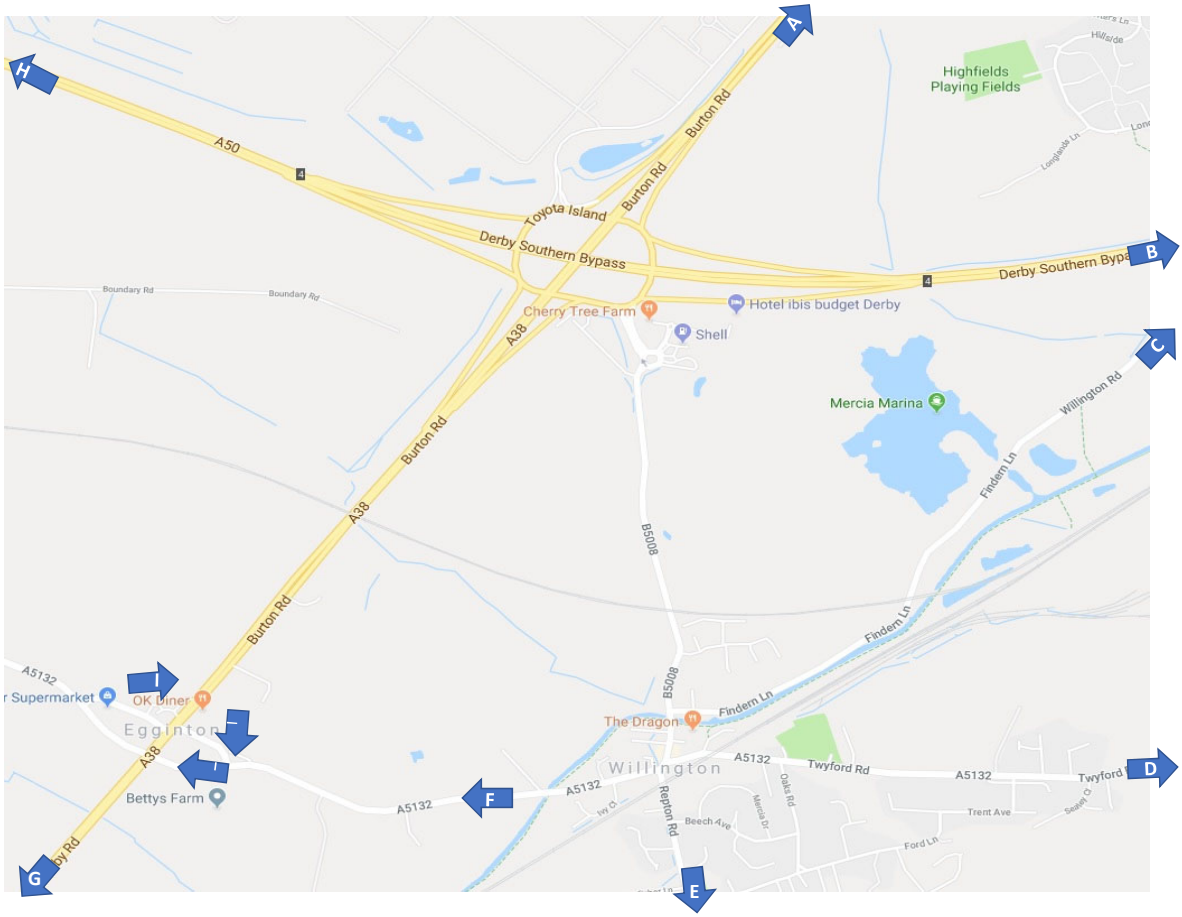
Parameter summary

Trip rate parameter range selected:	2950 - 32300 (units: sqm)
Survey date date range:	01/01/10 - 10/06/14
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

Appendix L

Trip Distribution Model


A
B
C
D
E
F
G
H
I
A50
Toyota Island
Burton Rd
Derby Southern Bypass
Derby Southern Bypa
Highfields
Playing Fields
Hotel ibis budget Derby
Cherry Tree Farm
Shell
A38
Mercia Marina
Willington Rd
Findern Ln
B5008
A5132
OK Diner
Eggington
Bettys Farm
The Dragon
Willington
Twyford Rd
Twyford
Repton Rd
Trent Ave
Ford Ln

WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

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population	All usual residents aged 16 and over in employment the week before the census
units	Persons
date	2011
method of travel to work	Driving a car or van

usual residence : 2011 super output area - middle layer	Place of Work : South Derbyshire 003	Route Code
E02002796 : Derby 001	8	A
E02002797 : Derby 002	5	A
E02002799 : Derby 004	4	A
E02002800 : Derby 005	4	A
E02002801 : Derby 006	7	A
E02002802 : Derby 007	6	A
E02002803 : Derby 008	5	A
E02002804 : Derby 009	7	A
E02002806 : Derby 011	3	A
E02002808 : Derby 013	7	A
E02002810 : Derby 015	6	A
E02002811 : Derby 016	4	A
E02002812 : Derby 017	10	A
E02002813 : Derby 018	3	A
E02002814 : Derby 019	6	A
E02002815 : Derby 020	1	A
E02002816 : Derby 021	21	A
E02002817 : Derby 022	6	A
E02002818 : Derby 023	7	A
E02004029 : Amber Valley 001	2	A
E02004030 : Amber Valley 002	1	A
E02004032 : Amber Valley 004	2	A
E02004033 : Amber Valley 005	2	A
E02004034 : Amber Valley 006	3	A
E02004035 : Amber Valley 007	4	A
E02004036 : Amber Valley 008	3	A
E02004038 : Amber Valley 010	1	A
E02004039 : Amber Valley 011	2	A
E02004041 : Amber Valley 013	2	A
E02004043 : Amber Valley 015	2	A
E02004044 : Amber Valley 016	2	A
E02004045 : Bolsover 001	1	A
E02004052 : Bolsover 008	2	A
E02004053 : Bolsover 009	1	A
E02004054 : Bolsover 010	1	A
E02004059 : Chesterfield 005	1	A
E02004061 : Chesterfield 007	1	A
E02004072 : Derbyshire Dales 005	1	A

E02004074 : Derbyshire Dales 007	1	A
E02004081 : Erewash 004	2	A
E02004113 : North East Derbyshire 009	1	A
E02004115 : North East Derbyshire 011	2	A
E02005827 : Ashfield 009	1	A
E02005830 : Ashfield 012	1	A
E02005884 : Mansfield 005	2	A
E02006844 : Sheffield 074	1	A
E02000243 : Ealing 006	1	B
E02000535 : Hounslow 010	1	B
E02002798 : Derby 003	3	B
E02002805 : Derby 010	2	B
E02002807 : Derby 012	9	B
E02002809 : Derby 014	3	B
E02002819 : Derby 024	5	B
E02002820 : Derby 025	5	B
E02002821 : Derby 026	12	B
E02002823 : Derby 028	11	B
E02002825 : Derby 030	8	B
E02002826 : Derby 031	16	B
E02002879 : Nottingham 012	1	B
E02002889 : Nottingham 022	1	B
E02002904 : Nottingham 037	1	B
E02004080 : Erewash 003	1	B
E02004083 : Erewash 006	2	B
E02004085 : Erewash 008	1	B
E02004086 : Erewash 009	4	B
E02004089 : Erewash 012	1	B
E02004090 : Erewash 013	1	B
E02004121 : South Derbyshire 004	9	B
E02004123 : South Derbyshire 006	1	B
E02005349 : Charnwood 005	2	B
E02005350 : Charnwood 006	1	B
E02005351 : Charnwood 007	2	B
E02005359 : Charnwood 015	1	B
E02005370 : Harborough 004	1	B
E02005397 : North West Leicestershire 001	6	B
E02005400 : North West Leicestershire 004	2	B
E02005403 : North West Leicestershire 007	2	B
E02005853 : Broxtowe 004	1	B
E02005856 : Broxtowe 007	1	B
E02005864 : Broxtowe 015	1	B
E02005868 : Gedling 004	1	B
E02005877 : Gedling 013	1	B
E02005920 : Rushcliffe 015	1	B
E02006486 : Nuneaton and Bedworth 012	1	B
E02006817 : Leicester 038	1	B
E02006820 : Blaby 013	1	B
E02005399 : North West Leicestershire 003	3	B
E02005401 : North West Leicestershire 005	2	B

E02004120 : South Derbyshire 003	67	C
E02002822 : Derby 027	15	C
E02002824 : Derby 029	14	C
E02004120 : South Derbyshire 003	7	D
E02004122 : South Derbyshire 005	25	E
E02004124 : South Derbyshire 007	6	E
E02004126 : South Derbyshire 009	9	E
E02006919 : South Derbyshire 012	4	E
E02006920 : South Derbyshire 013	8	E
E02005383 : Hinckley and Bosworth 007	2	E
E02005404 : North West Leicestershire 008	6	E
E02005408 : North West Leicestershire 012	1	E
E02004125 : South Derbyshire 008	6	G
E02004128 : South Derbyshire 011	3	G
E02006140 : East Staffordshire 010	8	G
E02006142 : East Staffordshire 012	7	G
E02006144 : East Staffordshire 014	3	G
E02006476 : Nuneaton and Bedworth 002	1	G
E02001835 : Birmingham 009	2	G
E02001924 : Birmingham 098	1	G
E02001937 : Birmingham 111	1	G
E02001941 : Birmingham 115	1	G
E02002081 : Solihull 001	1	G
E02006643 : Wiltshire 041	1	G
E02006721 : Redditch 001	1	G
E02006774 : Wyre Forest 008	1	G
W02000151 : Carmarthenshire 010	1	G
W02000349 : Newport 003	1	G
E02002025 : Dudley 026	1	G
E02002032 : Dudley 033	1	G
E02004128 : South Derbyshire 011	3	G
E02006134 : East Staffordshire 004	11	G
E02006135 : East Staffordshire 005	8	G
E02006137 : East Staffordshire 007	4	G
E02006138 : East Staffordshire 008	6	G
E02006139 : East Staffordshire 009	5	G
E02006141 : East Staffordshire 011	4	G
E02006143 : East Staffordshire 013	4	G
E02006145 : East Staffordshire 015	2	G
E02006148 : Lichfield 003	1	G
E02006149 : Lichfield 004	1	G
E02006151 : Lichfield 006	1	G
E02006179 : South Staffordshire 006	1	G
E02006222 : Tamworth 006	1	G
E02004119 : South Derbyshire 002	33	H
E02001246 : Tameside 018	1	H
E02001300 : Wigan 014	2	H
E02001428 : St. Helens 023	1	H
E02002956 : Stoke-on-Trent 006	1	H
E02002970 : Stoke-on-Trent 020	1	H

E02003803 : Cheshire West and Chester 034	1	H
E02004075 : Derbyshire Dales 008	1	H
E02004076 : Derbyshire Dales 009	2	H
E02004077 : Derbyshire Dales 010	2	H
E02004103 : High Peak 011	1	H
E02004118 : South Derbyshire 001	18	H
E02005324 : Wyre 006	1	H
E02006131 : East Staffordshire 001	1	H
E02006132 : East Staffordshire 002	1	H
E02006133 : East Staffordshire 003	2	H
E02006146 : Lichfield 001	1	H
E02006197 : Stafford 010	1	H
E02006213 : Staffordshire Moorlands 010	1	H
E02004119 : South Derbyshire 002	4	I
Total	628	

Appendix M

VISSIM Report

BSP Consulting

A38-A50 BURNASTON CROSS

DEVELOPMENT IMPACT ASSESSMENT

70046897-101
JULY 2018

PUBLIC

BSP Consulting

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1 INTRODUCTION

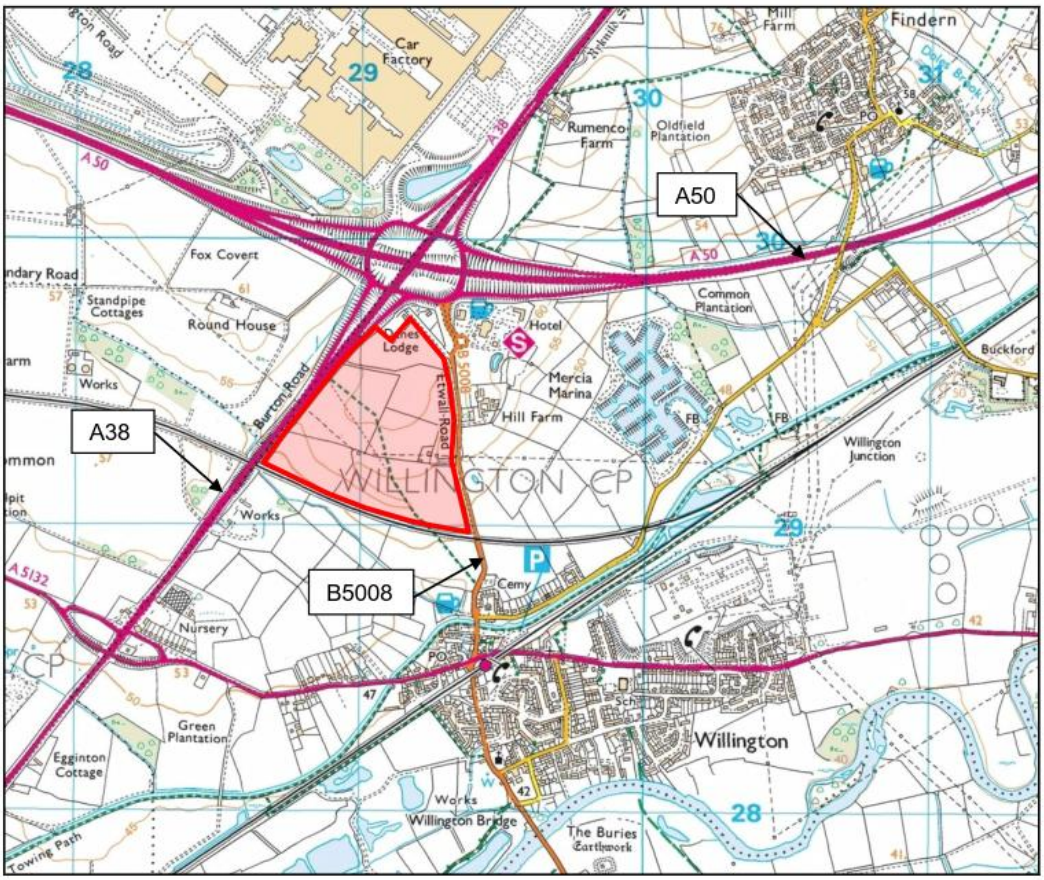
1.1 BACKGROUND

WSP has been commissioned by BSP Consulting to undertake a traffic impact assessment of the proposed mixed-use development at Burnaston Cross nr Willington in South Derbyshire which will form part of the Transport Assessment for the development.

BSP Consulting have been instructed to prepare a Transport Assessment (TA) and Framework Travel Plan (FTP) to accompany the planning application for development proposals. BSP held initial scoping discussions with Highways England (HE) and Derbyshire County Council (DCC), scoping note submitted 5th March 2018.

The development site is situated just south of Junction 4 of the A50 where it meets the A38, known as Toyota Island. The Toyota factory is on the opposite side of the A50. The site is approximately 500m north of the village of Willington. It is a greenfield site, bounded by an access road to Danes Lodge -which is to be retained, to the north, a railway line to the south, the B5008 to the east and the A38 to the west. The approximate site area and location is shown in Figure 1.

Figure 1 Site location



As part of the current planning application, the developer requires a Traffic Impact Assessment using the Highways England approved, A38-A50 Toyota Island, VISSIM model developed by AECOM in 2016.

1.2 PURPOSE OF THE REPORT

The purpose of this report is to assess the impact of the implementation of the new development by comparing the A50-A38 junction performance in both the Do Minimum scenario (Base traffic + Committed Developments traffic) and Do Something scenario (Base traffic + Committed Developments traffic + Assessed development traffic). In order to carry out the traffic impact analysis the following scenarios will be tested:

- 2020 with Committed Development (Do Minimum scenario)
- 2020 With Committed Development and Assessed Development (Do Something scenario)
- 2028 with Committed Development (Do Minimum scenario)
- 2028 With Committed Development and Assessed Development (Do Something scenario).

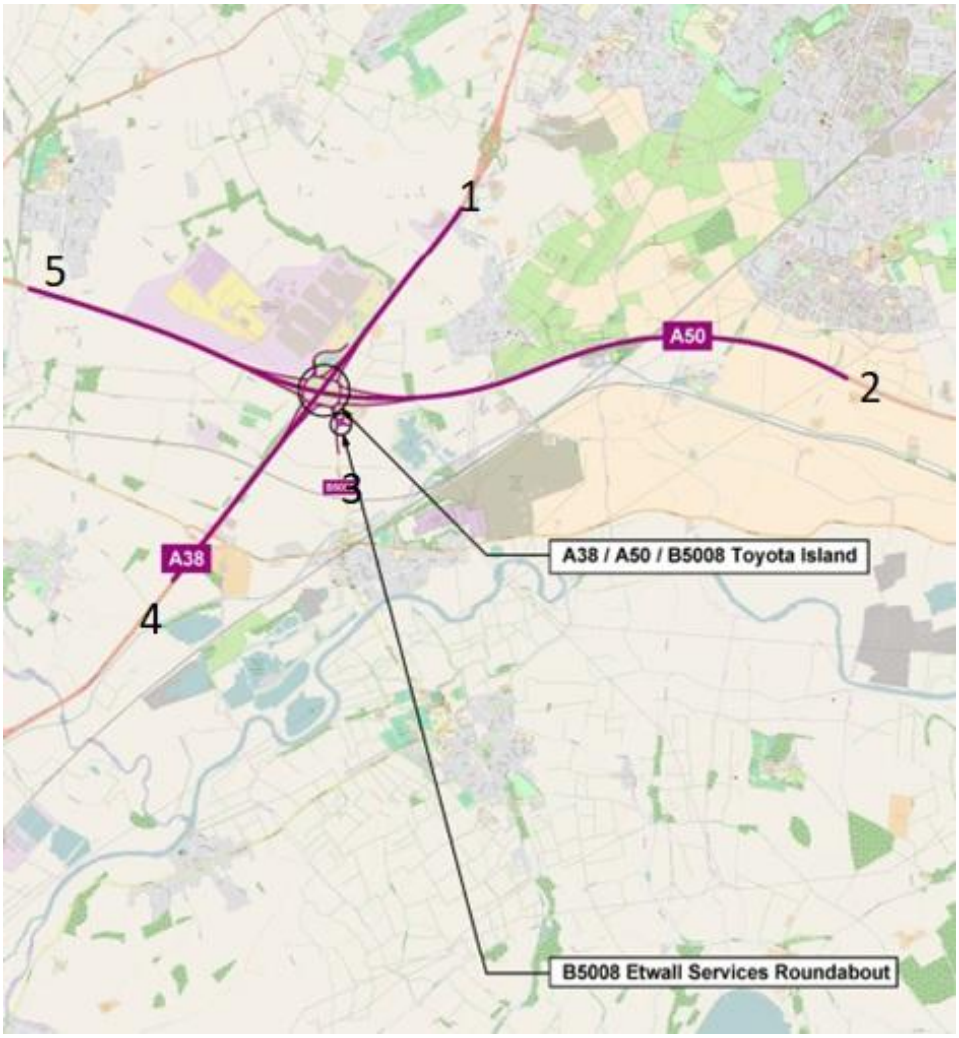
2 BASE YEAR

The VISSIM modelling work undertaken by WSP was based on the Highways England approved model built by AECOM in December 2016.

The model development was in line with the DMRB and WebTAG Unit M3.1 guidance and detailed in the Local Model Validation Report (LMVR) supplied with the model files. This process ensured that the base year (2016) model accurately represented the existing traffic conditions.

The model scope includes the junctions A38/A50/B5008 Toyota Island and B5008 Etwall Road Services Roundabout. The model extent is shown in Figure 2.

Figure 2 Model extent with zone numbers



The model was developed for two time periods in the base year (2016). Each of these simulation periods represent the 2016 observed traffic on the highway network:

- AM Peak Period 07:00-09:00
    - AM Peak Hour 07:30-8:30
- PM Peak Period 15:30-17:30
    - PM Peak Hour16:00-17:00

On receipt of the approved VISSIM model we were advised that no changes should be made to the model other than the addition of traffic demand matrices to support testing of the development scenarios. This practice has been followed other than to include additional Travel Time markers in the model to support data collection from model runs to match observed data collected from site visits. The base year matrices can be found in Appendix A.

3 MAIN SCENARIO FORECAST YEARS

3.1 TRAFFIC DEMAND

3.1.1 MATRIX DERIVATION

The forecast years were assessed using the base model with forecast traffic for 2020 and 2028.

BSP provided traffic flow matrices for Committed Development traffic and Assessed Development traffic.

Based on this information matrices for the DM and DS scenarios were derived using BSP's matrix derivation methodology for AM and PM peaks, splitting the traffic into Light Vehicles and Heavy Vehicles traffic to be consistent with the base model.

The 2020 and 2028 base matrices were derived using growth factors provided by BSP, which were based on TEMPRO and are shown in Table 1.

Table 1 TEMPRO Growth Factors

Period		TEMPRO Growth Factor
2016 - 2020	AM	1.0762
	PM	1.0792
2016 - 2028	AM	1.2116
	PM	1.2183

Once the base matrices were derived, the committed development matrices were added to them in order to derive the DM matrices. For the calculation of DS matrices, the Assessed Development matrices were added to the DM matrices which in summary would be the sum of base, committed development and assessed development traffics. Both the Committed Development and Assessed Development traffic flows can be found in Appendix B and Appendix C respectively.

In order to build the Warm up and Cool Down periods matrices for DM and DS, both AM peak and PM peak, a set of factors were calculated using traffic data from Webtris. The mentioned factors were multiplied by the peak hour matrices and are shown in Table 2.

Table 2 Warm up and Cool down factors

	AM		PM	
	Warm up	Cool down	Warm up	Cool down
Rate	0.81095	0.8512	0.9447	0.7917

All the DM and DS matrices for the Main Scenario for 2020 and 2028 are included in Appendix D.

3.1.2 SUMMARY OF DEVELOPMENT TRIPS

The development at Burnaston Cross nr Willington will generate 189 trips during AM Peak and 136 in PM Peak. The impact on the access point to the A38-A50 junction will be higher during PM peak with 118 vehicles using the B5008 entry. The distribution of the development flows is shown in Figure 3 for AM Peak and on Figure 4 for PM Peak.

Figure 3 Development Trips AM

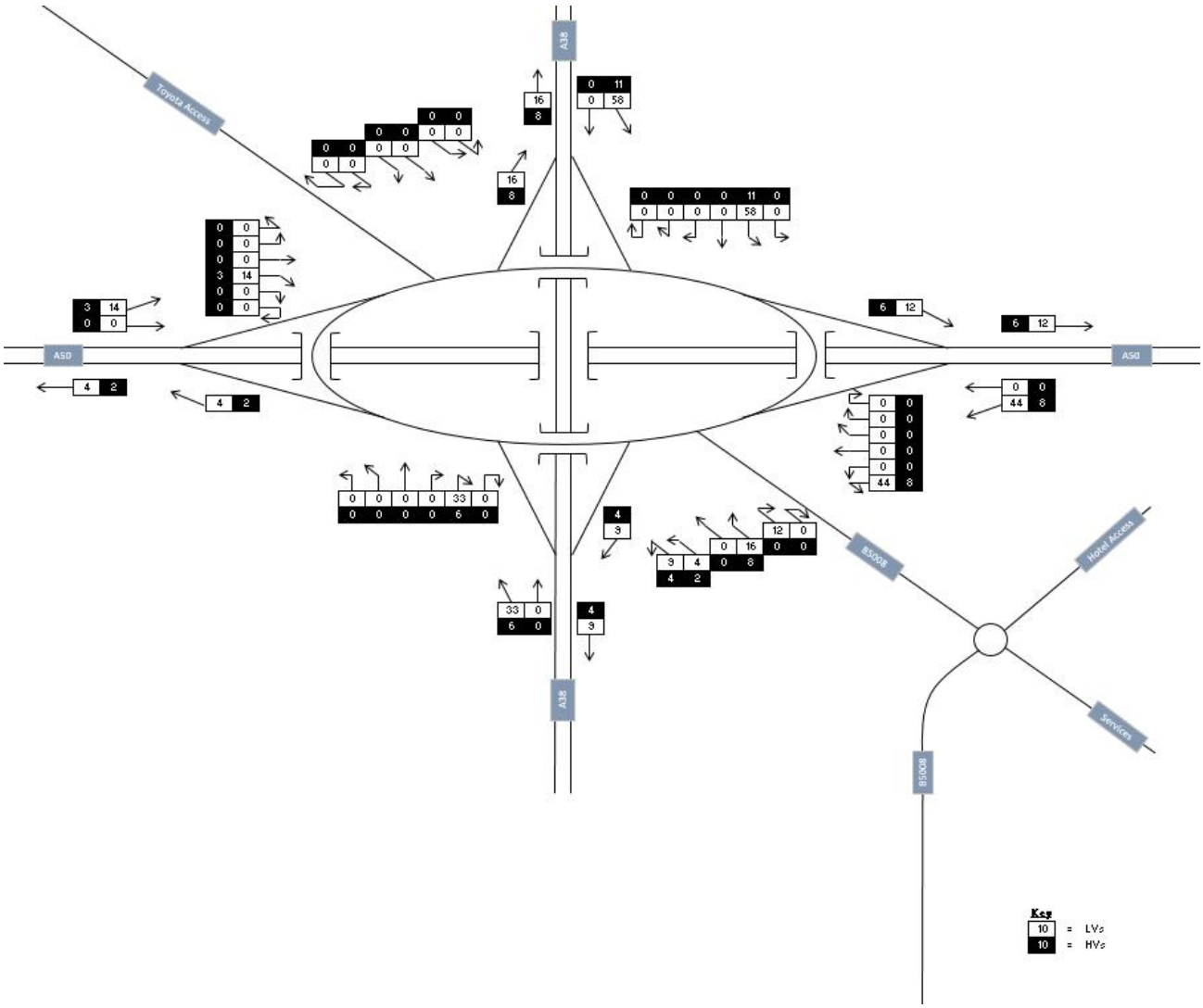
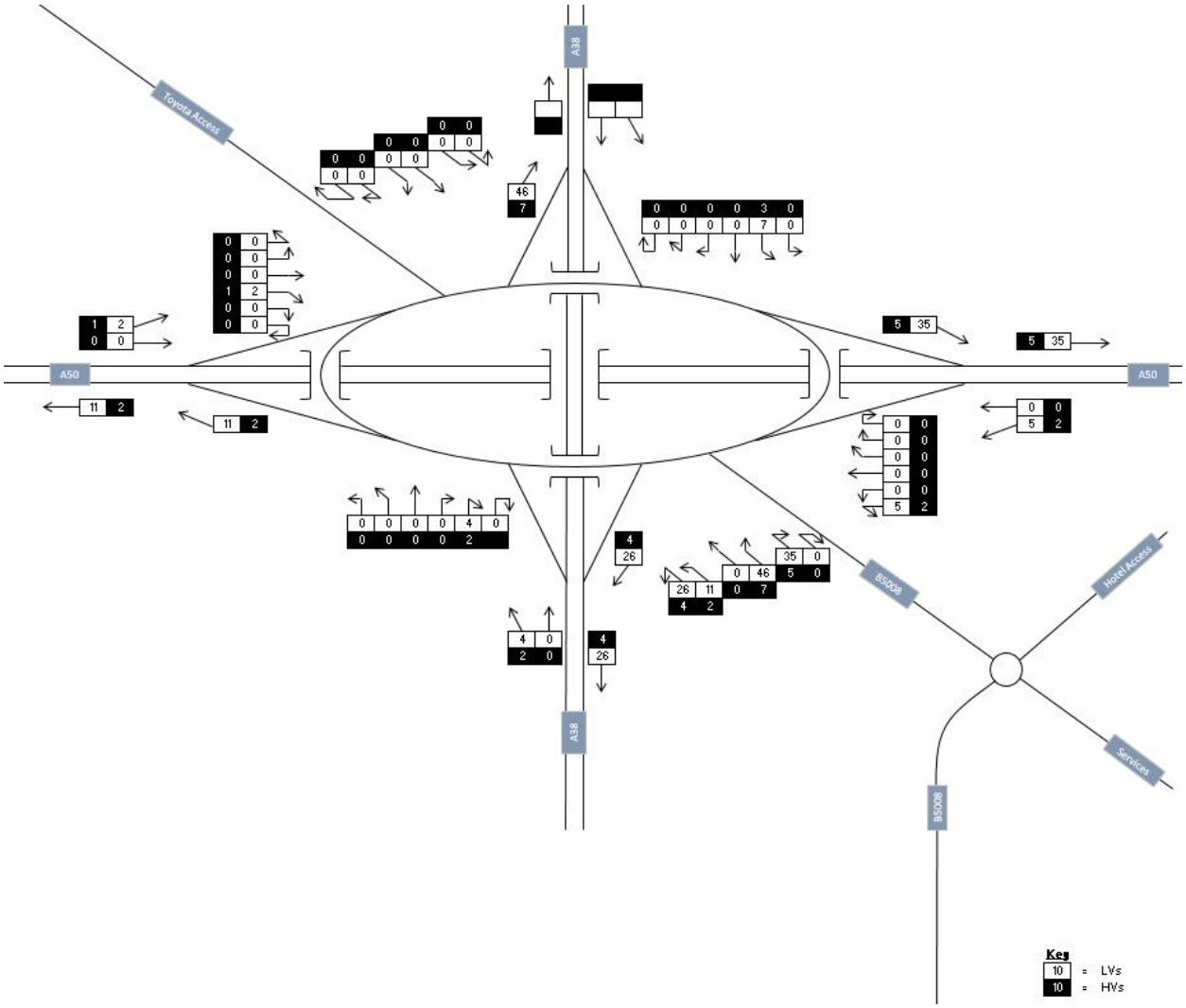


Figure 4 Development Trips PM



3.1.3 TRAFFIC CONTRIBUTION COMPARISON

In order to see what is the level of contribution of the Assessed Development to the total demand, a comparison between the Background Growth, Committed Developments and Assessed Development traffics has been carried out and is diplayed in Table 3 and Table 4 for 2020 and 2028 respectively. It is worth mentioning that in both years the traffic generated by the different developments have been considered the total traffic generated after completion, which is considered a robust approach.

Table 3 Comparison of traffic contribution in 2020

		Additions (veh)				Additions (%)			
	2016 Traffic	Background Growth to 2020	Committed development	Assessed Development	Total	Background Growth to 2020	Committed development	Assessed Development	Total
AM	10955	835	946	190	1970	7.6%	8.6%	1.7%	18.0%
PM	10383	822	1008	136	1966	7.9%	9.7%	1.3%	18.9%

Table 4 Comparison of traffic contribution in 2028

		Additions (veh)				Additions (%)			
	2016 Traffic	Background Growth to 2028	Committed development	Assessed Development	Total	Background Growth to 2028	Committed development	Assessed Development	Total
AM	10955	2318	946	190	3454	21.2%	8.6%	1.7%	31.5%
PM	10383	2266	1008	136	3410	21.8%	9.7%	1.3%	32.8%

As it can be seen in the tables above the increase of traffic due to the Assessed development is minor in comparison with both the Committed Developments and Background Growth traffics.

3.2 MODEL RUNS

Both the DM and DS models were run for convergence 50 times using random seed 42 which is considered optimal due to its neutrality. All the models were run 10 times for results using random seed 42 for the first run and a successive seed increment of 1 for the subsequent runs.

It is worth mentioning that none of the models achieved convergence within the 50 runs, however the runs with the highest convergence rate were used for each model result runs. In addition to this, a number of sensitivity tests were carried out using different approaches to achieve convergence and the results coming out of the models were similar in all the cases which adds confidence to the results obtained.

Due to the congestion experienced in the model, which has been increased significantly from the base scenario to the DM scenario, there is suppressed demand that couldn't be loaded into the network in both DM and DS scenarios.

3.2.1 JOURNEY TIME RESULTS

To assess the impact of the development traffic, queue length and journey time data were collected from both the DM and DS models. Detailed Journey Time and Queue Length data are included in Appendix E and Appendix F respectively.

Location of journey time markers is shown on Figure 5 shows the location of the journey time markers and a summary of the comparison of journey times between the base and the DM scenario is displayed in Table 5.

Figure 5 Location of markers to collect journey time

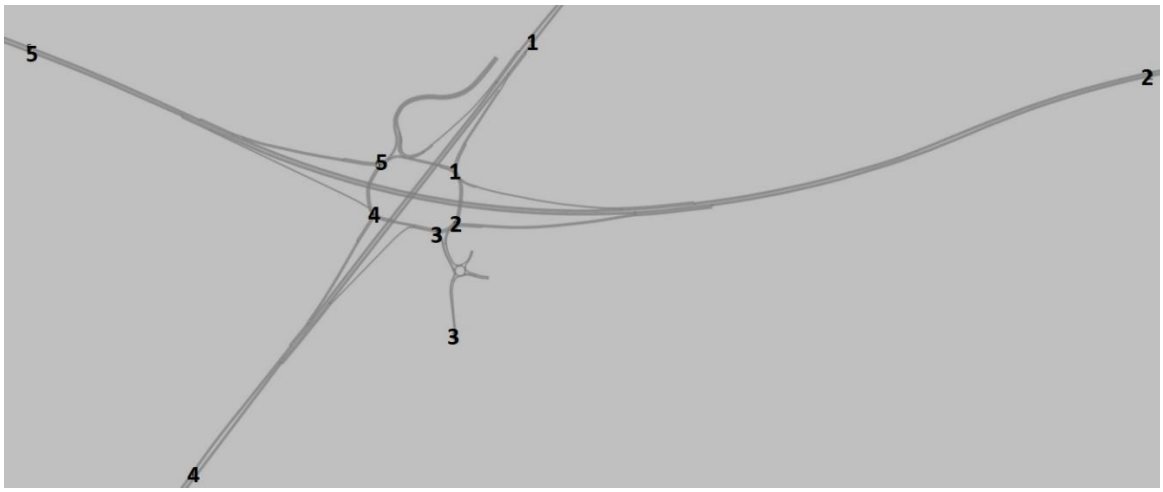


Table 5 Journey Time comparison between Base 2016 and DM forecast years [seconds]

Route	Base AM	2020 DM AM	2028 DM AM	Base PM	2020 PM AM	2028 DM PM
Route 1	107	222	205	269	433	428
Route 2	126	140	168	129	132	135
Route 3	86	314	447	51	70	97
Route 4	95	333	457	60	67	85
Route 5	173	604	920	77	179	580

The values displayed in Table 5 show that the inclusion of the traffic growth and the Committed Development traffic have a big impact on the journey times producing an increase of circa 250% in some cases from the 2016 Base to the 2020 DM.

A summary of the journey time comparison between DM and DS for 2020 and 2028 is included in Table 6 and Table 7 respectively.

Table 6 Journey time comparison between DM and DS 2020 [seconds]

	Arm name	2020 DM AM	2020 DS AM	Difference	Difference %	2020 DM PM	2020 DS PM	Difference	Difference %
Route 1	A38 SB	222	198	-24	-11%	433	429	-4	-1%
Route 2	A50 WB	140	169	29	21%	132	130	-2	-2%
Route 3	B5008	314	271	-43	-14%	70	93	23	32%
Route 4	A38 NB	333	427	94	28%	67	75	7	11%
Route 5	A50 EB	604	731	127	21%	179	291	113	63%
Total difference				184	11 %			136	15 %

Results for 2020 indicate an overall increase in journey times in DS compared to DM. The additional trips generated from the assessed development will cause 11% increase in journey time in AM peak and 15% in PM peak.

Table 7 Journey Time comparison between DM and DS 2028 [seconds]

	Arm name	2028 DM AM	2028 DS AM	Difference	Difference %	2028 DM PM	2028 DS PM	Difference	Difference %
Route 1	A38 SB	205	198	-6	-3%	428	408	-20	-5%
Route 2	A50 WB	168	293	125	75%	135	133	-1	-1%
Route 3	B5008	447	385	-61	-14%	97	125	28	28%
Route 4	A38 NB	457	493	36	8%	85	132	47	55%
Route 5	A50 EB	920	954	34	4%	580	698	117	20%
Total difference				127	6 %			170	13 %

Regarding the forecast year 2028, the results show a total increase of over 2minutes in the AM and almost 3minutes in the PM. The additional trips generated from the assessed development will result in a 6% increase of journey time in AM peak and 13% in PM peak.

3.2.2 QUEUE LENGTH RESULTS

In terms of queue lengths, Figure 6 shows the location of the queue length counters and the results for this indicator are summarised in Table 8 and Table 9.

Figure 6 Queue counters location

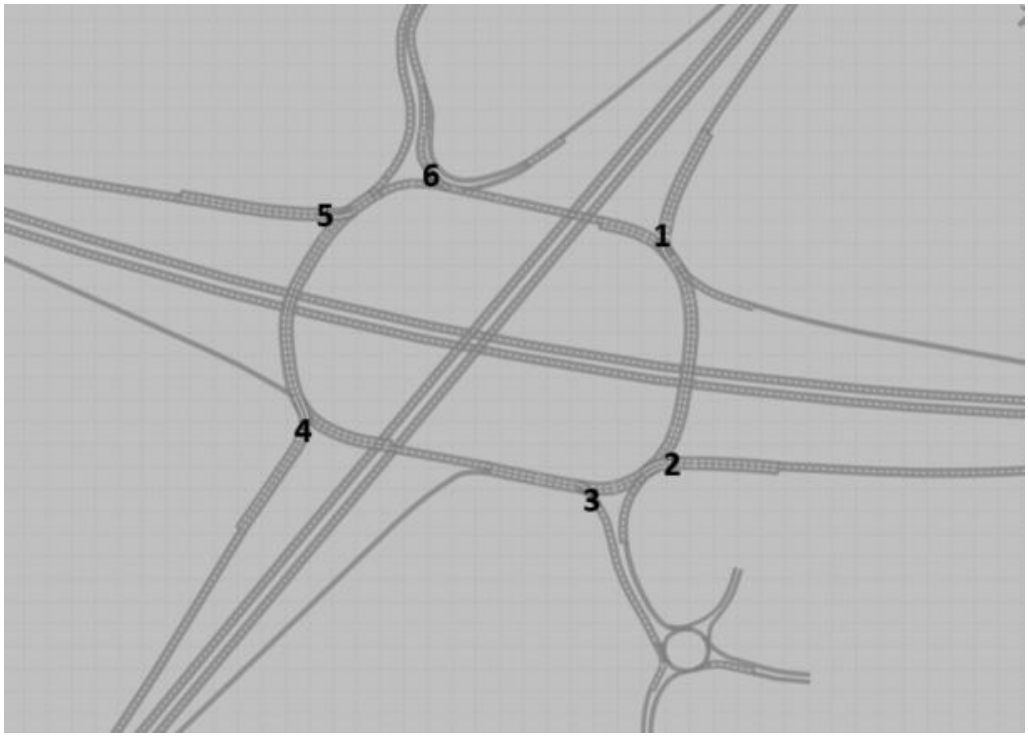


Table 8 Max queue length comparison between Base Model and DM Models

Route	Base AM	2020 DM AM	2028 DM AM	Base PM	2020 PM AM	2028 DM PM
Queue 1	407.4	514.3	425.2	511.4	514.5	514.6
Queue 2	106.1	243.3	234.5	130.8	151.0	157.0
Queue 3	135.4	419.0	441.0	81.3	124.6	329.7
Queue 4	146.7	481.5	478.1	46.0	66.7	295.8
Queue 5	217.2	515.6	447.1	72.4	368.3	512.8
Queue 6	23.1	22.2	19.6	104.0	509.8	510.2

Table 9 Average queue length comparison between Base Model and DM Models

Route	Base AM	2020 DM AM	2028 DM AM	Base PM	2020 PM AM	2028 DM PM
Queue 1	205.3	401.5	425.2	348.1	474.9	495.4
Queue 2	86.3	137.0	234.5	87.1	103.2	128.0
Queue 3	90.8	301.5	441.0	52.8	84.9	118.3
Queue 4	92.9	371.9	478.1	36.6	55.0	106.0
Queue 5	130.9	381.4	447.1	60.9	208.0	385.4
Queue 6	18.2	19.4	19.6	53.1	371.5	441.5

In consonance with what was shown in terms of journey times, it is seen in Table 8 and Table 9 show both average and maximum queue lengths are considerably increased when the traffic growth and Committed Development traffic are added to the base. In view of these values, it can be seen that the impact of the Assessed Development on the queues is minor in comparison with the difference between DM and base scenarios.

Table 10 Queue length summary 2020 [metres]

2020								
	AM				PM			
	DM		DS		DM		DS	
	Max	Average	Max	Average	Max	Average	Max	Average
Queue 1	514.3	401.5	516.5	420.1	514.5	474.9	514.5	470.7
Queue 2	243.3	137.0	370.8	220.5	151.0	103.2	136.1	101.5
Queue 3	419.0	301.5	419.2	294.2	124.6	84.9	159.6	119.9
Queue 4	481.5	371.9	515.8	448.0	66.7	55.0	100.0	69.1
Queue 5	515.6	381.4	515.1	407.8	368.3	208.0	513.0	304.2
Queue 6	22.2	19.4	21.1	18.1	509.8	371.5	513.0	375.0

The data displayed in Table 10 indicate that by 2020, both the maximum and average queue lengths are forecast to be longer in DS than in DM overall in both AM and PM peak hours.

Table 11 Queue length summary 2028 [metres]

2028								
	AM				PM			
	DM		DS		DM		DS	
	Max	Average	Max	Average	Max	Average	Max	Average
Queue 1	514.3	425.2	512.8	450.2	514.7	495.4	514.6	492.1
Queue 2	434.5	234.5	488.2	380.7	171.1	128.0	157.0	112.7
Queue 3	512.5	441.0	516.0	448.9	167.9	118.3	329.7	176.5
Queue 4	515.9	478.1	516.9	475.2	182.6	106.0	295.8	182.7
Queue 5	515.9	447.1	515.2	438.8	513.6	385.4	512.8	405.8
Queue 6	22.0	19.6	21.7	19.4	509.7	441.5	510.2	448.7

In line with the results for 2020, figures for 2028 show a general increase in queue lengths from DM to DS. It is worth mentioning that the differences in queue length are minor in the AM and more accentuated in the PM.

4 SENSIVITY TEST SCENARIO

In view of the traffic contribution comparison (Chapter 3.2.1), the creation of a sensitivity test scenario applying a lower background traffic growth was considered beneficial. The following chapters outline the different aspects of the development of the Sensitivity Test.

4.1 TRAFFIC DEMAND

The growth factors for the Sensitivity Test Scenario were provided by BSP, based on adjusted TEMPRO calculations and shown in Table 12. TEMPRO was adjusted to take account of the development sites contained within the Committed Development matrices to remove the scope for double counting of sites.

All matrices for DM and DS for the Sensitivity Test Scenario are shown in Appendix G.

Table 12 Sensivity Test Growth Factors

Period		TEMPRO Growth Factor
2016 – 2018	AM	1.0380
	PM	1.0395
2018 – 2020	AM	1.0213
	PM	1.0203
2020 – 2028	AM	1.1105
	PM	1.1.064

4.2 MODEL RUNS

4.2.1 JOURNEY TIME RESULTS

A summary of the journey time comparison between DM and DS for 2020 and 2028 is included in Table 13 and Table 14 respectively.

Table 13 Journey time comparison between DM and DS 2020 [seconds]

	Arm name	2020 DM AM	2020 DS AM	Difference	Difference %	2020 DM PM	2020 DS PM	Difference	Difference %
Route 1	A38 SB	220	200	-20	-9%	443	417	-26	-6%
Route 2	A50 WB	137	180	44	32%	129	128	-1	-1%
Route 3	B5008	296	220	-76	-26%	64	85	21	33%
Route 4	A38 NB	250	425	174	70%	64	69	5	8%
Route 5	A50 EB	706	652	-54	-8%	126	157	31	25%
Total difference				67	4 %			31	12 %

Results for 2020 indicate an overall increase in journey times in DS compared to DM. The additional trips generated by the assessed development will cause 4% increase in journey time in AM peak and 12% in PM peak.

Table 14 Journey Time comparison between DM and DS 2028 [seconds]

	Arm name	2028 DM AM	2028 DS AM	Difference	Difference %	2028 DM PM	2028 DS PM	Difference	Difference %
Route 1	A38 SB	210	188	-22	-11%	429	417	-12	-3%
Route 2	A50 WB	158	230	72	45%	132	130	-2	-1%
Route 3	B5008	417	360	-57	-14%	83	111	27	33%
Route 4	A38 NB	431	499	68	16%	74	84	9	12%
Route 5	A50 EB	752	936	184	24%	327	568	241	74%
Total difference				244	12 %			1310	25 %

In terms of the forecast year 2028, the additional trips generated by the assessed development will result in a 12% increase of journey time in AM peak and 25 % in PM peak.

Full summary of journey time results is included in Appendix H.

4.2.2 QUEUE LENGTH RESULTS

Queue length results have been taken out of the Sensitivity Test models.

Table 15 Queue length summary 2020 [metres]

2020								
	AM				PM			
	DM		DS		DM		DS	
	Max	Average	Max	Average	Max	Average	Max	Average
Queue 1	513.6	405.5	512.8	419.0	514.4	461.9	516.5	473.1
Queue 2	226.1	132.9	339.2	219.5	105.0	90.2	111.2	92.0
Queue 3	419.1	281.5	390.4	243.6	124.2	74.9	155.3	113.0
Queue 4	426.8	294.6	515.7	428.6	69.1	51.8	73.0	58.9
Queue 5	515.0	395.9	516.4	391.7	261.2	152.1	395.1	190.5
Queue 6	23.3	18.2	20.1	17.6	511.3	356.3	511.4	377.6

The data displayed in Table 15 indicate that by 2020, both the maximum and average queue lengths are forecast to be longer in DS than in DM overall in both AM and PM peak hours.

Table 16 Queue length summary 2028 [metres]

2028								
	AM				PM			
	DM		DS		DM		DS	
	Max	Average	Max	Average	Max	Average	Max	Average
Queue 1	513.8	415.9	513.3	420.4	514.6	482.4	514.2	482.1
Queue 2	334.4	198.5	466.5	309.7	135.8	106.6	126.5	100.3
Queue 3	421.4	347.5	423.0	358.7	153.9	106.9	185.8	145.3
Queue 4	515.2	454.6	516.3	468.1	86.0	67.9	117.5	86.1
Queue 5	514.9	420.5	516.4	447.4	512.2	336.8	513.5	381.6
Queue 6	21.6	18.8	26.4	19.4	509.2	418.2	509.3	429.5

The figures for 2028 show a similar situation to 2020, which is a general increase in queue lengths from DM to DS.

Queue length comparison is shown in charts in Appendix I.

5 CONCLUSION

This report outlines the assessment of the impact that a new mixed-use development would have on the A50-A38 junction performance. A Highways England approved base model developed by AECOM has been used to test both the Do Minimum and Do Something scenarios, representing without and with development scenarios, for 2020 and 2028. The traffic flows used for this assessment have been provided by BSP Consulting.

Both the DM and DS models were run 50 times for convergence without converging after a sensible number of runs. However, the runs with the highest convergence rates were used for the extraction of results and a number of sensitivity tests carried out added confidence to the results.

The modelling results show that the A50-A38 junction will be subject to a significant increase in traffic demand in 2020 due to the traffic growth and the inclusion of committed developments traffic. The impact is such that it is expected that mitigation to accommodate this growth would be required.

Regarding the comparison between Do Minimum and Do Something for a Main Scenario, the junction would experience an increase in both journey times and queue lengths once the assessed development was built which would have a further negative impact on the junction operational performance. The impact of this development is exacerbated by the lack of a mitigation scheme for the background growth and committed development.

After a comparison of the traffic contribution made by each of the background growth, the committed developments and the assessed development, a Sensitivity Test Scenario was developed with a set of lower traffic growth rates based on adjusted TEMPRO growth factors.

In this Sensitivity Test Scenario, the patterns are shown to be the same with lower journey times than in the Main Scenario when looking at both DM and DS scenarios. In terms of queue length results, they are lower in both DM and DS for the Sensitivity Test Scenario.

In view of the obtained results, it is evident that with the forecast background traffic growth and assumed committed development, the A50-A38 junction is forecast to be significantly over capacity and require intervention / mitigation works. The assessed development has a small contributing factor to the junction being over capacity, but in isolation should not be considered the sole owner of any mitigation requirements.

Appendix A

BASE FLOWS

Matrices with Base Flows

- Warm up 7:00-7:30

HVs:

1	2	3	4	5	6
0	8	5	91	10	1
5	0	0	42	93	1
1	1	3	0	0	0
82	32	0	1	30	4
12	100	0	23	2	0
0	3	0	3	2	0

LVs:

1	2	3	4	5	6
6	145	80	692	117	84
104	1	21	248	537	70
105	30	1	1	89	35
739	327	0	0	71	61
87	642	47	50	0	30
19	3	3	5	5	0

- Peak 7:30-8:30

HVs:

1	2	3	4	5	6
2	8	11	135	10	3
8	1	8	62	157	5
5	7	0	0	2	0
166	65	0	1	64	2
23	157	7	53	1	2
5	3	0	7	5	0

LVs:

1	2	3	4	5	6
11	466	260	1575	204	47
394	3	44	759	1062	52
282	70	15	8	212	21
1652	683	1	10	169	31
190	1377	127	149	0	43
18	11	9	10	4	1

- Cool down 8:30-9:00

HVs:

1	2	3	4	5	6
2	14	1	75	19	0
12	1	1	29	92	2
5	0	3	0	3	0
88	34	1	0	35	8
10	98	0	25	2	3
1	2	0	4	2	0

LVs:

1	2	3	4	5	6
3	193	97	571	73	4
121	1	25	316	486	13
143	29	2	16	78	1
561	226	3	1	68	5
92	494	70	87	0	8
3	2	1	5	2	0

2016 PM

- Warm up 15:30-16:00

HVs:

1	2	3	4	5	6
0	3	0	75	6	0
5	0	3	29	107	4
9	0	0	0	2	0
68	21	0	0	33	0
9	110	9	38	0	3
0	1	0	3	0	0

LVs:

1	2	3	4	5	6
1	129	120	627	70	5
88	1	37	206	440	2
100	29	9	6	56	2
587	177	2	7	81	3
113	523	62	65	3	1
101	98	48	66	30	0

- Peak 16:00-17:00

HVs:

1	2	3	4	5	6
0	13	0	149	10	1
15	8	0	52	150	0
14	0	0	0	0	0
131	39	16	0	50	1
22	169	0	45	7	4
0	2	0	1	0	0

LVs:

1	2	3	4	5	6
11	347	209	1639	153	6
293	8	90	556	1101	10
256	47	17	16	76	9
1390	518	3	5	197	6
225	1134	148	116	1	10
323	227	115	153	68	1

- Cool down 17:00-17:30

HVs:

1	2	3	4	5	6
0	5	0	44	6	2
1	0	0	21	80	3
11	0	0	0	0	0
36	10	0	0	20	2
3	76	8	18	1	0
1	0	0	3	0	0

LVs:

1	2	3	4	5	6
8	154	140	766	91	4
213	3	40	295	547	3
138	33	3	12	56	1
707	288	1	4	72	2
104	614	99	55	2	2
48	30	19	26	19	0

Appendix B

COMMITTED DEVELOPMENT FLOWS

Matrices with Committed Development Flows

- AM Peak 7:00-7:30

LVs:

Zone	1	2	3	4	5	6	Total
1	0	108	0	119	92	0	319
2	55	0	0	40	160	0	255
3	0	0	0	0	0	0	0
4	16	7	0	0	72	0	94
5	12	158	0	93	0	0	263
6	0	0	0	0	0	0	0
Total	82	273	0	252	324	0	931

HVs:

Zone	1	2	3	4	5	6	Total
1	0	2	0	2	1	0	5
2	1	0	0	1	2	0	4
3	0	0	0	0	0	0	0
4	0	0	0	0	1	0	1
5	0	2	0	1	0	0	4
6	0	0	0	0	0	0	0
Total	1	4	0	4	5	0	14

- PM Peak 16:00-17:00

LVs:

Zone	1	2	3	4	5	6	Total
1	0	107	0	51	40	0	198
2	99	0	0	24	134	0	257
3	0	0	0	0	0	0	0
4	88	60	0	0	73	0	221
5	68	169	0	80	0	0	316
6	0	0	0	0	0	0	0
Total	255	336	0	155	246	0	992

HVs:

Zone	1	2	3	4	5	6	Total
1	0	2	0	1	1	0	3
2	2	0	0	0	2	0	4
3	0	0	0	0	0	0	0
4	1	1	0	0	1	0	3
5	1	3	0	1	0	0	5
6	0	0	0	0	0	0	0
Total	4	5	0	2	4	0	15

Appendix C

DEVELOPMENT FLOWS

Matrices with Development Flows

- AM Peak 7:00-7:30

LVs:

Zone	1	2	3	4	5	6	Total
1	0	0	47	0	0	0	47
2	0	0	36	0	0	0	36
3	8	6	0	5	2	0	21
4	0	0	27	0	0	0	27
5	0	0	11	0	0	0	11
6	0	0	0	0	0	0	0
Total	8	6	121	5	2	0	142

HVs:

Zone	1	2	3	4	5	6	Total
1	0	0	11	0	0	0	11
2	0	0	8	0	0	0	8
3	8	6	0	4	2	0	20
4	0	0	6	0	0	0	6
5	0	0	3	0	0	0	3
6	0	0	0	0	0	0	0
Total	8	6	28	4	2	0	48

- PM Peak 16:00-17:00

LVs:

Zone	1	2	3	4	5	6	Total
1	0	0	4	0	0	0	4
2	0	0	3	0	0	0	3
3	39	30	0	22	9	0	100
4	0	0	2	0	0	0	2
5	0	0	1	0	0	0	1
6	0	0	0	0	0	0	0
Total	7	5	8	4	2	0	110

HVs:

Zone	1	2	3	4	5	6	Total
1	0	0	3	0	0	0	3
2	0	0	2	0	0	0	2
3	7	5	0	4	2	0	18
4	0	0	2	0	0	0	2
5	0	0	1	0	0	0	1
6	0	0	0	0	0	0	0
Total	39	30	10	22	9	0	26

Appendix D

MAIN SCENARIO FLOWS

DM 2020 AM matrices:

- Warm up 7:00-7:30

HVs:

1	2	3	4	5	6
0	9	5	99	11	1
6	0	0	45	101	1
1	1	3	0	0	0
88	34	0	1	33	4
13	109	0	25	2	0
0	3	0	3	2	0

LVs:

1	2	3	4	5	6
6	200	86	793	163	90
134	1	23	283	643	75
113	32	1	1	96	38
802	355	0	0	106	66
98	755	51	92	0	32
20	3	3	5	5	0

- Peak 7:30-8:30

HVs:

1	2	3	4	5	6
2	10	12	147	12	3
9	1	9	67	171	5
5	8	0	0	2	0
179	70	0	1	70	2
25	171	8	58	1	2
5	3	0	8	5	0

LVs:

1	2	3	4	5	6
12	609	280	1814	312	51
479	3	47	857	1303	56
303	75	16	9	228	23
1793	742	1	11	254	33
216	1640	137	253	0	46
19	12	10	11	4	1

- Cool down 8:30-9:00

HVs:

1	2	3	4	5	6
2	15	1	81	20	0
13	1	1	31	99	2
5	0	3	0	3	0
95	37	1	0	38	9
11	105	0	27	2	3
1	2	0	4	2	0

LVs:

1	2	3	4	5	6
3	250	104	662	115	4
152	1	27	356	586	14
154	31	2	17	84	1
610	246	3	1	102	5
104	594	75	130	0	9
3	2	1	5	2	0

DM 2020 PM matrices:

- Warm up 15:30-16:00

HVs:

1	2	3	4	5	6
0	4	0	81	7	0
6	0	3	31	116	4
10	0	0	0	2	0
74	23	0	0	36	0
10	120	10	42	0	3
0	1	0	3	0	0

LVs:

1	2	3	4	5	6
1	190	130	701	94	5
142	1	40	234	538	2
108	31	10	6	60	2
675	219	2	8	122	3
154	644	67	108	3	1
109	106	52	71	32	0

- Peak 16:00-17:00

HVs:

1	2	3	4	5	6
0	16	0	162	11	1
18	9	0	56	164	0
15	0	0	0	0	0
143	43	17	0	55	1
25	185	0	50	8	4
0	2	0	1	0	0

LVs:

1	2	3	4	5	6
12	481	226	1820	205	6
415	9	97	624	1322	11
276	51	18	17	82	10
1588	619	3	5	285	6
311	1393	160	205	1	11
349	245	124	165	73	1

- Cool down 17:00-17:30

HVs:

1	2	3	4	5	6
0	6	0	48	7	2
2	0	0	23	87	3
12	0	0	0	0	0
39	11	0	0	22	2
4	83	9	20	1	0
1	0	0	3	0	0

LVs:

1	2	3	4	5	6
9	208	151	847	114	4
269	3	43	328	643	3
149	36	3	13	60	1
798	335	1	4	107	2
139	729	107	91	2	2
52	32	21	28	21	0

DM 2028 AM matrices:

- Warm up 7:00-7:30

HVs:

1	2	3	4	5	6
0	10	6	111	13	1
6	0	0	51	114	1
1	1	4	0	0	0
99	39	0	1	37	5
15	122	0	28	2	0
0	4	0	4	2	0

LVs:

1	2	3	4	5	6
7	219	97	887	179	102
148	1	25	317	716	85
127	36	1	1	108	42
902	399	0	0	115	74
110	842	57	98	0	36
23	4	4	6	6	0

- Peak 7:30-8:30

HVs:

1	2	3	4	5	6
2	11	13	165	14	4
11	1	10	76	193	6
6	8	0	0	2	0
201	79	0	1	79	2
28	193	8	66	1	2
6	4	0	8	6	0

LVs:

1	2	3	4	5	6
13	672	315	2028	339	57
533	4	53	959	1447	63
342	85	18	10	257	25
2017	834	1	12	277	38
242	1826	154	274	0	52
22	13	11	12	5	1

- Cool down 8:30-9:00

HVs:

1	2	3	4	5	6
2	17	1	91	23	0
15	2	2	36	112	3
6	0	4	0	4	0
107	41	1	0	43	10
12	119	0	30	2	4
1	2	0	5	2	0

LVs:

1	2	3	4	5	6
4	276	118	739	125	5
168	1	30	399	652	16
173	35	2	19	95	1
686	277	4	1	111	6
116	661	85	142	0	10
4	2	1	6	2	0

DM 2028 PM matrices:

- Warm up 15:30-16:00

HVs:

1	2	3	4	5	6
0	4	0	92	8	0
7	0	4	36	131	5
11	0	0	0	2	0
83	26	0	0	41	0
11	135	11	47	0	4
0	1	0	4	0	0

LVs:

1	2	3	4	5	6
1	208	146	788	104	6
154	1	45	262	599	2
122	35	11	7	68	2
757	244	2	9	133	4
170	717	76	117	4	1
123	119	58	80	37	0

- Peak 16:00-17:00

HVs:

1	2	3	4	5	6
0	17	0	182	13	1
20	10	0	64	185	0
17	0	0	0	0	0
161	48	19	0	62	1
28	209	0	56	9	5
0	2	0	1	0	0

LVs:

1	2	3	4	5	6
13	529	255	2048	226	7
456	10	110	702	1475	12
312	57	21	19	93	11
1782	691	4	6	313	7
342	1550	180	221	1	12
394	277	140	186	83	1

- Cool down 17:00-17:30

HVs:

1	2	3	4	5	6
0	7	0	54	8	2
2	0	0	26	98	4
13	0	0	0	0	0
44	13	0	0	25	2
4	94	10	22	1	0
1	0	0	4	0	0

LVs:

1	2	3	4	5	6
10	230	171	954	127	5
299	4	49	369	719	4
168	40	4	15	68	1
896	375	1	5	117	2
154	815	121	98	2	2
58	37	23	32	23	0

DS 2020 AM matrices:

- Warm up 07:00-07:30

HVs:

1	2	3	4	5	6
0	9	10	99	11	1
6	0	3	45	101	1
4	4	3	2	1	0
88	34	2	1	33	4
13	109	1	25	2	0
0	3	0	3	2	0

LVs:

1	2	3	4	5	6
6	200	105	793	163	90
134	1	37	283	643	75
116	35	1	3	97	38
802	355	11	0	106	66
98	755	55	92	0	32
20	3	3	5	5	0

- Peak 07:30-8:30

HVs:

1	2	3	4	5	6
2	10	23	147	12	3
9	1	17	67	171	5
13	14	0	4	4	0
179	70	6	1	70	2
25	171	11	58	1	2
5	3	0	8	5	0

LVs:

1	2	3	4	5	6
12	609	327	1814	312	51
479	3	83	857	1303	56
311	81	16	14	230	23
1793	742	28	11	254	33
216	1640	148	253	0	46
19	12	10	11	4	1

- Cool down 8:30-9:00

HVs:

1	2	3	4	5	6
2	15	6	81	20	0
13	1	4	31	99	2
9	3	3	2	4	0
95	37	4	0	38	9
11	105	1	27	2	3
1	2	0	4	2	0

LVs:

1	2	3	4	5	6
3	250	124	662	115	4
152	1	42	356	586	14
157	34	2	19	85	1
610	246	15	1	102	5
104	594	80	130	0	9
3	2	1	5	2	0

DS 2020 PM matrices:

- Warm up 15:30-16:00

HVs:

1	2	3	4	5	6
0	4	1	81	7	0
6	0	4	31	116	4
13	2	0	2	3	0
74	23	1	0	36	0
10	120	10	42	0	3
0	1	0	3	0	0

LVs:

1	2	3	4	5	6
1	190	131	701	94	5
142	1	40	234	538	2
108	31	10	6	60	2
675	219	2	8	122	3
154	644	67	108	3	1
109	106	52	71	32	0

- Peak 16:00-17:00

HVs:

1	2	3	4	5	6
0	16	3	162	11	1
18	9	2	56	164	0
22	5	0	4	2	0
143	43	19	0	55	1
25	185	1	50	8	4
0	2	0	1	0	0

LVs:

1	2	3	4	5	6
12	481	230	1820	205	6
415	9	100	624	1322	11
315	81	18	39	91	10
1588	619	5	5	285	6
311	1393	161	205	1	11
349	245	124	165	73	1

- Cool down 17:00-17:30

HVs:

1	2	3	4	5	6
0	6	1	48	7	2
2	0	1	23	87	3
15	2	0	2	1	0
39	11	1	0	22	2
4	83	9	20	1	0
1	0	0	3	0	0

LVs:

1	2	3	4	5	6
9	208	153	847	114	4
269	3	44	328	643	3
164	47	3	22	64	1
798	335	2	4	107	2
139	729	107	91	2	2
52	32	21	28	21	0

DS 2028 AM matrices:

- Warm up 07:00-07:30

HVs:

1	2	3	4	5	6
0	10	11	111	13	1
6	0	3	51	114	1
4	4	4	2	1	0
99	39	2	1	37	5
15	122	1	28	2	0
0	4	0	4	2	0

LVs:

1	2	3	4	5	6
7	219	116	887	179	102
148	1	40	317	716	85
130	39	1	3	109	42
902	399	11	0	115	74
110	842	61	98	0	36
23	4	4	6	6	0

- Peak 07:30-8:30

HVs:

1	2	3	4	5	6
2	11	24	165	14	4
11	1	18	76	193	6
14	14	0	4	4	0
201	79	6	1	79	2
28	193	11	66	1	2
6	4	0	8	6	0

LVs:

1	2	3	4	5	6
13	672	362	2028	339	57
533	4	89	959	1447	63
350	91	18	15	259	25
2017	834	28	12	277	38
242	1826	165	274	0	52
22	13	11	12	5	1

- Cool down 8:30-9:00

HVs:

1	2	3	4	5	6
2	17	6	91	23	0
15	2	5	36	112	3
9	3	4	2	4	0
107	41	4	0	43	10
12	119	1	30	2	4
1	2	0	5	2	0

LVs:

1	2	3	4	5	6
4	276	138	739	125	5
168	1	46	399	652	16
177	38	2	22	95	1
686	277	15	1	111	6
116	661	89	142	0	10
4	2	1	6	2	0

DS 2028 PM matrices:

- Warm up 15:30-16:00

HVs:

1	2	3	4	5	6
0	4	1	92	8	0
7	0	5	36	131	5
14	2	0	2	3	0
83	26	1	0	41	0
11	135	11	47	0	4
0	1	0	4	0	0

LVs:

1	2	3	4	5	6
1	208	148	788	104	6
154	1	46	262	599	2
140	49	11	18	72	2
757	244	3	9	133	4
170	717	76	117	4	1
123	119	58	80	37	0

- Peak 16:00-17:00

HVs:

1	2	3	4	5	6
0	17	3	182	13	1
20	10	2	64	185	0
24	5	0	4	2	0
161	48	21	0	62	1
28	209	1	56	9	5
0	2	0	1	0	0

LVs:

1	2	3	4	5	6
13	529	259	2048	226	7
456	10	113	702	1475	12
351	87	21	41	102	11
1782	691	6	6	313	7
342	1550	181	221	1	12
394	277	140	186	83	1

- Cool down 17:00-17:30

HVs:

1	2	3	4	5	6
0	7	1	54	8	2
2	0	1	26	98	4
16	2	0	2	1	0
44	13	1	0	25	2
4	94	10	22	1	0
1	0	0	4	0	0

LVs:

1	2	3	4	5	6
10	230	172	954	127	5
299	4	50	369	719	4
184	52	4	23	72	1
896	375	2	5	117	2
154	815	121	98	2	2
58	37	23	32	23	0

Appendix E

MAIN SCENARIO - JOURNEY TIME RESULTS

Route	Name	Interval	2020 DM AM	2020 DS AM	Difference	Difference %	Interval	2020 DM PM	2020 DS PM	Difference	Difference %
Route 1	A38 SB	7:30-7:45	112.05	137.49	25.44	0.23	16:00-16:15	416.19	406.56	-9.63	-0.02
Route 2	A50 WB	7:30-7:45	146.14	164.41	18.27	0.13	16:00-16:15	130.8	134.8	4	0.03
Route 3	B5008	7:30-7:45	217.12	201.92	-15.2	-0.07	16:00-16:15	66.12	78.11	11.99	0.18
Route 4	A38 NB	7:30-7:45	317.2	359.71	42.51	0.13	16:00-16:15	67.1	70.2	3.1	0.05
Route 5	A50 EB	7:30-7:45	221.47	297.95	76.48	0.35	16:00-16:15	114.33	128.49	14.16	0.12
Route 1	A38 SB	7:45-8:00	241.54	221.94	-19.6	-0.08	16:15-16:30	432.69	437.54	4.85	0.01
Route 2	A50 WB	7:45-8:00	140.74	180.89	40.15	0.29	16:15-16:30	139.75	127.86	-11.89	-0.09
Route 3	B5008	7:45-8:00	331.25	254.51	-76.74	-0.23	16:15-16:30	72.51	95.63	23.12	0.32
Route 4	A38 NB	7:45-8:00	333.59	447.54	113.95	0.34	16:15-16:30	66.91	72.13	5.22	0.08
Route 5	A50 EB	7:45-8:00	458.79	563.18	104.39	0.23	16:15-16:30	144.36	217.14	72.78	0.50
Route 1	A38 SB	8:00-8:15	269.75	223.93	-45.82	-0.17	16:30-16:45	405.04	401.72	-3.32	-0.01
Route 2	A50 WB	8:00-8:15	136.18	163.77	27.59	0.20	16:30-16:45	129.23	129.8	0.57	0.00
Route 3	B5008	8:00-8:15	336.17	302.16	-34.01	-0.10	16:30-16:45	76.21	102.56	26.35	0.35
Route 4	A38 NB	8:00-8:15	335.12	449.51	114.39	0.34	16:30-16:45	68.8	80.24	11.44	0.17
Route 5	A50 EB	8:00-8:15	745.41	887.78	142.37	0.19	16:30-16:45	192.56	320.52	127.96	0.66
Route 1	A38 SB	8:15-8:30	264.96	208.74	-56.22	-0.21	16:45-17:00	478.05	469.24	-8.81	-0.02
Route 2	A50 WB	8:15-8:30	135.29	165.99	30.7	0.23	16:45-17:00	127.32	126.66	-0.66	-0.01
Route 3	B5008	8:15-8:30	371.04	326.29	-44.75	-0.12	16:45-17:00	66.34	95.6	29.26	0.44
Route 4	A38 NB	8:15-8:30	345.03	449.69	104.66	0.30	16:45-17:00	66.49	75.94	9.45	0.14
Route 5	A50 EB	8:15-8:30	989.52	1176.21	186.69	0.19	16:45-17:00	263.88	499.67	235.79	0.89

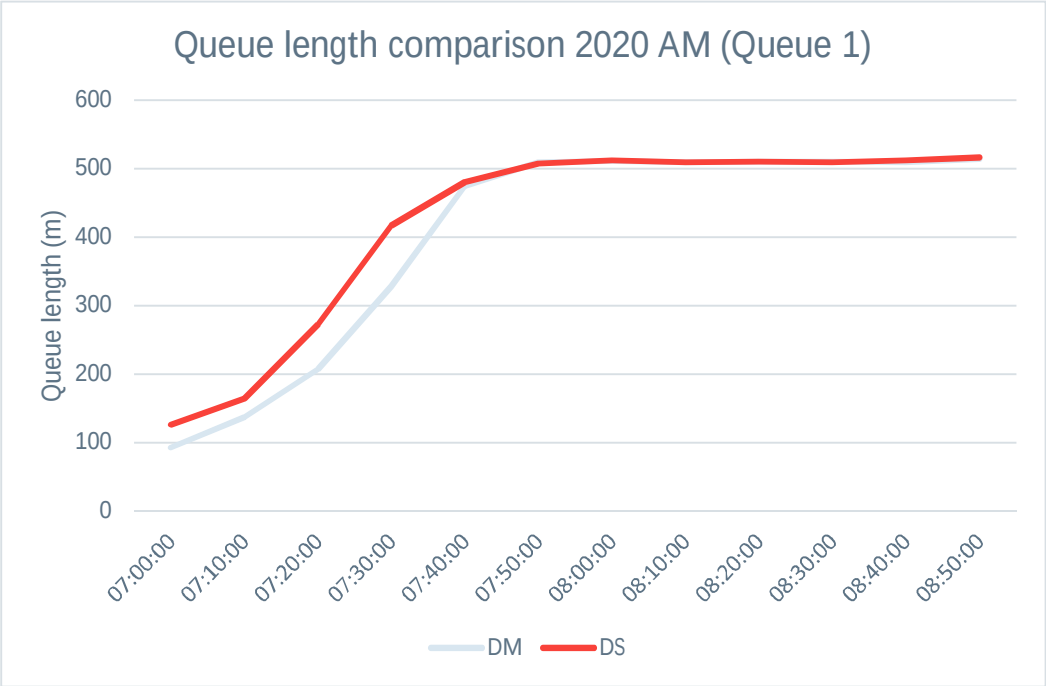
Route	Name	Interval	2028 DM AM	2028 DS AM	Difference	Difference %	Interval	2028 DM PM	2028 DS PM	Difference	Difference %
Route 1	A38 SB	7:30-7:45	144.78	131.21	-13.57	-9%	16:00-16:15	433.74	408.32	-25.42	-6%
Route 2	A50 WB	7:30-7:45	147.12	240.54	93.42	63%	16:00-16:15	143.19	147.84	4.65	3%
Route 3	B5008	7:30-7:45	416.26	334.49	-81.77	-20%	16:00-16:15	78.85	105.09	26.24	33%
Route 4	A38 NB	7:30-7:45	469.93	563.53	93.6	20%	16:00-16:15	77.53	95.14	17.61	23%
Route 5	A50 EB	7:30-7:45	530.3	475.06	-55.24	-10%	16:00-16:15	148.36	239.85	91.49	62%
Route 1	A38 SB	7:45-8:00	226.98	213.84	-13.14	-6%	16:15-16:30	402.51	391.78	-10.73	-3%
Route 2	A50 WB	7:45-8:00	151.32	286.22	134.9	89%	16:15-16:30	136.66	127.99	-8.67	-6%
Route 3	B5008	7:45-8:00	488.09	394.94	-93.15	-19%	16:15-16:30	102.91	127.26	24.35	24%
Route 4	A38 NB	7:45-8:00	444.68	499.64	54.96	12%	16:15-16:30	88.28	130.63	42.35	48%
Route 5	A50 EB	7:45-8:00	817.34	795.32	-22.02	-3%	16:15-16:30	458.33	538.14	79.81	17%
Route 1	A38 SB	8:00-8:15	221.62	222.3	0.68	0%	16:30-16:45	437.81	400.48	-37.33	-9%
Route 2	A50 WB	8:00-8:15	171.25	316.36	145.11	85%	16:30-16:45	127.45	130.27	2.82	2%
Route 3	B5008	8:00-8:15	460.45	407.59	-52.86	-11%	16:30-16:45	105.41	124.61	19.2	18%
Route 4	A38 NB	8:00-8:15	432.54	448.19	15.65	4%	16:30-16:45	90.24	147.08	56.84	63%
Route 5	A50 EB	8:00-8:15	1091.96	1157.96	66	6%	16:30-16:45	737.54	867.99	130.45	18%
Route 1	A38 SB	8:15-8:30	225.48	226.42	0.94	0%	16:45-17:00	438.37	430	-8.37	-2%
Route 2	A50 WB	8:15-8:30	200.45	327.34	126.89	63%	16:45-17:00	131.14	127.71	-3.43	-3%
Route 3	B5008	8:15-8:30	421.33	404.76	-16.57	-4%	16:45-17:00	102.64	143.67	41.03	40%
Route 4	A38 NB	8:15-8:30	481.65	460.39	-21.26	-4%	16:45-17:00	85.29	155.44	70.15	82%
Route 5	A50 EB	8:15-8:30	1241.44	1387.33	145.89	12%	16:45-17:00	977.63	1145.39	167.76	17%

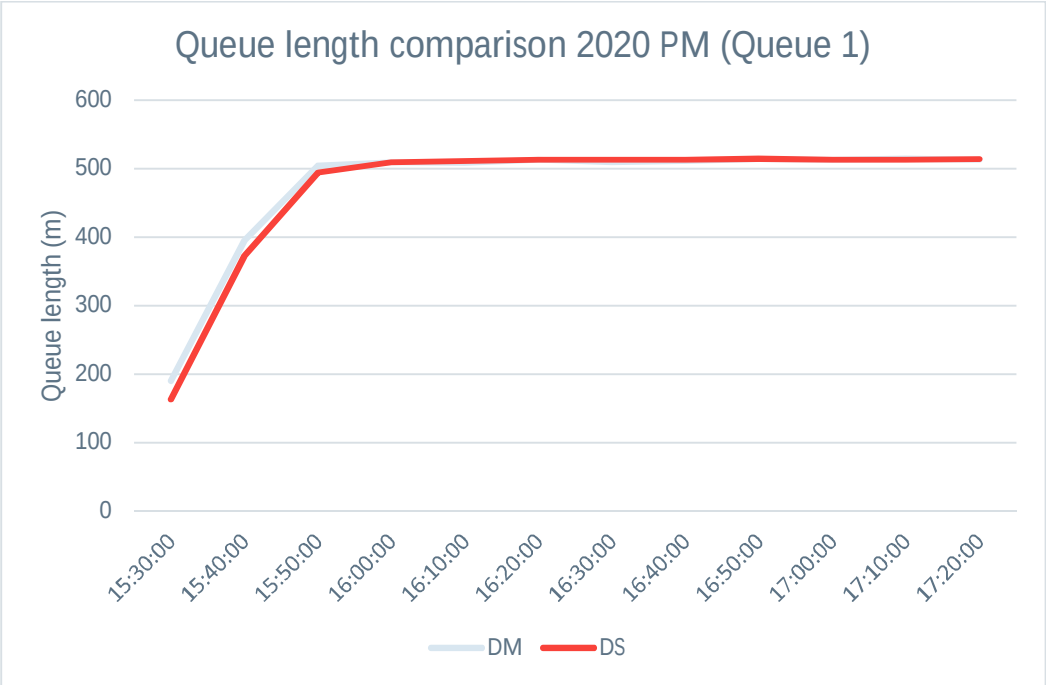
Appendix F

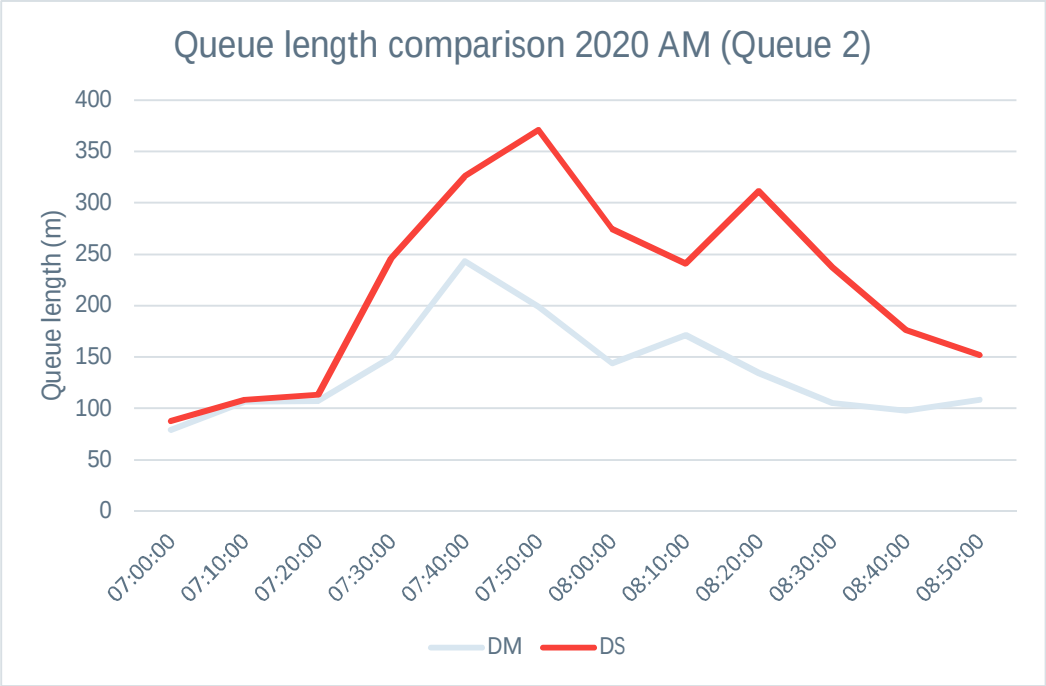
MAIN SCENARIO - QUEUE LENGTH

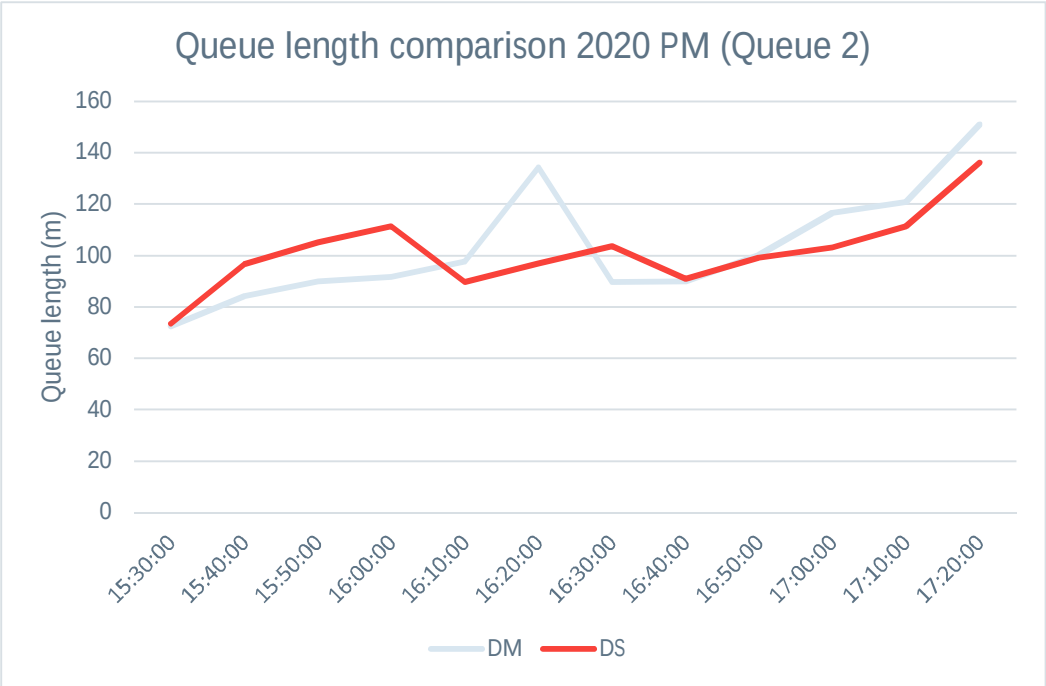
SUMMARY

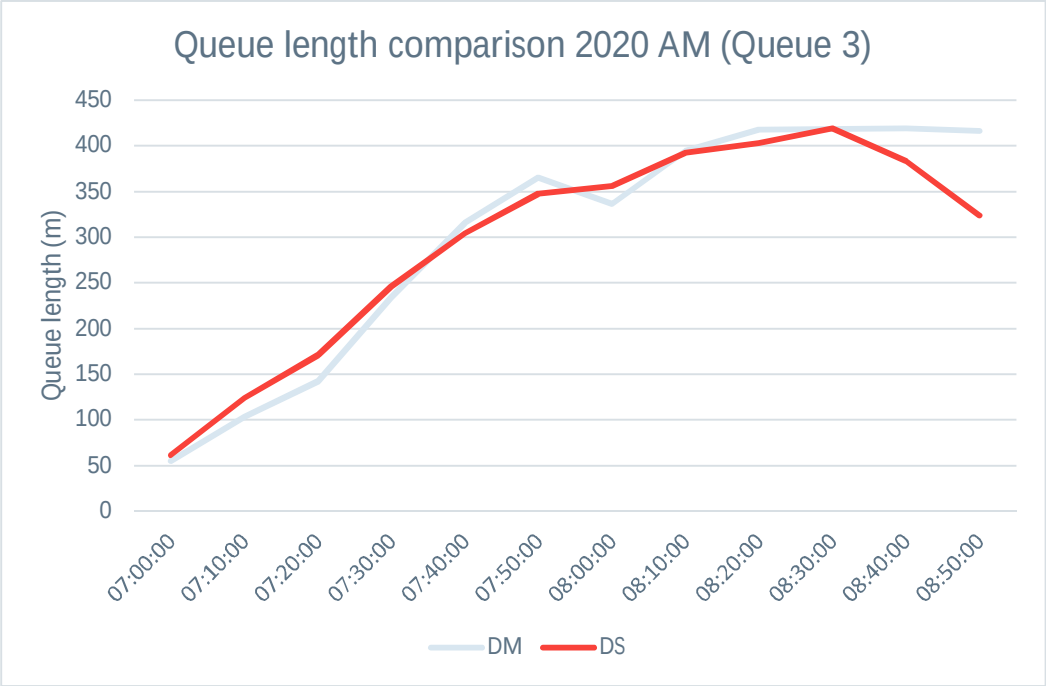
Queue Length Results 2020

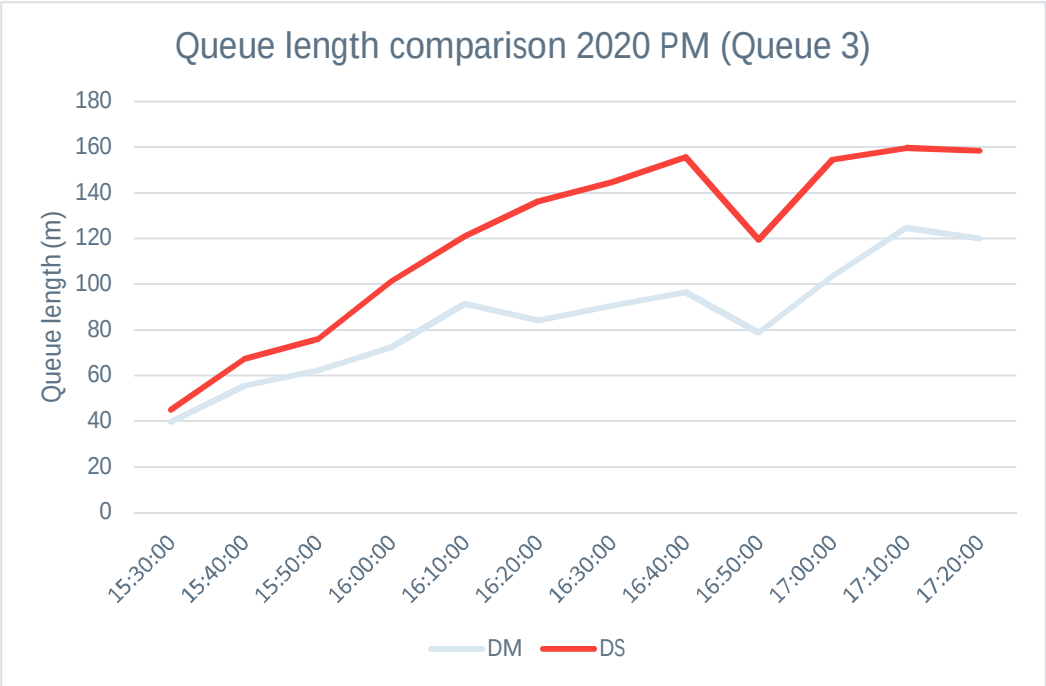


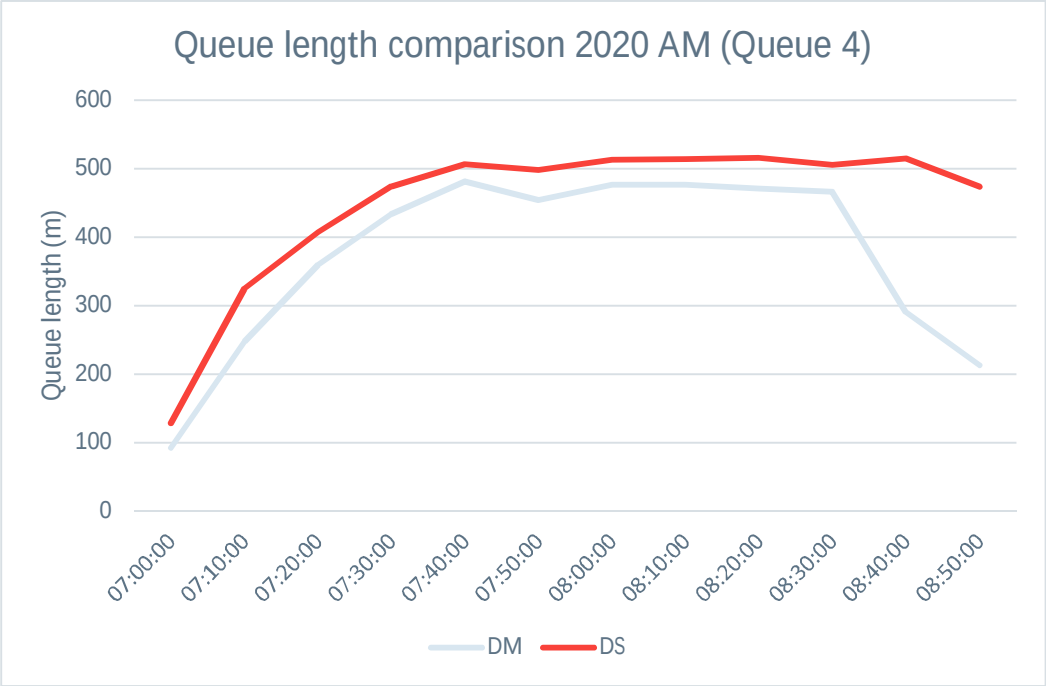



Queue length comparison 2020 AM (Queue 2)
Queue length (m)
400
350
300
250
200
150
100
50
0
07:00:00
07:10:00
07:20:00
07:30:00
07:40:00
07:50:00
08:00:00
08:10:00
08:20:00
08:30:00
08:40:00
08:50:00
DM
DS


Queue length comparison 2020 PM (Queue 2)
Queue length (m)
160
140
120
100
80
60
40
20
0
15:30:00
15:40:00
15:50:00
16:00:00
16:10:00
16:20:00
16:30:00
16:40:00
16:50:00
17:00:00
17:10:00
17:20:00
DM
DS


Queue length comparison 2020 AM (Queue 3)
Queue length (m)
450
400
350
300
250
200
150
100
50
0
07:00:00
07:10:00
07:20:00
07:30:00
07:40:00
07:50:00
08:00:00
08:10:00
08:20:00
08:30:00
08:40:00
08:50:00
DM
DS


Queue length comparison 2020 PM (Queue 3)
Queue length (m)
180
160
140
120
100
80
60
40
20
0
15:30:00
15:40:00
15:50:00
16:00:00
16:10:00
16:20:00
16:30:00
16:40:00
16:50:00
17:00:00
17:10:00
17:20:00
DM
DS


Queue length comparison 2020 AM (Queue 4)
Queue length (m)
600
500
400
300
200
100
0
07:00:00
07:10:00
07:20:00
07:30:00
07:40:00
07:50:00
08:00:00
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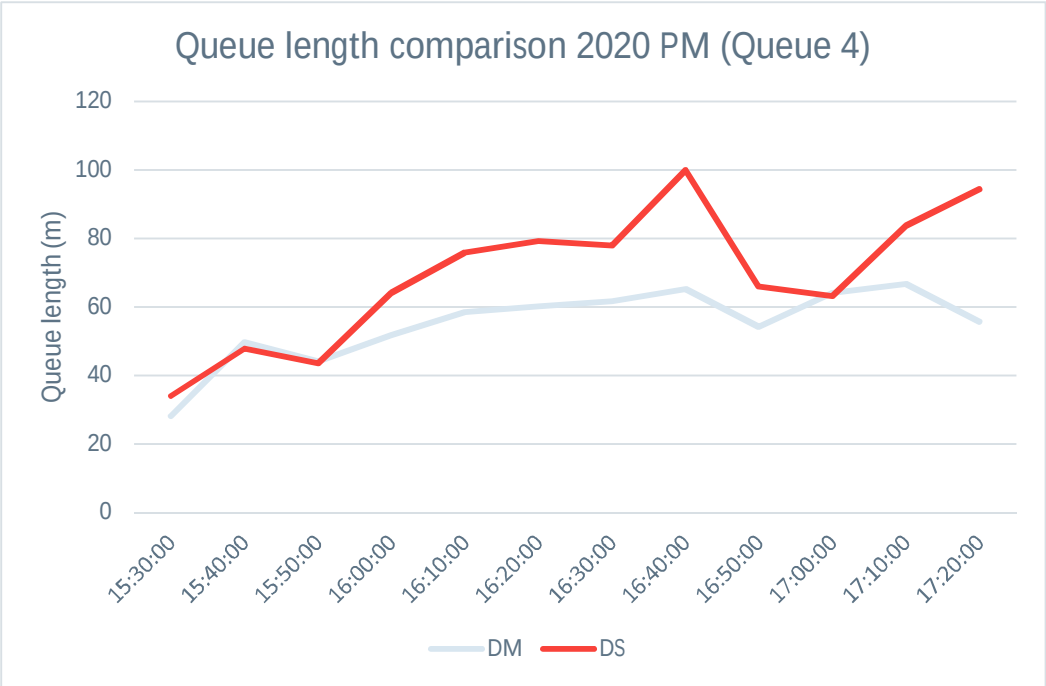
08:20:00
08:30:00
08:40:00
08:50:00
DM
DS


Queue length comparison 2020 PM (Queue 4)
Queue length (m)
120
100
80
60
40
20
0
15:30:00
15:40:00
15:50:00
16:00:00
16:10:00
16:20:00
16:30:00
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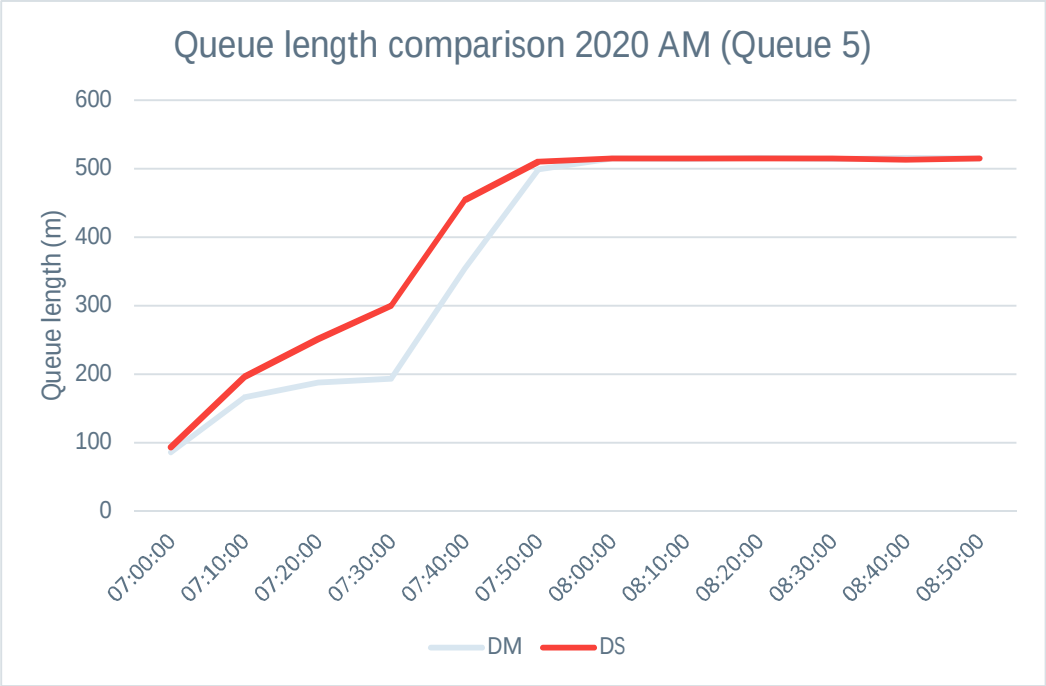
17:00:00
17:10:00
17:20:00
DM
DS


Queue length comparison 2020 AM (Queue 5)
Queue length (m)
600
500
400
300
200
100
0
07:00:00
07:10:00
07:20:00
07:30:00
07:40:00
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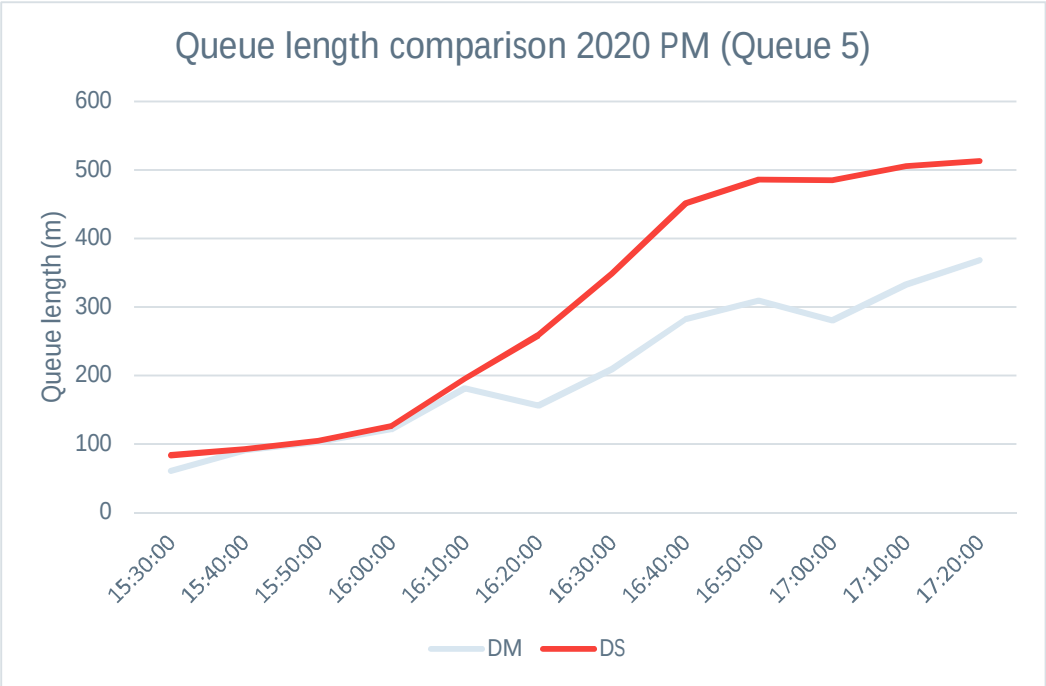
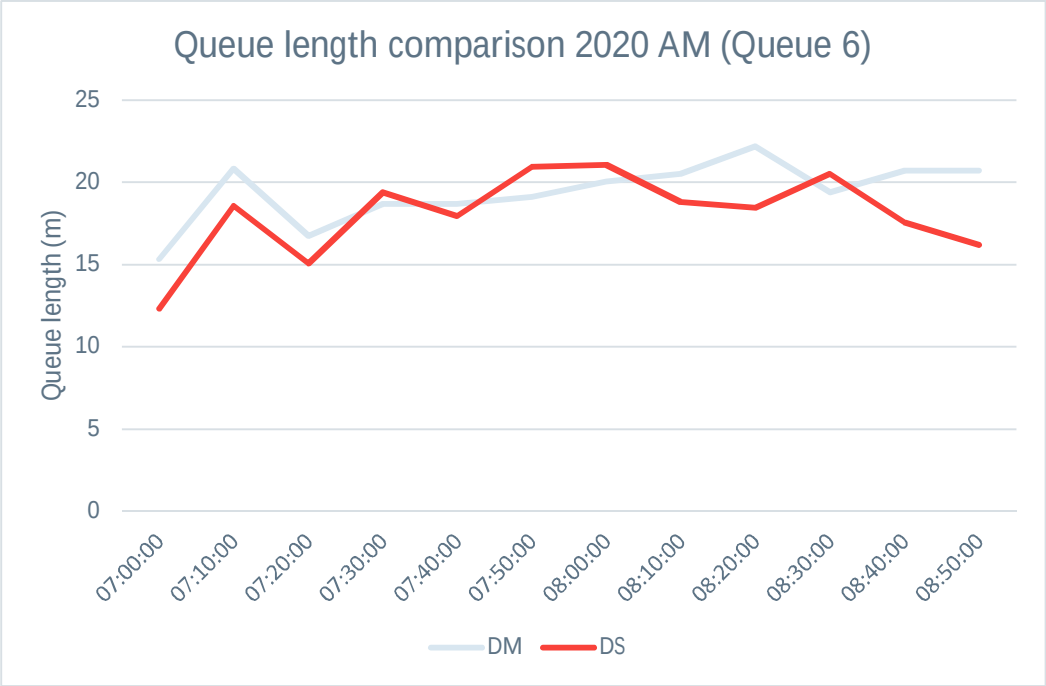
08:30:00
08:40:00
08:50:00
DM
DS


Queue length comparison 2020 PM (Queue 5)
Queue length (m)
600
500
400
300
200
100
0
15:30:00
15:40:00
15:50:00
16:00:00
16:10:00
16:20:00
16:30:00
16:40:00
16:50:00
17:00:00
17:10:00
17:20:00
DM
DS


Queue length comparison 2020 AM (Queue 6)
Queue length (m)
25
20
15
10
5
0
07:00:00
07:10:00
07:20:00
07:30:00
07:40:00
07:50:00
08:00:00
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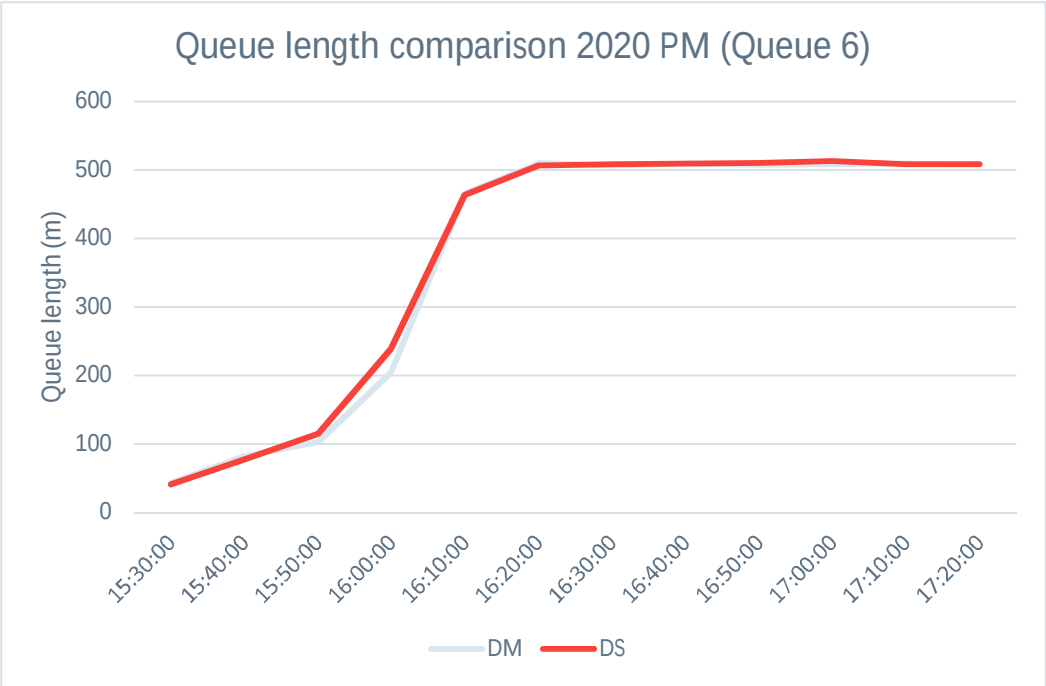
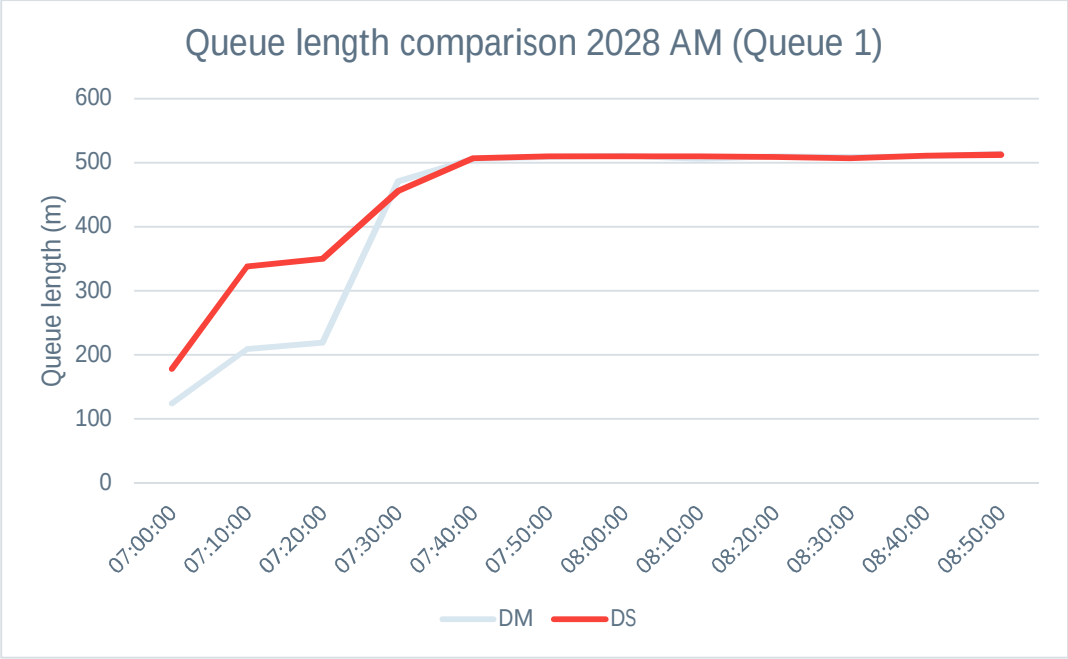
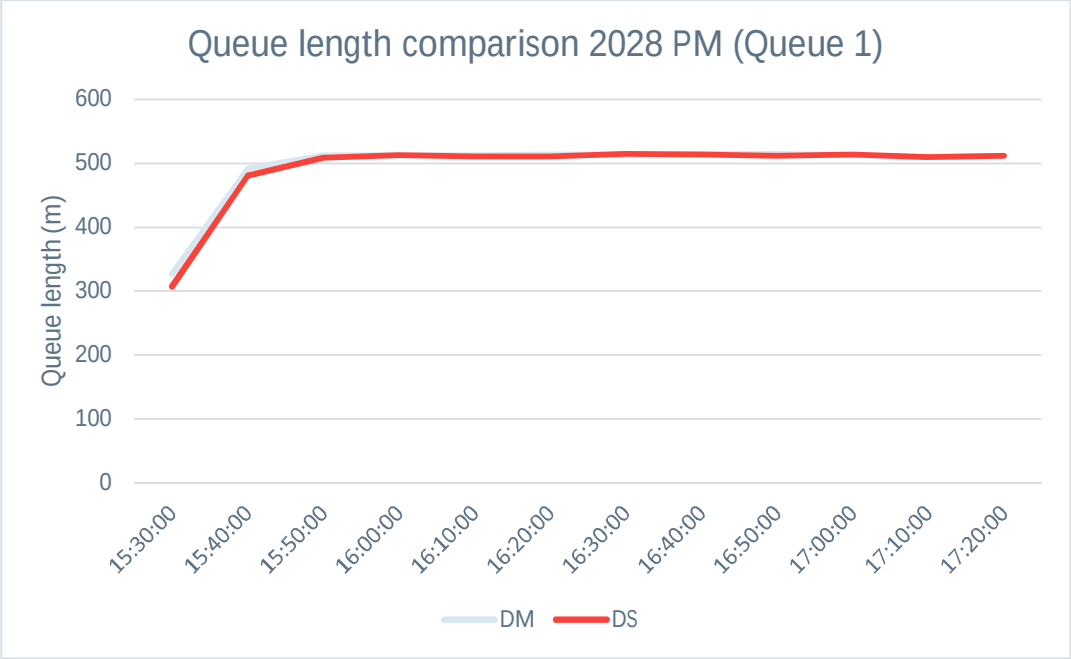
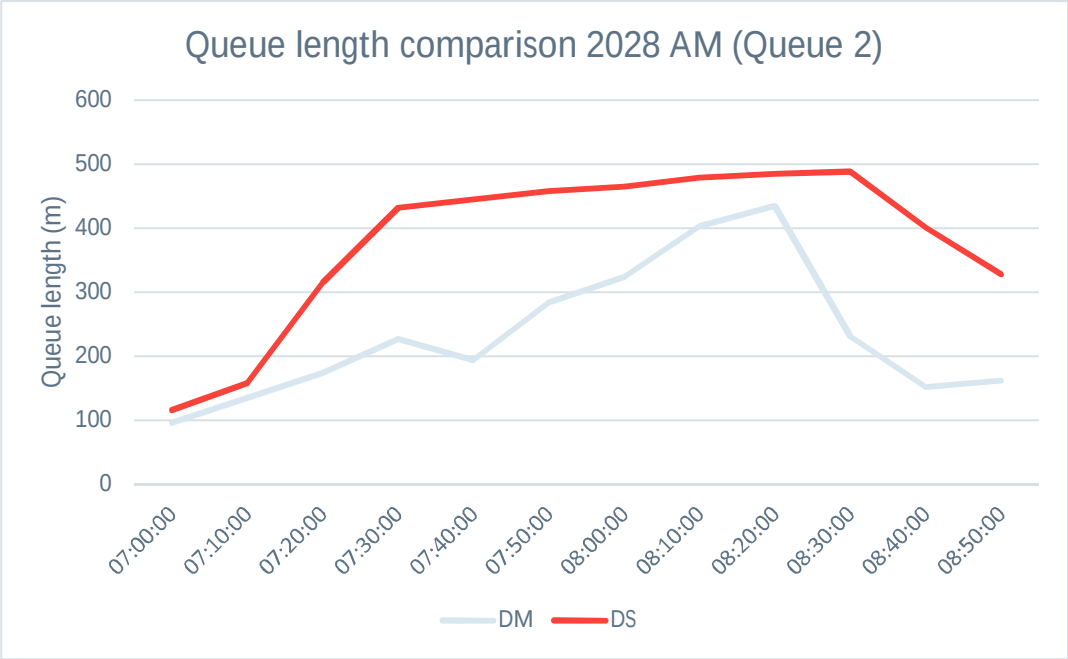
08:30:00
08:40:00
08:50:00
DM
DS


Queue length comparison 2020 PM (Queue 6)
Queue length (m)
600
500
400
300
200
100
0
15:30:00
15:40:00
15:50:00
16:00:00
16:10:00
16:20:00
16:30:00
16:40:00
16:50:00
17:00:00
17:10:00
17:20:00
DM
DS

Queue Results 2028






Queue length comparison 2028 AM (Queue 2)
Queue length (m)
600
500
400
300
200
100
0
07:00:00
07:10:00
07:20:00
07:30:00
07:40:00
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08:00:00
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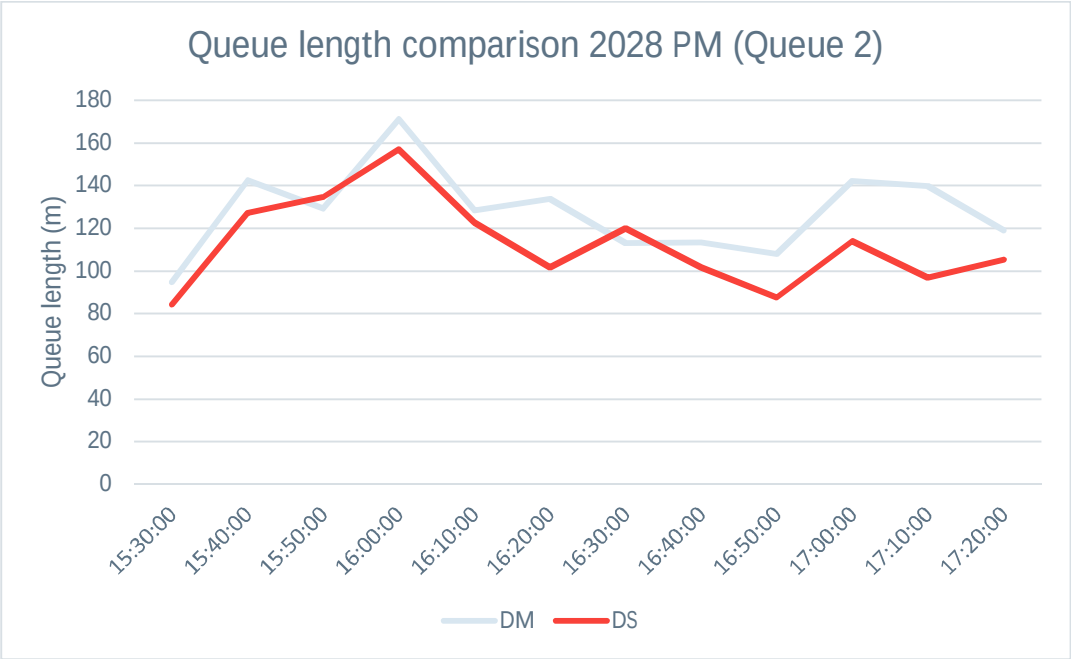
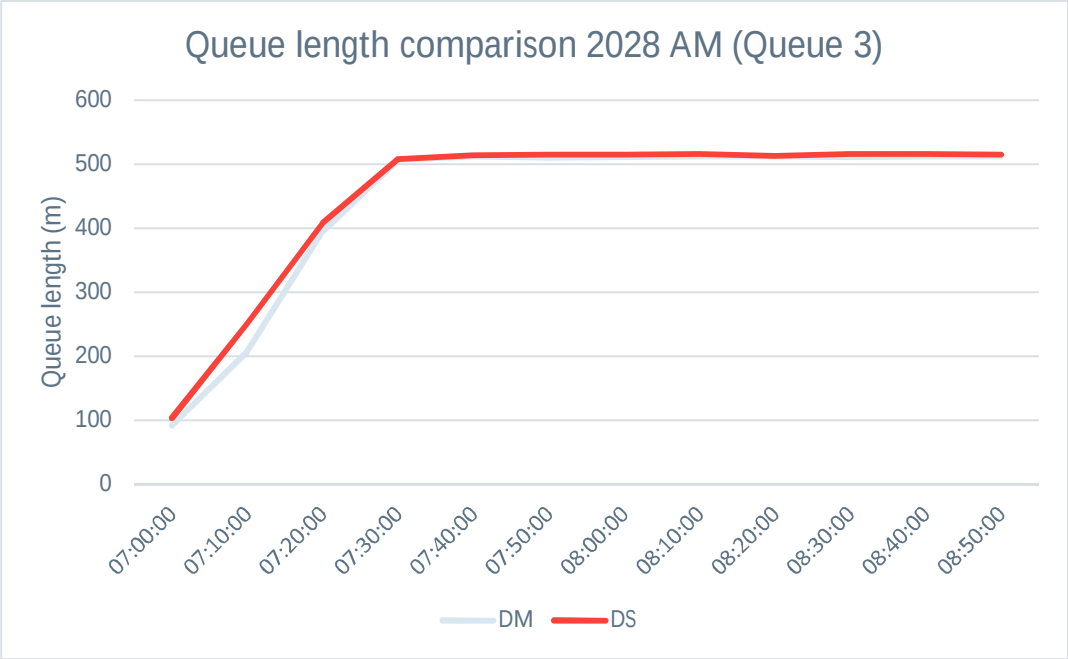
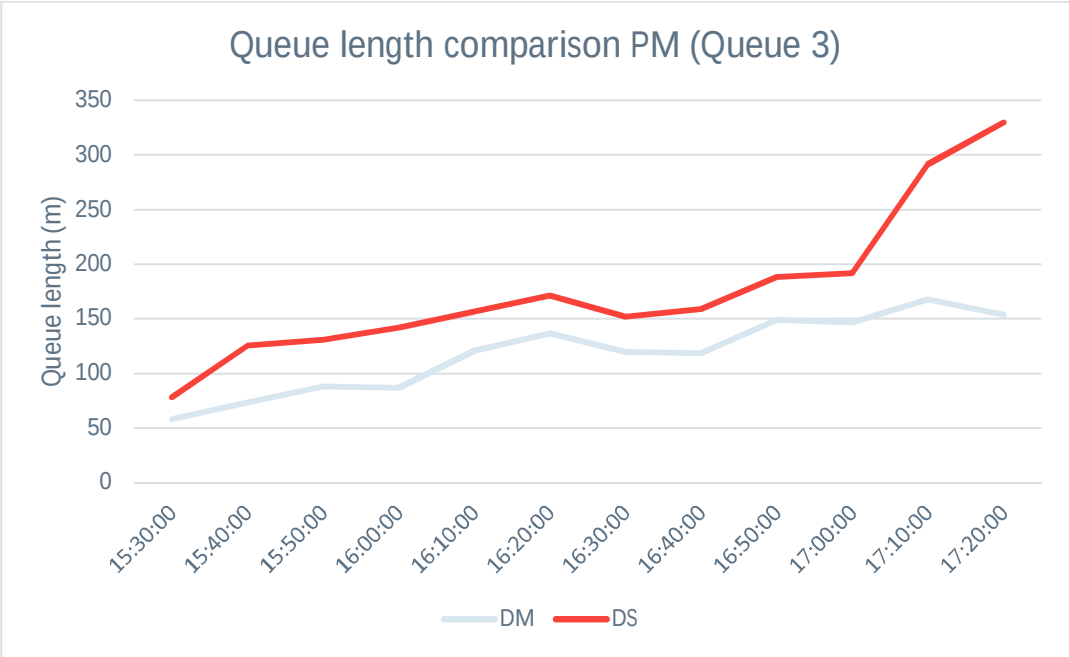
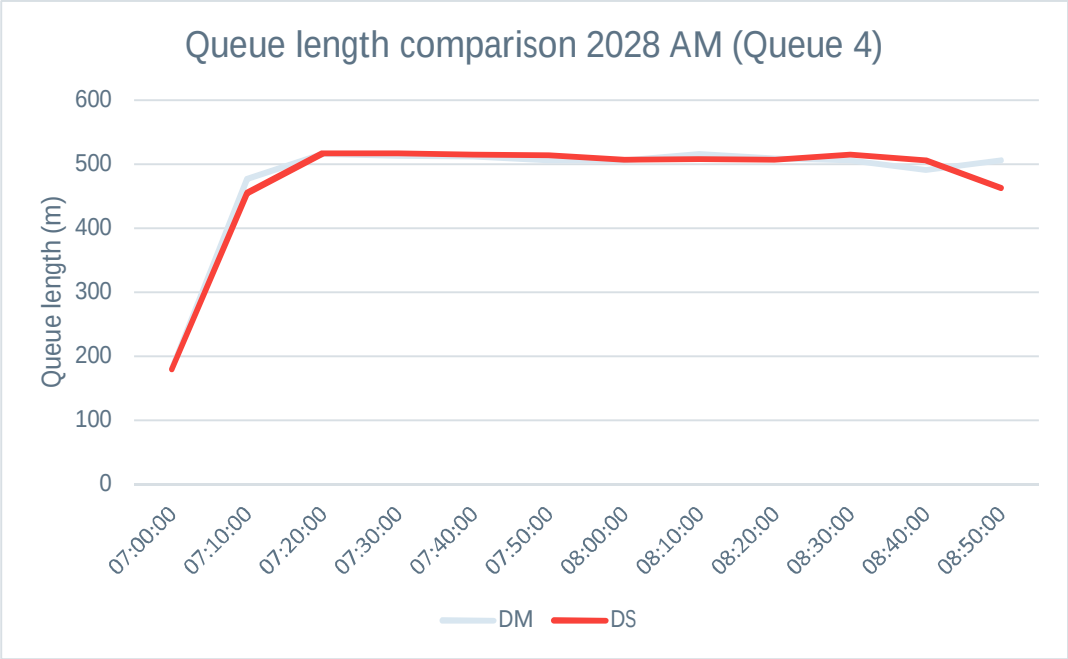
08:20:00
08:30:00
08:40:00
08:50:00
DM
DS


Queue length comparison 2028 PM (Queue 2)
Queue length (m)
180
160
140
120
100
80
60
40
20
0
15:30:00
15:40:00
15:50:00
16:00:00
16:10:00
16:20:00
16:30:00
16:40:00
16:50:00
17:00:00
17:10:00
17:20:00
DM
DS


Queue length comparison 2028 AM (Queue 3)
Queue length (m)
600
500
400
300
200
100
0
07:00:00
07:10:00
07:20:00
07:30:00
07:40:00
07:50:00
08:00:00
08:10:00
08:20:00
08:30:00
08:40:00
08:50:00
DM
DS


Queue length comparison PM (Queue 3)
Queue length (m)
350
300
250
200
150
100
50
0
15:30:00
15:40:00
15:50:00
16:00:00
16:10:00
16:20:00
16:30:00
16:40:00
16:50:00
17:00:00
17:10:00
17:20:00
DM
DS


Queue length comparison 2028 AM (Queue 4)
Queue length (m)
600
500
400
300
200
100
0
07:00:00
07:10:00
07:20:00
07:30:00
07:40:00
07:50:00
08:00:00
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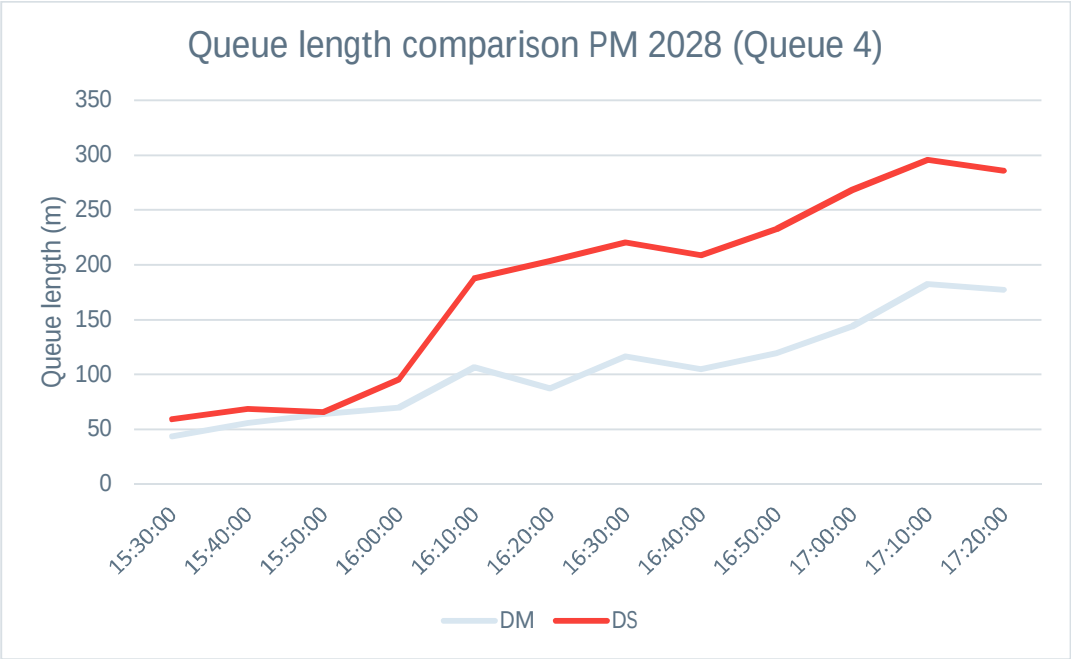
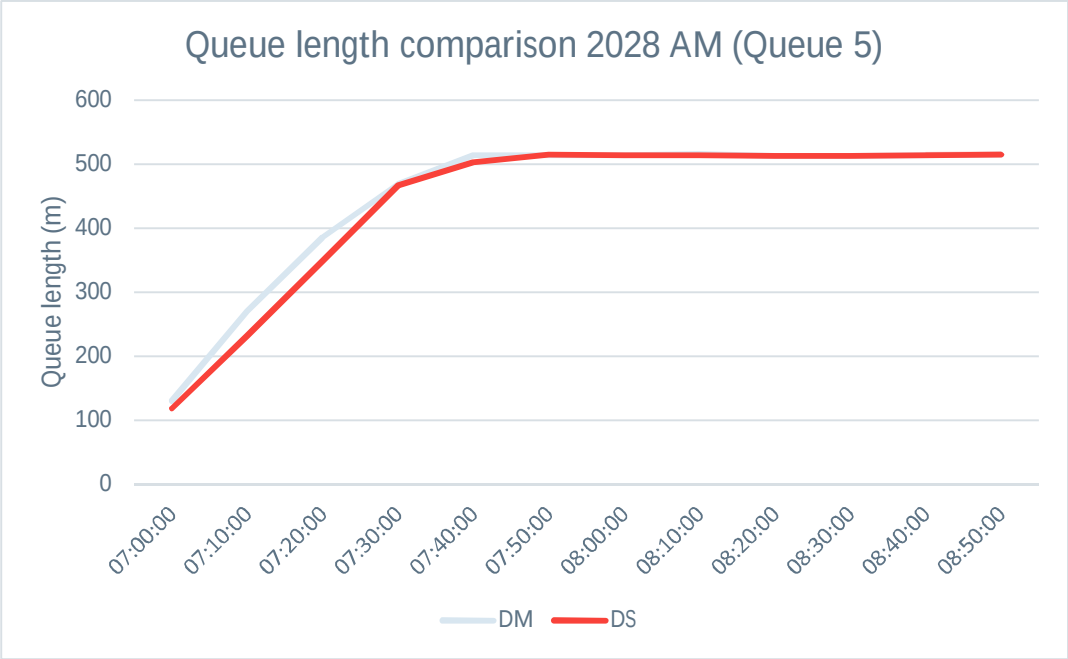
08:30:00
08:40:00
08:50:00
DM
DS


Queue length comparison PM 2028 (Queue 4)
Queue length (m)
350
300
250
200
150
100
50
0
15:30:00
15:40:00
15:50:00
16:00:00
16:10:00
16:20:00
16:30:00
16:40:00
16:50:00
17:00:00
17:10:00
17:20:00
DM
DS


Queue length comparison 2028 AM (Queue 5)
Queue length (m)
600
500
400
300
200
100
0
07:00:00
07:10:00
07:20:00
07:30:00
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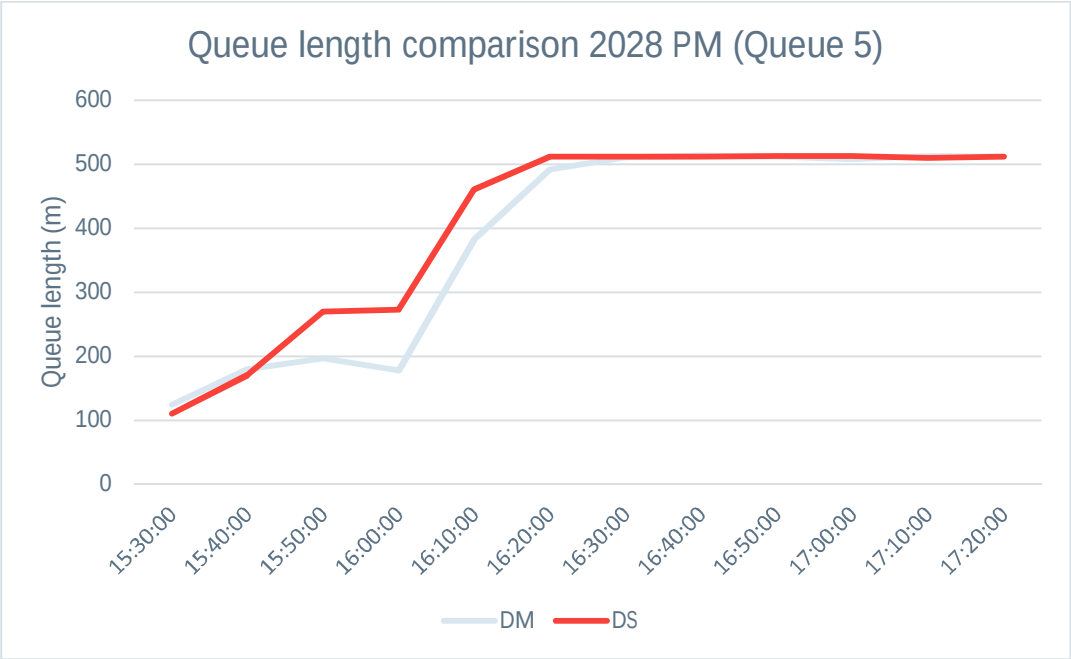
08:30:00
08:40:00
08:50:00
DM
DS


Queue length comparison 2028 PM (Queue 5)
Queue length (m)
600
500
400
300
200
100
0
15:30:00
15:40:00
15:50:00
16:00:00
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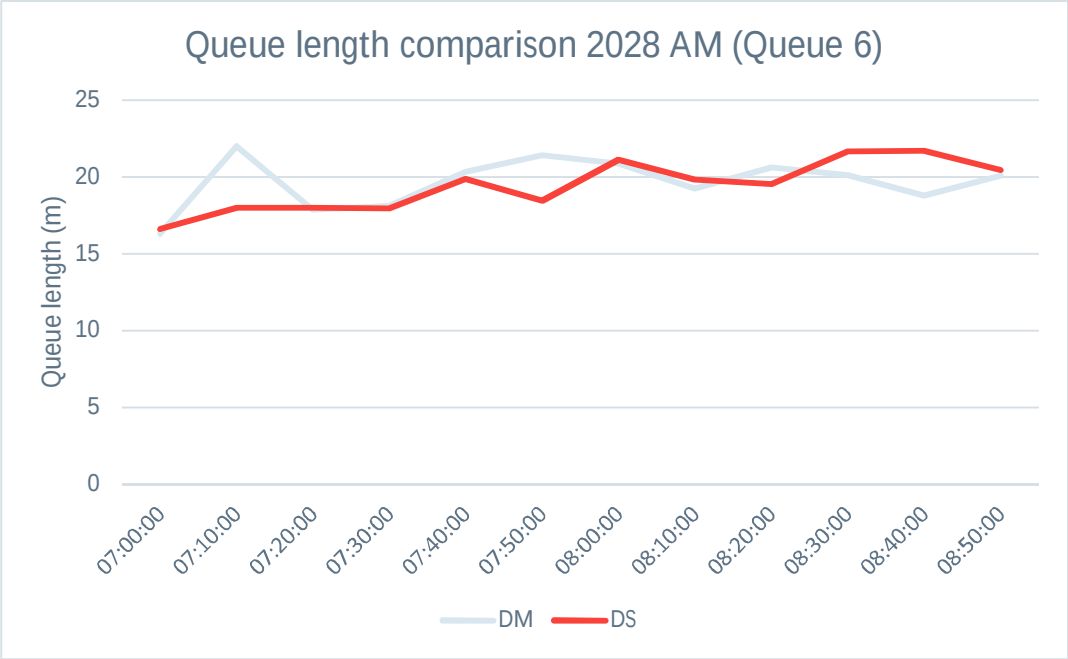
17:20:00
DM
DS


Queue length comparison 2028 AM (Queue 6)
Queue length (m)
25
20
15
10
5
0
07:00:00
07:10:00
07:20:00
07:30:00
07:40:00
07:50:00
08:00:00
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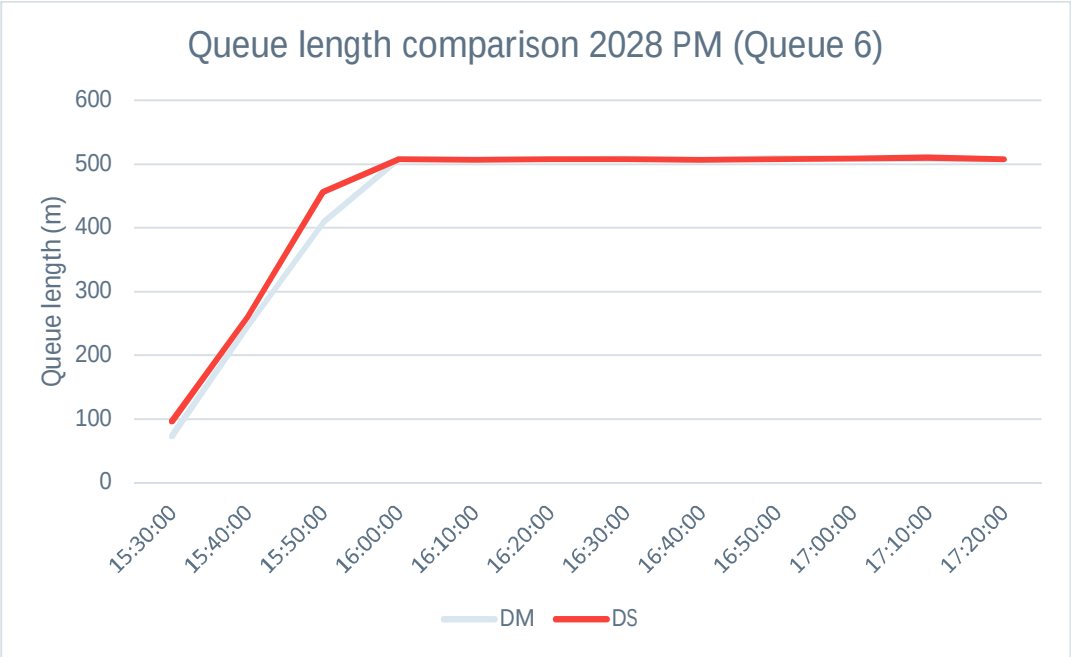
08:30:00
08:40:00
08:50:00
DM
DS


Queue length comparison 2028 PM (Queue 6)
Queue length (m)
600
500
400
300
200
100
0
15:30:00
15:40:00
15:50:00
16:00:00
16:10:00
16:20:00
16:30:00
16:40:00
16:50:00
17:00:00
17:10:00
17:20:00
DM
DS

Appendix G

SENSIVITY TESTING - FUTURE

FLOWS

DM 2020 AM matrices:

- Warm up 7:00-7:30

HVs:

1	2	3	4	5	6
0	9	5	97	11	1
6	0	0	45	100	1
1	1	3	0	0	0
87	34	0	1	32	4
13	107	0	25	2	0
0	3	0	3	2	0

LVs:

1	2	3	4	5	6
6	197	85	782	161	89
133	1	22	279	634	74
111	32	1	1	94	37
790	349	0	0	104	65
97	745	50	91	0	32
20	3	3	5	5	0

- Peak 7:30-8:30

HVs:

1	2	3	4	5	6
2	10	12	145	12	3
9	1	8	66	169	5
5	7	0	0	2	0
176	69	0	1	69	2
25	169	7	58	1	2
5	3	0	7	5	0

LVs:

1	2	3	4	5	6
12	602	276	1789	308	50
473	3	47	844	1286	55
299	74	16	8	225	22
1767	731	1	11	251	33
213	1618	135	251	0	46
19	12	10	11	4	1

- Cool down 8:30-9:00

HVs:

1	2	3	4	5	6
2	15	1	80	20	0
13	1	1	31	98	2
5	0	3	0	3	0
93	36	1	0	37	9
11	104	0	27	2	3
1	2	0	4	2	0

LVs:

1	2	3	4	5	6
3	247	103	653	114	4
150	1	27	351	579	14
152	31	2	17	83	1
601	242	3	1	101	5
102	586	74	129	0	8
3	2	1	5	2	0

DM 2020 PM matrices:

- Warm up 15:30-16:00

HVs:

1	2	3	4	5	6
0	4	0	77	6	0
6	0	3	30	110	4
9	0	0	0	2	0
70	22	0	0	34	0
10	113	9	39	0	3
0	1	0	3	0	0

LVs:

1	2	3	4	5	6
1	187	127	689	93	5
140	1	39	230	530	2
106	31	10	6	59	2
664	216	2	7	120	3
152	634	66	107	3	1
107	104	51	70	32	0

- Peak 16:00-17:00

HVs:

1	2	3	4	5	6
0	15	0	159	11	1
17	8	0	56	161	0
15	0	0	0	0	0
140	42	17	0	54	1
24	182	0	49	7	4
0	2	0	1	0	0

LVs:

1	2	3	4	5	6
11	461	213	1724	196	6
398	8	92	592	1257	10
261	48	17	16	78	9
1506	589	3	5	274	6
297	1326	151	198	1	10
330	232	117	156	69	1

- Cool down 17:00-17:30

HVs:

1	2	3	4	5	6
0	6	0	47	7	2
2	0	0	22	86	3
12	0	0	0	0	0
39	11	0	0	22	2
4	82	8	20	1	0
1	0	0	3	0	0

LVs:

1	2	3	4	5	6
8	206	148	833	112	4
265	3	42	322	633	3
146	35	3	13	59	1
785	329	1	4	105	2
137	718	105	90	2	2
51	32	20	28	20	0

DM 2028 AM matrices:

- Warm up 7:00-7:30

HVs:

1	2	3	4	5	6
0	10	6	106	12	1
6	0	0	49	108	1
1	1	3	0	0	0
95	37	0	1	35	5
14	116	0	27	2	0
0	3	0	3	2	0

LVs:

1	2	3	4	5	6
7	211	92	846	172	97
142	1	24	302	684	81
121	35	1	1	103	40
858	380	0	0	111	70
105	804	54	95	0	35
22	3	3	6	6	0

- Peak 7:30-8:30

HVs:

1	2	3	4	5	6
2	11	13	157	13	3
10	1	9	72	183	6
6	8	0	0	2	0
192	75	0	1	75	2
27	183	8	63	1	2

LVs:

1	2	3	4	5	6
13	645	300	1935	327	54
509	3	51	915	1384	60
325	81	17	9	244	24
1920	794	1	12	267	36
231	1745	146	265	0	50
21	13	10	12	5	1

- Cool down 8:30-9:00

HVs:

1	2	3	4	5	6
2	16	1	86	22	0
14	2	2	34	106	3
6	0	3	0	3	0
102	39	1	0	40	9
12	113	0	29	2	4
1	2	0	5	2	0

LVs:

1	2	3	4	5	6
4	222	112	658	85	5
139	1	29	364	560	15
165	33	2	18	90	1
647	261	3	2	78	6
106	569	81	100	0	9
4	4	1	7	4	0

DM 2028 PM matrices:

- Warm up 15:30-16:00

HVs:

1	2	3	4	5	6
0	4	0	87	7	0
6	0	3	34	124	5
10	0	0	0	2	0
79	25	0	0	38	0
11	128	10	44	0	3
0	1	0	3	0	0

LVs:

1	2	3	4	5	6
1	199	138	745	99	6
148	1	43	248	569	2
115	33	10	7	64	2
717	232	2	8	128	3
162	681	71	112	3	1
116	113	55	76	35	0

- Peak 16:00-17:00

HVs:

1	2	3	4	5	6
0	17	0	172	12	1
19	9	0	60	175	0
16	0	0	0	0	0
152	46	18	0	59	1
26	197	0	53	8	5
0	2	0	1	0	0

LVs:

1	2	3	4	5	6
13	506	240	1936	216	7
436	9	104	664	1400	12
294	54	20	18	87	10
1687	656	3	6	299	7
327	1473	170	213	1	12
371	261	132	176	78	1

- Cool down 17:00-17:30

HVs:

1	2	3	4	5	6
0	6	0	51	7	2
2	0	0	24	93	3
13	0	0	0	0	0
42	12	0	0	23	2
4	88	9	21	1	0
1	0	0	3	0	0

LVs:

1	2	3	4	5	6
9	219	161	901	120	5
284	3	46	349	682	3
159	38	3	14	64	1
848	355	1	5	112	2
146	773	114	95	2	2
55	35	22	30	22	0

DS 2020 AM matrices:

- Warm up 07:00-07:30

HVs:

1	2	3	4	5	6
0	9	10	97	11	1
6	0	3	45	100	1
4	3	3	2	1	0
87	34	2	1	32	4
13	107	1	25	2	0
0	3	0	3	2	0

LVs:

1	2	3	4	5	6
6	197	104	782	161	89
133	1	37	279	634	74
115	34	1	3	95	37
790	349	11	0	104	65
97	745	54	91	0	32
20	3	3	5	5	0

- Peak 07:30-8:30

HVs:

1	2	3	4	5	6
2	10	23	145	12	3
9	1	16	66	169	5
13	13	0	4	4	0
176	69	6	1	69	2
25	169	10	58	1	2
5	3	0	7	5	0

LVs:

1	2	3	4	5	6
12	602	323	1789	308	50
473	3	83	844	1286	55
307	80	16	13	227	22
1767	731	28	11	251	33
213	1618	146	251	0	46
19	12	10	11	4	1

- Cool down 8:30-9:00

HVs:

1	2	3	4	5	6
2	16	6	80	21	0
13	1	4	31	99	2
9	3	3	2	4	0
93	36	4	0	38	8
11	105	1	27	2	3
1	2	0	4	2	0

LVs:

1	2	3	4	5	6
3	247	123	653	114	4
150	1	42	351	579	14
155	33	2	19	84	1
601	242	15	1	101	5
102	586	79	129	0	8
3	2	1	5	2	0

DS 2020 PM matrices:

- Warm up 15:30-16:00

HVs:

1	2	3	4	5	6
0	4	1	77	6	0
6	0	4	30	110	4
12	2	0	2	3	0
70	22	1	0	34	0
10	113	10	39	0	3
0	1	0	3	0	0

LVs:

1	2	3	4	5	6
1	187	129	689	93	5
140	1	41	230	530	2
124	45	10	17	64	2
664	216	3	7	120	3
152	634	66	107	3	1
107	104	51	70	32	0

- Peak 16:00-17:00

HVs:

1	2	3	4	5	6
0	15	3	159	11	1
17	8	2	56	161	0
22	5	0	4	2	0
140	42	19	0	54	1
24	182	1	49	7	4
0	2	0	1	0	0

LVs:

1	2	3	4	5	6
11	461	217	1724	196	6
398	8	95	592	1257	10
300	78	17	38	87	9
1506	589	5	5	274	6
297	1326	152	198	1	10
330	232	117	156	69	1

- Cool down 17:00-17:30

HVs:

1	2	3	4	5	6
0	6	1	47	7	2
2	0	1	22	86	3
14	2	0	2	1	0
39	11	1	0	22	2
4	82	9	20	1	0
1	0	0	3	0	0

LVs:

1	2	3	4	5	6
8	206	150	833	112	4
265	3	44	322	633	3
162	47	3	21	63	1
785	329	2	4	105	2
137	718	105	90	2	2
51	32	20	28	20	0

DS 2028 AM matrices:

- Warm up 07:00-07:30

HVs:

1	2	3	4	5	6
0	10	10	106	12	1
6	0	3	49	108	1
4	4	3	2	1	0
95	37	2	1	35	5
14	116	1	27	2	0
0	3	0	3	2	0

LVs:

1	2	3	4	5	6
7	211	111	846	172	97
142	1	39	302	684	81
124	37	1	3	103	40
858	380	11	0	111	70
105	804	59	95	0	35
22	3	3	6	6	0

- Peak 07:30-8:30

HVs:

1	2	3	4	5	6
2	11	24	157	13	3
10	1	17	72	183	6
14	14	0	4	4	0
192	75	6	1	75	2
27	183	11	63	1	2
6	3	0	8	6	0

LVs:

1	2	3	4	5	6
13	645	347	1935	327	54
509	3	87	915	1384	60
333	87	17	14	246	24
1920	794	28	12	267	36
231	1745	157	265	0	50
21	13	10	12	5	1

- Cool down 8:30-9:00

HVs:

1	2	3	4	5	6
2	17	6	87	23	0
14	1	5	34	107	2
9	3	3	2	4	0
102	39	4	0	41	9
12	114	1	29	2	3
1	2	0	5	2	0

LVs:

1	2	3	4	5	6
3	265	132	705	121	5
161	1	44	380	624	15
168	36	2	21	91	1
653	263	15	1	107	6
111	632	85	137	0	9
3	2	1	6	2	0

DS 2028 PM matrices:

- Warm up 15:30-16:00

HVs:

1	2	3	4	5	6
0	4	1	87	7	0
6	0	4	34	124	5
14	2	0	2	3	0
79	25	1	0	38	0
11	128	11	44	0	3
0	1	0	3	0	0

LVs:

1	2	3	4	5	6
1	199	140	745	99	6
148	1	44	248	569	2
133	48	10	17	69	2
717	232	3	8	128	3
162	681	72	112	3	1
116	113	55	76	35	0

- Peak 16:00-17:00

HVs:

1	2	3	4	5	6
0	17	3	172	12	1
19	9	2	60	175	0
23	5	0	4	2	0
152	46	20	0	59	1
26	197	1	53	8	5
0	2	0	1	0	0

LVs:

1	2	3	4	5	6
13	506	244	1936	216	7
436	9	107	664	1400	12
333	84	20	40	96	10
1687	656	5	6	299	7
327	1473	171	213	1	12
371	261	132	176	78	1

- Cool down 17:00-17:30

HVs:

1	2	3	4	5	6
0	6	1	51	7	2
2	0	1	24	93	3
15	2	0	2	1	0
42	12	1	0	23	2
4	88	10	21	1	0
1	0	0	3	0	0

LVs:

1	2	3	4	5	6
9	219	163	901	120	5
284	3	47	349	682	3
174	50	3	23	68	1
848	355	2	5	112	2
146	773	114	95	2	2
55	35	22	30	22	0

Appendix H

SENSIVITY TESTING - JOURNEY TIME RESULTS

Route	Name	Interval	2020 DM AM	2020 DS AM	Difference	Difference %	Interval	2020 DM PM	2020 DS PM	Difference	Difference %
Route 1	A38 SB	7:30-7:45	266	301	35	13%	16:00-16:15	164	166	2	1%
Route 2	A50 WB	7:30-7:45	347	351	4	1%	16:00-16:15	292	289	-3	-1%
Route 3	B5008	7:30-7:45	139	161	22	16%	16:00-16:15	113	139	26	23%
Route 4	A38 NB	7:30-7:45	280	254	-26	-9%	16:00-16:15	243	244	1	0%
Route 5	A50 EB	7:30-7:45	147	142	-5	-3%	16:00-16:15	179	176	-3	-2%
Route 1	A38 SB	7:45-8:00	232	248	16	7%	16:15-16:30	151	154	3	2%
Route 2	A50 WB	7:45-8:00	391	399	8	2%	16:15-16:30	299	299	0	0%
Route 3	B5008	7:45-8:00	148	157	9	6%	16:15-16:30	103	133	30	29%
Route 4	A38 NB	7:45-8:00	306	273	-33	-11%	16:15-16:30	246	245	-1	0%
Route 5	A50 EB	7:45-8:00	112	133	21	19%	16:15-16:30	184	184	0	0%
Route 1	A38 SB	8:00-8:15	240	251	11	5%	16:30-16:45	154	162	8	5%
Route 2	A50 WB	8:00-8:15	367	380	13	4%	16:30-16:45	286	290	4	1%
Route 3	B5008	8:00-8:15	145	159	14	10%	16:30-16:45	104	134	30	29%
Route 4	A38 NB	8:00-8:15	288	272	-16	-6%	16:30-16:45	246	248	2	1%
Route 5	A50 EB	8:00-8:15	126	139	13	10%	16:30-16:45	185	178	-7	-4%
Route 1	A38 SB	8:15-8:30	260	282	22	8%	16:45-17:00	152	169	17	11%
Route 2	A50 WB	8:15-8:30	379	386	7	2%	16:45-17:00	297	295	-2	-1%
Route 3	B5008	8:15-8:30	148	163	15	10%	16:45-17:00	107	138	31	29%
Route 4	A38 NB	8:15-8:30	276	259	-17	-6%	16:45-17:00	246	249	3	1%
Route 5	A50 EB	8:15-8:30	135	131	-4	-3%	16:45-17:00	177	189	12	7%

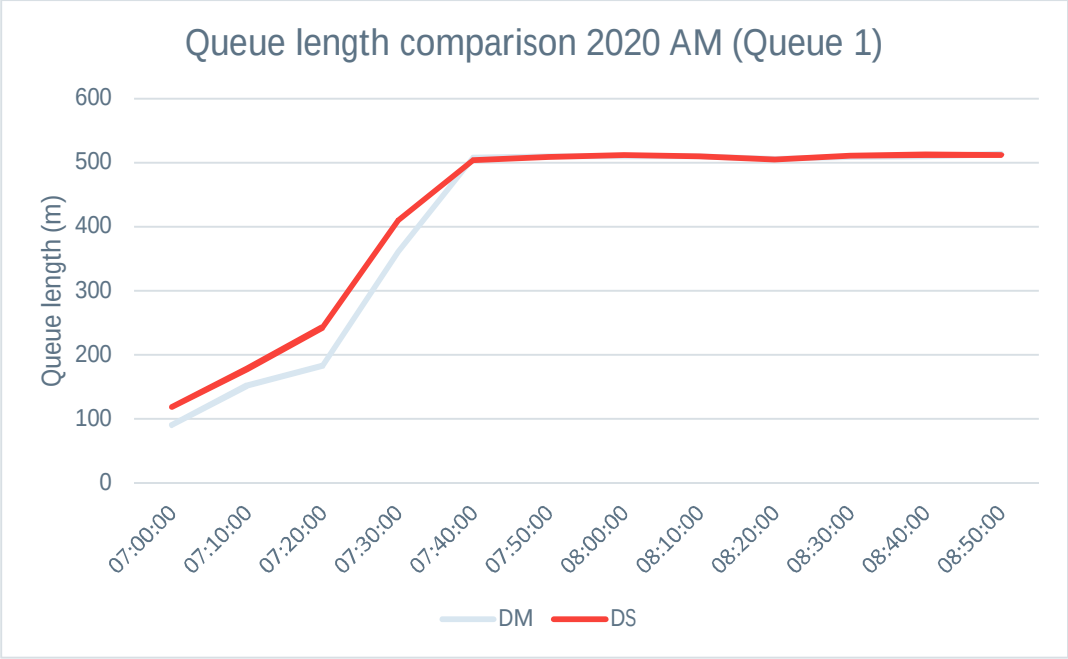
Route	Name	Interval	2028 DM AM	2028 DS AM	Difference	Difference %	Interval	2028 DM PM	2028 DS PM	Difference	Difference %
Route 1	A38 SB	7:30-7:45	280	305	25	9%	16:00-16:15	177	181	4	2%
Route 2	A50 WB	7:30-7:45	382	366	-16	-4%	16:00-16:15	316	324	8	3%
Route 3	B5008	7:30-7:45	139	163	24	17%	16:00-16:15	115	140	25	22%
Route 4	A38 NB	7:30-7:45	265	237	-28	-11%	16:00-16:15	261	263	2	1%
Route 5	A50 EB	7:30-7:45	155	142	-13	-8%	16:00-16:15	180	160	-20	-11%
Route 1	A38 SB	7:45-8:00	236	270	34	14%	16:15-16:30	163	167	4	2%
Route 2	A50 WB	7:45-8:00	417	410	-7	-2%	16:15-16:30	316	322	6	2%
Route 3	B5008	7:45-8:00	130	145	15	12%	16:15-16:30	121	152	31	26%
Route 4	A38 NB	7:45-8:00	294	272	-22	-7%	16:15-16:30	275	273	-2	-1%
Route 5	A50 EB	7:45-8:00	130	132	2	2%	16:15-16:30	179	138	-41	-23%
Route 1	A38 SB	8:00-8:15	260	286	26	10%	16:30-16:45	159	165	6	4%
Route 2	A50 WB	8:00-8:15	394	395	1	0%	16:30-16:45	328	323	-5	-2%
Route 3	B5008	8:00-8:15	141	156	15	11%	16:30-16:45	120	151	31	26%
Route 4	A38 NB	8:00-8:15	276	260	-16	-6%	16:30-16:45	275	276	1	0%
Route 5	A50 EB	8:00-8:15	129	126	-3	-2%	16:30-16:45	172	150	-22	-13%
Route 1	A38 SB	8:15-8:30	260	252	-8	-3%	16:45-17:00	156	163	7	4%
Route 2	A50 WB	8:15-8:30	416	432	16	4%	16:45-17:00	337	340	3	1%
Route 3	B5008	8:15-8:30	130	141	11	8%	16:45-17:00	122	148	26	21%
Route 4	A38 NB	8:15-8:30	281	264	-17	-6%	16:45-17:00	274	269	-5	-2%
Route 5	A50 EB	8:15-8:30	129	134	5	4%	16:45-17:00	168	140	-28	-17%

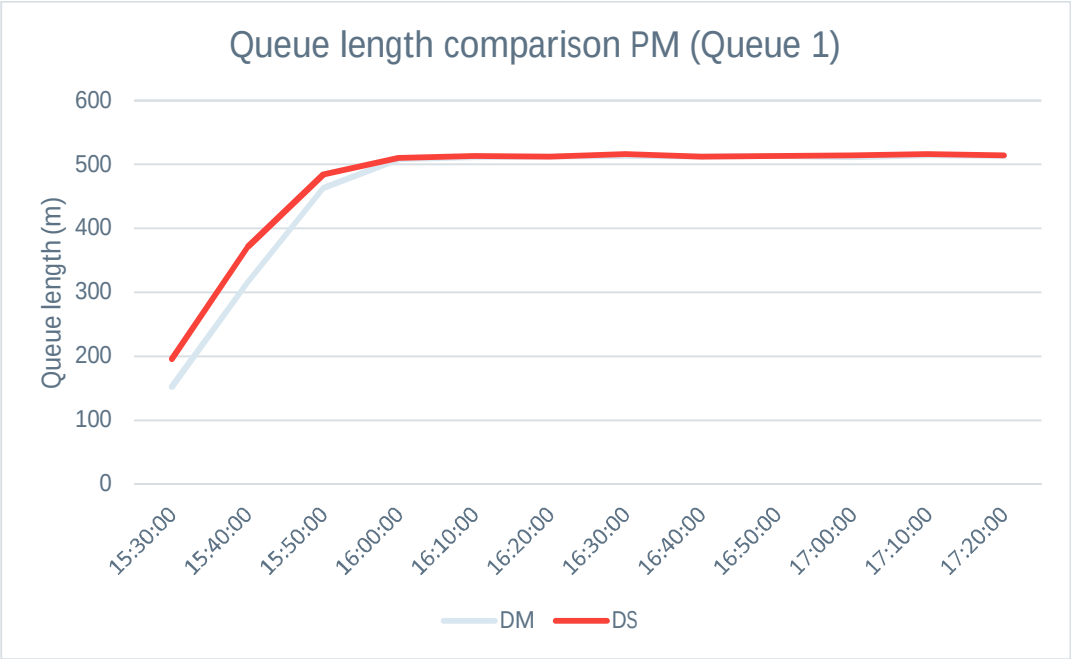
Appendix I

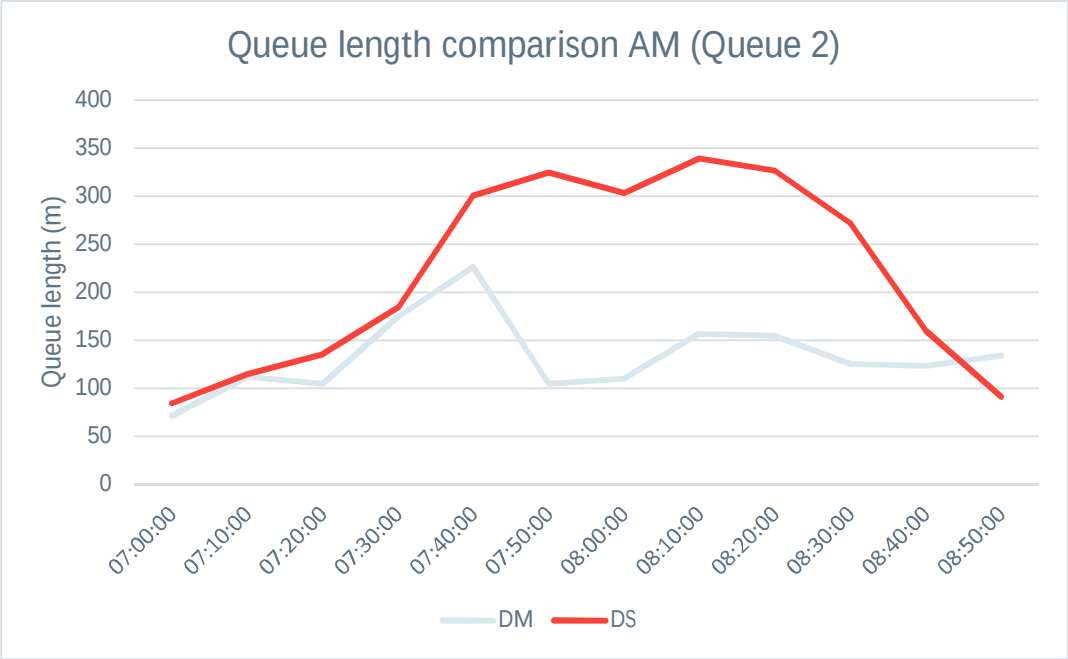
SENSIVITY TESTING - QUEUE

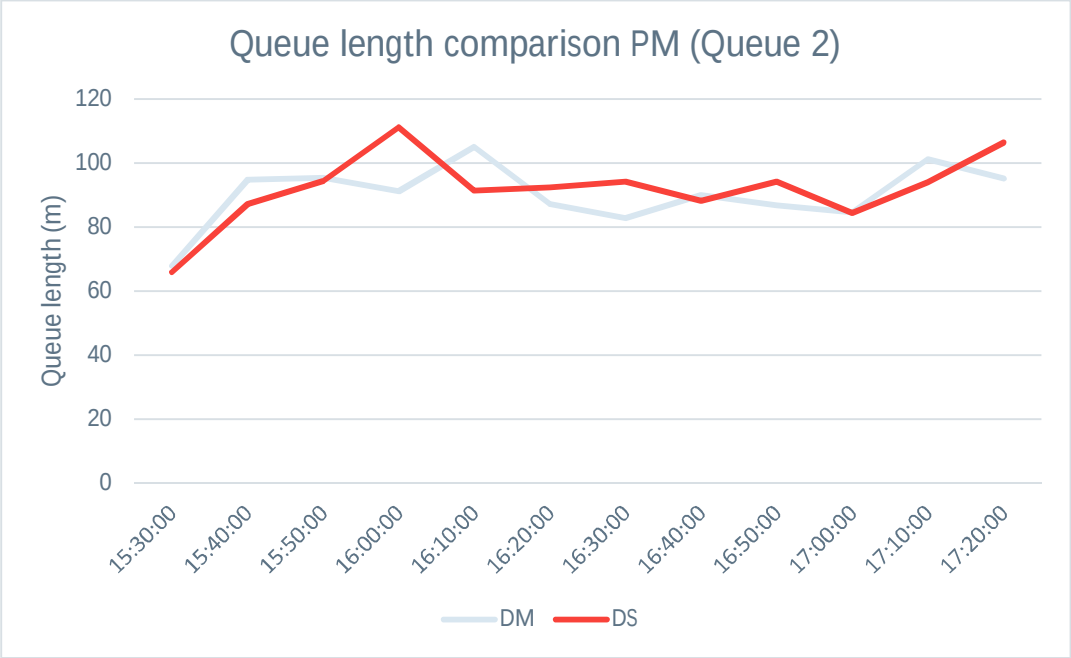
LENGHT SUMMARY

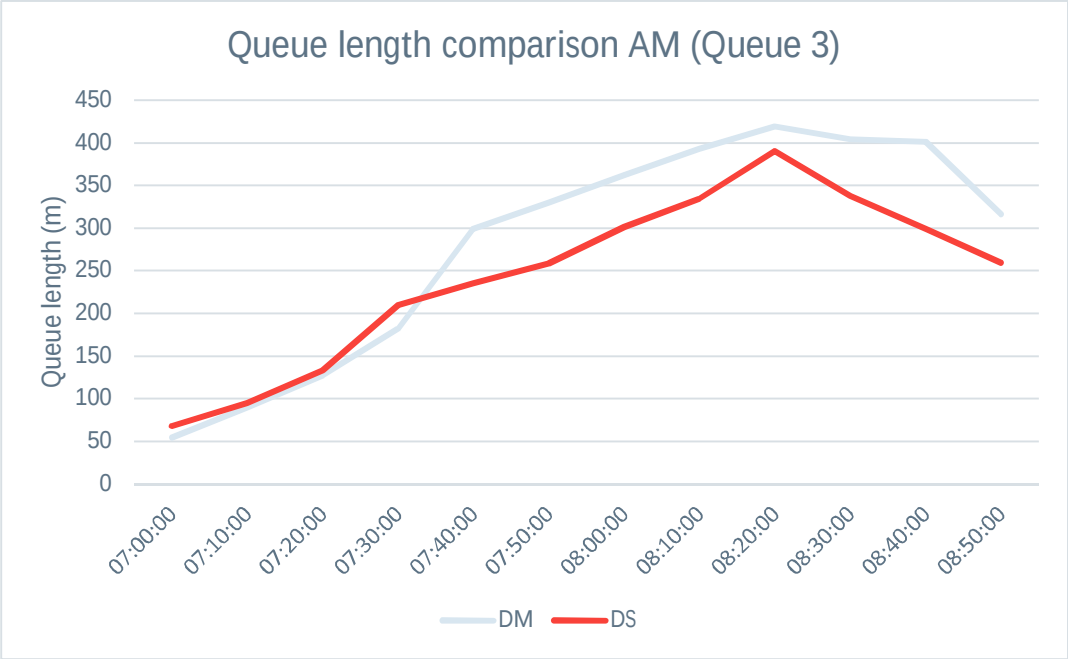
Queue length Results 2020

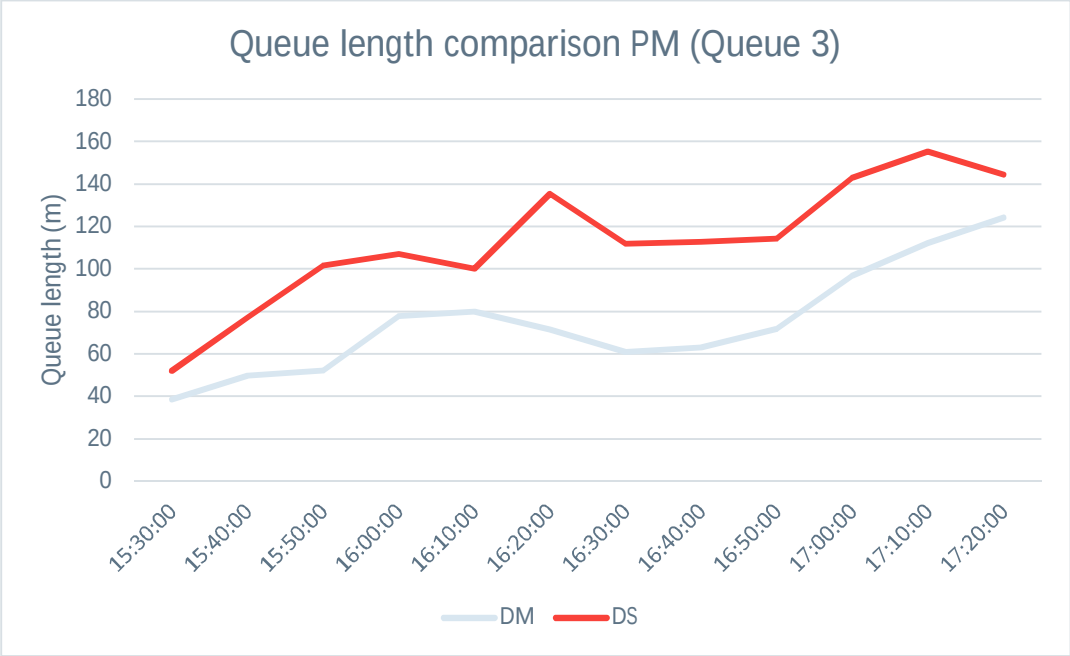


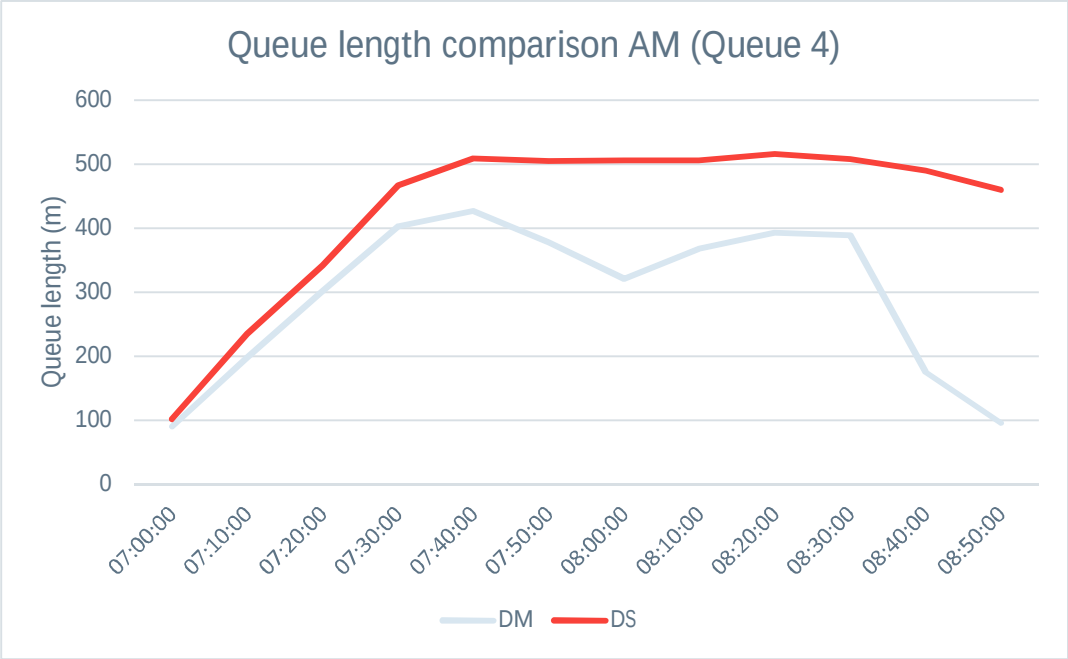


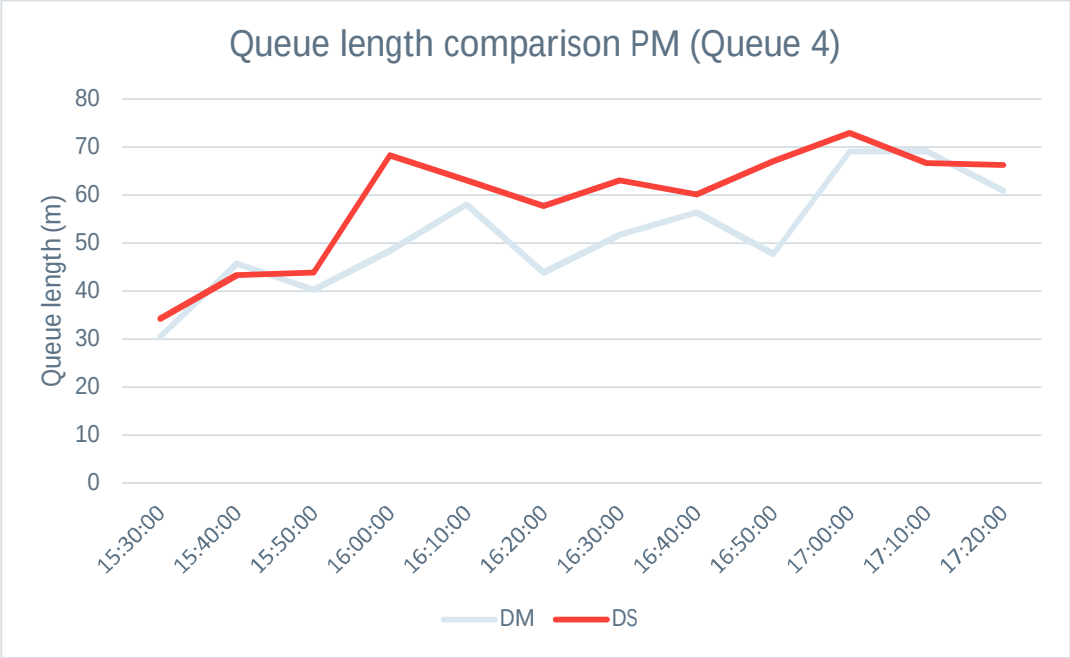

Queue length comparison AM (Queue 2)
Queue length (m)
400
350
300
250
200
150
100
50
0
07:00:00
07:10:00
07:20:00
07:30:00
07:40:00
07:50:00
08:00:00
08:10:00
08:20:00
08:30:00
08:40:00
08:50:00
DM
DS

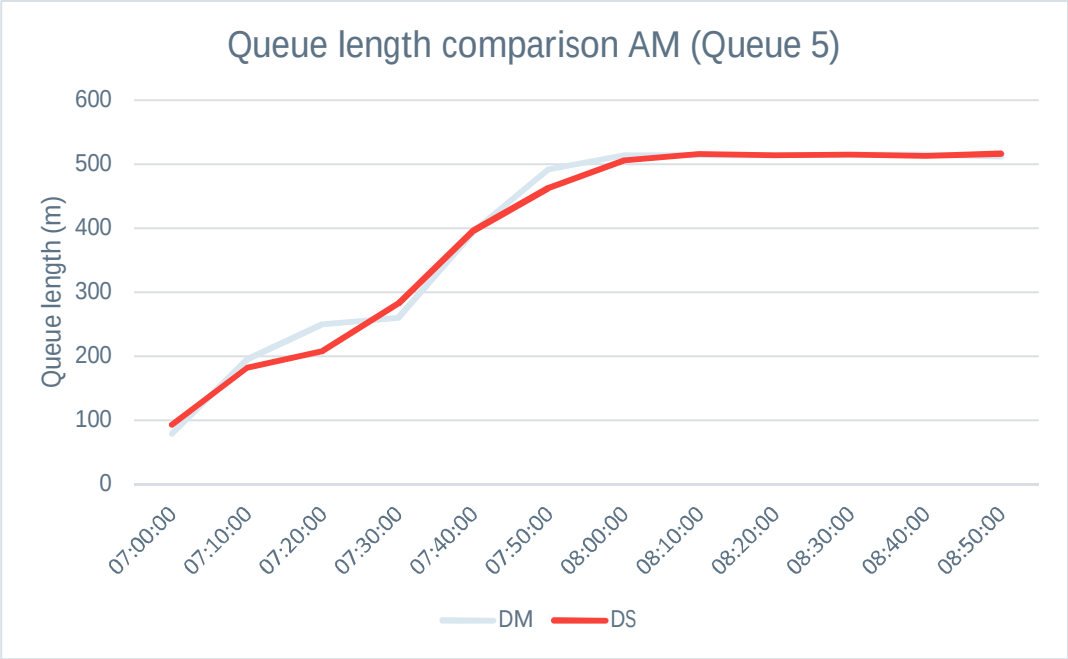

Queue length comparison PM (Queue 2)
Queue length (m)
120
100
80
60
40
20
0
15:30:00
15:40:00
15:50:00
16:00:00
16:10:00
16:20:00
16:30:00
16:40:00
16:50:00
17:00:00
17:10:00
17:20:00
DM
DS

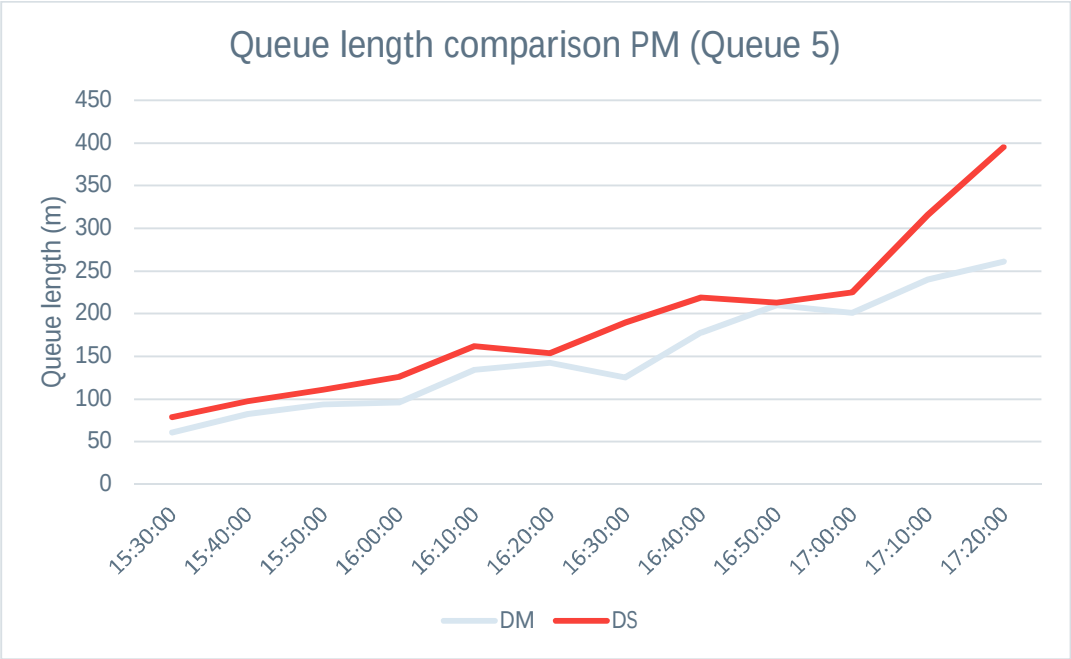

Queue length comparison AM (Queue 3)
Queue length (m)
450
400
350
300
250
200
150
100
50
0
07:00:00
07:10:00
07:20:00
07:30:00
07:40:00
07:50:00
08:00:00
08:10:00
08:20:00
08:30:00
08:40:00
08:50:00
DM
DS

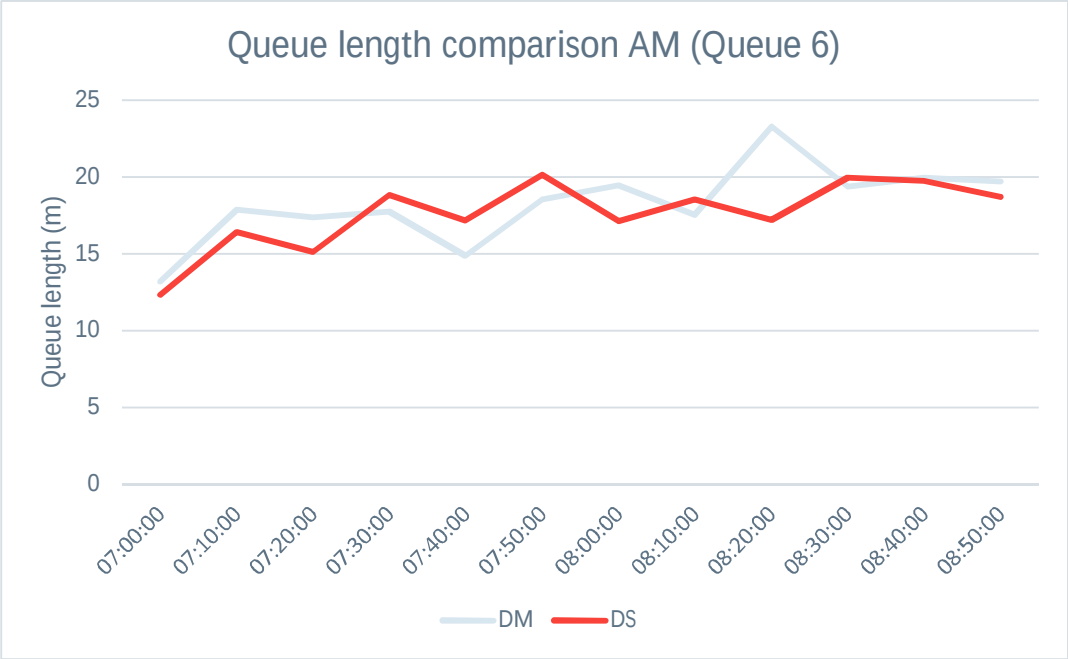

Queue length comparison PM (Queue 3)
Queue length (m)
180
160
140
120
100
80
60
40
20
0
15:30:00
15:40:00
15:50:00
16:00:00
16:10:00
16:20:00
16:30:00
16:40:00
16:50:00
17:00:00
17:10:00
17:20:00
DM
DS


Queue length comparison AM (Queue 4)
Queue length (m)
600
500
400
300
200
100
0
07:00:00
07:10:00
07:20:00
07:30:00
07:40:00
07:50:00
08:00:00
08:10:00
08:20:00
08:30:00
08:40:00
08:50:00
DM
DS


Queue length comparison PM (Queue 4)
Queue length (m)
80
70
60
50
40
30
20
10
0
15:30:00
15:40:00
15:50:00
16:00:00
16:10:00
16:20:00
16:30:00
16:40:00
16:50:00
17:00:00
17:10:00
17:20:00
DM
DS


Queue length comparison AM (Queue 5)
Queue length (m)
600
500
400
300
200
100
0
07:00:00
07:10:00
07:20:00
07:30:00
07:40:00
07:50:00
08:00:00
08:10:00
08:20:00
08:30:00
08:40:00
08:50:00
DM
DS


Queue length comparison PM (Queue 5)
Queue length (m)
450
400
350
300
250
200
150
100
50
0
15:30:00
15:40:00
15:50:00
16:00:00
16:10:00
16:20:00
16:30:00
16:40:00
16:50:00
17:00:00
17:10:00
17:20:00
DM
DS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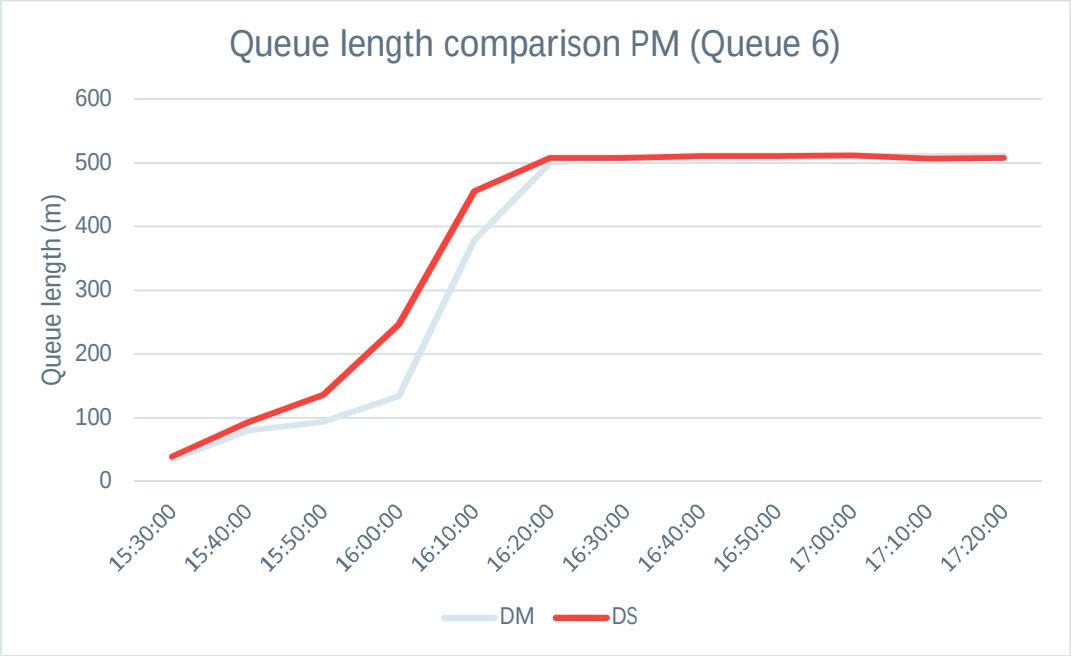
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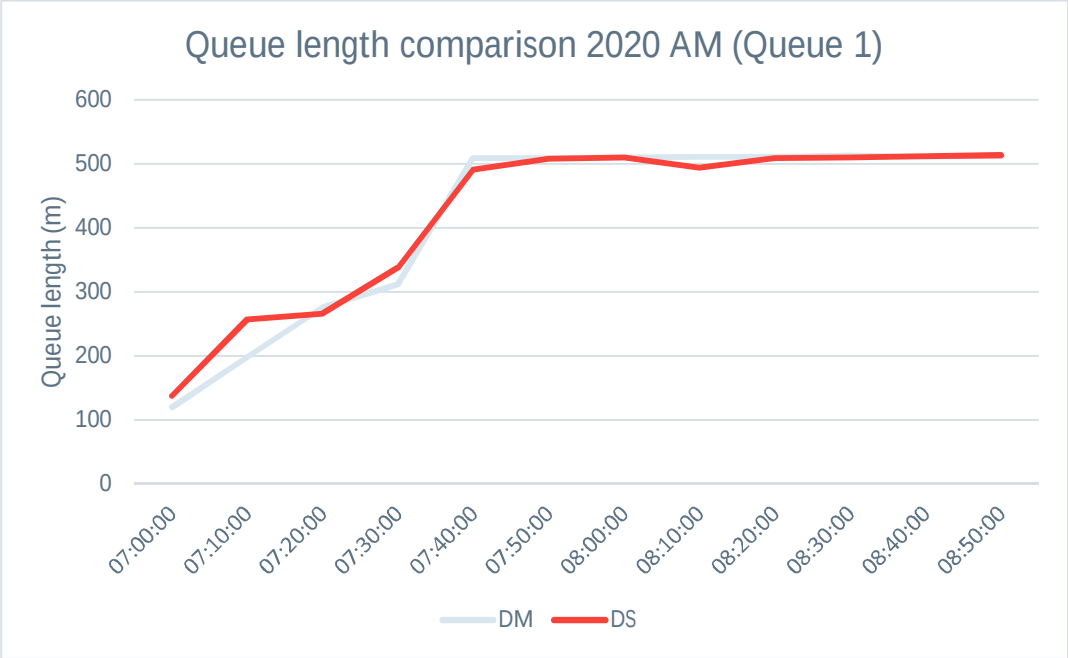

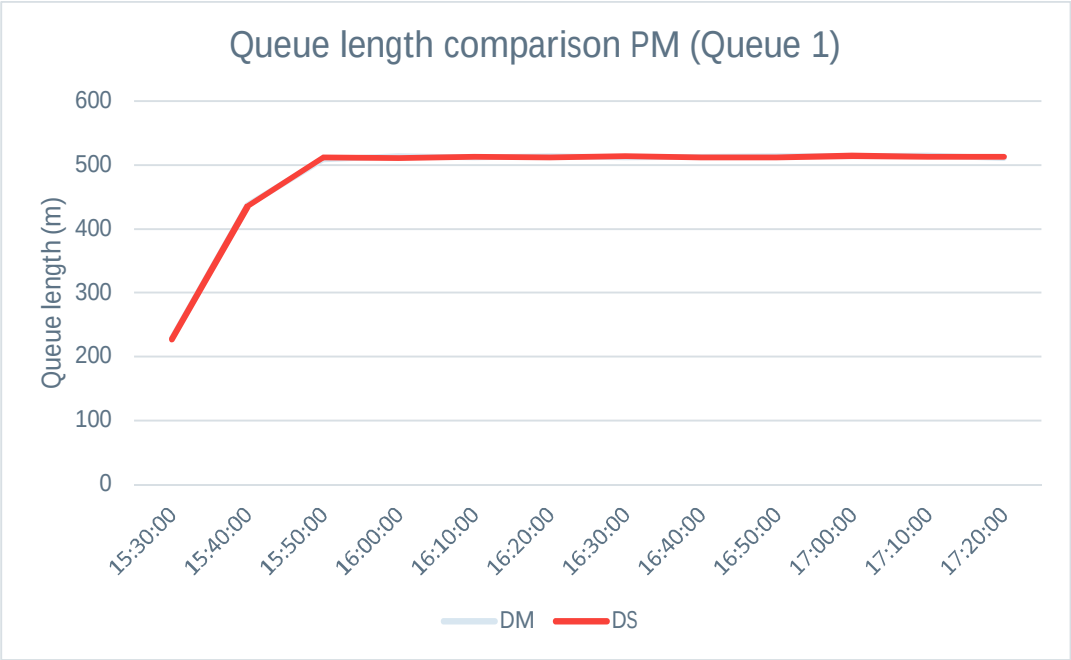

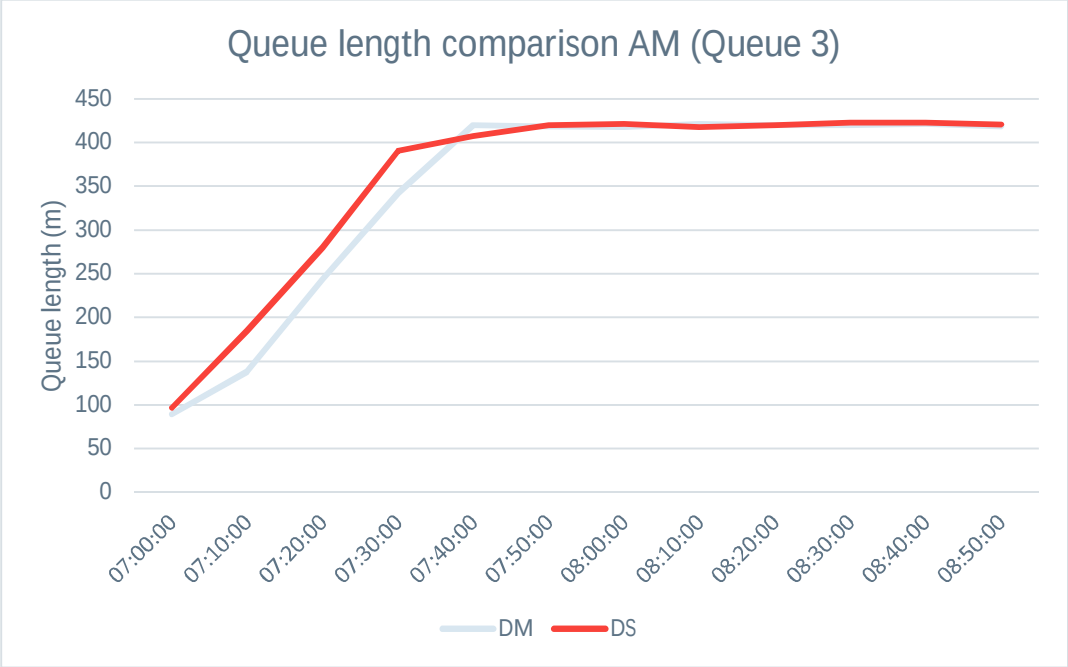
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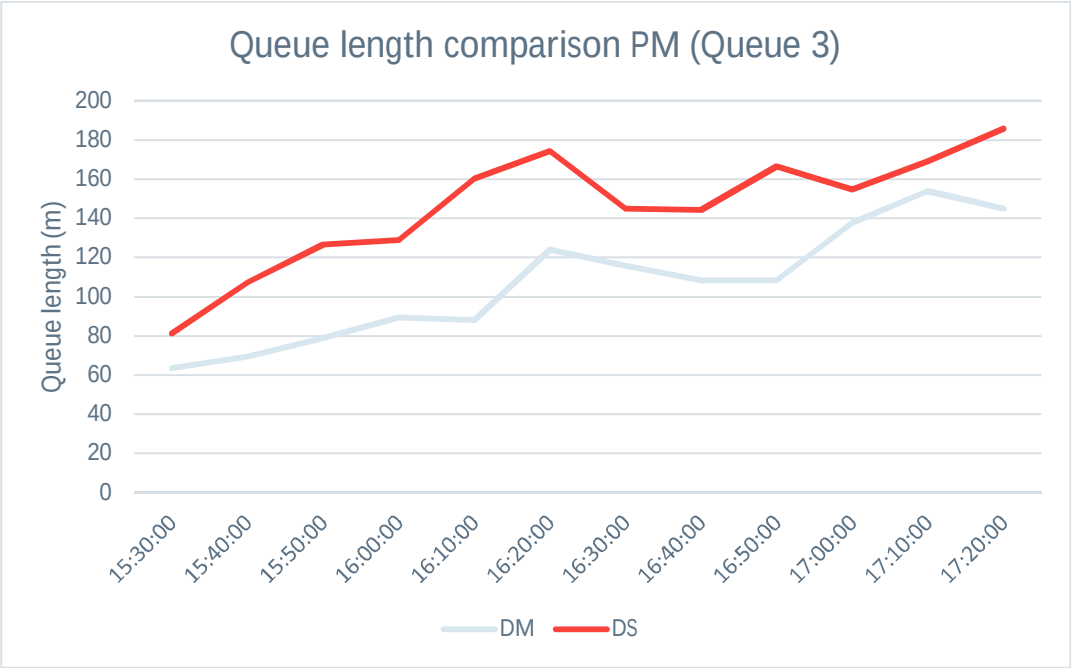
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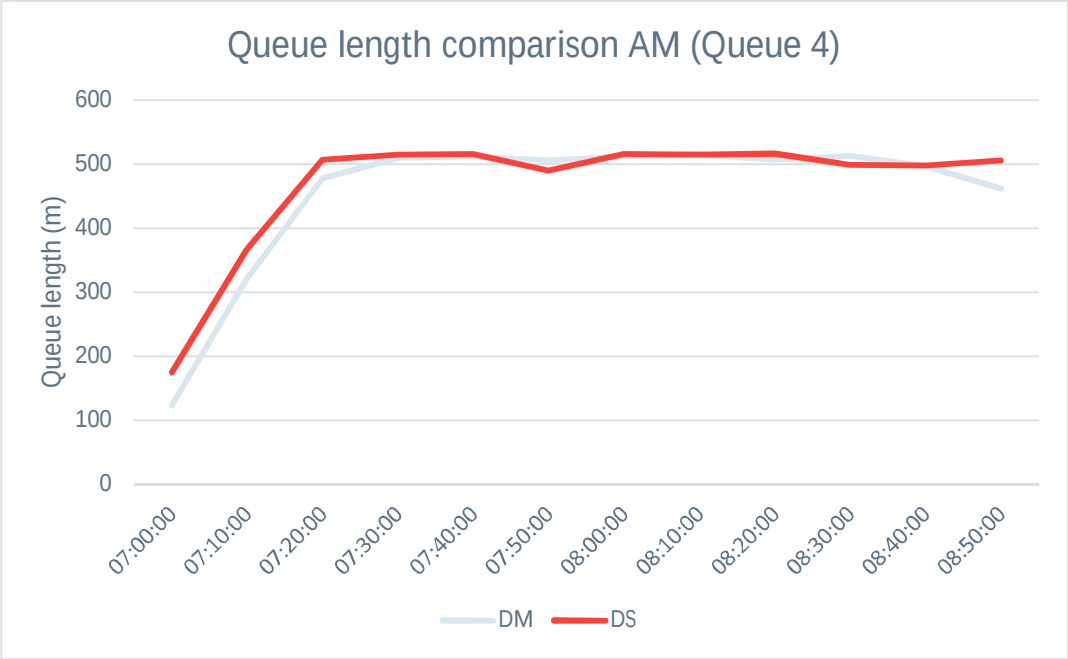
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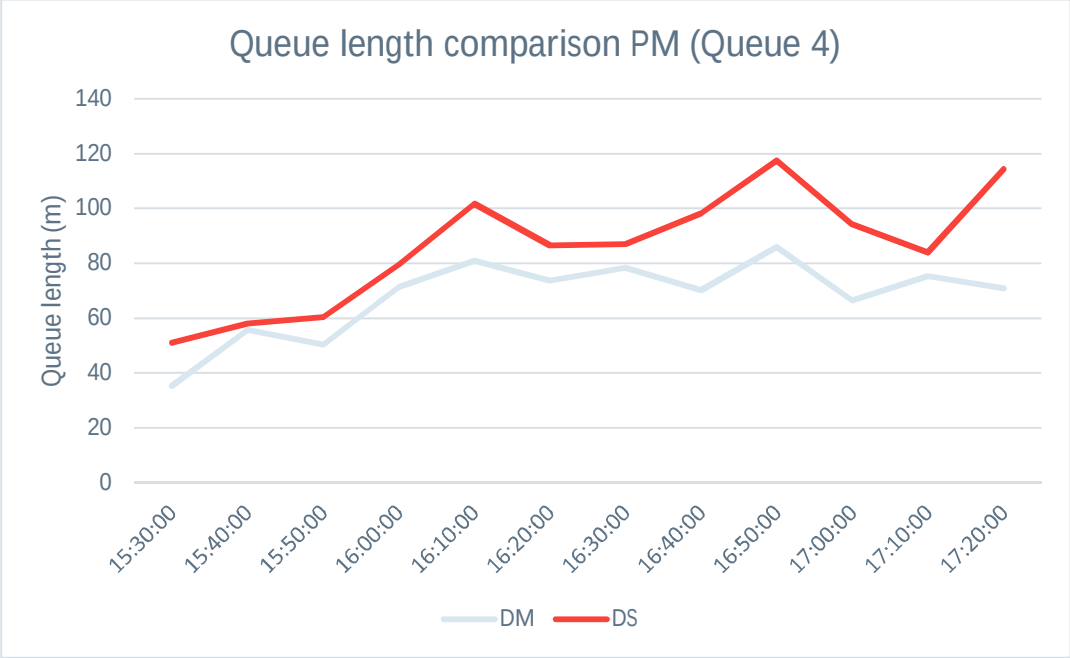
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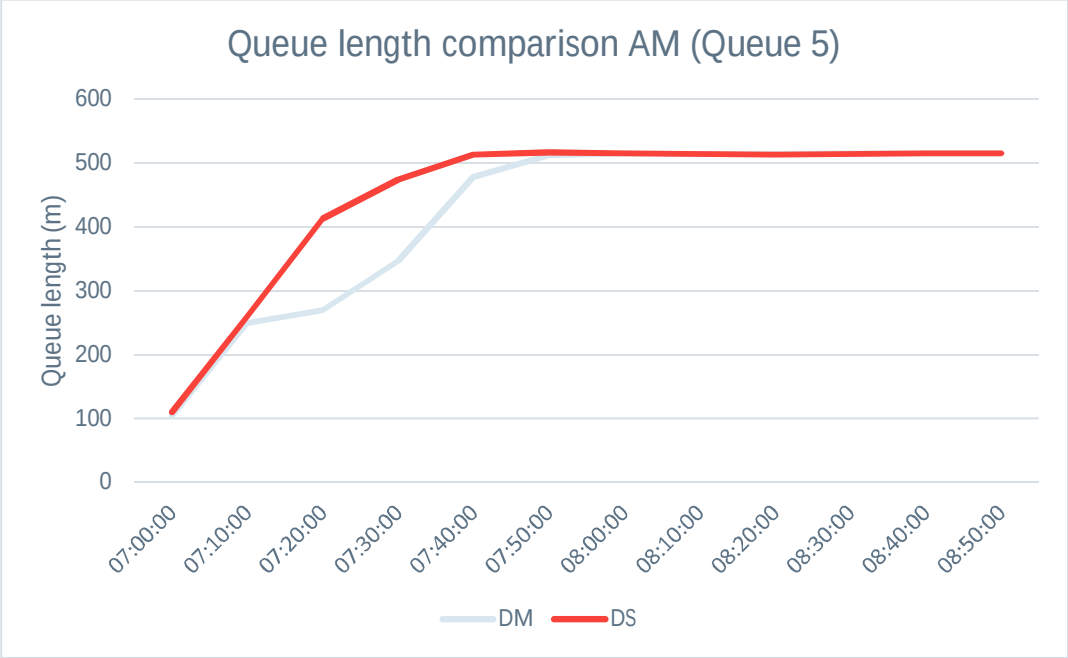
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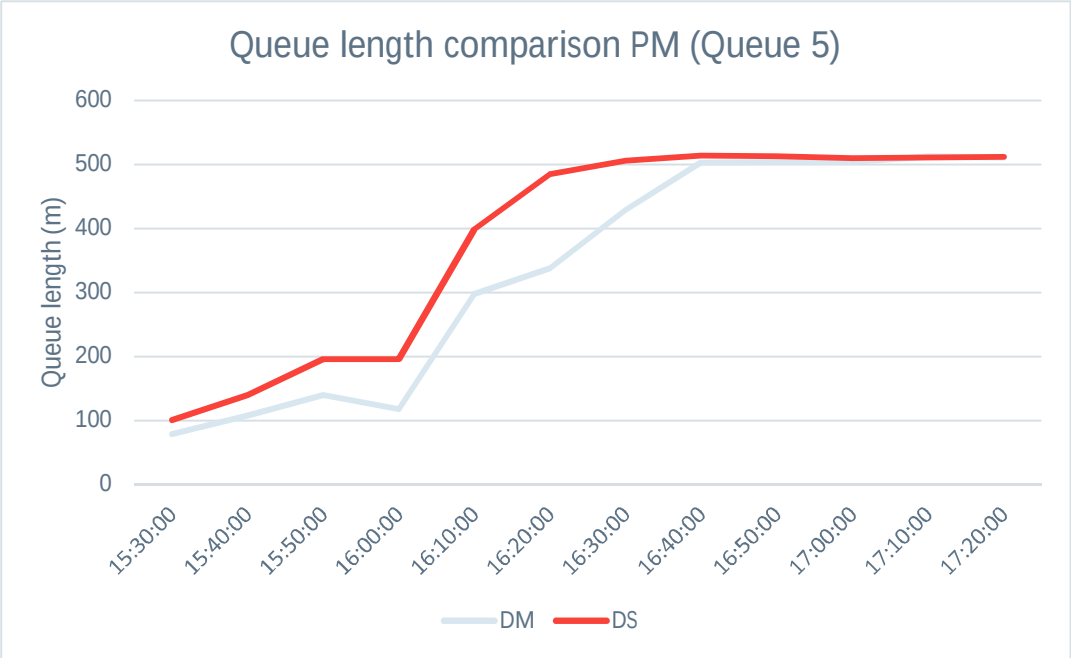
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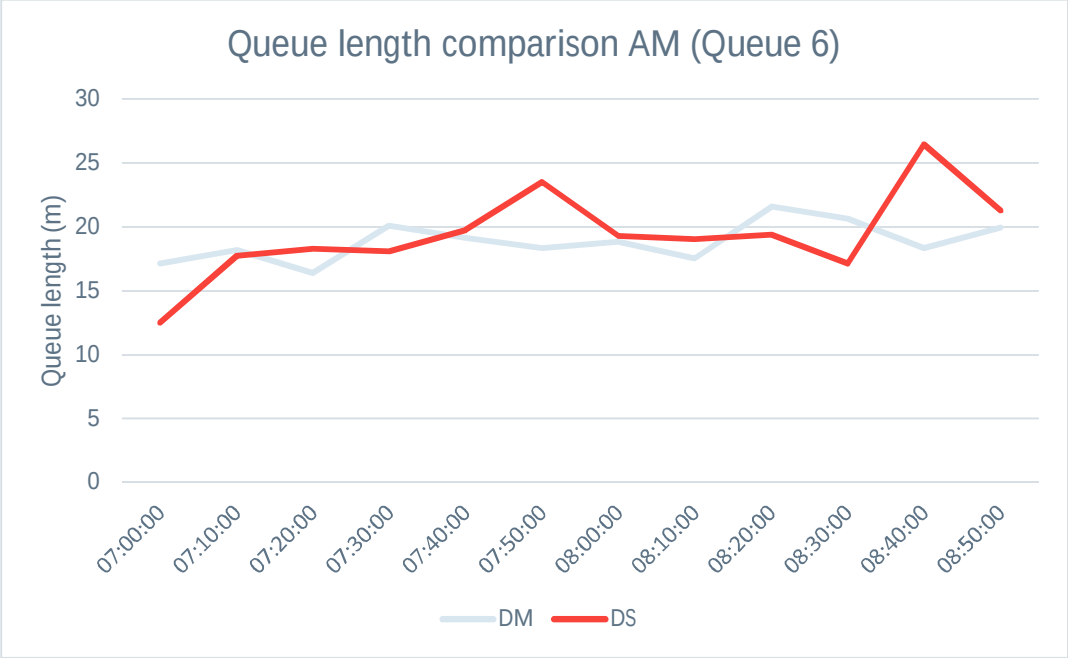
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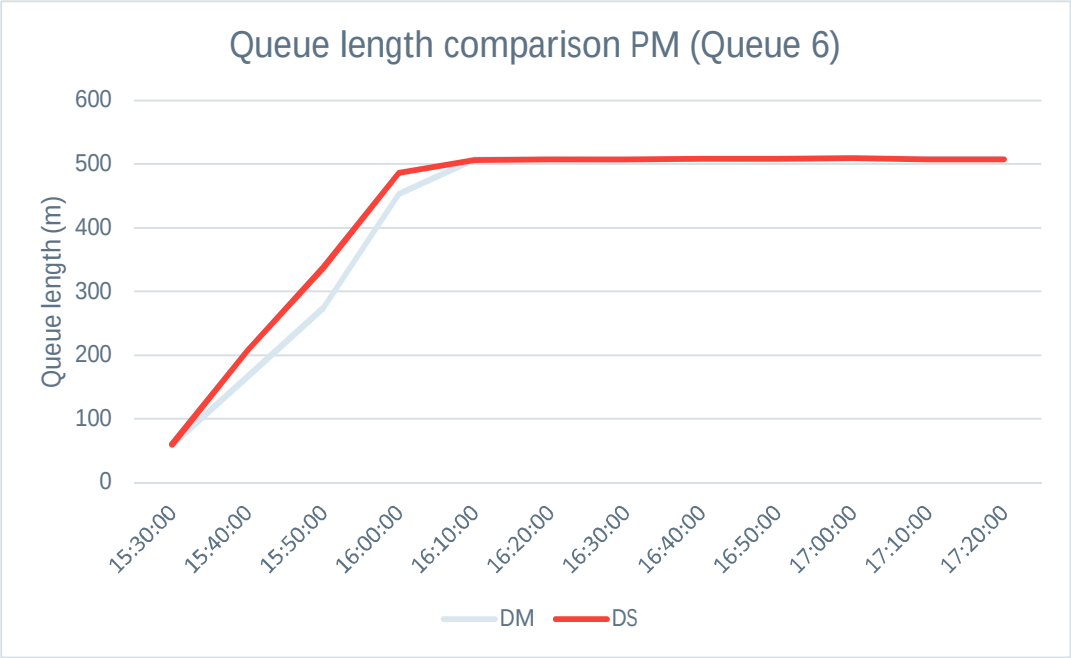
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Millshaw Park Lane
Leeds
LS11 0DL

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Appendix N

Approval in Principle for Mitigation Scheme at A50/A38

Joanna Posnett

From: Freek, Steve <Steve.Freek@highwaysengland.co.uk>
Sent: 22 February 2019 09:11
To: Joanna Posnett; 'Law, Daniel'; Roxburgh, Mark
Cc: 'James Houghton'; Russell, Ashley
Subject: RE: Proposed Industrial Development at Burnaston Cross/Willington - A50/A38 junction impact and mitigation

Hi Jo,

Regarding your email below, I can confirm that the condition could be worded 'prior to occupation' on the understanding that modelling work is provided and agreed beforehand in support of the appropriate trigger points.

Regards

Steve Freek
Assistant Spatial Planning & Economic Development Manager
Highways England, Stirling House (Area 7) Lakeside Court, Osier Drive, Sherwood Business Park
Nottingham NG15 0DS
Tel: 0300 470 4457
Mob: 07712 543047
Email: steve.freek@highwaysengland.co.uk

From: Joanna Posnett [mailto:J.Posnett@bsp-consulting.co.uk]
Sent: 21 February 2019 17:25
To: Freek, Steve <Steve.Freek@highwaysengland.co.uk>; 'Law, Daniel' <Daniel.Law@aecom.com>; Roxburgh, Mark <Mark.Roxburgh@highwaysengland.co.uk>
Cc: 'James Houghton' <James.Houghton@brackley-propdev.co.uk>; Russell, Ashley <Ashley.Russell@wsp.com>
Subject: RE: Proposed Industrial Development at Burnaston Cross/Willington - A50/A38 junction impact and mitigation

Hi Steve

Thank you for your e-mail below, and confirmation that a signalisation scheme to mitigate the development at the A38/A50 junction, and the suggested condition are acceptable in principle.

We would request that the recommended wording of the condition for the development of the scheme, including the further modelling work, is required 'prior to occupation' rather prior to 'commencement of the development', so as not to restrict starting on earth works, on-site infrastructure etc., with both trigger points open for negotiation based on further evidence in due course. Trust this would be acceptable?

Kind regards

Joanna Posnett
BA(Hons) MCIHT
Principal Transport Planner

BSP Consulting (Leicester)
p: 0116 204 7766 ext: 205
e: j.posnett@bsp-consulting.co.uk

From: Freek, Steve <Steve.Freek@highwaysengland.co.uk>
Sent: 14 February 2019 09:48
To: Joanna Posnett <J.Posnett@bsp-consulting.co.uk>; 'Law, Daniel' <Daniel.Law@aecom.com>; Roxburgh, Mark <Mark.Roxburgh@highwaysengland.co.uk>
Cc: 'James Houghton' <James.Houghton@brackley-propdev.co.uk>; Russell, Ashley <Ashley.Russell@wsp.com>
Subject: RE: Proposed Industrial Development at Burnaston Cross/Willington - A50/A38 junction impact and mitigation

Hi Jo,

Further to discussions with colleagues and in response to your emails below I would comment as follows:

To recap on our January review of the modelling work for a signalisation scheme at the A38/A50 junction in support of the Burnaston Cross development, AECOM and Highways England are of the view that a scheme in broad accordance with the design proposed will be both deliverable, and capable of mitigating development impacts.

As such it is reasonable to proceed on the basis that in principle, the mitigation of signalising the roundabout is acceptable, however, and as recognised by all parties, further detail will need to be developed at a later stage. In response to any forthcoming planning application, a condition should be recommended to ensure a scheme is approved prior to commencement of the development. This would require updated modelling due to the concerns previously raised regarding the operational viability of the proposed scheme.

The 'prior to commencement' element of the condition could of course be amended accordingly should suitable modelling work be provided as suggested, to support appropriate trigger points.

Please feel free to contact me should you have any queries.

Regards

Steve Freek
Assistant Spatial Planning & Economic Development Manager
Highways England, Stirling House (Area 7) Lakeside Court, Osier Drive, Sherwood Business Park
Nottingham NG15 0DS
Tel: 0300 470 4457
Mob: 07712 543047
Email: steve.freek@highwaysengland.co.uk

From: Joanna Posnett [mailto:J.Posnett@bsp-consulting.co.uk]
Sent: 11 February 2019 11:11
To: Freek, Steve <Steve.Freek@highwaysengland.co.uk>; 'Law, Daniel' <Daniel.Law@aecom.com>; Roxburgh, Mark <Mark.Roxburgh@highwaysengland.co.uk>
Cc: 'James Houghton' <James.Houghton@brackley-propdev.co.uk>; Russell, Ashley <Ashley.Russell@wsp.com>
Subject: RE: Proposed Industrial Development at Burnaston Cross/Willington - A50/A38 junction impact and mitigation

Morning Steve

Just following this up after our conversation last week. Have you had chance to discuss with your colleagues? Look forward to hearing from you. Let me know if you have any queries.

Kind regards

Joanna Posnett
BA(Hons) MCIHT
Principal Transport Planner

BSP Consulting (Leicester)
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e: j.posnett@bsp-consulting.co.uk

From: Joanna Posnett
Sent: 22 January 2019 16:37
To: Freek, Steve <Steve.Freek@highwaysengland.co.uk>; 'Law, Daniel' <Daniel.Law@aecom.com>; Roxburgh, Mark <Mark.Roxburgh@highwaysengland.co.uk>
Cc: 'James Houghton' <James.Houghton@brackley-propdev.co.uk>; Russell, Ashley <Ashley.Russell@wsp.com>
Subject: RE: Proposed Industrial Development at Burnaston Cross/Willington - A50/A38 junction impact and mitigation

Hi Steve

I've left a few voicemails, as ideally wanted to discuss this with you first. We have been reviewing the latest comments and would like to suggest that another option may be appropriate, to avoid the need to complete the additional modelling work up front and the need for a holding response for this work to be undertaken prior to a planning decision.

It is our understanding that the meetings and discussions we have had prior to this point were focussed on trying to keep the level of work proportional to the relatively small impact of the scheme in terms of additional traffic, and acknowledge that the committed developments and background growth were the key drivers for the required mitigation scheme.

The comments are generally positive and agree in principle to a mitigation scheme of the type proposed. MOVA design work and further modelling would be necessary to demonstrate fully the positive impact of signalisation, however as that should just provide betterment to the results so far with fixed time operation, we consider that this work could be done at a later stage, to allow the scheme to move forward. We had also discussed at our meeting that it may be appropriate for MOVA to be retrofitted, as the scale of mitigation would need to remain proportionate and viable.

WSP have worked on another scheme where the additional design and modelling (MOVA) work was conditioned to allow an outline application to proceed and be determined. Below is an extract of the condition HE requested from the outline application:

> 21 Unless otherwise agreed, in writing, by the Local Planning Authority (Sunderland City Council), no more than 20no. dwellings shall be occupied until a scheme of traffic signal improvements to the B1285 / Seaton Lane / Lord Byron's Walk junction has been submitted to and approved, in writing, by the Local Planning Authority, upon consultation with Durham County Council. This scheme shall include detailed analysis of the saturation flows at the junction, the timings of the signals, the operation strategy to ensure the junction is stable and a Stage 1/2 Road Safety Audit, if deemed necessary by the Local Planning Authority, together with an appropriate timescale for implementation. Unless otherwise agreed, in writing, by the Local Planning Authority, no more than 40no. dwellings shall be occupied until the approved scheme has been fully implemented, to completion, in accordance with the approved details. Reason: To mitigate the impact of the development on this junction, in the interest of highway safety and the free passage of traffic and to comply with policy T14 of the adopted Unitary Development Plan and paragraph 32 of the National Planning Policy Framework.

Should you be agreeable to a similar condition, we will look to prepare evidence to support our proposed trigger points for a) the additional scheme design and modelling work, and b) the implementation of the scheme, for your comments/approval and have started to look at this from a phasing and viability point of view.

In response to your comments on the land uses and scale, this is set out in more detail the draft Transport Assessment which we were envisage would be submitted imminently. In accordance with what we had previously agreed in April/May 2018, we are assessing up to 100,000sqm with up to 25% B2 and at least 75% B8, which can be controlled by condition (see attached Scoping Note and your approval). Therefore the overall number of trips has increased slightly from the agreed Scoping Note, as the GFA was rounded up to allow for more flexibility, but the trip rates and split have remained consistent. The resulting trip generation for 100,000sqm have been used in the modelling work to date.

Please can you consider the above and confirm if this would be an acceptable way forward. Please give me a call if you have any queries.

Kind regards,

Joanna Posnett

BA(Hons) MCIHT
Principal Transport Planner

BSP Consulting (Leicester)
p: 0116 204 7766 ext: 205
e: j.posnett@bsp-consulting.co.uk

From: Freek, Steve <Steve.Freek@highwaysengland.co.uk>
Sent: 11 January 2019 15:40
To: Russell, Ashley <Ashley.Russell@wsp.com>; 'Law, Daniel' <Daniel.Law@aecom.com>; Roxburgh, Mark <Mark.Roxburgh@highwaysengland.co.uk>
Cc: Joanna Posnett <J.Posnett@bsp-consulting.co.uk>; 'James Houghton' <James.Houghton@brackley-propdev.co.uk>; Leworthy, Emma <emma.leworthy@wsp.com>
Subject: RE: Proposed Industrial Development at Burnaston Cross/Willington - A50/A38 junction impact and mitigation

Hi Ashley,

Further to your email below dated 20 December 2018, I can confirm that Highways England agree in principle to a mitigation scheme comprising signalisation works. However in light of the seemingly extensive amount of modelling work still to be undertaken to reach an agreed scheme, should a planning application be forthcoming then HE's recommendation would be for a holding response (normally 3 months) until a scheme (prelim design) and supporting modelling work were to be submitted and considered acceptable.

For note if a Road Safety Audit has not been provided by the time HE are in a position to recommend approval, the requirement for an RSA along with approval of detailed design would be incorporated within the appropriate condition.

In the meantime please see comments relating to your latest modelling submission below:

Mitigation scheme review
There are numerous amendments required to the mitigation scenario models before we can agree that the specific scheme proposed is acceptable. However based on the nature of these changes and the overall positive effect they will have on junction performance it is reasonable to accept in principle the signalisation of the roundabout, although the scheme and supporting modelling work will need to be further developed before any application can be recommended for approval.

As such we have proceeded with comparing the mitigation scheme model with development traffic against the Do Minimum model, which has allowed us to determine whether signalisation is likely to mitigate development impacts.

Overall network performance appears to be improved with the development and mitigation scheme in place, however these results alone do not provide sufficient detail to allow us to identify any potential isolated areas where performance is worsened. We have therefore reviewed the expected changes to the 2025 forecast queue lengths as a result of the proposals (provided at Appendix H).

Across the two peak periods there are several incidences of the off-slips serving the SRN experiencing increased queue lengths, however this issue is likely to be addressed by the model amendments recommended.

Trigger point testing

The trigger point testing note suggests that a number of routes will experience a material increase in journey times even in the scenario with 15% development traffic. The most severely affected journey times appear to be those routing from the A38 south, with those on route 21 (A38 south to A38 north) increasing by 15.9%, route 23 (A38 south to B5008) by 23.7%. Strangely route 19 (A38 south to A50 west) performs worse with 15% development traffic than with 100%.

Queues on the A38 south approach to the junction in the same AM peak increase by 15.7%. This represents an increase of 429m, indicating that mitigation at this approach is required far sooner than 15% occupation of the development.

The proposed trigger point of 50% occupation suggests a less severe increase of 9.3% (254m), though this is still a significant impact for which mitigation would be required in advance of queue lengths at over-capacity links materially increasing.

We note that 15% of development traffic represents a total of 21 LVs and 7 HVs, which should not result in the severe impacts summarised above. This, along with the above highlighted discrepancy between the 15/30/50/70/100% development traffic models, should be investigated and addressed. Have unreleased vehicles been accounted for in the tabulated queue length results? Is there significant variation in performance results over the 10 random seeds?

Development traffic generation

No further details regarding the scale and use of the proposed development have been provided since the initial consultation in May 2018 in which the development was briefly described as being "up to 100,000sqm of commercial floor space (use classes B2 and B8 with ancillary B1(a) offices)".

The TRICS database suggests that the development would generate 120-130 two-way vehicle trips in the worst case AM peak if entirely B8 use. This would be around 500 if entirely B2.

We note that your report suggests that the development will generate 189 trips in the AM and 136 in the PM.

We understand that the proposal is at the early stages and as such the applicant may not be in a position to confirm the likely B2/B8 split, however there is a risk that the development flows adopted in the modelling work thus far may need to be updated once this information is provided. The sooner the development trips can be agreed therefore the better.

Regards

Steve Freek
Assistant Spatial Planning & Economic Development Manager
Highways England, Stirling House (Area 7) Lakeside Court, Osier Drive, Sherwood Business Park
Nottingham NG15 0DS
Tel: 0300 470 4457
Mob: 07712 543047
Email: steve.freek@highwaysengland.co.uk

From: Russell, Ashley [mailto:Ashley.Russell@wsp.com]
Sent: 20 December 2018 21:19
To: Freek, Steve <Steve.Freek@highwaysengland.co.uk>; 'Law, Daniel' <Daniel.Law@aecom.com>; Roxburgh, Mark <Mark.Roxburgh@highwaysengland.co.uk>
Cc: 'Joanna Posnett' <J.Posnett@bsp-consulting.co.uk>; 'James Houghton' <James.Houghton@brackley-propdev.co.uk>; Leworthy, Emma <emma.leworthy@wsp.com>
Subject: RE: Proposed Industrial Development at Burnaston Cross/Willington - A50/A38 junction impact and mitigation

Hi Steve,

The comments detailed in your email below have been helpful in providing further clarity on the potential operation of the mitigation scheme. The comments made for the most part seem focused on enhancing the performance of the mitigation scheme model, which is very much appreciated. Given these comments are targeted at delivering enhancements to the mitigation scheme, it is considered that it should not be holding up any review of the performance results of the mitigation scheme we have already presented.

Given the limited impact of the proposed development, as shown in the without mitigation modelling, we had previously discussed that this initial mitigation assessment would demonstrate the potential positive impact of the mitigation scheme to allow our discussions to progress further, but with the expectation that should the scheme move forward more detail would need to be drawn out at detailed design stage – especially evolving things from a fixed time solution to an adaptive control (MOVA) solution. We have investigated making changes to the model as you have indicated, but we are experiencing difficulties resulting from the structure of the model set up that would require a substantial amount of further work to address – these are impacting lane use discipline in particular. Further, fixed time signals are constraining the performance of the model and I feel we are only going to get enhancements over the results already presented by introducing MOVA. Work to address these model updates is something that would naturally fall as part of the detailed development of the scheme. We have provided responses (in **BLUE**) below against your comments for your review.

This initial work was / is targeted at securing your support for a mitigation scheme for the proposed development of the scale that has been tested in the modelling so far. There is further substantial work to be done to move the scheme towards a detailed design if it is considered suitable to take forward. As covered at previous meetings and through previous discussions, it is important to clarify and understand at this stage if you are supportive of a mitigation scheme of this nature, or if you are looking to secure something greater in terms of a mitigation scheme. We acknowledge the limitations of the modelling presented at this stage, but also feel that whilst a fixed time solution is being tested, we would only be moving pieces around the board, rather than achieving any overall improvement to the scheme design and junction performance.

The comments provided below make no reference to the Trigger Point Sensitivity Testing note issued. Given all the comments below relate to the modelling of the mitigation scheme, are you able to provide comments on a potentially suitable trigger point? The identification of a trigger point is based around the impact of the

development without the introduction of mitigation, therefore, the detail of the mitigation scheme should not influence this discussion? The Impact Assessment Report (Section 3) provides details of the proposed developments impact on the junction maintaining its existing layout. The Sensitivity Testing Note provides details based on the delivery of different quantum's of development.

A revision to the mitigation drawing has been attached picking up on some of the comments below.

I am happy and keen to discuss the above and below in further detail on the phone if that would be helpful? I will be back working from Wednesday 2 January 2019, please let me know a suitable time.

Many thanks

Ashley Russell
Associate

T+ 44 (0)7990 081 226

Please note that my working days are Monday to Thursday

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From: Freek, Steve [mailto:Steve.Freek@highwaysengland.co.uk]
Sent: 12 December 2018 15:41
To: Russell, Ashley <Ashley.Russell@wsp.com>; 'Law, Daniel' <Daniel.Law@aecom.com>; Roxburgh, Mark <Mark.Roxburgh@highwaysengland.co.uk>
Cc: 'James Houghton' <James.Houghton@brackley-propdev.co.uk>; Vila Salgado, Alba <Alba.VilaSalgado@wsp.com>; 'Joanna Posnett' <J.Posnett@bsp-consulting.co.uk>
Subject: RE: Proposed Industrial Development at Burnaston Cross/Willington - A50/A38 junction impact and mitigation

Hi Ashley,

Thank you for email below and the modelling files & reports provided for review.

Before proceeding to review performance results and take a view as to whether the proposed scheme suitably mitigates the development impacts, and from this to agree suitable trigger points, the following comments should be considered and models amended accordingly. Please see the annotated screenshots attached to assist with this review:

- Modelling note should clearly state that the junction has been assessed using fixed timings – **comment to be added to Section 4 Introduction.**

- Page 1 – Vehicles circulating the eastern section of the circulatory are able to use the middle lane to approach the B5008 exit, whilst those continuing to the A38 south exit further downstream may use the nearside lane. This presents a conflict and causes those destined for the B5008 to queue on the circulatory. The removal of the connector to the

offside lane of the B5008 would encourage approaching vehicles from the circulatory to be in the nearside lane. – **noted and investigated. Lane use behaviour is influenced by more factors than just the connector structure. More detailed work to update the model to suit a signal controlled junction, rather than a priority junction, is required to address wider junction operation issues – this should be carried out at the next stage of design development if the scheme is to be taken forward.**

- Page 2 – eliminating the ability for those entering the circulatory from the A50 WB off-slip to change lanes regularly causes a false queue. This should be removed and replaced by additional connectors from the off-slip, which together with appropriate edge closures will encourage correct lane choices before vehicles enter the circulatory. – **as above, noted and investigated. Lane use behaviour is influenced by more factors than just the connector structure. More detailed work to update the model to suit a signal controlled junction, rather than a priority junction, is required to address wider junction operation issues – this should be carried out at the next stage of design development if the scheme is to be taken forward.**

- Page 3 – Yellow box as shown in the proposed scheme drawing presumably to account for the short stacking space has not been modelled. – **the drawing and the modelling were developed in parallel, with the Yellow Box coming late to the design. This was an oversight in the initial modelling, however, the behaviour of Yellow Box junctions in models is not always as you would hope/expect on street, and would only help the follow of traffic and therefore improve operation. It was therefore omitted in the initial modelling. This has now been included in the modelling currently being looked at – we are seeing abuse of the Yellow Box, still being investigated, but not likely to be resolved until a final signals design improves overall junction performance.**

- Page 4 – As modelled, vehicles entering the circulatory from the middle lane of the A50 WB off-slip are able to route south on the A38. This occasionally causes queues as vehicles stop on the circulatory to await gaps to exit. The above comment ensuring correct lane choices by use of additional connectors from the off-slip would address this. Lane designations on the drawing both at the off-slip and downstream at the circulatory are not compatible as currently shown. – **Further investigation of allocation of road space and implication on flaring and lane designations can be considered as part of detailed design if the scheme is to be taken forwards.**

- Page 5 – Headways may be necessary if the above amendments do not eliminate queues reaching back to the A38 SB off-slip node. – **noted and investigated. To be taken up as part of more detailed work at the next stage of design development.**

- Page 6 – A particular issue in the PM, the circulatory reaches capacity and locks up causing off-slip queues. A priority should be given to circulatory capacity in signal timing set-up. – **As set out in the Impact Assessment Report, it is acknowledged that further refinement of the signals operation would be required should the scheme be taken forward. Investment of time in development of the fixed time signals to this point has been proportionate to the impact of the proposed development and the acknowledgement that at this stage it is not necessary to undertake a MOVA design. The linking of the signals is something that is directly linked to the lane allocations and the use of the available road space. From the modelling undertaken so far it appears that ideally the AM and PM would have different road markings (lane designations) and this is something that needs further consideration as to how best to allocate the road space for use of the junction across the whole day. Adjustment of green splits and offsets through further application of the Vissim model is something that could be looked at further if the scheme is to progress.**

- Page 6 – The drawing shows the Toyota access from the circulatory retained as two lanes however both Linsig and VISSIM modelling had it as a single lane. Further, we queried whether Toyota needed a dedicated lane on the west bridge whereas now it has both a dedicated lane and the option to use the middle lane. No in principle issue here but want to understand why this change was made please. – **this is just about retaining the current provision in lieu of further information. There is insufficient traffic data ((only peak period for whole junction collected) at this stage to confirm the requirement or not for two lane exit towards Toyota at this node.**

- Page 6 – With the performance of the A50 EB off-slip node being a major concern, please see previous comment raised in email of 9th October to consider allowing circulatory traffic to use nearside lane for A38 north, with the other two lanes dedicated for the A50 east and B5008, including remarking the northwest of the circulatory as three lanes using the existing paved width. – **this is something that could be considered as a point of detailed design. There is insufficient traffic data (only peak period for whole junction collected) at this stage to confirm the requirement or not for two lane exit towards Toyota at this node. The suggested change would enforce a single lane exit to Toyota, so the implications of this across the whole operating period need to be considered once suitable information is available.**

- Page 7 – Yellow box not included at southwest quadrant (serving NB off-slip) in either the drawing or the VISSIM model. This is a minor point and can be added in at detail stage but again would like to know what the basis was for deciding this isn't needed. – **Once a traffic signal design can be finalised, if the scheme is to be implemented, there should not be a requirement for a Yellow Box if the signals work suitably. The application of the Yellow Box on the South East corner directly relates to the short internal length between the two signalised nodes and the requirement to maintain space within the junction to keep each movement flowing when a green signal is indicated.**

- Page 8 – To clarify why the flare on the A38 NB off-slip is shown on the drawing to be on the other side to that modelled and existing. – **noted. Drawing to be updated.**

- From review of the scheme drawing the flare on the northern circulatory (west of A38 SB off-slip) has not been extended as previously requested; this is simply removing hatching and has no kerbline implications plus has potential to be an RSA finding (as drivers are likely to overrun it in any case). We would like to see this changed on the drawing to be conditioned (flare extended back to just before A38 NB on-slip) but no need to model the change as it will only be further betterment. – **noted. Is it possible to confirm that there are no structural loading implications for increasing the northern circulatory to three lanes? This is again, something that can be considered as part of detailed design and as part of a wider consideration about the mst suitable application of road markings (lane designations) for the whole operating period.**

- B5008 incorrectly shown as a destination in offside lane of both the A38 SB off-slip and the opposing circulatory; drawing should be updated. – **noted. Drawing to be updated.**

- Although intergreen timings are all acceptable, signals are poorly linked (do not synchronise well between nodes) as above a greater priority needs to be given to circulatory capacity. – **As set out in the Impact Assessment Report, it is acknowledged that further refinement of the signals operation would be required should the scheme be taken forward. Investment of time in development of the fixed time signals to this point has been proportionate to the impact of the proposed development and the acknowledgement that at this stage it is not necessary to**

undertake a MOVA design. The linking of the signals is something that is directly linked to the lane allocations and the use of the available road space. From the modelling undertaken so far it appears that ideally the AM and PM would have different road markings (lane designations) and this is something that needs further consideration as to how best to allocate the road space for use of the junction across the whole day. Adjustment of green splits and offsets through further application of the Vissim model is something that could be looked at further if the scheme is to progress.

- The November 2018 Impact Assessment Report refers both to the no change and the with scheme scenarios as DS which could lead to errors in reviewing the data (as there are two tables comparing DM to DS for each set of stats but the DS is different in each). This should be updated, perhaps showing the no development case as Do Nothing (DN), development traffic only as Do Minimum (DM) and development traffic plus scheme as Do Something (DS). – **Reporting can be updated to use Do Something Mitigation (DSM) in Section 4 - Mitigation Scheme.**

We look forward to receiving your revised modelling in due course.

Regards

Steve Freek
Assistant Spatial Planning & Economic Development Manager
Highways England, Stirling House (Area 7) Lakeside Court, Osier Drive, Sherwood Business Park
Nottingham NG15 0DS
Tel: 0300 470 4457
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From: Russell, Ashley [mailto:Ashley.Russell@wsp.com]
Sent: 28 November 2018 11:28
To: 'Law, Daniel' <Daniel.Law@aecom.com>; Roxburgh, Mark <Mark.Roxburgh@highwaysengland.co.uk>; Freek, Steve <Steve.Freek@highwaysengland.co.uk>
Cc: 'James Houghton' <James.Houghton@brackley-propdev.co.uk>; Vila Salgado, Alba <Alba.VilaSalgado@wsp.com>; 'Joanna Posnett' <J.Posnett@bsp-consulting.co.uk>
Subject: RE: Proposed Industrial Development at Burnaston Cross/Willington - A50/A38 junction impact and mitigation

Morning Again!

Please can you try the link below to access the model files as promised?

https://wetransfer.com/downloads/b86538c4c0e305a98a62860174663c7820181128111300/de206ce401575f5e227c560bd74753222018112811130 0/85f4ad

Please can you let me know that you have managed to access the files or if you have any problems?

Many thanks

Ashley Russell
Associate

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From: Russell, Ashley
Sent: 28 November 2018 10:30
To: 'Law, Daniel' <Daniel.Law@aecom.com>; 'Mark.Roxburgh@highwaysengland.co.uk' <Mark.Roxburgh@highwaysengland.co.uk>; 'Freek, Steve' <Steve.Freek@highwaysengland.co.uk>
Cc: 'James Houghton' <James.Houghton@brackley-propdev.co.uk>; Vila Salgado, Alba <Alba.VilaSalgado@wsp.com>; 'Joanna Posnett' <J.Posnett@bsp-consulting.co.uk>
Subject: RE: Proposed Industrial Development at Burnaston Cross/Willington - A50/A38 junction impact and mitigation

Hi All,

Apologies for the delay in providing a link to the model files. We are having internal server issues and I can't currently upload them to our file transfer server. I will send a link as soon as the issues are resolved.

Many thanks for your patience.

Ashley Russell
Associate

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From: Russell, Ashley
Sent: 26 November 2018 14:15
To: 'Law, Daniel' <Daniel.Law@aecom.com>; 'Mark.Roxburgh@highwaysengland.co.uk' <Mark.Roxburgh@highwaysengland.co.uk>; Freek, Steve <Steve.Freek@highwaysengland.co.uk>
Cc: 'James Houghton' <James.Houghton@brackley-propdev.co.uk>; Vila Salgado, Alba <Alba.VilaSalgado@wsp.com>; 'Joanna Posnett' <J.Posnett@bsp-consulting.co.uk>
Subject: RE: Proposed Industrial Development at Burnaston Cross/Willington - A50/A38 junction impact and mitigation

Good Morning Everyone,

As previously discussed, I am now able to provide copies of the Microsimulation Modelling Impact Assessment Report, a Mitigation Scheme Drawing, and a Note on Development Trigger Point Sensitivity Testing.

The impact assessment report details the modelling undertaken to assess the junction with and without a mitigation scheme. In summary, this sets out the mitigation scheme demonstrates improved vehicle throughput in both modelled periods, a reduction in average delay experienced per vehicle in both modelled periods and an average reduction in journey times through the junction. The assessment excludes the provision of MOVA at this time as we agreed that it was disproportionate to the impact of the development on the junction.

The trigger point sensitivity testing note reports on the testing of 15%, 30%, 50% and 70% quantum of development and the associated impact on the operation and performance of the junction. This note is intended to demonstrate that a substantial quantum of the development can be delivered prior to the requirement for the delivery of, or contribution to, a mitigation or junction improvement scheme. We anticipate that we will need to hold further discussions regarding an agreed trigger point and this note sets out the preferred and initial position.

Finally, a will shortly provide a link giving access to the following Vissim modelling scenarios for download:

- 2025 DM
- 2025 DS
- 2025 DS (15%)
- 2025 DS (30%)
- 2025 DS (50%)
- 2025 DS (70%)
- 2025 DS + Mitigation

Please can you review the attached reporting and models and, as previously agreed, provide a formal response / position statement? Hopefully the above and attached provides you with sufficient information to undertake your review, but if you require any further clarifications or information please do not hesitate to get in touch and we will assist in any way we can to keep the process moving.

Please can you provide an indication of the likely response time so that Jo and James can plan how your responses sits with the planning application?

Many thanks in advance for your inputs, please can you copy all of those in this email to any responses?

Ashley Russell
Associate

T+ 44 (0)7990 081 226

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From: Russell, Ashley
Sent: 25 October 2018 13:08
To: Roxburgh, Mark <Mark.Roxburgh@highwaysengland.co.uk>
Subject: RE: Proposed Industrial Development at Burnaston Cross/Willington - A50/A38 junction impact and mitigation

Hi Mark,

Once again, many thanks for your detailed comments and inputs below. We have progressed the mitigation forwards in to VISSIM building on your comments and further work on the initial LinSig models. We felt that now was a good time to reengage in discussions as we have useful outputs from our VISSIM work. I have summarised this below and would be keen to discuss with you on the phone once you have had time to digest.

As per the LinSig modelling, the VISSIM results show the that junction is operating overcapacity with the mitigation scheme, but overall junction performance is better with the mitigation scheme than without. I have presented below some headline results for the overall performance of the junction showing improvements in vehicle throughput, and reductions in average delay, suppressed demand and total travel time. It is worth noting here, as we have discussed previously, in both peaks, certain movements / routes through the junction do experience an increase in journey time as a result of the introduction of signals at five nodes of the roundabout. For some of the movements, e.g. right turns and u-turns, this means that there could be three or four signal controlled stoplines to pass through, therefore an increase in journey time once entering the junction is to be expected. With the implementation of signals it is about trying to address the delay issues on the approach to the junction such that the overall trip journey time can see an improvement.

Trip Completed

	2025AM_DM	2025AM_DS	Diff_AM	2025PM_DM	2025PM_DS	Diff_PM
Vehicles	11771	12732	961	11127	12304	1177

Network Statistics Summary

	AM DM	AM DS	AM_Diff	PM DM	PM DS	PM_Diff
Supressed demand (Average) [Vehicles]	1073	506	-567	1370	75	-1295
Delay (Average) [Seconds]	**174**	**84**	**-90**	**142**	**100**	**-42**
Travel Time (Total) [Seconds]	5107985	4129912	-978073	4336654	4142212	-194443

In the AM, the introduction of the scheme results in an increased throughput at the junction of about 8% (through a reduction in supressed demand of c500 vehicles), therefore seeing a general reduction in queue length and a reduction in the number of vehicles left outside the modelled network at the end of the simulated time period. This results in a reduced average delay per vehicle of 90 seconds. In the PM, we are seeing increased throughput of about 10%, through a reduction in supressed demand of c1,200 vehicles. The overall junction improvement results in a reduced average delay per vehicle of 40 about seconds. These results show that at an overall junction level the mitigation scheme is delivering betterment over and above the impact of the proposed scheme.

These overall junction results are obviously built up by results on specific journey paths and queue locations. The detail of these is shown below and shows that when broken down, some paths and locations see betterment and some see worsening. In the AM, we are able to demonstrate a positive impact on journey times and queues pretty much all round the junction. In the PM, based on the fixed time modelling of the signals, some approaches are seeing a benefit in journey time and queue length (A38 SB, A50 EB, Toyota Access), but some are seeing a noticeable worsening in journey time and queue length (A50 WB, B5008, A38 NB).

Journey Times (seconds)

	From	To	2025 DM AM	2025 DS AM	Difference	Diff (%)
Route 1	A38 SB (North)	A50 EB (East)	599	551	-48	-8.0%
Route 2	**A38 SB (North)**	**B5008 SB**	**467**	**564**	**97**	**20.7%**
Route 3	A38 SB (North)	A38 SB (South)	296	274	-22	-7.4%
Route 4	**A38 SB (North)**	**A50 WB (West)**	**467**	**529**	**62**	**13.3%**
Route 5	A38 SB (North)	Toyota Access NB	413	482	68	16.5%
Route 6	**A38 SB (North)**	**A38 NB (North)**	**437**	**496**	**59**	**13.6%**
Route 7	A50 WB (East)	B5008 SB	288	286	-3	-0.9%
Route 8	**A50 WB (East)**	**A38 SB (South)**	**366**	**365**	**-1**	**-0.2%**
Route 9	A50 WB (East)	A50 WB (West)	269	270	1	0.3%
Route 10	**A50 WB (East)**	**Toyota Access NB**	**321**	**366**	**45**	**13.9%**
Route 11	A50 WB (East)	A38 NB (North)	368	404	36	9.6%
Route 12	**A50 WB (East)**	**A50 EB (East)**	**492**	**412**	**-80**	**-16.3%**
Route 13	B5008 NB	A38 SB (South)	411	216	-195	-47.6%
Route 14	**B5008 NB**	**A50 WB (West)**	**427**	**199**	**-228**	**-53.4%**
Route 15	B5008 NB	Toyota Access NB	403	177	-226	-56.0%
Route 16	**B5008 NB**	**A38 NB (North)**	**477**	**272**	**-204**	**-42.9%**
Route 17	B5008 NB	A50 EB (East)	583	394	-189	-32.5%
Route 18	**B5008 NB**	**B5008 SB**	**158**	**59**	**-99**	**-62.5%**
Route 19	A38 NB (South)	A50 WB (West)	576	257	-319	-55.4%
Route 20	**A38 NB (South)**	**Toyota Access NB**	**547**	**219**	**-328**	**-60.0%**
Route 21	A38 NB (South)	A38 NB (North)	285	189	-96	-33.7%
Route 22	**A38 NB (South)**	**A50 EB (East)**	**772**	**442**	**-330**	**-42.7%**
Route 23	A38 NB (South)	B5008 SB	586	446	-140	-23.9%
Route 24	**A38 NB (South)**	**A38 SB (South)**	**754**	**551**	**-203**	**-26.9%**
Route 25	A50 EB (West)	Toyota Access NB	818	176	-642	-78.5%
Route 26	**A50 EB (West)**	**A38 NB (North)**	**882**	**237**	**-645**	**-73.1%**
Route 27	A50 EB (West)	A50 EB (East)	332	267	-65	-19.6%
Route 28	**A50 EB (West)**	**B5008 SB**	**748**	**400**	**-349**	**-46.6%**
Route 29	A50 EB (West)	A38 SB (South)	875	489	-386	-44.1%
Route 30	**A50 EB (West)**	**A50 WB (West)**	**913**	**197**	**-716**	**-78.4%**
Route 31	Toyota Access SB	A38 NB (North)	126	122	-5	-3.6%
Route 32	**Toyota Access SB**	**A50 EB (East)**	**271**	**298**	**27**	**9.9%**
Route 33	Toyota Access SB	B5008 SB	134	309	175	131.4%
Route 34	**Toyota Access SB**	**A38 SB (South)**	**243**	**417**	**175**	**71.9%**
Route 35	Toyota Access SB	A50 WB (West)	233	433	200	85.6%
Route 36	**Toyota Access SB**	**Toyota Access NB**	**191**	**93**	**-98**	**-51.5%**
		Total difference			-4673	-28.2%

	From	To	2025 DM PM	2025 DS PM	Difference	Diff (%)
Route 1	A38 SB (North)	A50 EB (East)	943	296	-647	-68.6%
Route 2	**A38 SB (North)**	**B5008 SB**	**812**	**247**	**-565**	**-69.5%**
Route 3	A38 SB (North)	A38 SB (South)	418	188	-229	-54.9%
Route 4	**A38 SB (North)**	**A50 WB (West)**	**714**	**375**	**-339**	**-47.4%**
Route 5	A38 SB (North)	Toyota Access NB	626	376	-249	-39.8%
Route 6	**A38 SB (North)**	**A38 NB (North)**	**705**	**437**	**-269**	**-38.1%**
Route 7	A50 WB (East)	B5008 SB	261	466	205	78.8%
Route 8	**A50 WB (East)**	**A38 SB (South)**	**355**	**541**	**186**	**52.2%**
Route 9	A50 WB (East)	A50 WB (West)	268	269	1	0.4%
Route 10	**A50 WB (East)**	**Toyota Access NB**	**298**	**450**	**151**	**54.1%**
Route 11	A50 WB (East)	A38 NB (North)	352	599	247	70.0%
Route 12	**A50 WB (East)**	**A50 EB (East)**	**465**	**697**	**233**	**50.0%**
Route 13	B5008 NB	A38 SB (South)	179	243	64	35.8%
Route 14	**B5008 NB**	**A50 WB (West)**	**158**	**263**	**96**	**66.7%**
Route 15	B5008 NB	Toyota Access NB	136	266	130	95.3%
Route 16	**B5008 NB**	**A38 NB (North)**	**228**	**419**	**191**	**83.7%**
Route 17	B5008 NB	A50 EB (East)	338	536	198	58.6%
Route 18	**B5008 NB**	**B5008 SB**	**50**	**81**	**31**	**62.4%**
Route 19	A38 NB (South)	A50 WB (West)	243	245	1	0.5%
Route 20	**A38 NB (South)**	**Toyota Access NB**	**214**	**259**	**45**	**21.0%**
Route 21	A38 NB (South)	A38 NB (North)	185	185	0	0.0%
Route 22	**A38 NB (South)**	**A50 EB (East)**	**372**	**473**	**101**	**27.1%**
Route 23	A38 NB (South)	B5008 SB	251	416	164	65.5%
Route 24	**A38 NB (South)**	**A38 SB (South)**	**345**	**499**	**153**	**44.4%**
Route 25	A50 EB (West)	Toyota Access NB	523	182	-341	-65.1%
Route 26	**A50 EB (West)**	**A38 NB (North)**	**597**	**251**	**-345**	**-57.9%**
Route 27	A50 EB (West)	A50 EB (East)	274	267	-7	-2.6%
Route 28	**A50 EB (West)**	**B5008 SB**	**447**	**375**	**-72**	**-16.2%**
Route 29	A50 EB (West)	A38 SB (South)	569	471	-98	-17.2%
Route 30	**A50 EB (West)**	**A50 WB (West)**	**501**	**519**	**18**	**3.6%**
Route 31	Toyota Access SB	A38 NB (North)	611	442	-169	-27.6%
Route 32	**Toyota Access SB**	**A50 EB (East)**	**814**	**770**	**-44**	**-5.5%**
Route 33	Toyota Access SB	B5008 SB	715	858	143	20.0%
Route 34	**Toyota Access SB**	**A38 SB (South)**	**784**	**876**	**92**	**11.7%**
Route 35	Toyota Access SB	A50 WB (West)	776	906	131	16.9%
Route 36	**Toyota Access SB**	**Toyota Access NB**	**725**	**647**	**-78**	**-10.8%**
		Total difference			-863	-5.3%

Queues (metres)

	2025 AM							
	DM		DS		Difference		Difference (%)	
	Max	Average	Max	Average	Max	Average	Max	Average
Queue 1	1904	1257	1905	1204	0	-52	0.0%	-4.2%
Queue 2	359	200	458	234	99	34	27.4%	16.9%
Queue 3	421	311	170	102	-251	-208	-59.5%	-67.0%
Queue 4	2734	1535	159	99	-2575	-1437	-94.2%	-93.6%
Queue 5	2421	1293	428	168	-1993	-1125	-82.3%	-87.0%
Queue 6	26	20	31	21	5	1	19.0%	2.7%

	2025 PM							
	DM		DS		Difference		Difference (%)	
	Max	Average	Max	Average	Max	Average	Max	Average
Queue 1	1905	1400	153	103	-1752	-1296	-91.9%	-92.6%
Queue 2	170	106	1502	619	1332	513	784.2%	486.3%
Queue 3	137	100	273	174	135	74	98.5%	74.0%
Queue 4	87	62	122	74	35	12	40.9%	20.0%
Queue 5	1996	853	277	147	-1720	-706	-86.1%	-82.8%
Queue 6	596	421	597	413	1	-8	0.2%	-2.0%

We feel now is a good time to engage with you as the results so far demonstrate that overall the scheme delivers betterment at the junction over and above the impact of the development. However, it also shows that based on fixed time signals, certain approaches to the junction are expected to see increases in queuing and journey time and some reductions. We have undertaken multiple iterations of the fixed time signal solutions, in the PM in particular, without achieving noticeable improvements to the results presented. Therefore, we feel that without MOVA or physical changes to the layout of the junction, we won't be able to get a scheme that shows results noticeably better than this (i.e. a step change in performance).

As discussed when we met, a fixed time solution would not be implemented at this location. MOVA control would be required should this mitigation scheme be delivered on site. However, we did agree that the testing (at this stage) of MOVA was disproportionate to the impact of the development. The results presented above indicate that operationally there should be sufficient flexibility and capacity such that (with appropriate design and implementation) MOVA would be able to balance out the benefits and impacts we see across the different approaches in the fixed time results to achieve the overall positive junction performance benefits reported.

We would therefore like to get your thoughts on the above to see if you are comfortable with the results we are getting and the overall betterment that the scheme provides, and whether at this stage, it provides sufficient comfort that the mitigation scheme is the right solution to address (and exceed) the impacts of the development?

I appreciate that I have provided a lot of information and narrative above, so am keen to talk this through in more detail with you. Please could you let me know when would be a good time to have a call to discuss (early next week?) and I can get that set up.

Many thanks in advance for your further engagement and I look forward to hearing from you shortly.

Ashley Russell
Associate

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From: Roxburgh, Mark [mailto:Mark.Roxburgh@highwaysengland.co.uk]
Sent: 09 October 2018 18:41
To: Russell, Ashley <Ashley.Russell@wsp.com>; Freek, Steve <Steve.Freek@highwaysengland.co.uk>; Law, Daniel <Daniel.Law@aecom.com>
Cc: James Houghton <James.Houghton@brackley-propdev.co.uk>; Vila Salgado, Alba <Alba.VilaSalgado@wsp.com>; Joanna Posnett <J.Posnett@bsp-consulting.co.uk>; Robshaw, Emma <Emma.Robshaw@wsp.com>
Subject: RE: Proposed Industrial Development at Burnaston Cross/Willington - A50/A38 junction impact and mitigation

Ashley,

Thanks for sending this through. I have had a good look over and play around with the Linsig model and have a few observations and suggestions:

- The intergreens are currently set to 6 for all conflicts. On such a junction I expect that geometric intergreens would generally be 5 with extra time added for approach speeds, typically 2 seconds for entries and 1 second for the circs (as they are long and high speed here). The exception may be the B5008 node where the approach speeds may be lower and only in need of one additional second. For further testing please ensure these are changed accordingly (7s from entries excepting the B5008 and 6s from all circs).
- Give way parameters I presume have been taken from ARCADY; while from experience these seem a little bit off what I would expect (for a partially signalised roundabout) this model is only used as a guide for layout and timings so I am happy with them as set for this purpose
- The coordination strategy described in the report is generally sound with the exception that I would favour linking the A38S to A50E platoon through all stoplines as it is one of the largest movements on the junction and uses two lanes. I haven't checked the linking in the model with much detail but did note some of the coordination was not quite set up right, although with the link and storage lengths for the most part this is not a big issue here.
- The main concern I have with the proposed layout at present is the performance of the A50W node, including the extensive queueing on the west bridge, this means that a yellow box junction is likely required at the A38S entry (although if the lane changes to the west bridge noted below are taken forward it would likely remove this need).
- I have identified a couple of minor lane changes that would help improve the performance including:
    - Allowing traffic on the A38N (SB offslip) to turn left from lane 2
    - Re-assigning traffic to Toyota into the nearside lane on the A38S (NB offslip) and opposing circ to lane 1 (from lane 2 in both cases)
    - Extending the flare on the offside for the northern circulatory carriageway by removing some of the hatching
- Further potential options I have identified but which need further consideration:
    - Changing the west bridge to allow traffic for A38N to use the nearside lane, with the other two lanes dedicated for the A50E (and B5008), including remarking the northwest of the circ as three lanes using the existing paved width. This appears to provide substantial peak betterment but further understanding of the peak flows into Toyota (shift change related) is needed to ensure that this would not cause issues at

other times; if you have sufficient survey data a review of this should be sufficient to identify any implications, failing that I suggest speaking to Toyota to see what data they can share
    - Not signalising the B5008 entry to the roundabout; this would remove the need to closely coordinate with the adjacent node or manage queue lengths on the short circ stacking space; supplemented by an all red on the upstream node to create suitable gaps, this however appears to perform worse as it requires holding back the upstream circ more and causing the lane into the B5008 to become oversaturated as well, while also degrading the performance of the B5008 entry. This is not worth taking forward therefore in my view.
- I have attached a couple of updated versions of the Linsig model, the first with the minor changes noted above and my tweak of the coordination strategy and the second testing the alternative further options noted above. In both cases I have increased the cycle time to 70s but have not changes the intergreens as noted; with regards cycletime as ever on such a junction this is a balance between capacity and internal queue lengths (although less so in this case around coordination given the long links and less need for strict coordination for all movements).

Overall therefore I am satisfied that there is a good proposal here worth pursuing further and at a level which looks like it should offset the development impact without the need for kerbline alterations. The additional suggestions I have made above should not have any material change on the scheme cost as they only affect lining and signing details already being affected by the proposed scheme. Could you please consider these further as you develop your proposed mitigation scheme. In terms of signal timings, I am happy to cast a further look over any timings proposed for use in the VISSIM if you wish although I don't think this is necessary given that the coordination pattern is not overly critical to the junction capacity.

Regards
Mark

Mark Roxburgh, Studies Team Leader, East Midlands Asset Team
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From: Russell, Ashley [mailto:Ashley.Russell@wsp.com]
Sent: 02 October 2018 08:46
To: Freek, Steve; Law, Daniel; Roxburgh, Mark
Cc: James Houghton; Vila Salgado, Alba; Joanna Posnett; Robshaw, Emma
Subject: RE: Proposed Industrial Development at Burnaston Cross/Willington - A50/A38 junction impact and mitigation

Morning Everyone,

As previously discussed, I have attached a copy of our current LinSig work looking to signalise the A50/A38 interchange as part of mitigation proposals for the proposed development. Also attached is a report from the LinSig model and a short Technical Note setting out our approach and anticipated next steps.

Given the differences between the two modelling tools of Vissim and LinSig, as we discussed previously, the LinSig model is intended to develop an initial set of green splits and offsets to take as a starting point in to the Vissim model. These are then proposed to be adjusted based on the modelling of individual vehicles and the associated interactions in the Vissim model. To that end, the LinSig model is a little "rough and ready" as set out in the attached note, but is sufficiently set up to develop the initial timings required for Vissim.

At our meeting we talked about how the preferred approach for our mitigation is to work with the existing physical alignment of the junction as much as possible. This is the approach taken in the modelling, with adjustments

proposed to lane designations. The LinSig model shows that the junction will not be brought back within capacity as a result of the proposed mitigation, but it looks like it should be able to demonstrate a betterment over the existing situation and mitigate the impact of the development. We will be able to review and confirm this once we have completed our analysis in Vissim.

Please do get in touch with any questions you have on the modelling. Emma (signals engineer) has been cc'd so she can respond to any comments that come back directly if required. We look forward to hearing from you shortly on the initial LinSig modelling and hope to be able to move in to the Vissim testing following your approval of our approach.

Many thanks in advance.

Ashley Russell
Associate

T+ 44 (0)7990 081 226

Please note that my working days are Monday to Thursday

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From: Joanna Posnett [mailto:J.Posnett@bsp-consulting.co.uk]
Sent: 24 September 2018 15:30
To: Freek, Steve <Steve.Freek@highwaysengland.co.uk>; Law, Daniel <Daniel.Law@aecom.com>; Mark.Roxburgh@highwaysengland.co.uk
Cc: James Houghton <James.Houghton@brackley-propdev.co.uk>; Russell, Ashley <Ashley.Russell@wsp.com>; Vila Salgado, Alba <Alba.VilaSalgado@wsp.com>
Subject: Proposed Industrial Development at Burnaston Cross/Willington - A50/A38 junction impact and mitigation

Steve/Daniel/Mark

Thank you for the helpful meeting last week. I will type up some meeting minutes and circulate them.

As discussed, please find attached the VISSIM results with and without the full development traffic added to the reference case, for you to review and provide us with some advice in terms of looking at an acceptable trigger point for mitigation.

Based on the enclosed results of the modelling, do you have any priorities in terms of focusing our mitigation proposal on reducing journey times (secs/%), queue lengths (m/%), or total network delay? As discussed last Wednesday, the impact on journey time is low, even with the full development traffic added.

Please can you advise what sort of level of change from the reference case would HE be comfortable with prior to mitigation, and therefore consider to be a reasonable trigger point? As discussed, we can then look to quantify the proportion of the development traffic that can be accommodated within that.

Look forward to hearing from you.

Kind regards

Joanna Posnett BA(Hons) MCIHT

Principal Transport Planner

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Where design information is issued in CAD format it is only the information which is displayed in the paper-space which is to be used, furthermore should any discrepancies be present between the CAD and the pdf drawings issued the contents of the pdf are to take precedence. Finally we note that, whilst we endeavour to coordinate all our drawings, we are not responsible for the setting out of the private works.

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BSP Document Reference: BUR-BSP-ZZ-XX-MI-D-001-P1
Job No: 18-0054
Axis 50 Willington

Proposed Industrial Development
Burnaston Cross / Axis 50 Willington
A50/A38 Junction Impact and Mitigation

Highways Meeting Minutes

Date: 19.09.18
Time: 1pm
Venue: Highways England, The Cube, 199 Wharfside Street, Birmingham B1 1RN

Attendees:

Steve Freek – Highways England
Daniel Law – Highways England
Mark Roxburgh – Highways England
Richard Groves – South Derbyshire DC
James Houghton – Brackley Property Ltd
Andrew Gore – Marrons Planning
Ashley Russell – WSP
Jo Posnett – BSP

Circulation: as above plus Chris Nash & Kevin Exley at SDDC

ITEMS	ACTIONS
1.0 Initial Impact Assessment Conclusions	
• Baseline situation – already over capacity. • Volume of development traffic compared to background growth. • Impact of development traffic exacerbated due to junction being over capacity in reference case.	
2.0 Contribution Towards Wider Mitigation Scheme	
• We initially proposed that a contribution to a wider scheme would be more practical and help to deliver the Local Plan development strategy. • It was agreed that the required mitigation scheme is likely to offer some net benefits to the highway network. However, there is no requirement for it to fully address the capacity issues in the reference case. • If the agreed scheme does much more than mitigate the development traffic, it would not be in proportion to the scale of the development (unless it offsets impact elsewhere that is not fully mitigated). • Therefore, a financial contribution to a wider infrastructure improvement scheme would be preferable, but this is not currently an option.	
3.0 Initial Response from Highways England/Confirmed Position	
• HE has said that although they are considering a scheme here it is very early stages and therefore the development will need to propose a scheme to mitigation the impact. If a HE scheme comes forward prior to its implementation then a contribution of the same value as the proposed mitigation scheme can be provided instead • HE confirmed that a scheme design has not yet started, but it will probably involve signalisation and possibly widening works, and that the funding for HE infrastructure improvement schemes for 2015-2020 has now gone	

• MR estimated timescales for wider scheme development:
  • Good idea of scheme design by the end of 2018
  • Starting work imminently using same validated 2016 base model, as being used by WSP
  • End of first quarter 2019 – estimated cost
  • Hoping to have an idea of the total funding pot and rules for bids fairly soon
  • Could be 12-18months until knew if were successful
  • Would aim to deliver 18months from a successful fund allocation
• **MR/SF confirmed that the status of the wider infrastructure improvement scheme will be reviewed leading up to the agreed trigger point.**
  • If a wider scheme is agreed but funding is not in place, tweaks to future proof the mitigation scheme may be required at detailed design stage.
  • If a wider scheme is agreed and funding is reasonably secure, a contribution to the wider scheme will be applicable at the agreed trigger point, instead of delivering the scheme agreed to mitigate the impact of the development.	

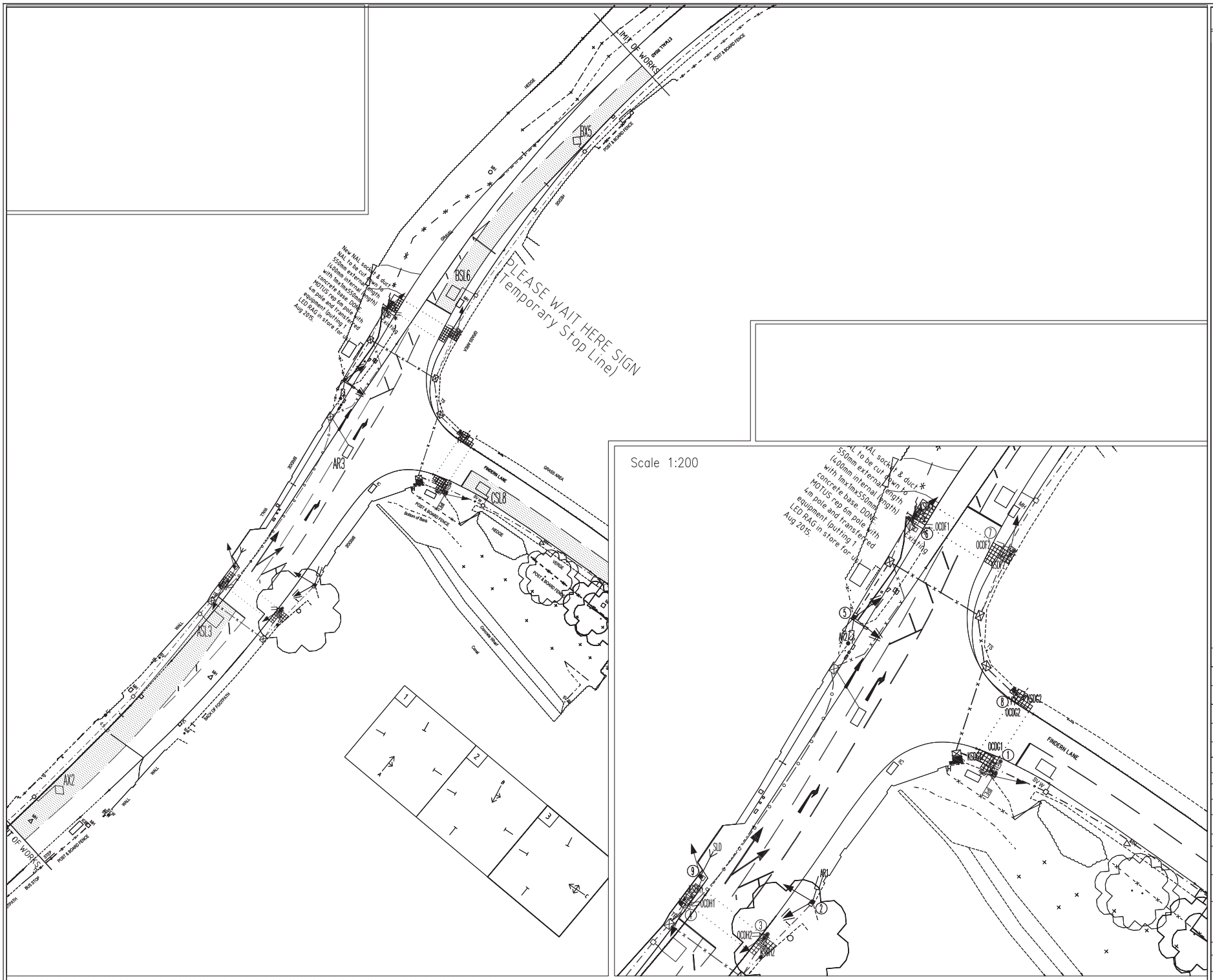
4.0 Planning Context	
• South Derbyshire Local Plan - Policy INF4: Transport Infrastructure Improvement Schemes *A The Council will work with partners to deliver the following transport schemes:* *… iii) A50 junction with the A38 improvement scheme …* *B Where required to mitigate the transport impacts of the development, the Council will seek to negotiate financial contributions toward these schemes. Proposals that would prejudice their implementation will not be permitted.* • AG asked about timescales for reviewing the South Derbyshire LP RG confirmed Local Plan Part 1 adopted 2016, and Part 2 2017. Review of Local Plan anticipated 2021. • To achieve the proposal in the Local Plan, an agreed scheme to bring the junction back into capacity would be needed along with funding from a number of developers, based on their proportional impact. Based on the volume of committed development traffic, it appears that some opportunities for funding have been missed. • We discussed the status of other application and potential to work together, e.g. Rykneld Road (Derby City) old scheme from 2007 with recommended condition for a mitigation scheme at this junction – recently varied development scheme and therefore further work to confirm suitable mitigation shame required, understood to be being undertaken by BWB. • RG also mentioned Radley Way, Primula Way/Stenson Fields, Boulton Moor Phases 2 & 3. • It was acknowledged that timing, etc. can be an issue to jointly fund highway improvement works. • RG mentioned modelling work for the potential new A50 junction forming part of the south derby link road infrastructure works. It was confirmed that this scheme could not be considered committed in the	JP/AG/JH to investigate potential joint working with other developers

modelling work for the proposed development. • RG asked about the impact on the Willington double mini-roundabouts and the level crossing. JSP confirmed that BSP are liaising directly with DCC Highways and Network Rail. The junction in Willington is a known issue, however BSP and DCC have concluded that land constraints prevent a suitable mitigation scheme. Net highway network benefits resulting from the A50/A38 junction mitigation scheme would help to off-set this impact.	
5.0 Agreed Methodology to Develop Mitigation Scheme	
• Assessment of 2025 (the opening year of final phase of the development based on Phasing Plans) + proportion of committed development traffic (agreed with SDDC) + with and without full proposed development traffic. • Committed developments individually added removed from TEMPRO growth forecast to avoid double counting. • JP confirmed sites and build out rates have been agreed with SDDC. • HE/AECOM requested that the PTV guidance be followed & AR confirmed convergence levels have now been improved. • It was agreed that as the junction is over capacity in the reference case, the developer will not be required to bring this back into capacity but rather provide sufficient mitigation so that the addition of development traffic with a mitigation scheme has no material effect on junction performance. • MR confirmed that a reasonable view on viability and to keep the scheme proportional to the development impact would be taken. It was agreed that a scheme suitable to retrofit further improvements as part of the wider scheme would be ideal, and that tweaks may be required to future proof the scheme with that in mind.	
6.0 Mitigation Scheme Development	
• AR identified that some of the key issues are due to long/high speed circulatory sections and therefore poor gaps. • AR confirmed that WSP are considering a fixed time signalisation scheme within the existing infrastructure – no widening – and are also reviewing lane allocations. This would assist with cost/viability, reduced traffic management, night works, etc. • MR flagged up that not including MOVA would be a departure from standard but agreed it could be fairly easily retro-fitted. • Costing of the mitigation scheme is to consider ADS and other signage and road markings required to implement lane allocation changes. • AR agreed to consider no lane changes, to avoid the additional costs associated with the above. • MR also suggested that in order to keep costs down, HE/AECOM can specify in the wording of the condition that no lighting scheme upgrades would be required as part of the scheme – significant cost with no impact on achieving mitigation and more appropriate to form part of the wider infrastructure improvement scheme in due course. • MR confirmed that the initial Assessment element of a WCHAR and a Stage 1 RSA would be needed as part of the mitigation scheme package (and confirmed some equestrian use).	AR to note AR to provide details for costing AR to consider ALL to note AR/JP to organise

• MR suggested WSP submit preliminary LinSig model of basic signalised scheme being proposed as mitigation for comments from HE/AECOM for review and comments prior to testing in VISSIM.	AR/JP/MR
7.0 Establishing Trigger Level when over Capacity in Reference Case	
• MR/SF confirmed that HE do not like to impose first occupation conditions, acknowledging viability/practicality issues. However, confirmed HE would need to be happy with the situation up until the mitigation scheme was triggered. • We discussed looking at a % occupation, the level of development to trigger a TA rather than TS, and considering the impact on Q lengths, journey times, and total network delay. • AR agreed for WSP to add total network delay to 2025 reference case and with development VISSIM results and submit to HE/AECOM (via BSP) for initial comments on impact from 100% of the development, in view of agreeing how best to establish the trigger level.	AR to finalise report for circulation by JP HE/AECOM to respond
8.0 Proposed Sustainable Travel Choices/Travel Plan Measures	
• We discussed some of the sustainable transport measures being proposed to help manage the level of development traffic. • It was agreed that reductions assigned to reflect these measures would need to be evidence led reductions and agreed on a site by site basis. • RG mentioned committed tow path improvements which will improve the route between Willington and the south derby development area. • MR raised the issue of ensuring sufficient HGV parking/waiting facilities for the type of development proposals, and to consider provision of on-street/layby waiting areas within the development. JH acknowledged the potential issue for the public highway and the developer, confirmed that HGV parking and service yards were proposed for each unit and these should be sufficient to meet demands based on similar sites.	JP to research and add details as required into TA & TP JP & JH to review current proposals
9.0 Key Actions & Timescales	
1) WSP to provide BSP with finalised report of current results to circulate A.S.A.P. 2) HE/AECOM to advise on levels to be considered reasonable to accept prior to mitigation works, to establish a trigger point. 3) WSP to provide LinSig and summary of basic signalised scheme being proposed as mitigation, to submit to HE. 4) HE/AECOM to provide comments prior to testing in VISSIM. 5) WSP to finalise scheme proposal to mitigate the development traffic and identify any net benefit, and to provide evidence for proposed trigger for the mitigation scheme to be implemented. 6) WSP/BSP to submit above information to HE following review with Brackley. 7) HE/AECOM to provide comments/approval of proposed scheme and trigger. 8) HE/AECOM to keep BSP informed regarding progress on the wider infrastructure improvement scheme proposals for this junction.	JP circulated 24.09.18 DL/MR/SF w/c 01.10.18? AR 02.10.18 MR 05.10.18 AR +2wks AR/JP early Nov HE/AECOM 3wks HE/AECOM/JP ongoing

Appendix O

Signal Junction Specifications



DRAWING N°	ISSUE
STS71278	11

KEY:-

DO NOT SCALE

ISSUE	DESCRIPTION	DRN	CHK	DATE
12	Electrical termination cabinet for 6m tall pole added	NR	EA	23.01.09
11	Signal head added to pole 9 and Phase D stop line repositioned	SAP	NR	18.11.08
10	Drawing up issued to approved status	SAP	RJC	17.07.08
9	Drawing amended to Derbyshire CC comments 11/07/08.	SAP	SJD	11.07.08
8	Drawing amended to Derbyshire CC comments 07/07/08.	SAP	SJD	07.07.08
7	Drawing amended to Derbyshire CC comments 02/07/08.	SAP	SJD	02.07.08
6	Drawing amended to Derbyshire CC comments 13/06/08.	SAP	SJD	16.06.08
5	All red MVD's relocated.	JPS	SJD	04.06.08
4	Drawing amended to Derbyshire CC comments 02/06/08.	SAP	JPS	02.06.08
3	Drawing amended to Derbyshire CC comments 29/05/08.	SAP	JPS	29.05.08
2	Drawing amended to Derbyshire CC comments 12/05/08.	SAP	JPS	12.05.08

SIEMENS

CUSTOMER: BTP-HYDE-CONSULTING

APPROVED

SCHEME: PROPOSED-TRAFFIC-SIGNAL-JUNCTION ETWALL-ROAD/FINDERN-LANE DERBYSHIRE -

DATE: 18.04.08	SCALE: 1:500	DRN: SAP	CHKD: JPS	APP: -

Siemens Traffic Controls
Unit 1, The Portway
Berry Hill Industrial Estate
Droitwich
Worcestershire, WR9 0AH
Tel:01905 794123
Fax:01905 795034
www.siemensplc.com

DRAWING N°: STS71278

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Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Administration

General Specifications

Customer Name: BTP - HYDER CONSULTING

Intersection/ General Description: ETWALL ROAD FINDERN LANE

Controller: (•) New ( ) Modification

Area Specifications/ Customer Drawings:

Specification Section:

Contract/Tender Ref:

Quotation No.:

Works Order No.: 460325581

Customer Order No.:

Controller/ Serial Number:

S.T.S. /EM Number: E71278 Issue: 1

Equipment Installation by:

Slot Cutting by:

Civil Works by:

Customer's Engineer: R CONLON

Telephone Number: 01905 793508

Signal Company Use Only

Signal Engineer: P W WRIGHT

(IF Prom Label as >) Prom Number: 16279 Prom Variant: 278

Configuration Check Value: 5E 33 5A 25

Controller Options

Hardware: ST900 ELV Firmware Type and Issue: PB801 ISS 5 Other Options

ST900/ST750 Series Cabinet Options

Cabinet/Rack: Cabinet Kit Type Options: (•) UK-Std ( ) Non-UK ( ) Small Non-UK ( )

Cabinet/Rack Variant: Grey Cuckoo Options: None Gemini Fitted: [ ]

Mains Supply: 230 Volts 50 Hz

Peak Lamp Current: 1 Amps Dimming Voltage: 27.5

Average Lamp Power: 1 Watts

Total Average Power: 1 Watts

Answer Issue: 0 Date Created: 21/11/08

Edit Issue: 2

Power feed fuse rating: requires 30 Amp minimum for controller, 15 Amp minimum for pelican/lightly loaded controller

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Streams, Stages, Phases Control

Select Object to Add/Delete/Insert

Streams

( ) Current Number of Streams: 1

Phases

( ) Current Total Number of Phases: 8

(•) Number of Real Phases: 7

( ) Number of Dummy Phases: 1

Stages

( ) Current Number of stages (inc. ALL-RED stages): 5

Switched Signs

( ) Number of Switched Signs: 0

Action

Add At | Delete At

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Facilities/Modes Enabled and Mode Priority Levels

Facilities

- [x] Manual Control
- [ ] Manual Step On Mode
- [x] CLF (Base Time)
- [ ] CLF (non-Base Time)
- [x] UTC Facility
- [ ] Hurry Call Mode
- [ ] Priority
- [ ] Emergency Vehicles
- [ ] Part Time
- [x] Master Time Clock
- [x] RED Lamp Monitoring
- [x] Lamp Monitoring
- [ ] Linked Fixed Time
- [x] FT To Current MAX
- [ ] Speed Measurement
- [ ] Download To Level 3
- [ ] London IMU
- [x] Extend All Red
- [ ]
- [ ] Ripple Change
- [ ] Non-UK
- [x] Pelican/Puffin/Toucan Facilities
- [ ] Standalone Manual
- [ ] Holiday Clock
- [ ] Fail to Part Time
- [x] Serial MOVA
- [x]
- [ ] Free-Standing OTU
- [ ] Integral OTU

12 Starting Intergreen

Mode Priority

PRIORITY	1	2	3	4	5	6	7	8	9	10	11
Part Time	○	○	○	○	○	○	○	○	○	○	○
Emergency Vehicle	○	○	○	○	○	○	○	○	○	○	○
Hurry Call	○	○	○	○	○	○	○	○	○	○	○
Selected Man Cntrl	●	○	○	○	○	○	○	○	○	○	○
UTC	○	○	●	○	○	○	○	○	○	○	○
Manual Step On	○	○	○	○	○	○	○	○	○	○	○
Selected FT or VA or CLF	○	●	○	○	○	○	○	○	○	○	○
Cableless Link (CLF)	○	○	○	●	○	○	○	○	○	○	○
Priority Vehicle	○	○	○	○	○	○	○	○	○	○	○
Vehicle Actuated	○	○	○	○	●	○	○	○	○	○	○
Fixed Time	○	○	○	○	○	●	○	○	○	○	○

Configuration Complexity

○ Low ○ Medium ○ High ● Maximum

standardPB801.8df
Default PROM data file

Correspondence Monitoring to inc.

- [x] Reds
- [x] Ambers
- [ ] Switched Signs
- [ ] Ignore Reds and Ambers during Fail to Part Time

Flash Rate (ms)

400 Off 400 On

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Phases in Stages

Phases

In Stages	A	B	C	D	E	F	G	H
0								■
1	■	■						
2					■	■	■	
3			■					
4				■				

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Stages in Streams

Stream Data

	0	1	2	3	4	5	6	7
Phase or Stage to revert to in absence of demands/extensions								
Startup Stage	1							
Part-Time switch off stage								
Standalone Pedestrian	☐	☐	☐	☐	☐	☐	☐	☐

NB : For a Stand-Alone Stream, the reversion must be to All Red stage or Traffic stage/phase to meet the relevant standard or specification.

Stages

In Stream	0	1	2	3	4
0	■	■	■	■	■

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Phase Type and Conditions

Phase Type and Conditions

◉ Phases A to P ○ Manual Output Allocation ☑

Phase	Title	Type	App. Type	Term. Type	Assoc. Phase	No. of Drive Outputs "R"	"A"	"G"
A	ETWALL ROAD NORTHBOUND	0 - UK Traffic	0	0 - I		1	1	1
B	ETWALL ROAD SOUTHBOUND	0 - UK Traffic	0	0 - I		1	1	1
C	FINDERN LANE	0 - UK Traffic	0	0 - I		1	1	1
D	ACCESS	0 - UK Traffic	0	0 - I		1	1	1
E	PEDS X ETWALL ROAD NORTHBOUND	3 - UK Near Side Pedestrian	0	0 - I		1	1	2
F	PEDS X ETWALL ROAD SOUTHBOUND	3 - UK Near Side Pedestrian	0	0 - I		1	1	2
G	PEDS X FINDERN LANE	3 - UK Near Side Pedestrian	0	0 - I		1	1	2
H	DUMMY ALL RED	2 - UK GreenArrow	0	0 - I				

1) App Types: 0 = Always Appears, 1 = Appears if dem'd prior to interstage, 2 = If dem'd, 3 = If dem'd before end of window time
2) Term Types: 0 = Term's at end of stage, 1 = Term's when Assoc phase gains R.O.W, 2 = Term's when Assoc phase loses R.O.W.
3) The H/W Fail Flash fields are for information only on all but ST900ELV Controllers. For other controllers, physical switches or links (etc.) select which aspects flash and these need to be set up manually.

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Opposing and Conflicting Phases

Select Stream(s) To Configure

○ All ○ 0 ○ ○ ○ ○ ○ ○ ○

Initialise

☑ Amber Conflict Monitoring

To Phase

From Phase

	A	B	C	D	E	F	G	H
A		o	Co	Co	Co	Co	Co	o
B	o		Co	Co	Co	Co	Co	o
C	Co	Co		Co	Co	Co	Co	o
D	Co	Co	Co		Co	Co	Co	o
E	Co	Co	Co	Co		o	o	o
F	Co	Co	Co	Co	o		o	o
G	Co	Co	Co	Co	o	o		o
H	o	o	o	o	o	o	o	

Last Modified 01/09/10, Issue 1.0.2

Form Ref: 2.2

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Phase Minimums, Maximums, Extensions, Ped. Leaving periods

Phase Minimums, Maximums, Extensions, Ped. Leaving periods

◉ Phases A to P ○

Phase	Min Green	Min Ped Clr	Extensions	Maximums A	B	C	D	E	F	G	H	Pre-timed
A	7	0	0.0	40	35	40	30	0	0	0	0	☐
B	7	0	0.0	40	35	40	30	0	0	0	0	☐
C	7	0	0.0	30	25	30	20	0	0	0	0	☐
D	7	0	0.0	8	8	8	8	0	0	0	0	☐
E	5	3	0.0	0	0	0	0	0	0	0	0	☐
F	5	3	0.0	0	0	0	0	0	0	0	0	☐
G	5	3	0.0	0	0	0	0	0	0	0	0	☐
H	3	0	0.0	0	0	0	0	0	0	0	0	☐
												☐
												☐
												☐
												☐
												☐
												☐
												☐
												☐

NB: For Standalone Streams see Help for use of Max. Sets.

Last Modified 01/09/10, Issue 1.0.2

Form Ref: 2.3.1

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Phase Intergreen Times

Select Stream(s) To Configure

○ All ○ 0 ○ ○ ○ ○ ○ ○ ○

NB: On a Stand Alone Pelican/Toucan/Puffin Stream the Intergreens between Pedestrian and Traffic Phases are controlled by the timings (PBT, PIT, CMX, CDY, CRD and PAR), therefore 0 should be entered for the appropriate intergreen times in grid below

To Phase

From Phase	A	B	C	D	E	F	G	H
A			8	6	12	12	12	3
B			6	10	12	12	12	3
C	5	5		9	12	12	12	3
D	5	6	7		12	12	12	3
E	0	0	0	0				3
F	0	0	0	0				3
G	0	0	0	0				3
H	2	2	2	2	2	2	2	

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Handset Intergreen Limits

HIGH 199

Copy Intergreen Values

To Phase

From Phase	A	B	C	D	E	F	G	H
A			5	5	4	7	6	3
B			5	5	7	4	5	3
C	5	5		5	5	4	4	3
D	5	5	5		4	5	5	3
E								3
F								3
G								3
H	2	2	2	2	2	2	2	

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Phase Timing Handset Ranges

Phase Timing Handset Ranges

Initialise Min Green Limits

Phase	Min. Green Min.	Min. Green Max.
A	7	255
B	7	255
C	7	255
D	7	255
E	4	255
F	4	255
G	4	255
H	1	255
I		
J		
K		
L		
M		
N		
O		
P		

Phase	Min. Green Min.	Min. Green Max.
Q		
R		
S		
T		
U		
V		
W		
X		
Y		
Z		
A2		
B2		
C2		
D2		
E2		
F2		

Max. Green
Min. 0 Max. 255

Vehicle Extension
Min. 0.0 Max. 10.0

Phase Delay
Min. 0 Max. 30

Starting I/G
Min. 4 Max. 12

Min Ped Clr (PBT)
Min. 0 Max. 12

Traffic Phase Leaving
Min. 3.0 Max. 3.0

Traffic Phase Red/Amber
Min. 2 Max. 2

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Intersection : ETWALL ROAD FINDERN LANE

Phase - VA Demand and Extend Definitions

VA Demand and Extend Definitions

(•) Phases A to P ( )

Demands

For Unlatched demands preceed the name with a #.
Conditioning MUST be used to specify unlatched demands.

Phase				
A	AX2	#ASL3	AIN1	
B	BX5	#BSL6	BIN4	
C	CX7	#CSL8		
D	SLD			
E	PEDE1	PEDE2		
F	PEDF1	PEDF2		
G	PEDG1	PEDG2		
H				

Extensions

AX2	ASL3		
BX5	BSL6		
CX7	CSL8		
SLD			

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Phase Internal/Revertive Demands

Phase Internal/Revertive Demands

Start-up Vehicle Responsive Demands

A	B	C	D	E	F	G	H								
☑	☑	☑	☑	☑	☑	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Demands Inserted When Leaving Manual and Fixed Time Modes

A	B	C	D	E	F	G	H								
☑	☑	☑	☑	☑	☑	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Unlatched Demands that Start Max Timers

A	B	C	D	E	F	G	H								
☑	☑	☑	☑	☑	☑	☑	☑	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Revertive Phase Demands

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
A	B	C	D												

Q	R	S	T	U	V	W	X	Y	Z	A2	B2	C2	D2	E2	F2

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Phase - OnCrossing and Kerbside Detector Definitions

On Crossing and Kerbside Input Definitions

◉ Phases A to P ○

Phase	On Crossing				Kerbside			
A								
B								
C								
D								
E	ONCE1	ONCE2			KSDE1	KSDE2		
F	ONCF1	ONCF2			KSDF1	KSDF2		
G	ONCG1	ONCG2			KSDG1	KSDG2		
H								

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Stream - Pelican/Puffin/Toucan Times

Stream - Pelican/Puffin/Toucan Times

Pedestrian Enable VA Mode (PEV)

Streams

0 1 2 3 4 5 6 7

Pedestrian All Red Times (Vehicle to Pedestrian)

Streams	0	1	2	3	4	5	6	7	Handset Range Limits Min	Handset Range Limits Max
(PARn 0) VA Gap Change										
(PAR n 1) VA Max Change										
(PAR n 2) FVP Change									0	0
(PAR n 3) UTC Change										
(PAR n 4) Local Link Change										

Pelican Intergreen times

	Min	Max
(PIT n 0) Veh Red/Ped Flash Green	0	0
(PIT n 1) Veh Flash Amber/Ped Flash Green	0	0
(PIT n 2) Veh Flash Amber/Ped red	0	0
(PIT n 3) Veh Flash Amber/Ped Red Quiescent	0	0

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Phase - Pelican Puffin and Toucan Times

Phase - Pelican Puffin and Toucan Times

Phases A to P

Phase	PDD Ped Dem Del	PDX Demand Hold	CMX Ped Clearance Maximum	CDY 0 Clearance Delay Gap Chng	CDY 1 Clearance Delay Max Chng	CRD Clearance Minimum Red
A	0	0.0	0	0	0	0
B	0	0.0	0	0	0	0
C	0	0.0	0	0	0	0
D	0	0.0	0	0	0	0
E	1	2.0	9	0	0	0
F	1	2.0	7	0	0	0
G	1	2.0	7	0	0	0
H	0	0.0	0	0	0	0

Handset Range Limits

	MIN	MAX
Pedestrian Demand delay PDD	0	4
Pedestrian Demand Hold PDX	0.0	4.0
Pedestrian Clearance CMX	0	20
Pedestrian Clearance Delays CDY 0 and CDY1	0	3
Pedestrian Clearance Delay (Red) CRI	0	3

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

IO and Link - Pelican/Puffin/Toucan Times

I/O and Link - Pelican/Puffin/Toucan Times

Streams 0 1 2 3 4 5 6 7

Computer Control

PV

Window Time
UIE

Local Link

PV1

Link Delay Time
LKD

Link Window Time
LKW

Link Override Time
LKO

Kerbside Mat Test Output

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Intersection : ETWALL ROAD FINDERN LANE

Pelican, Puffin, Toucan Pushbutton/Kerbside Associations

Pelican, Puffin, Toucan Pushbutton and Kerbside Detector Pair Associations

	Phase	Demand	KBS		Phase	Demand	KBS		Phase	Demand	KBS		Phase	Demand	KBS
0	E	PEDE1	KSDE1	16				32				48			
1	E	PEDE2	KSDE2	17				33				49			
2	F	PEDF1	KSDF1	18				34				50			
3	F	PEDF2	KSDF2	19				35				51			
4	G	PEDG1	KSDG1	20				36				52			
5	G	PEDG2	KSDG2	21				37				53			
6				22				38				54			
7				23				39				55			
8				24				40				56			
9				25				41				57			
10				26				42				58			
11				27				43				59			
12				28				44				60			
13				29				45				61			
14				30				46				62			
15				31				47				63			

Note: Any association pushed off the screen will have any previous association blanked

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Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Stage Internal Demands / Ped. Window Times

Stage Internal Demands / Ped. Window Times

Start-up Vehicle Responsive Demands

0	1	2	3	4											
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Demands Inserted When Leaving Manual and Fixed Time Modes

0	1	2	3	4											
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Unlatched Demands that Start Maximum Timers

0	1	2	3	4											
☑	☑	☑	☑	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Window Times

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0	0	0	0	0											

16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

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Fixed Time

Fixed Time

Stage Moves & Times (Not Fixed Time to Current Max)

Current Stage	0	1	2	3	4	5	6	7
Next Stage								
Time								
Current Stage	8	9	10	11	12	13	14	15
Next Stage								
Time								
Current Stage	16	17	18	19	20	21	22	23
Next Stage								
Time								
Current Stage	24	25	26	27	28	29	30	31
Next Stage								
Time								

Phases Demanded and Extended under Fixed Time to Current Max.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Demand	☑	☑	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Extend	☑	☑	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

	Q	R	S	T	U	V	W	X	Y	Z	A2	B2	C2	D2	E2	F2
Demand	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Extend	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

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CLF - Plan(s)

CLF - Plan(s)

Plan No.: 0

Copy from

Plan Specifics

Influence Set: 0

Copy from

Entry Point (secs): 255

Exit Point (secs): 255

Cycle Time (secs): 85

Group Offset Handset Range

Min. 0

Max. 255

Group/Influence

Group No.	Group Offset	Group Influence	Related Stage	Group No.	Group Offset	Group Influence	Related Stage
0	0	1	1	16			
1	25	2	2	17			
2	27	3		18			
3	42	1	3	19			
4	65	2	4	20			
5				21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			

CLF Influences
0 = Go To VA
1 = Immediate move
2 = Demand depender
3 = Hold
4 = Prevent Except To
5 = Add Immediate move
6 = Add Demand Dependent Move
7 = Ignore
8 = Stand Alone Inhibited
9 = Stand Alone Ped Allowed

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CLF - Base Time

CLF - Base Time

Controller Base Date: XX/XX/XX

Controller Base Time: 02:00:00

Plan Offset

	Minutes	Seconds		Minutes	Seconds
Plan 0	0	0	Plan 8	0	0
Plan 1	0	0	Plan 9	0	0
Plan 2	0	0	Plan 10	0	0
Plan 3	0	0	Plan 11	0	0
Plan 4	0	0	Plan 12	0	0
Plan 5	0	0	Plan 13	0	0
Plan 6	0	0	Plan 14	0	0
Plan 7	0	0	Plan 15	0	0

Handset Range Limits

	Minutes	Seconds
Min	0	0
Max	255	59

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UTC General Data

UTC General Data

Type of UTC

(•) 106 ( ) 316

Integral OTU Address

2 Number of Control Words

2 Number of Reply Words

☐ Controller to respond to TC bit.

☐ Introduction of UTC to be disabled by Priority Mode

Non UTC RTC synchronisation input name

RTC Synchronisation Times

Clock Synchronise Time (UTC TS input)

Day	Time
Saturday	00:00:00

Clock Confirm Time (UTC RT output)

Day	Time
Saturday	00:00:00

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UTC Control and Reply Data Format

UTC Control and Reply Data Format

	Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7	Bit 8
Control Words								
Word 1	F1	F2	F3	F4	F5			
Word 2								
Word 3								
Word 4								
Reply Words								
Word 1	G1	G2	G3	G4	G5			
Word 2								
Word 3								
Word 4								
Word 5								
Word 6								
Word 7								
Word 8								
Word 9								
Word 10								
Word 11								
Word 12								
Word 13								
Word 14								

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UTC Stage and Modes Data Definitions

UTC Stage and Modes Data Definitions

Stage	Force Bit	Green Confirm Bit	Demand Confirm Bit	Stage	Force Bit	Green Confirm Bit	Demand Confirm Bit
0	F5	G5		16			
1	F1	G1		17			
2	F2	G2		18			
3	F3	G3		19			
4	F4	G4		20			
5				21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			

Mode Data Definitions

Manual Mode Operative:
☐ G1/G2 ☐ RR ☐

Manual Mode Selected:
☐ G1/G2 ☐ RR ☐

No Lamp Power, or Lamps Off due to RLM
☐ G1/G2 ☐ ☐

Detector Fault:
☐ ☐ ☐ DF

Normal NOT selected on the Manual Panel:
☐ G1/G2 ☐ RR ☐

RR Button Selected:
☐ G1/G2 ☐ RR ☐

If UTC Reply Confirms are required for a Controller Fault (CF) OR for separate MC and RR replies, Conditioning must be used.

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Serial MOVA

Serial MOVA

1	AIN1	2	AX2	3		4	BIN4	5	BX5	6		7	CX7	8	
9	SLD	10		11		12		13		14		15		16	
17		18		19		20		21		22		23		24	
25		26		27		28		29		30		31		32	
33		34		35		36		37		38		39		40	
41		42		43		44		45		46		47		48	
49		50		51		52		53		54		55		56	
57		58		59		60		61		62		63		64	

Note - only 32 detectors available on MOVA 4.0

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MTC - Time Switch Parameters

MTC - Time Switch Parameters

	Type	Event		Type	Event
0	Alternate Max	MAXSETB	16	No Action	
1	Alternate Max	MAXSETC	17	No Action	
2	Alternate Max	MAXSETD	18	No Action	
3	Alternate DFM	ALTDFMB	19	No Action	
4	Alternate DFM	ALTDFMC	20	No Action	
5	Alternate DFM	ALTDFMD	21	No Action	
6	No Action		22	No Action	
7	No Action		23	No Action	
8	No Action		24	No Action	
9	No Action		25	No Action	
10	No Action		26	No Action	
11	No Action		27	No Action	
12	No Action		28	No Action	
13	No Action		29	No Action	
14	No Action		30	No Action	
15	No Action		31	No Action	

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MTC - Time Switch Parameters Array

Parameters

Events	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MAXSETB		■																														
MAXSETC			■																													
MAXSETD				■																												
ALTDFMB																																
ALTDFMC																																
ALTDFMD																																
UnUsed																																
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Master Time Clock - Day Type

Master Time Clock - Day Type

No.	Mon	Tue	Wed	Thu	Fri	Sat	Sun
0	☐	☐	☐	☐	☐	☑	☐
1	☐	☐	☐	☐	☐	☐	☑
2	☑	☐	☐	☐	☐	☐	☐
3	☐	☑	☐	☐	☐	☐	☐
4	☐	☐	☑	☐	☐	☐	☐
5	☐	☐	☐	☑	☐	☐	☐
6	☐	☐	☐	☐	☑	☐	☐
7	☑	☑	☑	☑	☑	☑	☑
8	☑	☑	☑	☑	☑	☑	☐
9	☑	☑	☑	☑	☑	☐	☐
10	☐	☐	☐	☐	☐	☐	☐
11	☐	☐	☐	☐	☐	☐	☐
12	☐	☐	☐	☐	☐	☐	☐
13	☐	☐	☐	☐	☐	☐	☐
14	☐	☐	☐	☐	☐	☐	☐
15	☐	☐	☐	☐	☐	☐	☐

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Master Time Clock - Time Table

Master Time Clock - Time Table

View Time Table settings: ◉ 0-15 ○ 16-31 ○ 32-47 ○ 48-63

Number	Day Type	Time	Introduce Function Required	Function Number	Plan/ Parameter
0	9	07:00:00	MAX SET A	2	0
1	9	09:30:00	MAX SET B	2	1
2	9	15:00:00	MAX SET C	2	2
3	9	19:00:00	MAX SET D	2	3
4	0	09:00:00	MAX SET B	2	1
5	0	19:00:00	MAX SET D	2	3
6	1	09:00:00	MAX SET B	2	1
7	1	19:00:00	MAX SET D	2	3
8	0			0	0
9	0			0	0
10	0			0	0
11	0			0	0
12	0			0	0
13	0			0	0
14	0			0	0
15	0			0	0

Function Numbers:

0 = Isolate From CLF

1 = Introduce a CLF Plan

2 = Introduce a Parameter (Combination of event switches

3 = Selects an Individual event switch to be set

4 = Selects an Individual event switch to be cleared.

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

LMU - General

LMU - General

Lamp Monitoring - LMU Voltage

- ○
- ◉ 48
- ○
- ○

Red Lamp Monitoring

Max Red Bulb Wattage

First Red Lamp Fault Speed: 0

☐ RLF2 Cancels RLM additional Intergreens

☐ RLF2 Only Cleared by RFL = 1

☐ RLF1 Only Cleared by RFL = 1

RLM Additional Intergreen Handset Limits

Minimum	Maximum
0	10

Streams with Phase BlackOut on RLF2

☐ 0 ☐ ☐ ☐ ☐ ☐ ☐ ☐

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Integral Onboard LMU Sensors

Integral LMU On-board Sensors for ELV Controllers

Number of LS cards fitted	HPU Connection
1	1

Sensor Configuration For LSLS 1 (Cabinet 1)

Phase	Aspect	Sensor #	Sensor Type	Load Type		Phase	Aspect	Sensor #	Sensor Type	Load Type	
A	Red	1	As Seq.	1: STC Helios ELV	○	F	Red	7	R,G	3: STC LED Nearside In	○
A	Amber	1	As Seq.	1: STC Helios ELV	○	F	Amber	8	Wait	2: STC LED Demand In	○
A	Green	1	As Seq.	1: STC Helios ELV	○	F	Green	7	R,G	3: STC LED Nearside In	○
B	Red	2	As Seq.	1: STC Helios ELV	○	F	Green	N/A	N/A	N/A	○
B	Amber	2	As Seq.	1: STC Helios ELV	○	G	Red	9	R,G	3: STC LED Nearside In	○
B	Green	2	As Seq.	1: STC Helios ELV	○	G	Amber	10	Wait	2: STC LED Demand In	○
C	Red	3	As Seq.	1: STC Helios ELV	○	G	Green	9	R,G	3: STC LED Nearside In	○
C	Amber	3	As Seq.	1: STC Helios ELV	○	G	Green	N/A	N/A	N/A	○
C	Green	3	As Seq.	1: STC Helios ELV	○	N/A	N/A		N/A	N/A	○
D	Red	4	As Seq.	1: STC Helios ELV	○	N/A	N/A		N/A	N/A	○
D	Amber	4	As Seq.	1: STC Helios ELV	○	N/A	N/A		N/A	N/A	○
D	Green	4	As Seq.	1: STC Helios ELV	○	N/A	N/A		N/A	N/A	○
E	Red	5	R,G	3: STC LED Nearside In	○	N/A	N/A		N/A	N/A	○
E	Amber	6	Wait	2: STC LED Demand In	○	N/A	N/A		N/A	N/A	○
E	Green	5	R,G	3: STC LED Nearside In	○	N/A	N/A		N/A	N/A	○
E	Green	N/A	N/A	N/A	○	N/A	N/A		N/A	N/A	○

Note : A (*) character next to a sensor number indicates that the sensor would also be available on the External sensors screen. Please be sur

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Integral External LMU Sensors

Integral LMU External Sensors for Reg Signs (ELV Controllers)

External Sensors (1)

Sensor	Load Type
48	4: STC ELV Regulatory Sign
47	4: STC ELV Regulatory Sign
46	4: STC ELV Regulatory Sign
45	4: STC ELV Regulatory Sign

External Sensors (4)

Sensor	Load Type

External Sensors (2)

Sensor	Load Type

External Sensors (5)

Sensor	Load Type

External Sensors (3)

Sensor	Load Type

External Sensors (6)

Sensor	Load Type

Note: Sensors which have been used as Onboard sensors will not be available h

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

RLM Additional Intergreens

Phases Delayed

Phases with RLF1	A	B	C	D	E	F	G	H
A					2	2	2	
B					2	2	2	
C					2	2	2	
D					2	2	2	
E								
F								
G								
H								

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

RLM Phase Inhibits

Phases Inhibited/Blacked-out

Phases with RLF2

	A	B	C	D	E	F	G	H
A					■	■	■	
B					■	■	■	
C					■	■	■	
D					■	■	■	
E								
F								
G								
H								

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Manual Panel

Manual Panel

Stage Buttons and LEDs

Button No.	Title	Called Stage for Stream 0	1	2	3	4	5	6	7
0	ALL RED	0							
1	ETWALL ROAD	1							
2	PEDESTRIANS	2							
3	FINDERN LANE	3							
4	ACCESS	4							
5									
6									
7									

General LEDs

	AUX 1	AUX 2	AUX 3	AUX 4 (Hurry Call)	AUX 5 (Higher Priority)
Conditioned	☑	☑	☑	☑	☑

General Buttons

	None	SW1	SW2	SW3
Momentary		☐	☐	☐
Dim Override	◉	○	○	○
RR	◉	○	○	○

Manual Signals On

- ○ Immediate Signals On
- ◉ As Start-Up

Manual Mode Enable

- ◉ Always
- ○ When Handset Plugged in (Note 1)
- ○ When 'MND' Command Entered

Note 1:
For this to operate Special Conditioning is required.

Mode Select Switches Disabled

☐ VA ☐ Fixed Time ☐ CLF

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Extend All Red - General

Extend All Red - General

Modes Supporting All Red Extensions

	Auto Extend to Max.
Manual	☐
CLF	☐
UTC	☐
Hurry Call	☐
Priority	☐
Emergency Veh.	☐
V.A.,CLF,UTC,Pri	☐
Fixed Time	☑
Part Time	☐
Manual Step On	☐

All Red Timings

	0	1	2	3	4	5	6	7
Stream Extension Time	0.2							
MaxTime	10							

Detectors Associated with All Red Extension Units

Unit	Associated Detectors							
1	AR1	AR2	AR3					
2	AR3							
3	AR1	AR2						
4	AR1	AR2						
5								
6								
7								

The association between detectors and extension units must be performed in special conditioning.

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Extend All Red - Stage To Stage Moves

To Stage

From Stage	0	1	2	3	4
0	■				
1		■	1	2	
2			■		
3			3	■	
4			4		■

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Extend All Red - Independent Intergreens

Phase not effected by hold

Phase Terminating	A	B	C	D	E	F	G	H
A	■							
B		■						
C			■					
D				■				
E					■			
F						■		
G							■	
H								■

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Special Conditioning

```
; MANUAL PANEL
; ============

(MODE0 EQL<6>):=MIL17                                ; MOVA MODE ACTIVE LIGHT HIGHER PRIORITY L.E.D.
            *=MIL05                                  ; AND AUX 3 L.E.D.
; MOVA PED WAIT CONFIRMS
; ======================

NOT(LMUINHE+LMUINHF+LMUINHG).(PRSLMPAE+PRSLMPAF+PRSLMPAG)=MOVADET28

; MOVA CRB
; ========

IFT (PRSLMPRA+PRSLMPAA+PRSLMPGA) THN                 ; ENSURE LAMPS ARE ON TO PREVENT CRB BEING TOGGLED
    RUN<1>                                           ; BY LAMP RELAY TESTS
END
IFT NOT(MODE0 EQL<6>).NOT(CNDTMA0).SSNRM THN         ; NOT IN MOVA MODE AND IN NORMAL RUN TIMER
    RUN<0>
END
IFT CNDTER0+((PRVMOD0 EQL<6>).NOT(MODE0 EQL<6>)) THN
    LOD<10> 1SCRTCH0                                 ; START A 2 SECOND TIMER FOR CRB TOGGLE
    TRUE=2SCRT1
END
NOT(1SCRTST0 EQL<0>)=.2SCRT1
IFT (1SCRTST0 GRT<0>) THN
    DEC 1SCRTCH0
END
SSNRM.(NOT(2SCRT1)+(MODE0 EQL<6>)).CNDTMA1=MOVACRB   ; WHEN TIMER TERMINATES TOGGLE CRB
IFT (MODE0 EQL<3>) THN
    FALSE=MOVACRB                                    ; IF IN CLF MODE PREVENT CRB BEING TOGGLED
END

; DELAYED REVERT TO ALL RED
; =========================

(LCPHA+UCPHA+EXTAA $
+LCPHB+UCPHB+EXTAB $
+LCPHC+UCPHC+EXTAC $
+LCPHD+UCPHD+EXTAD $
+PEDBUTE+MINE $
+PEDBUTF+MINF $
+PEDBUTG+MING $
+LCST1+UCST1 $
+LCST2+UCST2 $
+LCST3+UCST3 $
+LCST4+UCST4)=SCRT0

IFT SCRT0 THN
    RUN<2>
END
IFT CNDTER2 THN
    RUN<3>
END

CNDTMA3:=MOVADET30
        *=+UCST0                                 ; IF NO DEMANDS REVERT TO ALL RED AND PULSE MOVADET30
; STOP LINE CALL DELAY DEMANDS
; ============================

CCTO2=+LCPHA                                     ; AFTER CALL DELAY  DEMAND PHASE A
CCTO4=+LCPHB                                     ; AFTER CALL DELAY  DEMAND PHASE B
CCTO5=+LCPHC                                     ; AFTER CALL DELAY  DEMAND PHASE C
```

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Special Conditioning

```
; STOPLINE LOOP OUTPUTS TO MOVA
; ============================

CCTO2+(PHASEA.ASL3)=MOVADET3                    ; ASL3 AFTER CALL DELAY  OR PHASEA _ASL3 OUTPUT TO MOVADET3
CCTO4+(PHASEB.BSL6)=MOVADET6                    ; BSL6 AFTER CALL DELAY  OR PHASEB _BSL6 OUTPUT TO MOVADET6
CCTO5+(PHASEC.CSL8)=MOVADET8                    ; CSL8 AFTER CALL DELAY  OR PHASEC _CSL8 OUTPUT TO MOVADET8

; MOVA HURRY CALLS
; ================


; PULSE DETECTOR TO MOVADET31 FROM AIN1
; =====================================

IFT CCTO1.NOT(CNDTMA4).NOT(CNDTMA5).NOT(SCRT2) THN

    RUN<4>
    RUN<5>
END

CCTO1=SCRT2

CNDTMA4.NOT(CFE31):=+MOVADET31                   ; 2 SECOND OUTPUT PULSE TO MOVA DET31 DISABLED BY CFE31=1
                   *=MIL22

; PULSE DETECTOR TO MOVADET32 FROM BIN4
; =====================================

IFT CCTO3.NOT(CNDTMA6).NOT(CNDTMA7).NOT(SCRT3) THN

    RUN<6>
    RUN<7>
END

CCTO3=SCRT3

CNDTMA6.NOT(CFE32):=+MOVADET32                   ; 2 SECOND OUTPUT PULSE TO MOVA DET32 DISABLED BY CFE32=1
                   *=MIL23

; EXTEND ALL RED
; ==============

(AR1_EXT)+(AR2_EXT)+(AR3_EXT)+SSFIX=IGEO1
(AR1'+AR2'+AR3')=IGEC1                          ; AR1,AR2 OR AR3 EXTEND UNIT 1

(AR3_EXT)+SSFIX=IGEO2                               ; AR3 EXTEND UNIT 2
(AR3')=IGEC2
(AR1_EXT)+(AR2_EXT)+SSFIX=IGEO3                           ; AR1 OR AR2 EXTEND UNIT 3
(AR1'+AR2')=IGEC3
(AR1_EXT)+(AR2_EXT)+SSFIX=IGEO4                           ; AR2 OR AR2 EXTEND UNIT 4
(AR1'+AR2')=IGEC4


; AUDIO OUTPUTS
; =============

LMPON.PHASEE.PHASEF.PHASEG::=AUDIOE             ; ALL PED PHASES AT GREEN AUDIO OUTPUTS ACTIVE
                           *=AUDIOF
                           *=AUDIOG
```


Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Special Conditioning Timers

Special Conditioning Timers

Timers: (•) 0-31 ( ) 32-63 ( ) 64-95

No	Value	Min	Max	200ms	Description	No	Value	Min	Max	200ms	Description
0	120	0	255	☐	MOVA CRB TOGGLE	16		0	255	☐	
1	1	1	5	☐	MIN LAMPS OFF TIMER	17		0	255	☐	
2	10	0	255	☐	REVERT DELAY TIMER	18		0	255	☐	
3	2	0	255	☐	PULSE TO MOVADET30	19		0	255	☐	
4	2	0	255	☐	PULSE TO MOVADET31	20		0	255	☐	
5	90	0	255	☐	OVERIDE TIMER AIN1 H/C	21		0	255	☐	
6	2	0	255	☐	PULSE TO MOVADET31	22		0	255	☐	
7	90	0	255	☐	OVERIDE TIMER BIN4 H/C	23		0	255	☐	
8		0	255	☐		24		0	255	☐	
9		0	255	☐		25		0	255	☐	
10		0	255	☐		26		0	255	☐	
11		0	255	☐		27		0	255	☐	
12		0	255	☐		28		0	255	☐	
13		0	255	☐		29		0	255	☐	
14		0	255	☐		30		0	255	☐	
15		0	255	☐		31		0	255	☐	

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Special Instructions

E71278

Card Type	Rack Posn	Addr.	Port	Type	Line	Term Posn
Intelligent Backplane 16/0	Rack	01	0	I	000 - 007	2 LT1
Intelligent Backplane 16/0	Rack	01	1	I	008 - 015	2 LT1
Serial IO 24/4	1 I/O1	02	2	I	016 - 023	1 I/O1
Serial IO 24/4	1 I/O1	02	3	I	024 - 031	1 I/O1
Serial IO 24/4	1 I/O1	02	4	I	032 - 039	1 I/O1
Serial IO 24/4	1 I/O1	02	5	O	040 - 043	1 I/O1
CPU	A					

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Special Instructions

ST900 ELV CONTROLLER ITEMS LIST SHEET 1 (*I*L*)

ITEM	DRAWING NUMBER	DESCRIPTION	QTY	TOT	REMARKS
1					
2	667/1/32900/020	ST900 ELV Cabinet UK 20A 1 LSLS - Grey	1		
3	667/1/32900/040	ST900 ELV Cabinet UK 40A 1 LSLS - Grey			
4	667/1/32900/021	ST900 ELV Cabinet UK 20A 1 LSLS - Black			
5	667/1/32900/041	ST900 ELV Cabinet UK 40A 1 LSLS - Black			
6					
7					
8					
9	667/1/32943/001	ELV Lamp switch (LSLS) kit			
10	667/1/32960/000	ELV Lamp switch (LSLS) backplane kit			
11	667/1/32995/002	ST900 I/O card kit (4 outputs)	1		
12	667/1/32995/001	ST900 I/O card kit (16 outputs)			
13					
14					
15					
16	667/1/27004/000	Integral TC12 OTU kit			
17	667/1/27005/000	SDE Facility kit			
18	667/1/32910/000	ST900 Intelligent detector backplane kit	1		
19	667/1/33002/000	ELV detector 6U rack expansion kit			
20	667/1/33074/000	ST900 ELV 24 V detector supply Kit (6A)			
21	667/1/20690/001	19" Detector Rack			
22					
23	667/1/32985/000	ELV 20A to 40A upgrade kit			
24					
25					
26	667/1/33070/000	ELV Regulatory Sign expansion kit			
27	667/1/32950/000	ELV Audible supply kit			
28	667/1/27117/000	300mA RCD kit			
29					
30					
31	667/1/32900/000	Expansion cabinet kit			
32	667/1/33072/000	Cabinet mounted cut-out connection kit			
33					
34					
35					
36	667/1/27056/001	Manual Panel Full kit			
37	667/1/27110/000	Manual Panel RS232 kit			
38					
39					
40	667/1/16279/278	Configuration Eprom (Issue 1. 0)	1		

Note 1:
Please refer to special instruction pages for additional information on items marked with an '*'.

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Special Instructions

ST900 ELV CONTROLLER ITEMS LIST SHEET 2 (*I*L*)

ITEM	DRAWING NUMBER	DESCRIPTION	QTY	TOT	REMARKS
41					
42	667/1/32900/920	ST900 ELV cuckoo Kit - T200			
43	667/1/32900/921	ST900 ELV cuckoo Kit - T400			
44	667/1/32900/922	ST900 ELV cuckoo Kit - T800			
45	667/1/32900/923	ST900 ELV cuckoo Kit - Microsense			
46	667/1/32900/925	ST900 ELV cuckoo Kit - Peek			
47					
48					
49					
50					
51					
52	667/1/33073/000	ST900 Isolator locking kit			
53	667/2/20234/000	Screw Lock Key			
54					
55					
56	667/1/27104/000	ST800 / ST900 DFM Lens Kit			
57	667/1/21150/002	ST800 / ST900 Gas Plinth			
58	667/2/27096/000	ST800 / ST900 Mounting Stool			
59					
60					
61					
62	667/1/26271/000	Telephone Kit (Lightning protection)			
63	667/1/27118/000	Surge Arrester (Lightning protection)			
64					
65					
66					
67	667/1/32900/120	ST900 ELV Cabinet Export 20A 1 LSLS - Grey			
68	667/1/32900/140	ST900 ELV Cabinet Export 40A 1 LSLS - Grey			
69	667/1/32900/121	ST900 ELV Cabinet Export 20A 1 LSLS - Black			
70	667/1/32900/141	ST900 ELV Cabinet Export 40A 1 LSLS - Black			
71					
72					
73	667/1/32900/900	ST900 ELV export rack Kit			
74	667/1/32945/000	ST900 ELV additional LSLS rack wiring kit			
75					
76	667/1/27007/000	IRM Facility			
77					
78					
79					
80					

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
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Special Instructions

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Special Instructions

******PLEASE NOTE ********

ALL OF THE CAMERA INPUT'S HAVE BEEN INVERTED

THIS INCLUDES THE VECHICLE MVD'S, KERBSIDES AND ONCROSSINGS, YOU WILL NEED TO MAKE SURE THE INSTALLER IS AWARE OF THIS SO THE CORRECT OUTPUT WIRING FROM THE MVD'S IS CONNECTED.

THIS IS TO MAKE SURE THE INPUT GOES ACTIVE OR P.D. IF ANY OF THE MVD'S ARE DISCONNECTED.

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Call Cancel

Call Cancel

Unit No.	Input Name	Call Delay	Cancel Delay	Phase Demanded (Unlatched Demand)
0		0	0	
1	AIN1	20	0	
2	ASL3	3	0	
3	BIN4	20	0	
4	BSL6	3	0	
5	CSL8	3	0	
6		0	0	
7		0	0	

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Input/Output

Input/Output

☐ Enable Signal Required Check boxes

☐ Manual Allocation

Port Number & Type

Port: 0

○ Inputs ○ Outputs

◉ Inputs & Outputs

Card Type & Address

Intelligent Backplane 16/0
Card Address: 1

	DET No	Bit No	Type I or O	Name	Req'd	BP	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By Phs	UTC	SDE	Pri	HC	CC	AR	UD	Term Block	Term No
○	0	0	I	AIN1	☑	☑	☐	☐	☐	A	0	0.0	☑	☐	☐	☐	☐	☑	☐	☐	2 LT1	A1
○	1	1	I	AX2	☑	☑	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	2 LT1	A2
○	2	2	I	ASL3	☑	☑	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☑	☐	☐	2 LT1	A3
○	3	3	I		☑	☑	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	A4
○	4	4	I	BIN4	☑	☑	☐	☐	☐	A	0	0.0	☑	☐	☐	☐	☐	☑	☐	☐	2 LT1	B1
○	5	5	I	BX5	☑	☑	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	2 LT1	B2
○	6	6	I	BSL6	☑	☑	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☑	☐	☐	2 LT1	B3
○	7	7	I		☑	☑	☐		☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	B4

Add | Delete | Move | Clear Used By | Move to/from backplane

Manual Map Optimisation

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Input/Output

Input/Output

☐ Enable Signal Required Check boxes

☐ Manual Allocation

Port Number & Type

Port: 1

○ Inputs ○ Outputs

◉ Inputs & Outputs

Card Type & Address

Intelligent Backplane 16/0
Card Address: 1

	DET No	Bit No	Type I or O	Name	Req'd	BP	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By Phs	UTC	SDE	Pri	HC	CC	AR	UD	Term Block	Term No
○	8	0	I	CX7	☑	☑	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	2 LT1	C1
○	9	1	I	CSL8	☑	☑	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☑	☐	☐	2 LT1	C2
○	10	2	I	AR3	☑	☑	☐	☐	☐	A	0	2.0	☐	☐	☐	☐	☐	☐	☑	☐	2 LT1	C3
○	11	3	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	C4
○	12	4	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	D1
○	13	5	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	D2
○	14	6	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	D3
○	15	7	I		☐	☐	☐		☐				☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	D4

Add | Delete | Move | Clear Used By | Move to/from backplane

Manual Map Optimisation

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Input/Output

Input/Output

☐ Enable Signal Required Check boxes

☐ Manual Allocation

Port Number & Type

Port: 2

○ Inputs ○ Outputs

◉ Inputs & Outputs

Card Type & Address

Serial IO 24/4
Card Address: 2

	DET No	Bit No	Type I or O	Name	Req'd	BP	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By Phs	UTC	SDE	Pri	HC	CC	AR	UD	Term Block	Line No
○	16	0	I	SLD	☑	☐	☑	☐	☐	N		1.0	☑	☐	☐	☐	☐	☐	☐	☐	1I/O1	0
○	17	1	I	PEDE1	☑	☐	☐	☐	☐	N		0.0	☑	☐	☐	☐	☐	☐	☐	☐	1I/O1	1
○	18	2	I	PEDE2	☑	☐	☐	☐	☐	N		0.0	☑	☐	☐	☐	☐	☐	☐	☐	1I/O1	2
○	19	3	I	KSDE1	☑	☐	☑	☐	☐	N		0.0	☑	☐	☐	☐	☐	☐	☐	☐	1I/O1	3
○	20	4	I	KSDE2	☑	☐	☑	☐	☐	N		0.0	☑	☐	☐	☐	☐	☐	☐	☐	1I/O1	4
○	21	5	I	ONCE1	☑	☐	☑	☐	☐	A	0	2.0	☑	☐	☐	☐	☐	☐	☐	☐	1I/O1	5
○	22	6	I	ONCE2	☑	☐	☑	☐	☐	A	0	2.0	☑	☐	☐	☐	☐	☐	☐	☐	1I/O1	6
○	23	7	I	PEDF1	☑	☐	☐		☐	N		0.0	☑	☐	☐	☐	☐	☐	☐	☐	1I/O1	7

Add | Delete | Move | Clear Used By | Move to/from backplane

Manual Map Optimisation

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Input/Output

Input/Output

☐ Enable Signal Required Check boxes

☐ Manual Allocation

Port Number & Type

Port: 3

○ Inputs ○ Outputs

◉ Inputs & Outputs

Card Type & Address

Serial IO 24/4
Card Address: 2

	DET No	Bit No	Type I or O	Name	Req'd	BP	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By Phs	UTC	SDE	Pri	HC	CC	AR	UD	Term Block	Line No
○	24	0	I	PEDF2	☑	☐	☐	☐	☐	N		0.0	☑	☐	☐	☐	☐	☐	☐	☐	1I/O1	8
○	25	1	I	KSDF1	☑	☐	☑	☐	☐	N		0.0	☑	☐	☐	☐	☐	☐	☐	☐	1I/O1	9
○	26	2	I	KSDF2	☑	☐	☑	☐	☐	N		0.0	☑	☐	☐	☐	☐	☐	☐	☐	1I/O1	10
○	27	3	I	ONCF1	☑	☐	☑	☐	☐	A	0	2.0	☑	☐	☐	☐	☐	☐	☐	☐	1I/O1	11
○	28	4	I	ONCF2	☑	☐	☑	☐	☐	A	0	2.0	☑	☐	☐	☐	☐	☐	☐	☐	1I/O1	12
○	29	5	I	PEDG1	☑	☐	☐	☐	☐	N		0.0	☑	☐	☐	☐	☐	☐	☐	☐	1I/O1	13
○	30	6	I	PEDG2	☑	☐	☐	☐	☐	N		0.0	☑	☐	☐	☐	☐	☐	☐	☐	1I/O1	14
○	31	7	I	KSDG1	☑	☐	☑		☐	N		0.0	☑	☐	☐	☐	☐	☐	☐	☐	1I/O1	15

Add | Delete | Move | Clear Used By | Move to/from backplane

Manual Map Optimisation

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Input/Output

Input/Output

☐ Enable Signal Required Check boxes

☐ Manual Allocation

Port Number & Type

Port: 4

○ Inputs ○ Outputs

◉ Inputs & Outputs

Card Type & Address

Serial IO 24/4
Card Address: 2

	DET No	Bit No	Type I or O	Name	Req'd	BP	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By Phs	UTC	SDE	Pri	HC	CC	AR	UD	Term Block	Line No
○	32	0	I	KSDG2	☑	☐	☑	☐	☐	N		0.0	☑	☐	☐	☐	☐	☐	☐	☐	1I/O1	16
○	33	1	I	ONCG1	☑	☐	☑	☐	☐	A	0	2.0	☑	☐	☐	☐	☐	☐	☐	☐	1I/O1	17
○	34	2	I	ONCG2	☑	☐	☑	☐	☐	A	0	2.0	☑	☐	☐	☐	☐	☐	☐	☐	1I/O1	18
○	35	3	I	AR1	☑	☐	☑	☐	☐	A	0	1.0	☐	☐	☐	☐	☐	☐	☑	☐	1I/O1	19
○	36	4	I	AR2	☑	☐	☑	☐	☐	A	0	1.0	☐	☐	☐	☐	☐	☐	☑	☐	1I/O1	20
○	37	5	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	21
○	38	6	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	22
○	39	7	I		☐	☐	☐		☐				☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	23

Add | Delete | Move | Clear Used By | Move to/from backplane

Manual Map Optimisation

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Input/Output

Input/Output

☐ Enable Signal Required Check boxes

☐ Manual Allocation

Port Number & Type

Port: 5

○ Inputs ○ Outputs

◉ Inputs & Outputs

Card Type & Address

Serial IO 24/4
Card Address: 2

	DET No	Bit No	Type I or O	Name	Req'd	BP	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By Phs	UTC	SDE	Pri	HC	CC	AR	UD	Term Block	Line No
○	40	0	O	AUDIOE	☑	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	0
○	41	1	O	AUDIOF	☑	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	1
○	42	2	O	AUDIOG	☑	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	2
○	43	3	O		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	3
○	44	4	O		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	4
○	45	5	O		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	5
○	46	6	O		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	6
○	47	7	O		☐	☐	☐		☐				☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	7

Add | Delete | Move | Clear Used By | Move to/from backplane

Manual Map Optimisation

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

Aspect Drives - ELV Controllers

Aspect Drives for ELV Controllers

☐ Card Reversed

HPU Connection 1

Aspect Drive Configuration For LSLS 1 of 1 cards (Cabinet 1)

Output	Phase	Aspect	Use	Output	Phase	Aspect	Use
32	A	Red	Phase	16	F	Red	Phase
31	A	Amber	Phase	15	F	Amber	Phase
30	A	Green	Phase	14	F	Green	Phase
29	B	Red	Phase	13	F	Green	Phase
28	B	Amber	Phase	12	G	Red	Phase
27	B	Green	Phase	11	G	Amber	Phase
26	C	Red	Phase	10	G	Green	Phase
25	C	Amber	Phase	9	G	Green	Phase
24	C	Green	Phase	8	N/A	N/A	N/A
23	D	Red	Phase	7	N/A	N/A	N/A
22	D	Amber	Phase	6	N/A	N/A	N/A
21	D	Green	Phase	5	N/A	N/A	N/A
20	E	Red	Phase	4	N/A	N/A	N/A
19	E	Amber	Phase	3	N/A	N/A	N/A
18	E	Green	Phase	2	N/A	N/A	N/A
17	E	Green	Phase	1	N/A	N/A	N/A

Works Order : 460325581
EM Number : E71278
Engineer : P W WRIGHT
Intersection : ETWALL ROAD FINDERN LANE

I/O - Group DFM Timings

I/O - Group DFM Timings

Input Group	State	SET A	SET B	SET C	SET D
Group 0	Active (Mins)	30	30	30	30
	InActive (Hrs)	18	18	18	18
Group 1	Active (Mins)	30	30	30	30
	InActive (Hrs)	18	18	18	18
Group 2	Active (Mins)	30	30	30	30
	InActive (Hrs)	18	18	18	18
Group 3	Active (Mins)	30	30	30	30
	InActive (Hrs)	18	18	18	18
Group 4	Active (Mins)	30	30	30	30
	InActive (Hrs)	18	18	18	18
Group 5	Active (Mins)	30	30	30	30
	InActive (Hrs)	18	18	18	18
Group 6	Active (Mins)	30	30	30	30
	InActive (Hrs)	18	18	18	18
Group 7	Active (Mins)	30	30	30	30
	InActive (Hrs)	18	18	18	18

Note - 255 or blank disables DFM monitoring of that state (active or inactive) during that timeset (A

Handset Limiting Values

State	Min	Max
Active (Mins)	0	254
InActive (Hrs)	0	254

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Appendix P

Junction Capacity Assessment Results

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: Site Access Roundabout.j9
Path: Z:\Projects\Projects 18\18-0054 Burnaston Cross\Design_Data\Transport\JUNCTIONS
Report generation date: 09-Apr-19 7:14:51 PM

»2020, AM
»2020, PM
»2028, AM
»2028, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2020							
Arm 1	0.1	3.73	0.07	A	0.2	3.53	0.17	A
Arm 2	0.7	3.77	0.39	A	0.7	3.75	0.38	A
Arm 3	0.8	4.44	0.43	A	0.5	3.53	0.32	A
	2028							
Arm 1	0.1	3.87	0.07	A	0.2	3.63	0.16	A
Arm 2	0.8	3.99	0.42	A	0.8	4.01	0.43	A
Arm 3	1.0	4.86	0.48	A	0.6	3.75	0.36	A

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	(untitled)
Location	
Site number	
Date	19-Jun-18
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	BSP-CONSULTING\mvadher
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

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020	AM	ONE HOUR	07:45	09:15	15
D2	2020	PM	ONE HOUR	16:45	18:15	15
D3	2028	AM	ONE HOUR	07:45	09:15	15
D4	2028	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2020, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3	4.08	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Site Access	
2	Etwall Rd (N)	
3	Etwall Rd (S)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	3.65	7.00	16.5	30.0	40.0	45.8	
2	3.21	7.00	30.0	30.0	40.0	46.1	
3	2.92	7.00	27.8	30.0	40.0	50.6	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.621	1655
2	0.634	1720
3	0.611	1631

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)
D1	2020	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	78	100.000
2		✓	605	100.000
3		✓	583	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	63	15
	2	190	0	415
	3	57	526	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	33	0
	2	15	0	7
	3	0	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.07	3.73	0.1	A
2	0.39	3.77	0.7	A
3	0.43	4.44	0.8	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	59	394	1410	0.042	59	0.1	3.337	A
2	455	11	1712	0.266	454	0.4	3.124	A
3	439	143	1544	0.284	437	0.4	3.454	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	70	472	1361	0.052	70	0.1	3.491	A
2	544	13	1711	0.318	543	0.5	3.373	A
3	524	171	1526	0.343	524	0.6	3.813	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	86	578	1296	0.066	86	0.1	3.726	A
2	666	16	1709	0.390	665	0.7	3.771	A
3	642	209	1503	0.427	641	0.8	4.434	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	86	579	1295	0.066	86	0.1	3.728	A
2	666	17	1709	0.390	666	0.7	3.774	A
3	642	209	1503	0.427	642	0.8	4.443	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	70	474	1361	0.052	70	0.1	3.496	A
2	544	14	1711	0.318	545	0.5	3.380	A
3	524	171	1526	0.343	525	0.6	3.827	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	59	396	1409	0.042	59	0.1	3.340	A
2	455	11	1712	0.266	456	0.4	3.134	A
3	439	143	1543	0.284	439	0.4	3.469	A

2020, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3	3.63	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2020	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	208	100.000
2		✓	581	100.000
3		✓	474	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	145	63
	2	27	0	554
	3	7	467	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	13	0
	2	32	0	7
	3	0	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.17	3.53	0.2	A
2	0.38	3.75	0.7	A
3	0.32	3.53	0.5	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	157	350	1437	0.109	156	0.1	3.047	A
2	437	47	1690	0.259	436	0.4	3.095	A
3	357	20	1618	0.221	356	0.3	3.044	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	187	420	1394	0.134	187	0.2	3.235	A
2	522	57	1684	0.310	522	0.5	3.345	A
3	426	24	1616	0.264	426	0.4	3.233	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	229	514	1336	0.171	229	0.2	3.529	A
2	640	69	1676	0.382	639	0.7	3.747	A
3	522	30	1613	0.324	521	0.5	3.524	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	229	514	1336	0.171	229	0.2	3.530	A
2	640	69	1676	0.382	640	0.7	3.750	A
3	522	30	1613	0.324	522	0.5	3.527	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	187	420	1394	0.134	187	0.2	3.237	A
2	522	57	1684	0.310	523	0.5	3.349	A
3	426	24	1616	0.264	427	0.4	3.236	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	157	352	1436	0.109	157	0.1	3.052	A
2	437	47	1689	0.259	438	0.4	3.105	A
3	357	20	1618	0.221	357	0.3	3.053	A

2028, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3	4.39	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)
D3	2028	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	78	100.000
2		✓	657	100.000
3		✓	649	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	63	15
	2	190	0	467
	3	57	592	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	33	0
	2	15	0	7
	3	0	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.07	3.87	0.1	A
2	0.42	3.99	0.8	A
3	0.48	4.86	1.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	59	444	1379	0.043	59	0.1	3.408	A
2	495	11	1712	0.289	493	0.4	3.219	A
3	489	143	1544	0.317	487	0.5	3.616	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	70	532	1325	0.053	70	0.1	3.587	A
2	591	13	1711	0.345	590	0.6	3.505	A
3	583	171	1526	0.382	583	0.7	4.055	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	86	651	1251	0.069	86	0.1	3.865	A
2	723	16	1709	0.423	722	0.8	3.981	A
3	715	209	1503	0.475	713	1.0	4.842	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	86	652	1250	0.069	86	0.1	3.867	A
2	723	17	1709	0.423	723	0.8	3.987	A
3	715	209	1503	0.475	715	1.0	4.856	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	70	533	1324	0.053	70	0.1	3.594	A
2	591	14	1711	0.345	592	0.6	3.513	A
3	583	171	1526	0.382	585	0.7	4.071	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	59	446	1378	0.043	59	0.1	3.415	A
2	495	11	1712	0.289	495	0.4	3.230	A
3	489	143	1543	0.317	489	0.5	3.634	A

2028, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3	3.86	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)
D4	2028	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	190	100.000
2		✓	653	100.000
3		✓	534	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	145	45
	2	27	0	626
	3	7	527	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	13	0
	2	32	0	7
	3	0	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.16	3.63	0.2	A
2	0.43	4.01	0.8	A
3	0.36	3.75	0.6	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	143	395	1409	0.102	143	0.1	3.115	A
2	492	34	1698	0.290	490	0.4	3.209	A
3	402	20	1618	0.248	401	0.4	3.158	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	171	473	1361	0.126	171	0.2	3.315	A
2	587	40	1694	0.347	587	0.6	3.503	A
3	480	24	1616	0.297	480	0.4	3.387	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	209	580	1295	0.162	209	0.2	3.634	A
2	719	49	1688	0.426	718	0.8	3.999	A
3	588	30	1613	0.365	587	0.6	3.752	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	209	580	1294	0.162	209	0.2	3.635	A
2	719	50	1688	0.426	719	0.8	4.005	A
3	588	30	1613	0.365	588	0.6	3.755	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	171	474	1360	0.126	171	0.2	3.318	A
2	587	41	1694	0.347	588	0.6	3.512	A
3	480	24	1616	0.297	481	0.5	3.391	A

18:00 - 18:15

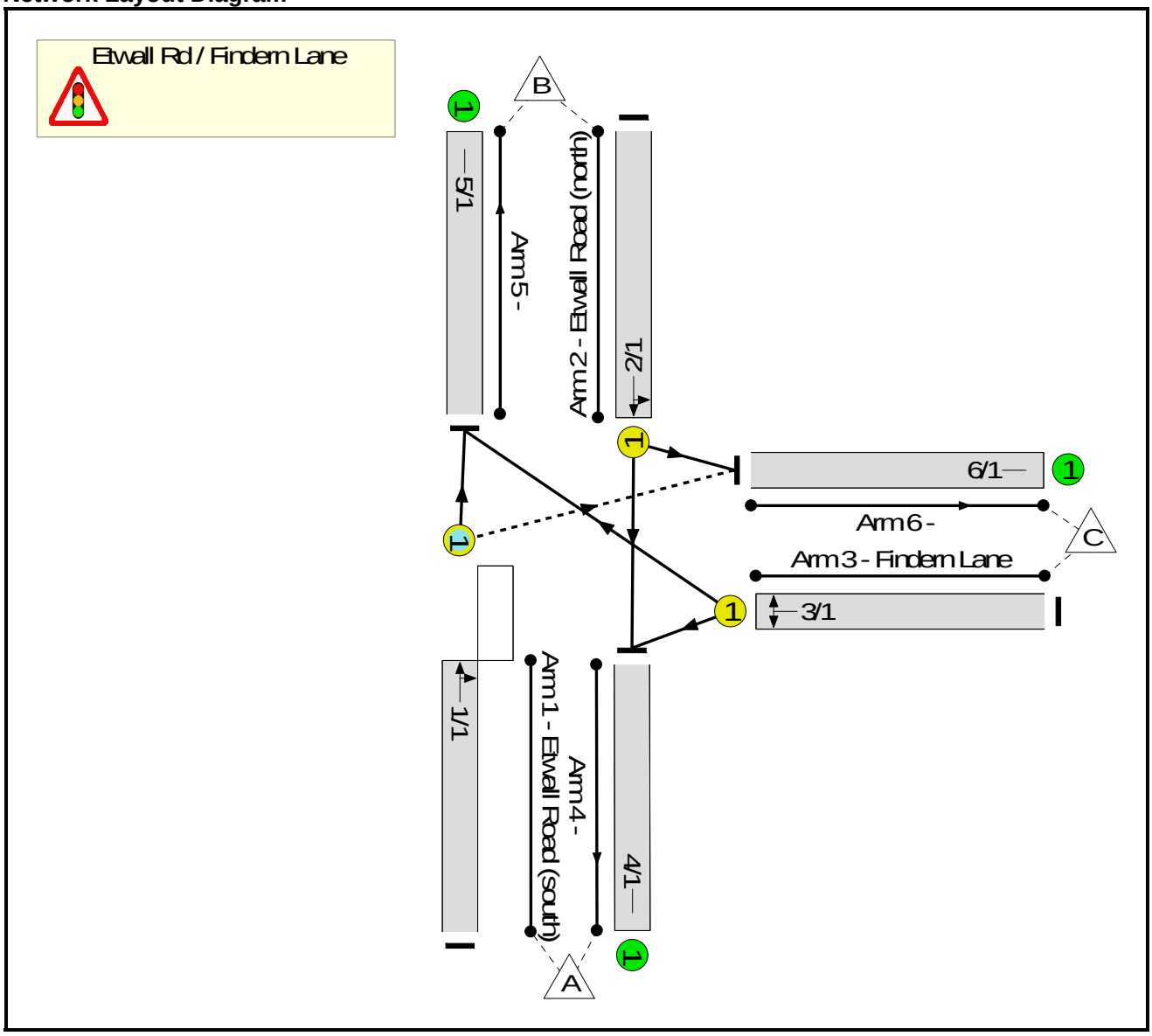
Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	143	397	1408	0.102	143	0.1	3.121	A
2	492	34	1698	0.290	492	0.4	3.220	A
3	402	20	1618	0.248	402	0.4	3.165	A

LinSig V1 style report

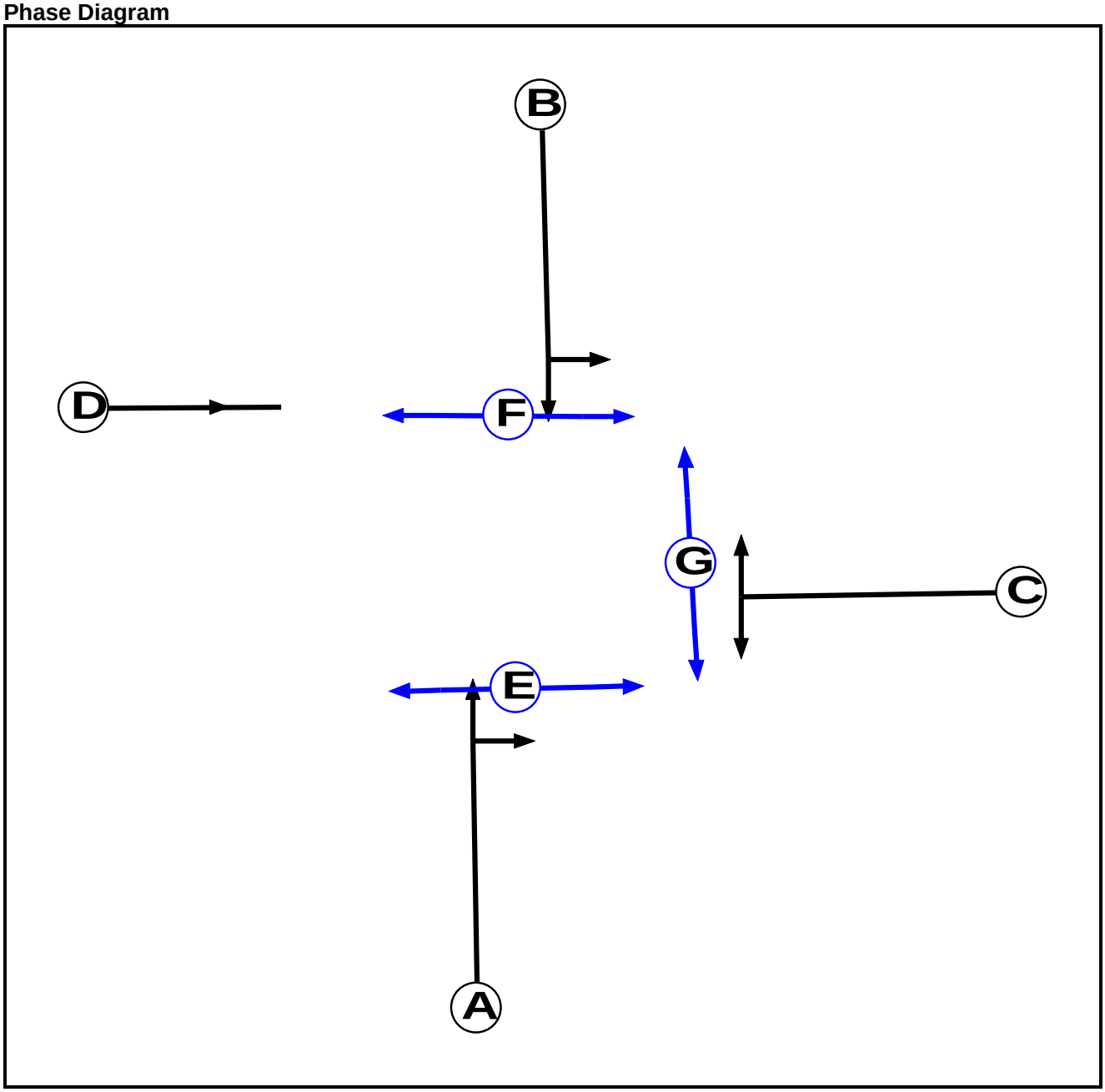
User and Project Details

Project:	**Burnaston Cross**
Title:	**Etwall Rd / Findern Lane**
Location:	Derbyshire
Client:	Brackley Developments
Additional detail:	
File name:	Findern Lane.lsg3x
Author:	MAM
Company:	BSP
Address:	Nots

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Pedestrian		5	5
F	Pedestrian		5	5
G	Pedestrian		5	5

Phase Intergreens Matrix

		Starting Phase						
		A	B	C	D	E	F	G
Terminating Phase	A		-	8	6	12	12	12
	B	-		6	10	12	12	12
	C	5	5		9	12	12	12
	D	5	6	7		12	12	12
	E	0	0	0	0		-	-
	F	0	0	0	0	-		-
	G	0	0	0	0	-	-	

Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

		To Stage		
		1	2	3
From Stage	1		12	8
	2	2		2
	3	5	12	

Phases in Stage

Stage No.	Phases in Stage
1	A B
2	E F G
3	C

Give-Way Lane Input Data

Junction: Etwall Rd / Findern Lane											
Lane	**Movement**	**Max Flow when Giving Way (PCU/Hr)**	**Min Flow when Giving Way (PCU/Hr)**	**Opposing Lane**	**Opp. Lane Coeff.**	**Opp. Mvmnts.**	**Right Turn Storage (PCU)**	**Non-Blocking Storage (PCU)**	**RTF**	**Right Turn Move up (s)**	**Max Turns in Intergreen (PCU)**
1/1 (Etwall Road (south))	6/1 (Right)	1439	0	2/1	1.09	All	4.00	4.00	0.50	4	4.00

Lane Input Data

Junction: Etwall Rd / Findern Lane

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Etwall Road (south))	O	A	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 5 Ahead	Inf
											Arm 6 Right	5.00
2/1 (Etwall Road (north))	U	B	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 4 Ahead	Inf
											Arm 6 Left	7.50
3/1 (Findern Lane)	U	C	2	3	60.0	Geom	-	2.75	0.00	Y	Arm 4 Left	7.50
											Arm 5 Right	10.00
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Lane Saturation Flows

Scenario 1: '2020 Base + Com - AM' (FG1: '2020 Base + Com - AM', Plan 1: 'Network Control Plan 1')

Junction: Etwall Rd / Findern Lane

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Etwall Road (south))	3.00	0.00	Y	Arm 5 Ahead	Inf	70.7 %	1760	1760
				Arm 6 Right	5.00	29.3 %		
2/1 (Etwall Road (north))	3.00	0.00	Y	Arm 4 Ahead	Inf	89.1 %	1874	1874
				Arm 6 Left	7.50	10.9 %		
3/1 (Findern Lane)	2.75	0.00	Y	Arm 4 Left	7.50	77.6 %	1590	1590
				Arm 5 Right	10.00	22.4 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2020 Base + Com - PM' (FG2: '2020 Base + Com - PM', Plan 1: 'Network Control Plan 1')

Junction: Etwall Rd / Findern Lane								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Etwall Road (south))	3.00	0.00	Y	Arm 5 Ahead	Inf	71.4 %	1764	1764
				Arm 6 Right	5.00	28.6 %		
2/1 (Etwall Road (north))	3.00	0.00	Y	Arm 4 Ahead	Inf	86.8 %	1866	1866
				Arm 6 Left	7.50	13.2 %		
3/1 (Findern Lane)	2.75	0.00	Y	Arm 4 Left	7.50	75.5 %	1591	1591
				Arm 5 Right	10.00	24.5 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 3: '2028 Base + Com - AM' (FG3: '2028 Base + Com - AM', Plan 1: 'Network Control Plan 1')

Junction: Etwall Rd / Findern Lane								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Etwall Road (south))	3.00	0.00	Y	Arm 5 Ahead	Inf	70.8 %	1761	1761
				Arm 6 Right	5.00	29.2 %		
2/1 (Etwall Road (north))	3.00	0.00	Y	Arm 4 Ahead	Inf	89.1 %	1874	1874
				Arm 6 Left	7.50	10.9 %		
3/1 (Findern Lane)	2.75	0.00	Y	Arm 4 Left	7.50	77.8 %	1590	1590
				Arm 5 Right	10.00	22.2 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2028 Base + Com - PM' (FG4: '2028 Base + Com - PM', Plan 1: 'Network Control Plan 1')

Junction: Etwall Rd / Findern Lane								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Etwall Road (south))	3.00	0.00	Y	Arm 5 Ahead	Inf	71.5 %	1764	1764
				Arm 6 Right	5.00	28.5 %		
2/1 (Etwall Road (north))	3.00	0.00	Y	Arm 4 Ahead	Inf	86.9 %	1866	1866
				Arm 6 Left	7.50	13.1 %		
3/1 (Findern Lane)	2.75	0.00	Y	Arm 4 Left	7.50	75.5 %	1591	1591
				Arm 5 Right	10.00	24.5 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 5: '2020 With Dev - AM' (FG5: '2020 With Dev - AM', Plan 1: 'Network Control Plan 1')

Junction: Etwall Rd / Findern Lane								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Etwall Road (south))	3.00	0.00	Y	Arm 5 Ahead	Inf	71.7 %	1765	1765
				Arm 6 Right	5.00	28.3 %		
2/1 (Etwall Road (north))	3.00	0.00	Y	Arm 4 Ahead	Inf	87.5 %	1868	1868
				Arm 6 Left	7.50	12.5 %		
3/1 (Findern Lane)	2.75	0.00	Y	Arm 4 Left	7.50	66.8 %	1597	1597
				Arm 5 Right	10.00	33.2 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 6: '2020 With Dev - PM' (FG6: '2020 With Dev - PM', Plan 1: 'Network Control Plan 1')

Junction: Etwall Rd / Findern Lane								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Etwall Road (south))	3.00	0.00	Y	Arm 5 Ahead	Inf	71.5 %	1764	1764
				Arm 6 Right	5.00	28.5 %		
2/1 (Etwall Road (north))	3.00	0.00	Y	Arm 4 Ahead	Inf	83.3 %	1853	1853
				Arm 6 Left	7.50	16.7 %		
3/1 (Findern Lane)	2.75	0.00	Y	Arm 4 Left	7.50	74.5 %	1592	1592
				Arm 5 Right	10.00	25.5 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 7: '2028 With Dev - AM' (FG7: '2028 With Dev - AM', Plan 1: 'Network Control Plan 1')

Junction: Etwall Rd / Findern Lane								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Etwall Road (south))	3.00	0.00	Y	Arm 5 Ahead	Inf	71.6 %	1765	1765
				Arm 6 Right	5.00	28.4 %		
2/1 (Etwall Road (north))	3.00	0.00	Y	Arm 4 Ahead	Inf	87.7 %	1869	1869
				Arm 6 Left	7.50	12.3 %		
3/1 (Findern Lane)	2.75	0.00	Y	Arm 4 Left	7.50	67.8 %	1596	1596
				Arm 5 Right	10.00	32.2 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 8: '2028 With Dev - PM' (FG8: '2028 With Dev - PM', Plan 1: 'Network Control Plan 1')

Junction: Etwall Rd / Findern Lane								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Etwall Road (south))	3.00	0.00	Y	Arm 5 Ahead	Inf	71.6 %	1765	1765
				Arm 6 Right	5.00	28.4 %		
2/1 (Etwall Road (north))	3.00	0.00	Y	Arm 4 Ahead	Inf	83.6 %	1854	1854
				Arm 6 Left	7.50	16.4 %		
3/1 (Findern Lane)	2.75	0.00	Y	Arm 4 Left	7.50	74.6 %	1592	1592
				Arm 5 Right	10.00	25.4 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2020 Base + Com - AM'	08:00	09:00	01:00	
2: '2020 Base + Com - PM'	17:00	18:00	01:00	
3: '2028 Base + Com - AM'	08:00	09:00	01:00	
4: '2028 Base + Com - PM'	17:00	18:00	01:00	
5: '2020 With Dev - AM'	08:00	09:00	01:00	
6: '2020 With Dev - PM'	17:00	18:00	01:00	
7: '2028 With Dev - AM'	08:00	09:00	01:00	
8: '2028 With Dev - PM'	17:00	18:00	01:00	

Traffic Flows, Desired

FG1: '2020 Base + Com - AM'

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	486	201	687
	B	394	0	48	442
	C	159	46	0	205
	Tot.	553	532	249	1334

FG2: '2020 Base + Com - PM'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	384	154	538
	B	455	0	69	524
	C	219	71	0	290
	Tot.	674	455	223	1352

FG3: '2028 Base + Com - AM'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	547	226	773
	B	443	0	54	497
	C	179	51	0	230
	Tot.	622	598	280	1500

FG4: '2028 Base + Com - PM'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	434	173	607
	B	513	0	77	590
	C	247	80	0	327
	Tot.	760	514	250	1524

FG5: '2020 With Dev - AM'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	510	201	711
	B	400	0	57	457
	C	159	79	0	238
	Tot.	559	589	258	1406

FG6: '2020 With Dev - PM'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	387	154	541
	B	474	0	95	569
	C	219	75	0	294
	Tot.	693	462	249	1404

FG7: '2028 With Dev - AM'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	571	226	797
	B	450	0	63	513
	C	179	85	0	264
	Tot.	629	656	289	1574

FG8: '2028 With Dev - PM'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	436	173	609
	B	532	0	104	636
	C	247	84	0	331
	Tot.	779	520	277	1576

Stage Timings

Scenario 1: '2020 Base + Com - AM' (FG1: '2020 Base + Com - AM', Plan 1: 'Network Control Plan 1')

Stage	**1**	**2**	**3**
Duration	72	5	24
Change Point	0	77	94

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Etwall Rd / Findern Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**64.4%**
Etwall Rd / Findern Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**64.4%**
1/1	Etwall Road (south) Ahead Right	O	N/A	N/A	A		1	72	-	687	1760	1067	64.4%
2/1	Etwall Road (north) Ahead Left	U	N/A	N/A	B		1	72	-	442	1874	1140	38.8%
3/1	Findern Lane Left Right	U	N/A	N/A	C		1	24	-	205	1590	331	61.9%
4/1		U	N/A	N/A	-		-	-	-	553	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	532	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	249	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Etwall Rd / Findern Lane	**-**	**-**	**198**	**0**	**3**	**6.8**	**2.0**	**0.2**	**9.1**	**-**	**-**	**-**	**-**
Etwall Rd / Findern Lane	**-**	**-**	**198**	**0**	**3**	**6.8**	**2.0**	**0.2**	**9.1**	**-**	**-**	**-**	**-**
1/1	687	687	198	0	3	2.9	0.9	0.2	4.0	20.9	14.7	0.9	15.6
2/1	442	442	-	-	-	1.5	0.3	-	1.8	14.6	7.5	0.3	7.8
3/1	205	205	-	-	-	2.5	0.8	-	3.3	57.3	6.2	0.8	7.0
4/1	553	553	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	532	532	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	249	249	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 39.8 Total Delay for Signalled Lanes (pcuHr): 9.05 Cycle Time (s): 120
PRC Over All Lanes (%): 39.8 Total Delay Over All Lanes(pcuHr): 9.05

Stage Timings

Scenario 2: '2020 Base + Com - PM' (FG2: '2020 Base + Com - PM', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	61	5	35
Change Point	0	66	83

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Etwall Rd / Findern Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**62.0%**
Etwall Rd / Findern Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**62.0%**
1/1	Etwall Road (south) Ahead Right	O	N/A	N/A	A		1	61	-	538	1764	867	62.0%
2/1	Etwall Road (north) Ahead Left	U	N/A	N/A	B		1	61	-	524	1866	964	54.4%
3/1	Findern Lane Left Right	U	N/A	N/A	C		1	35	-	290	1591	477	60.8%
4/1		U	N/A	N/A	-		-	-	-	674	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	455	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	223	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Etwall Rd / Findern Lane	**-**	**-**	**151**	**0**	**3**	**8.8**	**2.2**	**0.5**	**11.4**	**-**	**-**	**-**	**-**
Etwall Rd / Findern Lane	**-**	**-**	**151**	**0**	**3**	**8.8**	**2.2**	**0.5**	**11.4**	**-**	**-**	**-**	**-**
1/1	538	538	151	0	3	3.0	0.8	0.5	4.3	28.9	12.4	0.8	13.2
2/1	524	524	-	-	-	2.8	0.6	-	3.4	23.6	11.6	0.6	12.2
3/1	290	290	-	-	-	2.9	0.8	-	3.7	45.5	8.2	0.8	9.0
4/1	674	674	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	455	455	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	223	223	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 45.1 Total Delay for Signalled Lanes (pcuHr): 11.41 Cycle Time (s): 120
PRC Over All Lanes (%): 45.1 Total Delay Over All Lanes(pcuHr): 11.41

Stage Timings

Scenario 3: '2028 Base + Com - AM' (FG3: '2028 Base + Com - AM', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	73	5	23
Change Point	0	78	95

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Etwall Rd / Findern Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**72.5%**
Etwall Rd / Findern Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**72.5%**
1/1	Etwall Road (south) Ahead Right	O	N/A	N/A	A		1	73	-	773	1761	1066	72.5%
2/1	Etwall Road (north) Ahead Left	U	N/A	N/A	B		1	73	-	497	1874	1156	43.0%
3/1	Findern Lane Left Right	U	N/A	N/A	C		1	23	-	230	1590	318	72.3%
4/1		U	N/A	N/A	-		-	-	-	622	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	598	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	280	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Etwall Rd / Findern Lane	**-**	**-**	**222**	**0**	**4**	**8.0**	**3.0**	**0.3**	**11.2**	**-**	**-**	**-**	**-**
Etwall Rd / Findern Lane	**-**	**-**	**222**	**0**	**4**	**8.0**	**3.0**	**0.3**	**11.2**	**-**	**-**	**-**	**-**
1/1	773	773	222	0	4	3.5	1.3	0.3	5.1	23.6	18.0	1.3	19.3
2/1	497	497	-	-	-	1.7	0.4	-	2.0	14.7	8.6	0.4	8.9
3/1	230	230	-	-	-	2.9	1.3	-	4.1	64.8	7.2	1.3	8.4
4/1	622	622	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	598	598	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	280	280	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 24.1 Total Delay for Signalled Lanes (pcuHr): 11.23 Cycle Time (s): 120
PRC Over All Lanes (%): 24.1 Total Delay Over All Lanes(pcuHr): 11.23

Stage Timings

Scenario 4: '2028 Base + Com - PM' (FG4: '2028 Base + Com - PM', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	62	5	34
Change Point	0	67	84

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Etwall Rd / Findern Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**70.5%**
Etwall Rd / Findern Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**70.5%**
1/1	Etwall Road (south) Ahead Right	O	N/A	N/A	A		1	62	-	607	1764	867	70.0%
2/1	Etwall Road (north) Ahead Left	U	N/A	N/A	B		1	62	-	590	1866	980	60.2%
3/1	Findern Lane Left Right	U	N/A	N/A	C		1	34	-	327	1591	464	70.5%
4/1		U	N/A	N/A	-		-	-	-	760	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	514	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	250	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Etwall Rd / Findern Lane	**-**	**-**	**170**	**0**	**3**	**10.2**	**3.1**	**0.7**	**14.0**	**-**	**-**	**-**	**-**
Etwall Rd / Findern Lane	**-**	**-**	**170**	**0**	**3**	**10.2**	**3.1**	**0.7**	**14.0**	**-**	**-**	**-**	**-**
1/1	607	607	170	0	3	3.5	1.2	0.7	5.4	31.9	15.5	1.2	16.7
2/1	590	590	-	-	-	3.2	0.8	-	4.0	24.4	13.6	0.8	14.4
3/1	327	327	-	-	-	3.4	1.2	-	4.6	50.8	9.6	1.2	10.8
4/1	760	760	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	514	514	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	250	250	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 27.7 Total Delay for Signalled Lanes (pcuHr): 14.00 Cycle Time (s): 120
PRC Over All Lanes (%): 27.7 Total Delay Over All Lanes(pcuHr): 14.00

Stage Timings

Scenario 5: '2020 With Dev - AM' (FG5: '2020 With Dev - AM', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	71	5	25
Change Point	0	76	93

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Etwall Rd / Findern Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**68.8%**
Etwall Rd / Findern Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**68.8%**
1/1	Etwall Road (south) Ahead Right	O	N/A	N/A	A		1	71	-	711	1765	1052	67.6%
2/1	Etwall Road (north) Ahead Left	U	N/A	N/A	B		1	71	-	457	1868	1121	40.8%
3/1	Findern Lane Left Right	U	N/A	N/A	C		1	25	-	238	1597	346	68.8%
4/1		U	N/A	N/A	-		-	-	-	559	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	589	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	258	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Etwall Rd / Findern Lane	**-**	**-**	**198**	**0**	**3**	**7.7**	**2.5**	**0.2**	**10.4**	**-**	**-**	**-**	**-**
Etwall Rd / Findern Lane	**-**	**-**	**198**	**0**	**3**	**7.7**	**2.5**	**0.2**	**10.4**	**-**	**-**	**-**	**-**
1/1	711	711	198	0	3	3.2	1.0	0.2	4.5	22.6	15.8	1.0	16.8
2/1	457	457	-	-	-	1.6	0.3	-	2.0	15.4	8.0	0.3	8.3
3/1	238	238	-	-	-	2.9	1.1	-	3.9	59.6	7.3	1.1	8.4
4/1	559	559	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	589	589	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	258	258	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 30.8 Total Delay for Signalled Lanes (pcuHr): 10.36 Cycle Time (s): 120
PRC Over All Lanes (%): 30.8 Total Delay Over All Lanes(pcuHr): 10.36

Stage Timings

Scenario 6: '2020 With Dev - PM' (FG6: '2020 With Dev - PM', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	62	5	34
Change Point	0	67	84

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Etwall Rd / Findern Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**63.3%**
Etwall Rd / Findern Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**63.3%**
1/1	Etwall Road (south) Ahead Right	O	N/A	N/A	A		1	62	-	541	1764	873	61.9%
2/1	Etwall Road (north) Ahead Left	U	N/A	N/A	B		1	62	-	569	1853	973	58.5%
3/1	Findern Lane Left Right	U	N/A	N/A	C		1	34	-	294	1592	464	63.3%
4/1		U	N/A	N/A	-		-	-	-	693	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	462	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	249	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Etwall Rd / Findern Lane	**-**	**-**	**151**	**0**	**3**	**9.0**	**2.4**	**0.6**	**12.0**	**-**	**-**	**-**	**-**
Etwall Rd / Findern Lane	**-**	**-**	**151**	**0**	**3**	**9.0**	**2.4**	**0.6**	**12.0**	**-**	**-**	**-**	**-**
1/1	541	541	151	0	3	2.9	0.8	0.6	4.3	28.8	12.3	0.8	13.1
2/1	569	569	-	-	-	3.1	0.7	-	3.8	24.0	13.0	0.7	13.7
3/1	294	294	-	-	-	3.0	0.9	-	3.9	47.4	8.5	0.9	9.3
4/1	693	693	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	462	462	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	249	249	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 42.1 Total Delay for Signalled Lanes (pcuHr): 11.99 Cycle Time (s): 120
PRC Over All Lanes (%): 42.1 Total Delay Over All Lanes(pcuHr): 11.99

Stage Timings

Scenario 7: '2028 With Dev - AM' (FG7: '2028 With Dev - AM', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	71	5	25
Change Point	0	76	93

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Etwall Rd / Findern Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**76.8%**
Etwall Rd / Findern Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**76.8%**
1/1	Etwall Road (south) Ahead Right	O	N/A	N/A	A		1	71	-	797	1765	1038	76.8%
2/1	Etwall Road (north) Ahead Left	U	N/A	N/A	B		1	71	-	513	1869	1121	45.7%
3/1	Findern Lane Left Right	U	N/A	N/A	C		1	25	-	264	1596	346	76.3%
4/1		U	N/A	N/A	-		-	-	-	629	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	656	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	289	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Etwall Rd / Findern Lane	**-**	**-**	**222**	**0**	**4**	**9.1**	**3.6**	**0.3**	**13.0**	**-**	**-**	**-**	**-**
Etwall Rd / Findern Lane	**-**	**-**	**222**	**0**	**4**	**9.1**	**3.6**	**0.3**	**13.0**	**-**	**-**	**-**	**-**
1/1	797	797	222	0	4	4.0	1.6	0.3	5.9	26.8	19.9	1.6	21.6
2/1	513	513	-	-	-	1.9	0.4	-	2.3	16.2	9.4	0.4	9.8
3/1	264	264	-	-	-	3.2	1.6	-	4.8	65.3	8.2	1.6	9.8
4/1	629	629	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	656	656	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	289	289	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 17.2 Total Delay for Signalled Lanes (pcuHr): 13.04 Cycle Time (s): 120
PRC Over All Lanes (%): 17.2 Total Delay Over All Lanes(pcuHr): 13.04

Stage Timings

Scenario 8: '2028 With Dev - PM' (FG8: '2028 With Dev - PM', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	63	5	33
Change Point	0	68	85

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Etwall Rd / Findern Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**73.4%**
Etwall Rd / Findern Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**73.4%**
1/1	Etwall Road (south) Ahead Right	O	N/A	N/A	A		1	63	-	609	1765	849	71.7%
2/1	Etwall Road (north) Ahead Left	U	N/A	N/A	B		1	63	-	636	1854	989	64.3%
3/1	Findern Lane Left Right	U	N/A	N/A	C		1	33	-	331	1592	451	73.4%
4/1		U	N/A	N/A	-		-	-	-	779	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	520	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	277	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Etwall Rd / Findern Lane	**-**	**-**	**170**	**0**	**3**	**10.5**	**3.5**	**0.8**	**14.9**	**-**	**-**	**-**	**-**
Etwall Rd / Findern Lane	**-**	**-**	**170**	**0**	**3**	**10.5**	**3.5**	**0.8**	**14.9**	**-**	**-**	**-**	**-**
1/1	609	609	170	0	3	3.4	1.3	0.8	5.5	32.7	16.1	1.3	17.3
2/1	636	636	-	-	-	3.5	0.9	-	4.4	25.0	15.0	0.9	15.9
3/1	331	331	-	-	-	3.6	1.3	-	4.9	53.6	9.9	1.3	11.3
4/1	779	779	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	520	520	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	277	277	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 22.6 Total Delay for Signalled Lanes (pcuHr): 14.87 Cycle Time (s): 120
PRC Over All Lanes (%): 22.6 Total Delay Over All Lanes(pcuHr): 14.87

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: Double Mini.j9
Path: Z:\Projects\Projects 18\18-0054 Burnaston Cross\Design_Data\Transport\JUNCTIONS
Report generation date: 09-Apr-19 7:51:59 PM

»Willington Double-Minis - 2020 Base + Com, AM
»Willington Double-Minis - 2020 Base + Com, PM
»Willington Double-Minis - 2028 Base + Com, AM
»Willington Double-Minis - 2028 Base + Com, PM
»Willington Double-Minis - 2020 With Dev, AM
»Willington Double-Minis - 2020 With Dev, PM
»Willington Double-Minis - 2028 With Dev, AM
»Willington Double-Minis - 2028 With Dev, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	Willington Double-Minis - 2020 Base + Com							
Junction 1 - Arm 1	2.0	12.19	0.65	B	4.4	22.84	0.81	C
Junction 1 - Arm 2	2.8	22.18	0.73	C	2.0	18.74	0.66	C
Junction 1 - Arm 3	2.0	9.67	0.65	A	1.7	8.49	0.60	A
Junction 2 - Arm 1	12.2	52.16	0.94	F	22.4	87.08	1.00	F
Junction 2 - Arm 2	70.3	296.37	1.16	F	39.9	162.72	1.07	F
Junction 2 - Arm 3	119.0	756.21	1.32	F	126.4	731.06	1.34	F
	Willington Double-Minis - 2028 Base + Com							
Junction 1 - Arm 1	2.8	15.70	0.73	C	9.4	43.88	0.91	E
Junction 1 - Arm 2	6.2	45.81	0.87	E	3.9	33.05	0.80	D
Junction 1 - Arm 3	2.0	9.81	0.64	A	1.7	8.65	0.61	A
Junction 2 - Arm 1	40.5	136.13	1.06	F	65.5	245.08	1.12	F
Junction 2 - Arm 2	154.6	702.39	1.32	F	94.5	442.75	1.21	F
Junction 2 - Arm 3	203.5	1304.25	1.47	F	217.9	1366.97	1.51	F
	Willington Double-Minis - 2020 With Dev							
Junction 1 - Arm 1	2.0	12.29	0.65	B	5.1	25.61	0.83	D
Junction 1 - Arm 2	2.8	22.04	0.73	C	2.2	19.87	0.67	C
Junction 1 - Arm 3	2.0	9.85	0.65	A	1.7	8.51	0.60	A
Junction 2 - Arm 1	11.3	48.77	0.94	E	27.4	102.03	1.02	F
Junction 2 - Arm 2	80.9	350.75	1.19	F	41.6	168.93	1.08	F
Junction 2 - Arm 3	125.3	812.79	1.33	F	126.2	732.78	1.34	F
	Willington Double-Minis - 2028 With Dev							
Junction 1 - Arm 1	2.9	15.95	0.73	C	11.5	52.49	0.94	F
Junction 1 - Arm 2	6.7	48.86	0.88	E	4.3	36.06	0.81	E
Junction 1 - Arm 3	2.0	9.97	0.65	A	1.7	8.70	0.61	A
Junction 2 - Arm 1	41.7	139.23	1.06	F	72.7	281.67	1.14	F
Junction 2 - Arm 2	173.3	778.82	1.35	F	94.9	444.91	1.21	F
Junction 2 - Arm 3	209.9	1350.90	1.48	F	220.0	1383.30	1.51	F

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	A5132 Double Mini Roundabout
Location	Willington
Site number	
Date	30-May-18
Version	
Status	(new file)
Identifier	
Client	Brackley Developments
Jobnumber	18-0054
Enumerator	BSP-CONSULTING\mmurphy
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

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)	Run automatically
D1	2020 Base + Com	AM	ONE HOUR	07:45	09:15	15	✓
D2	2020 Base + Com	PM	ONE HOUR	16:45	18:15	15	✓
D3	2028 Base + Com	AM	ONE HOUR	07:45	09:15	15	✓
D4	2028 Base + Com	PM	ONE HOUR	16:45	18:15	15	✓
D5	2020 With Dev	AM	ONE HOUR	07:45	09:15	15	✓
D6	2020 With Dev	PM	ONE HOUR	16:45	18:15	15	✓
D7	2028 With Dev	AM	ONE HOUR	07:45	09:15	15	✓
D8	2028 With Dev	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Willington Double-Minis	✓	97.000	100.000

Willington Double-Minis - 2020 Base + Com, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	Junction 1 - Arm 3	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	Junction 2 - Arm 1	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Etwall Rd / Twyford Rd / A5132	Mini-roundabout	1, 2, 3	13.52	B
2	The Castle Way / Repton Rd / A5132	Mini-roundabout	1, 2, 3	347.01	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Junction	Arm	Name	Description
1	1	Etwall Road	
	2	The Green	
	3	A5132	
2	1	A5132	
	2	Repton Road	
	3	The Castle Way	

Mini Roundabout Geometry

Junction	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
1	1	3.25	3.25	6.00	5.0	9.00	2.00	0.0	
	2	3.30	3.30	5.65	2.5	11.20	2.00	0.0	
	3	5.50	5.50	5.50	0.0	11.80	7.50	0.0	
2	1	5.50	5.50	5.50	0.0	17.50	15.00	0.0	
	2	2.50	2.50	5.40	5.0	13.00	2.00	0.0	
	3	3.20	3.20	6.20	5.0	11.80	7.75	0.0	

Zebra Crossings

Junction	Arm	Space between crossing and junction entry (Zebra) (PCU)	Vehicles queueing on exit (Zebra) (PCU)	Central Refuge	Crossing data type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
2	1	2.00	2.00	✓	Distance			5.50	3.93	5.50	3.93
	3	4.00	4.00		Distance	7.25	5.18				

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Final slope	Final intercept (PCU/hr)
1	1	0.637	1068
	2	0.624	982
	3	0.686	1223
2	1	0.710	1174
	2	0.610	960
	3	0.637	926

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)	Run automatically
D1	2020 Base + Com	AM	ONE HOUR	07:45	09:15	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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	1	Simple (vertical queueing)	Normal	0	100.00	
2	1	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		ONE HOUR	✓	553	100.000
	2		ONE HOUR	✓	440	100.000
	3	✓				
2	1	✓				
	2		ONE HOUR	✓	824	100.000
	3		ONE HOUR	✓	705	100.000

Demand overview (Pedestrians)

Junction	Arm	Profile type	Average pedestrian flow (Ped/hr)
1	1		
	2		
	3		
2	1	[ONEHOUR]	10.00
	2		
	3	[ONEHOUR]	10.00

Origin-Destination Data

Demand (PCU/hr)

Junction 1

		To		
		1	2	3
From	1	0	49	504
	2	106	0	334
	3	565	274	0

Junction 2

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	525	313
	2	527	0	297
	3	312	393	0

Vehicle Mix

Junction 1

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Junction 2

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	0.65	12.19	2.0	B	492	738
	2	0.73	22.18	2.8	C	392	587
	3	0.65	9.67	2.0	A	711	1067
2	1	0.94	52.16	12.2	F	745	1117
	2	1.16	296.37	70.3	F	733	1100
	3	1.32	756.21	119.0	F	628	941

Main Results for each time segment

07:45 - 08:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	404	101	194		944	0.428	401	477	0.0	0.8	7.241	A
	2	321	80	365		755	0.426	318	230	0.0	0.8	9.006	A
	3	599	150	77		1170	0.512	594	607	0.0	1.1	6.826	A
2	1	607	152	279	7.53	976	0.622	600	599	0.0	1.8	10.346	B
	2	602	150	224		823	0.731	591	654	0.0	2.8	16.328	C
	3	515	129	378	7.53	650	0.792	500	437	0.0	3.7	24.514	C

08:00 - 08:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	482	121	228		923	0.522	481	561	0.8	1.2	8.921	A
	2	384	96	438		709	0.541	382	270	0.8	1.3	12.029	B
	3	699	175	92		1160	0.603	697	728	1.1	1.6	8.519	A
2	1	728	182	316	8.99	949	0.767	722	699	1.8	3.4	16.917	C
	2	719	180	270		795	0.904	700	768	2.8	7.3	36.193	E
	3	615	154	448	8.99	597	1.030	567	522	3.7	15.6	79.901	F

08:15 - 08:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	591	148	239		916	0.645	588	605	1.2	1.9	11.958	B
	2	470	117	536		648	0.725	464	291	1.3	2.7	20.879	C
	3	734	183	112		1146	0.640	733	888	1.6	1.9	9.552	A
2	1	888	222	318	11.01	948	0.937	862	734	3.4	9.8	38.036	E
	2	880	220	322		763	1.154	752	859	7.3	39.2	127.508	F
	3	753	188	481	11.01	573	1.313	571	593	15.6	61.1	258.232	F

08:30 - 08:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	591	148	240		915	0.645	590	609	1.9	2.0	12.187	B
	2	470	117	538		647	0.727	469	293	2.7	2.8	22.183	C
	3	736	184	113		1145	0.643	736	894	1.9	1.9	9.668	A
2	1	894	224	319	11.01	947	0.944	885	736	9.8	12.2	52.162	F
	2	880	220	330		757	1.162	756	873	39.2	70.3	271.136	F
	3	753	188	483	11.01	572	1.317	571	603	61.1	106.5	542.165	F

08:45 - 09:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	482	121	243		913	0.528	485	594	2.0	1.3	9.304	A
	2	384	96	442		707	0.543	389	286	2.8	1.3	12.703	B
	3	743	186	94		1158	0.642	743	738	1.9	2.0	9.539	A
2	1	738	184	315	8.99	950	0.776	770	743	12.2	4.2	24.924	C
	2	719	180	288		784	0.917	772	797	70.3	57.0	296.371	F
	3	615	154	494	8.99	565	1.088	565	566	106.5	119.0	736.013	F

09:00 - 09:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	404	101	247		911	0.443	405	586	1.3	0.9	7.854	A
	2	321	80	369		752	0.427	323	283	1.3	0.8	9.282	A
	3	755	189	78		1169	0.646	755	615	2.0	2.0	9.554	A
2	1	615	154	305	7.53	957	0.643	623	755	4.2	2.0	12.152	B
	2	602	150	233		817	0.736	802	696	57.0	6.9	151.465	F
	3	515	129	513	7.53	553	0.932	547	522	119.0	110.9	756.208	F

Willington Double-Minis - 2020 Base + Com, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	Junction 1 - Arm 3	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	Junction 2 - Arm 1	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Etwall Rd / Twyford Rd / A5132	Mini-roundabout	1, 2, 3	16.05	C
2	The Castle Way / Repton Rd / A5132	Mini-roundabout	1, 2, 3	307.64	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)	Run automatically
D2	2020 Base + Com	PM	ONE HOUR	16:45	18:15	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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	1	Simple (vertical queueing)	Normal	0	100.00	
2	1	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		ONE HOUR	✓	682	100.000
	2		ONE HOUR	✓	376	100.000
	3	✓				
2	1	✓				
	2		ONE HOUR	✓	780	100.000
	3		ONE HOUR	✓	720	100.000

Demand overview (Pedestrians)

Junction	Arm	Profile type	Average pedestrian flow (Ped/hr)
1	1		
	2		
	3		
2	1	[ONEHOUR]	10.00
	2		
	3	[ONEHOUR]	10.00

Origin-Destination Data

Junction 1

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	125	557
	2	62	0	314
	3	486	291	0

Junction 2

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	582	289
	2	493	1	286
	3	284	434	2

Vehicle Mix

Junction 1

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Junction 2

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	0.81	22.84	4.4	C	607	911
	2	0.66	18.74	2.0	C	335	502
	3	0.60	8.49	1.7	A	664	996
2	1	1.00	87.08	22.4	F	774	1161
	2	1.07	162.72	39.9	F	694	1041
	3	1.34	731.06	126.4	F	641	961

Main Results for each time segment

16:45 - 17:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	498	125	207		936	0.532	493	390	0.0	1.2	8.841	A
	2	275	69	403		731	0.376	272	297	0.0	0.7	8.577	A
	3	556	139	45		1192	0.466	552	630	0.0	0.9	6.155	A
2	1	630	157	310	7.53	953	0.661	622	556	0.0	2.1	11.671	B
	2	570	142	208		833	0.684	561	724	0.0	2.3	14.099	B
	3	526	131	355	7.53	668	0.787	511	413	0.0	3.6	23.545	C

17:00 - 17:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	595	149	244		913	0.652	592	461	1.2	2.0	12.217	B
	2	328	82	483		681	0.481	326	352	0.7	1.0	11.125	B
	3	653	163	54		1186	0.551	652	756	0.9	1.3	7.390	A
2	1	756	189	354	8.99	922	0.820	746	653	2.1	4.4	21.399	C
	2	680	170	249		808	0.842	669	851	2.3	5.0	26.683	D
	3	628	157	424	8.99	616	1.019	583	495	3.6	14.8	74.950	F

17:15 - 17:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	728	182	264		900	0.809	720	506	2.0	4.2	20.961	C
	2	402	100	588		616	0.652	398	396	1.0	2.0	17.844	C
	3	706	176	66		1178	0.599	704	920	1.3	1.6	8.343	A
2	1	920	230	349	11.01	926	0.994	876	706	4.4	15.4	54.187	F
	2	833	208	292		781	1.067	758	933	5.0	23.9	84.957	F
	3	769	192	480	11.01	577	1.332	575	570	14.8	63.3	261.095	F

17:30 - 17:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	728	182	266		898	0.811	727	511	4.2	4.4	22.842	C
	2	402	100	594		612	0.656	401	400	2.0	2.0	18.737	C
	3	712	178	66		1177	0.604	711	929	1.6	1.7	8.492	A
2	1	929	232	347	11.01	927	1.002	901	712	15.4	22.4	87.085	F
	2	833	208	301		776	1.074	769	948	23.9	39.9	162.724	F
	3	769	192	487	11.01	572	1.344	572	583	63.3	112.5	564.982	F

17:45 - 18:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	595	149	266		898	0.662	603	500	4.4	2.2	13.797	B
	2	328	82	493		675	0.486	332	377	2.0	1.1	11.663	B
	3	711	178	55		1185	0.600	711	770	1.7	1.7	8.357	A
2	1	770	192	347	8.99	927	0.831	834	711	22.4	6.4	51.892	F
	2	680	170	278		790	0.861	768	903	39.9	17.8	140.300	F
	3	628	157	487	8.99	573	1.096	572	560	112.5	126.4	731.058	F

18:00 - 18:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	498	125	242		914	0.545	502	450	2.2	1.3	9.689	A
	2	275	69	410		727	0.378	276	334	1.1	0.7	8.816	A
	3	646	161	46		1192	0.542	647	640	1.7	1.3	7.289	A
2	1	640	160	380	7.53	904	0.708	655	646	6.4	2.8	16.716	C
	2	570	142	219		826	0.689	630	816	17.8	2.6	25.907	D
	3	526	131	399	7.53	632	0.832	626	450	126.4	101.3	655.287	F

Willington Double-Minis - 2028 Base + Com, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	Junction 1 - Arm 3	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	Junction 2 - Arm 1	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Etwall Rd / Twyford Rd / A5132	Mini-roundabout	1, 2, 3	20.91	C
2	The Castle Way / Repton Rd / A5132	Mini-roundabout	1, 2, 3	680.40	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)	Run automatically
D3	2028 Base + Com	AM	ONE HOUR	07:45	09:15	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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	1	Simple (vertical queueing)	Normal	0	100.00	
2	1	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		ONE HOUR	✓	623	100.000
	2		ONE HOUR	✓	493	100.000
	3	✓				
2	1	✓				
	2		ONE HOUR	✓	925	100.000
	3		ONE HOUR	✓	788	100.000

Demand overview (Pedestrians)

Junction	Arm	Profile type	Average pedestrian flow (Ped/hr)
1	1		
	2		
	3		
2	1	[ONEHOUR]	10.00
	2		
	3	[ONEHOUR]	10.00

Origin-Destination Data

Junction 1

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	55	568
	2	119	0	374
	3	636	306	0

Junction 2

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	591	351
	2	593	0	332
	3	349	439	0

Vehicle Mix

Junction 1

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Junction 2

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	0.73	15.70	2.8	C	555	832
	2	0.87	45.81	6.2	E	439	658
	3	0.64	9.81	2.0	A	724	1085
2	1	1.06	136.13	40.5	F	837	1256
	2	1.32	702.39	154.6	F	823	1235
	3	1.47	1304.25	203.5	F	701	1052

Main Results for each time segment

07:45 - 08:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	455	114	213		932	0.488	451	529	0.0	1.0	8.155	A
	2	360	90	411		726	0.496	356	253	0.0	1.1	10.579	B
	3	661	165	86		1164	0.568	656	681	0.0	1.4	7.709	A
2	1	681	170	303	7.53	959	0.710	671	661	0.0	2.6	13.316	B
	2	675	169	250		807	0.837	656	723	0.0	4.8	23.885	C
	3	575	144	421	7.53	617	0.932	543	485	0.0	8.1	42.991	E

08:00 - 08:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	543	136	237		917	0.592	541	595	1.0	1.6	10.466	B
	2	430	107	493		675	0.637	427	285	1.1	1.8	15.767	C
	3	731	183	103		1152	0.634	729	817	1.4	1.9	9.310	A
2	1	817	204	317	8.99	949	0.861	805	731	2.6	5.7	25.391	D
	2	807	202	300		776	1.039	747	821	4.8	19.7	75.460	F
	3	687	172	479	8.99	575	1.194	568	568	8.1	37.7	163.795	F

08:15 - 08:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	665	166	238		916	0.726	661	619	1.6	2.8	15.192	C
	2	527	132	602		607	0.868	512	297	1.8	5.5	37.109	E
	3	734	183	124		1138	0.645	733	991	1.9	2.0	9.772	A
2	1	991	248	320	11.01	947	1.046	918	734	5.7	23.9	72.660	F
	2	988	247	342		750	1.317	748	895	19.7	79.6	252.269	F
	3	842	210	480	11.01	574	1.466	574	611	37.7	104.7	459.641	F

08:30 - 08:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	665	166	238		917	0.726	665	621	2.8	2.8	15.698	C
	2	527	132	606		604	0.871	524	297	5.5	6.2	45.812	E
	3	733	183	126		1136	0.645	733	1004	2.0	2.0	9.808	A
2	1	1004	251	320	11.01	946	1.061	937	733	23.9	40.5	136.130	F
	2	988	247	349		746	1.324	746	908	79.6	140.2	538.930	F
	3	842	210	478	11.01	575	1.463	575	617	104.7	171.3	875.426	F

08:45 - 09:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	543	136	239		916	0.593	548	604	2.8	1.6	10.891	B
	2	430	107	500		671	0.641	447	287	6.2	2.1	18.837	C
	3	734	184	108		1149	0.639	734	838	2.0	2.0	9.557	A
2	1	838	210	320	8.99	947	0.886	922	734	40.5	19.7	122.028	F
	2	807	202	343		749	1.076	749	898	140.2	154.6	702.393	F
	3	687	172	480	8.99	574	1.197	574	612	171.3	199.6	1179.404	F

09:00 - 09:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	455	114	243		913	0.498	457	593	1.6	1.1	8.723	A
	2	360	90	417		722	0.498	364	284	2.1	1.1	11.154	B
	3	749	187	88		1163	0.644	749	693	2.0	2.0	9.567	A
2	1	693	173	312	7.53	952	0.728	759	749	19.7	3.2	26.516	D
	2	675	169	283		787	0.859	781	788	154.6	128.1	652.027	F
	3	575	144	501	7.53	560	1.027	560	563	199.6	203.5	1304.251	F

Willington Double-Minis - 2028 Base + Com, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	Junction 1 - Arm 3	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	Junction 2 - Arm 1	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Etwall Rd / Twyford Rd / A5132	Mini-roundabout	1, 2, 3	27.64	D
2	The Castle Way / Repton Rd / A5132	Mini-roundabout	1, 2, 3	649.31	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)	Run automatically
D4	2028 Base + Com	PM	ONE HOUR	16:45	18:15	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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	1	Simple (vertical queueing)	Normal	0	100.00	
2	1	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		ONE HOUR	✓	770	100.000
	2		ONE HOUR	✓	422	100.000
	3	✓				
2	1	✓				
	2		ONE HOUR	✓	877	100.000
	3		ONE HOUR	✓	804	100.000

Demand overview (Pedestrians)

Junction	Arm	Profile type	Average pedestrian flow (Ped/hr)
1	1		
	2		
	3		
2	1	[ONEHOUR]	10.00
	2		
	3	[ONEHOUR]	10.00

Origin-Destination Data

Junction 1

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	141	629
	2	70	0	352
	3	548	325	0

Junction 2

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	658	323
	2	556	1	320
	3	317	485	2

Vehicle Mix

Junction 1

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Junction 2

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	0.91	43.88	9.4	E	685	1028
	2	0.80	33.05	3.9	D	376	563
	3	0.61	8.65	1.7	A	693	1040
2	1	1.12	245.08	65.5	F	872	1307
	2	1.21	442.75	94.5	F	781	1171
	3	1.51	1366.97	217.9	F	716	1073

Main Results for each time segment

16:45 - 17:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	562	141	228		923	0.609	556	435	0.0	1.7	10.597	B
	2	308	77	454		699	0.441	305	329	0.0	0.8	9.955	A
	3	616	154	51		1188	0.519	612	708	0.0	1.2	6.817	A
2	1	708	177	338	7.53	934	0.758	695	616	0.0	3.2	15.850	C
	2	640	160	230		819	0.782	626	803	0.0	3.6	19.302	C
	3	587	147	398	7.53	636	0.923	556	459	0.0	7.7	40.637	E

17:00 - 17:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	671	168	258		904	0.743	666	495	1.7	3.0	16.287	C
	2	368	92	544		643	0.572	366	380	0.8	1.4	14.163	B
	3	693	173	61		1181	0.587	692	849	1.2	1.5	8.070	A
2	1	849	212	352	8.99	924	0.919	828	693	3.2	8.5	35.248	E
	2	765	191	274		792	0.965	733	906	3.6	11.4	50.310	F
	3	701	175	466	8.99	587	1.194	580	542	7.7	38.0	161.085	F

17:15 - 17:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	822	206	265		899	0.915	802	521	3.0	8.1	34.811	D
	2	451	113	655		574	0.785	442	412	1.4	3.5	28.426	D
	3	713	178	73		1172	0.608	712	1024	1.5	1.7	8.592	A
2	1	1024	256	347	11.01	928	1.104	913	713	8.5	36.1	102.639	F
	2	937	234	302		775	1.209	770	958	11.4	53.2	166.170	F
	3	859	215	489	11.01	571	1.504	571	583	38.0	110.0	479.855	F

17:30 - 17:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	822	206	266		899	0.915	817	523	8.1	9.4	43.877	E
	2	451	113	668		566	0.796	449	415	3.5	3.9	33.048	D
	3	714	178	75		1172	0.609	714	1042	1.7	1.7	8.646	A
2	1	1042	261	346	11.01	928	1.123	925	714	36.1	65.5	209.153	F
	2	937	234	306		773	1.212	772	965	53.2	94.5	354.838	F
	3	859	215	490	11.01	570	1.506	570	587	110.0	182.1	929.923	F

17:45 - 18:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	671	168	265		899	0.746	695	509	9.4	3.5	21.198	C
	2	368	92	568		628	0.586	377	392	3.9	1.6	16.294	C
	3	711	178	63		1180	0.603	711	882	1.7	1.7	8.451	A
2	1	882	221	348	8.99	927	0.952	911	711	65.5	58.3	245.078	F
	2	765	191	301		775	0.986	765	958	94.5	94.4	442.749	F
	3	701	175	486	8.99	573	1.223	573	581	182.1	214.2	1254.229	F

18:00 - 18:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	562	141	265		899	0.625	569	498	3.5	1.9	12.192	B
	2	308	77	464		693	0.445	311	369	1.6	0.9	10.453	B
	3	712	178	52		1187	0.599	712	724	1.7	1.7	8.330	A
2	1	724	181	347	7.53	927	0.781	910	712	58.3	11.8	145.191	F
	2	640	160	301		776	0.826	767	956	94.4	62.8	370.902	F
	3	587	147	487	7.53	573	1.025	572	581	214.2	217.9	1366.973	F

Willington Double-Minis - 2020 With Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	Junction 1 - Arm 3	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	Junction 2 - Arm 1	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Etwall Rd / Twyford Rd / A5132	Mini-roundabout	1, 2, 3	13.58	B
2	The Castle Way / Repton Rd / A5132	Mini-roundabout	1, 2, 3	382.04	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)	Run automatically
D5	2020 With Dev	AM	ONE HOUR	07:45	09:15	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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	1	Simple (vertical queueing)	Normal	0	100.00	
2	1	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		ONE HOUR	✓	558	100.000
	2		ONE HOUR	✓	442	100.000
	3	✓				
2	1	✓				
	2		ONE HOUR	✓	845	100.000
	3		ONE HOUR	✓	705	100.000

Demand overview (Pedestrians)

Junction	Arm	Profile type	Average pedestrian flow (Ped/hr)
1	1		
	2		
	3		
2	1	[ONEHOUR]	10.00
	2		
	3	[ONEHOUR]	10.00

Origin-Destination Data

Junction 1

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	59	499
	2	108	0	334
	3	586	274	0

Junction 2

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	530	313
	2	548	0	297
	3	312	393	0

Vehicle Mix

Junction 1

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Junction 2

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	0.65	12.29	2.0	B	497	745
	2	0.73	22.04	2.8	C	393	590
	3	0.65	9.85	2.0	A	720	1080
2	1	0.94	48.77	11.3	E	740	1111
	2	1.19	350.75	80.9	F	752	1128
	3	1.33	812.79	125.3	F	628	941

Main Results for each time segment

07:45 - 08:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	407	102	194		945	0.431	404	493	0.0	0.8	7.284	A
	2	323	81	361		757	0.426	320	237	0.0	0.8	8.990	A
	3	613	153	78		1169	0.524	608	603	0.0	1.2	7.004	A
2	1	603	151	278	7.53	976	0.618	596	613	0.0	1.7	10.245	B
	2	617	154	221		825	0.748	605	653	0.0	3.0	17.185	C
	3	515	129	392	7.53	640	0.805	499	434	0.0	3.9	25.931	D

08:00 - 08:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	487	122	226		924	0.527	485	577	0.8	1.2	8.989	A
	2	385	96	434		712	0.541	384	277	0.8	1.3	11.993	B
	3	712	178	94		1158	0.615	710	724	1.2	1.7	8.783	A
2	1	724	181	313	8.99	952	0.760	718	712	1.7	3.3	16.479	C
	2	737	184	266		797	0.924	715	764	3.0	8.5	40.231	E
	3	615	154	464	8.99	586	1.049	561	518	3.9	17.4	87.713	F

08:15 - 08:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	596	149	236		918	0.649	593	618	1.2	2.0	12.065	B
	2	472	118	530		652	0.724	466	298	1.3	2.7	20.753	C
	3	741	185	114		1145	0.647	740	883	1.7	2.0	9.751	A
2	1	883	221	315	11.01	950	0.929	859	741	3.3	9.2	36.277	E
	2	902	226	319		765	1.180	757	855	8.5	44.9	142.682	F
	3	753	188	491	11.01	567	1.328	565	585	17.4	64.4	276.801	F

08:30 - 08:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	596	149	236		918	0.650	596	621	2.0	2.0	12.294	B
	2	472	118	533		650	0.726	472	299	2.7	2.8	22.039	C
	3	742	186	115		1144	0.649	742	889	2.0	2.0	9.849	A
2	1	889	222	315	11.01	950	0.936	881	742	9.2	11.3	48.772	E
	2	902	226	327		760	1.188	758	869	44.9	80.9	307.617	F
	3	753	188	492	11.01	566	1.330	566	594	64.4	111.2	573.466	F

08:45 - 09:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	487	122	239		916	0.531	489	607	2.0	1.3	9.350	A
	2	385	96	438		709	0.543	391	291	2.8	1.3	12.661	B
	3	750	188	96		1157	0.648	750	733	2.0	2.0	9.728	A
2	1	733	183	311	8.99	953	0.770	763	750	11.3	4.0	23.335	C
	2	737	184	283		787	0.937	776	791	80.9	71.1	350.754	F
	3	615	154	503	8.99	559	1.101	558	556	111.2	125.3	781.049	F

09:00 - 09:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	407	102	243		913	0.446	409	599	1.3	0.9	7.874	A
	2	323	81	366		754	0.428	325	286	1.3	0.8	9.263	A
	3	763	191	79		1168	0.653	763	611	2.0	2.0	9.750	A
2	1	611	153	302	7.53	960	0.637	619	763	4.0	2.0	11.890	B
	2	617	154	230		819	0.753	807	691	71.1	23.7	216.240	F
	3	515	129	523	7.53	546	0.943	541	513	125.3	118.8	812.789	F

Willington Double-Minis - 2020 With Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	Junction 1 - Arm 3	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	Junction 2 - Arm 1	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Etwall Rd / Twyford Rd / A5132	Mini-roundabout	1, 2, 3	17.42	C
2	The Castle Way / Repton Rd / A5132	Mini-roundabout	1, 2, 3	314.05	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)	Run automatically
D6	2020 With Dev	PM	ONE HOUR	16:45	18:15	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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	1	Simple (vertical queueing)	Normal	0	100.00	
2	1	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		ONE HOUR	✓	701	100.000
	2		ONE HOUR	✓	377	100.000
	3	✓				
2	1	✓				
	2		ONE HOUR	✓	782	100.000
	3		ONE HOUR	✓	720	100.000

Demand overview (Pedestrians)

Junction	Arm	Profile type	Average pedestrian flow (Ped/hr)
1	1		
	2		
	3		
2	1	[ONEHOUR]	10.00
	2		
	3	[ONEHOUR]	10.00

Origin-Destination Data

Junction 1

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	127	574
	2	63	0	314
	3	488	291	0

Junction 2

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	601	299
	2	495	1	286
	3	284	434	2

Vehicle Mix

Junction 1

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Junction 2

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	0.83	25.61	5.1	D	624	936
	2	0.67	19.87	2.2	C	336	503
	3	0.60	8.51	1.7	A	665	998
2	1	1.02	102.03	27.4	F	789	1184
	2	1.08	168.93	41.6	F	696	1044
	3	1.34	732.78	126.2	F	641	961

Main Results for each time segment

16:45 - 17:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	512	128	207		936	0.547	507	392	0.0	1.3	9.111	A
	2	275	69	415		724	0.380	273	299	0.0	0.7	8.731	A
	3	557	139	46		1192	0.468	554	642	0.0	1.0	6.170	A
2	1	642	161	310	7.53	953	0.673	633	557	0.0	2.2	12.072	B
	2	571	143	212		831	0.688	562	732	0.0	2.3	14.289	B
	3	526	131	356	7.53	667	0.788	511	417	0.0	3.6	23.661	C

17:00 - 17:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	611	153	244		913	0.670	608	464	1.3	2.1	12.840	B
	2	329	82	498		672	0.489	327	354	0.7	1.0	11.441	B
	3	654	164	55		1185	0.552	653	770	1.0	1.3	7.415	A
2	1	770	193	354	8.99	923	0.835	760	654	2.2	4.8	22.895	C
	2	682	170	254		805	0.847	671	859	2.3	5.1	27.393	D
	3	628	157	425	8.99	615	1.020	583	499	3.6	14.9	75.586	F

17:15 - 17:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	749	187	263		900	0.831	738	508	2.1	4.7	23.037	C
	2	403	101	605		605	0.665	399	397	1.0	2.1	18.772	C
	3	706	176	67		1177	0.600	705	936	1.3	1.6	8.360	A
2	1	936	234	349	11.01	926	1.011	885	706	4.8	17.8	60.244	F
	2	835	209	295		779	1.072	757	938	5.1	24.7	87.461	F
	3	769	192	480	11.01	577	1.333	575	572	14.9	63.5	262.195	F

17:30 - 17:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	749	187	266		899	0.833	747	513	4.7	5.1	25.612	D
	2	403	101	612		601	0.670	402	401	2.1	2.2	19.867	C
	3	712	178	67		1177	0.605	711	947	1.6	1.7	8.506	A
2	1	947	237	347	11.01	927	1.022	909	712	17.8	27.4	102.032	F
	2	835	209	303		774	1.079	768	953	24.7	41.6	168.926	F
	3	769	192	487	11.01	572	1.344	572	584	63.5	112.7	565.466	F

17:45 - 18:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	611	153	265		899	0.680	622	500	5.1	2.4	14.766	B
	2	329	82	509		665	0.494	333	378	2.2	1.1	12.078	B
	3	709	177	56		1185	0.599	709	786	1.7	1.7	8.335	A
2	1	786	197	349	8.99	926	0.849	864	709	27.4	7.9	70.264	F
	2	682	170	289		783	0.871	763	924	41.6	21.3	152.523	F
	3	628	157	484	8.99	575	1.093	574	568	112.7	126.2	732.776	F

18:00 - 18:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	512	128	244		912	0.561	516	456	2.4	1.4	10.084	B
	2	275	69	422		719	0.383	277	338	1.1	0.7	8.992	A
	3	653	163	46		1191	0.548	654	653	1.7	1.4	7.393	A
2	1	653	163	376	7.53	907	0.720	673	653	7.9	3.0	18.151	C
	2	571	143	225		822	0.694	646	824	21.3	2.7	30.839	D
	3	526	131	409	7.53	625	0.841	620	461	126.2	102.7	665.839	F

Willington Double-Minis - 2028 With Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	Junction 1 - Arm 3	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	Junction 2 - Arm 1	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Etwall Rd / Twyford Rd / A5132	Mini-roundabout	1, 2, 3	21.82	C
2	The Castle Way / Repton Rd / A5132	Mini-roundabout	1, 2, 3	721.36	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)	Run automatically
D7	2028 With Dev	AM	ONE HOUR	07:45	09:15	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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	1	Simple (vertical queueing)	Normal	0	100.00	
2	1	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		ONE HOUR	✓	629	100.000
	2		ONE HOUR	✓	496	100.000
	3	✓				
2	1	✓				
	2		ONE HOUR	✓	946	100.000
	3		ONE HOUR	✓	788	100.000

Demand overview (Pedestrians)

Junction	Arm	Profile type	Average pedestrian flow (Ped/hr)
1	1		
	2		
	3		
2	1	[ONEHOUR]	10.00
	2		
	3	[ONEHOUR]	10.00

Origin-Destination Data

Junction 1

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	56	573
	2	122	0	374
	3	657	306	0

Junction 2

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	596	351
	2	614	0	332
	3	349	439	0

Vehicle Mix

Junction 1

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Junction 2

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	0.73	15.95	2.9	C	560	840
	2	0.88	48.86	6.7	E	441	662
	3	0.65	9.97	2.0	A	730	1095
2	1	1.06	139.23	41.7	F	842	1262
	2	1.35	778.82	173.3	F	842	1263
	3	1.48	1350.90	209.9	F	701	1052

Main Results for each time segment

07:45 - 08:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	459	115	212		933	0.492	455	544	0.0	1.0	8.219	A
	2	362	91	415		724	0.500	358	253	0.0	1.1	10.703	B
	3	674	168	88		1162	0.580	668	684	0.0	1.5	7.916	A
2	1	684	171	301	7.53	960	0.713	674	674	0.0	2.6	13.412	B
	2	691	173	250		807	0.856	669	725	0.0	5.3	25.744	D
	3	575	144	435	7.53	608	0.947	540	485	0.0	8.8	46.112	E

08:00 - 08:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	548	137	234		919	0.597	546	608	1.0	1.6	10.561	B
	2	433	108	498		672	0.644	429	283	1.1	1.9	16.092	C
	3	738	184	106		1150	0.641	736	821	1.5	1.9	9.518	A
2	1	821	205	313	8.99	951	0.864	809	738	2.6	5.8	25.648	D
	2	825	206	300		777	1.062	753	822	5.3	23.3	85.194	F
	3	687	172	489	8.99	569	1.209	563	564	8.8	39.9	174.416	F

08:15 - 08:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	672	168	235		919	0.731	667	630	1.6	2.8	15.414	C
	2	530	132	607		604	0.878	514	294	1.9	5.8	38.847	E
	3	739	185	126		1136	0.650	738	995	1.9	2.0	9.938	A
2	1	995	249	317	11.01	948	1.049	921	739	5.8	24.4	73.768	F
	2	1010	253	341		751	1.345	750	896	23.3	88.5	281.409	F
	3	842	210	486	11.01	570	1.477	569	604	39.9	108.0	480.191	F

08:30 - 08:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	672	168	234		919	0.731	671	632	2.8	2.9	15.947	C
	2	530	132	612		601	0.882	526	294	5.8	6.7	48.855	E
	3	737	184	129		1134	0.650	737	1008	2.0	2.0	9.973	A
2	1	1008	252	318	11.01	948	1.064	939	737	24.4	41.7	139.232	F
	2	1010	253	348		747	1.353	746	909	88.5	154.5	593.993	F
	3	842	210	484	11.01	571	1.474	571	610	108.0	175.7	906.184	F

08:45 - 09:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	548	137	235		919	0.597	553	615	2.9	1.7	10.987	B
	2	433	108	504		668	0.648	451	284	6.7	2.1	19.582	C
	3	739	185	111		1147	0.644	739	844	2.0	2.0	9.716	A
2	1	844	211	317	8.99	948	0.890	924	739	41.7	21.7	127.673	F
	2	825	206	342		750	1.100	750	899	154.5	173.3	778.824	F
	3	687	172	487	8.99	570	1.206	570	606	175.7	205.1	1219.834	F

09:00 - 09:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	459	115	239		916	0.502	462	604	1.7	1.1	8.760	A
	2	362	91	420		720	0.503	366	280	2.1	1.1	11.305	B
	3	753	188	90		1161	0.648	753	697	2.0	2.0	9.697	A
2	1	697	174	310	7.53	954	0.730	771	753	21.7	3.2	29.082	D
	2	691	173	286		785	0.880	780	795	173.3	151.0	748.609	F
	3	575	144	506	7.53	557	1.034	556	559	205.1	209.9	1350.903	F

Willington Double-Minis - 2028 With Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	Junction 1 - Arm 3	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	Junction 2 - Arm 1	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Etwall Rd / Twyford Rd / A5132	Mini-roundabout	1, 2, 3	31.85	D
2	The Castle Way / Repton Rd / A5132	Mini-roundabout	1, 2, 3	665.74	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)	Run automatically
D8	2028 With Dev	PM	ONE HOUR	16:45	18:15	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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	1	Simple (vertical queueing)	Normal	0	100.00	
2	1	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		ONE HOUR	✓	789	100.000
	2		ONE HOUR	✓	423	100.000
	3	✓				
2	1	✓				
	2		ONE HOUR	✓	880	100.000
	3		ONE HOUR	✓	804	100.000

Demand overview (Pedestrians)

Junction	Arm	Profile type	Average pedestrian flow (Ped/hr)
1	1		
	2		
	3		
2	1	[ONEHOUR]	10.00
	2		
	3	[ONEHOUR]	10.00

Origin-Destination Data

Junction 1

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	143	646
	2	71	0	352
	3	551	325	0

Junction 2

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	675	323
	2	559	1	320
	3	317	485	2

Vehicle Mix

Junction 1

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Junction 2

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	0.94	52.49	11.5	F	702	1053
	2	0.81	36.06	4.3	E	377	565
	3	0.61	8.70	1.7	A	695	1043
2	1	1.14	281.67	72.7	F	887	1330
	2	1.21	444.91	94.9	F	783	1175
	3	1.51	1383.30	220.0	F	716	1073

Main Results for each time segment

16:45 - 17:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	576	144	228		923	0.624	569	437	0.0	1.8	10.981	B
	2	309	77	466		692	0.447	305	331	0.0	0.9	10.162	B
	3	618	155	51		1188	0.521	614	720	0.0	1.2	6.845	A
2	1	720	180	337	7.53	934	0.771	706	618	0.0	3.4	16.539	C
	2	643	161	230		819	0.784	628	814	0.0	3.6	19.463	C
	3	587	147	400	7.53	635	0.925	556	458	0.0	7.8	41.052	E

17:00 - 17:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	688	172	257		904	0.761	682	498	1.8	3.3	17.362	C
	2	369	92	558		634	0.582	366	381	0.9	1.5	14.661	B
	3	695	174	62		1181	0.589	694	863	1.2	1.5	8.105	A
2	1	863	216	351	8.99	924	0.934	839	695	3.4	9.5	38.303	E
	2	767	192	273		793	0.968	735	917	3.6	11.7	50.983	F
	3	701	175	468	8.99	586	1.197	579	540	7.8	38.4	162.997	F

17:15 - 17:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	843	211	265		899	0.937	817	524	3.3	9.6	39.386	E
	2	452	113	669		565	0.799	443	413	1.5	3.8	30.287	D
	3	715	179	74		1172	0.610	714	1037	1.5	1.7	8.639	A
2	1	1037	259	345	11.01	928	1.117	917	715	9.5	39.7	111.213	F
	2	940	235	298		777	1.209	772	964	11.7	53.6	166.963	F
	3	859	215	491	11.01	569	1.508	569	579	38.4	110.9	485.311	F

17:30 - 17:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	843	211	266		899	0.937	835	526	9.6	11.5	52.495	F
	2	452	113	684		556	0.813	450	417	3.8	4.3	36.065	E
	3	716	179	75		1171	0.611	716	1058	1.7	1.7	8.698	A
2	1	1058	265	345	11.01	929	1.139	926	716	39.7	72.7	229.363	F
	2	940	235	301		775	1.212	775	970	53.6	94.9	355.603	F
	3	859	215	493	11.01	568	1.511	568	583	110.9	183.5	939.570	F

17:45 - 18:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	688	172	264		900	0.765	718	512	11.5	3.9	24.710	C
	2	369	92	588		616	0.599	379	395	4.3	1.7	17.399	C
	3	713	178	64		1179	0.604	713	904	1.7	1.7	8.494	A
2	1	904	226	347	8.99	927	0.975	922	713	72.7	68.0	281.674	F
	2	767	192	300		776	0.989	767	969	94.9	94.9	444.914	F
	3	701	175	488	8.99	572	1.227	571	579	183.5	215.9	1267.400	F

18:00 - 18:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	1	576	144	265		899	0.641	584	501	3.9	2.0	12.815	B
	2	309	77	478		684	0.451	312	371	1.7	0.9	10.725	B
	3	714	178	52		1187	0.601	714	738	1.7	1.7	8.372	A
2	1	738	184	346	7.53	928	0.795	913	714	68.0	24.2	186.395	F
	2	643	161	297		778	0.826	769	962	94.9	63.3	371.945	F
	3	587	147	489	7.53	571	1.028	570	577	215.9	220.0	1383.304	F

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: Services Roundabout.j9
Path: Z:\Projects\Projects 18\18-0054 Burnaston Cross\Design_Data\Transport\Junctions Service Station
Report generation date: 09-Apr-19 7:25:36 PM

»Existing Layout - 2020 + Committed, AM
»Existing Layout - 2020 + Committed, PM
»Existing Layout - 2028 + Committed , AM
»Existing Layout - 2028 + Committed , PM
»Existing Layout - 2020 + Development , AM
»Existing Layout - 2020 + Development , PM
»Existing Layout - 2028 + Development , AM
»Existing Layout - 2028 + Development , PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	Existing Layout - 2020 + Committed							
Arm 1	1.0	6.12	0.47	A	1.8	8.92	0.63	A
Arm 2	0.1	3.50	0.10	A	0.2	4.01	0.16	A
Arm 3	0.0	2.48	0.02	A	0.0	2.68	0.02	A
Arm 4	0.7	4.13	0.38	A	0.6	3.91	0.34	A
	Existing Layout - 2028 + Committed							
Arm 1	1.2	6.89	0.53	A	2.7	11.56	0.71	B
Arm 2	0.2	3.69	0.12	A	0.3	4.36	0.19	A
Arm 3	0.0	2.57	0.02	A	0.0	2.81	0.02	A
Arm 4	0.8	4.52	0.43	A	0.7	4.24	0.38	A
	Existing Layout - 2020 + Development							
Arm 1	1.9	9.04	0.64	A	2.1	9.56	0.65	A
Arm 2	0.1	3.94	0.12	A	0.2	4.08	0.17	A
Arm 3	0.0	2.73	0.02	A	0.0	2.72	0.02	A
Arm 4	0.8	4.45	0.42	A	0.9	4.65	0.44	A
	Existing Layout - 2028 + Development							
Arm 1	2.5	10.82	0.70	B	3.0	12.64	0.74	B
Arm 2	0.2	4.19	0.14	A	0.3	4.45	0.20	A
Arm 3	0.0	2.83	0.03	A	0.0	2.85	0.02	A
Arm 4	1.0	4.91	0.47	A	1.0	5.11	0.49	A

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	Etwall Road / Services Roundabout
Location	Derbyshire
Site number	
Date	20-Jun-18
Version	
Status	(new file)
Identifier	
Client	Brackley Property Developments
Jobnumber	18-0056
Enumerator	BSP-CONSULTING\mvadher
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

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020 + Committed	AM	ONE HOUR	07:45	09:15	15
D2	2020 + Committed	PM	ONE HOUR	16:45	18:15	15
D3	2028 + Committed	AM	ONE HOUR	07:45	09:15	15
D4	2028 + Committed	PM	ONE HOUR	16:45	18:15	15
D5	2020 + Development	AM	ONE HOUR	07:45	09:15	15
D6	2020 + Development	PM	ONE HOUR	16:45	18:15	15
D7	2028 + Development	AM	ONE HOUR	07:45	09:15	15
D8	2028 + Development	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Existing Layout	100.000

Existing Layout - 2020 + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.88	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Toyota Island	
2	Service Station	
3	HGV Parking	
4	Etwall Road	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	3.60	5.20	3.2	20.0	43.0	41.0	
2	4.45	7.00	4.4	14.0	43.0	27.0	
3	4.90	8.20	17.0	15.0	43.0	38.0	
4	3.80	6.80	12.0	20.0	43.0	36.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.530	1229
2	0.612	1602
3	0.682	2009
4	0.612	1622

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)
D1	2020 + Committed	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	514	100.000
2		✓	120	100.000
3		✓	30	100.000
4		✓	526	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	6	33	87	388
	2	91	0	5	24
	3	26	0	2	2
	4	501	6	18	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.47	6.12	1.0	A
2	0.10	3.50	0.1	A
3	0.02	2.48	0.0	A
4	0.38	4.13	0.7	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	387	20	1218	0.318	385	0.5	4.743	A
2	90	376	1372	0.066	90	0.1	3.089	A
3	23	382	1748	0.013	23	0.0	2.294	A
4	396	94	1564	0.253	395	0.4	3.380	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	462	24	1216	0.380	461	0.7	5.246	A
2	108	451	1326	0.081	108	0.1	3.249	A
3	27	458	1697	0.016	27	0.0	2.371	A
4	473	112	1553	0.304	472	0.5	3.661	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	566	30	1213	0.467	565	1.0	6.099	A
2	132	552	1265	0.104	132	0.1	3.495	A
3	33	561	1627	0.020	33	0.0	2.484	A
4	579	138	1538	0.377	578	0.7	4.126	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	566	30	1213	0.467	566	1.0	6.121	A
2	132	553	1264	0.105	132	0.1	3.497	A
3	33	562	1626	0.020	33	0.0	2.485	A
4	579	138	1538	0.377	579	0.7	4.131	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	462	24	1216	0.380	463	0.7	5.272	A
2	108	452	1325	0.081	108	0.1	3.255	A
3	27	459	1696	0.016	27	0.0	2.372	A
4	473	112	1553	0.304	474	0.5	3.672	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	387	20	1218	0.318	388	0.5	4.775	A
2	90	379	1370	0.066	90	0.1	3.095	A
3	23	385	1747	0.013	23	0.0	2.296	A
4	396	94	1564	0.253	396	0.4	3.391	A

Existing Layout - 2020 + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	6.45	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2020 + Committed	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	684	100.000
2		✓	175	100.000
3		✓	22	100.000
4		✓	467	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	6	88	85	505
	2	116	0	12	47
	3	18	0	2	2
	4	414	25	27	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.63	8.92	1.8	A
2	0.16	4.01	0.2	A
3	0.02	2.68	0.0	A
4	0.34	3.91	0.6	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	515	41	1207	0.427	512	0.8	5.672	A
2	132	468	1316	0.100	131	0.1	3.341	A
3	17	505	1664	0.010	17	0.0	2.402	A
4	352	107	1557	0.226	350	0.3	3.280	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	615	49	1202	0.511	614	1.1	6.711	A
2	157	562	1258	0.125	157	0.2	3.595	A
3	20	606	1596	0.012	20	0.0	2.512	A
4	420	128	1544	0.272	419	0.4	3.522	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	753	60	1196	0.629	750	1.8	8.821	A
2	193	687	1182	0.163	192	0.2	4.001	A
3	24	741	1504	0.016	24	0.0	2.676	A
4	514	156	1526	0.337	514	0.6	3.909	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	753	61	1196	0.629	753	1.8	8.924	A
2	193	689	1180	0.163	193	0.2	4.008	A
3	24	743	1502	0.016	24	0.0	2.678	A
4	514	156	1526	0.337	514	0.6	3.912	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	615	50	1202	0.511	618	1.2	6.805	A
2	157	565	1256	0.125	158	0.2	3.603	A
3	20	609	1594	0.012	20	0.0	2.517	A
4	420	128	1544	0.272	420	0.4	3.529	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	515	41	1207	0.427	516	0.8	5.750	A
2	132	472	1313	0.100	132	0.1	3.352	A
3	17	509	1662	0.010	17	0.0	2.406	A
4	352	107	1556	0.226	352	0.3	3.290	A

Existing Layout - 2028 + Committed , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	5.41	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)
D3	2028 + Committed	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	578	100.000
2		✓	136	100.000
3		✓	33	100.000
4		✓	592	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	7	37	98	436
	2	103	0	6	27
	3	29	0	2	2
	4	564	7	20	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.53	6.89	1.2	A
2	0.12	3.69	0.2	A
3	0.02	2.57	0.0	A
4	0.43	4.52	0.8	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	435	22	1217	0.358	433	0.6	5.037	A
2	102	422	1344	0.076	102	0.1	3.189	A
3	25	430	1716	0.014	25	0.0	2.341	A
4	446	106	1557	0.286	444	0.4	3.546	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	520	27	1214	0.428	519	0.8	5.686	A
2	122	506	1292	0.095	122	0.1	3.383	A
3	30	515	1658	0.018	30	0.0	2.432	A
4	532	127	1544	0.345	532	0.6	3.909	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	636	33	1211	0.525	635	1.2	6.855	A
2	150	619	1223	0.122	150	0.2	3.688	A
3	36	631	1579	0.023	36	0.0	2.566	A
4	652	155	1527	0.427	651	0.8	4.515	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	636	33	1211	0.526	636	1.2	6.890	A
2	150	621	1222	0.123	150	0.2	3.691	A
3	36	632	1578	0.023	36	0.0	2.568	A
4	652	155	1527	0.427	652	0.8	4.525	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	520	27	1214	0.428	521	0.8	5.725	A
2	122	508	1291	0.095	122	0.1	3.391	A
3	30	517	1656	0.018	30	0.0	2.436	A
4	532	127	1544	0.345	533	0.6	3.921	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	435	23	1217	0.358	436	0.6	5.078	A
2	102	425	1342	0.076	102	0.1	3.197	A
3	25	433	1714	0.015	25	0.0	2.344	A
4	446	106	1557	0.286	446	0.4	3.569	A

Existing Layout - 2028 + Committed , PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	7.95	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)
D4	2028 + Committed	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	773	100.000
2		✓	198	100.000
3		✓	24	100.000
4		✓	527	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	7	100	96	570
	2	131	0	14	53
	3	20	0	2	2
	4	468	28	30	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.71	11.56	2.7	B
2	0.19	4.36	0.3	A
3	0.02	2.81	0.0	A
4	0.38	4.24	0.7	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	582	46	1204	0.483	578	1.0	6.282	A
2	149	528	1279	0.117	148	0.1	3.500	A
3	18	570	1620	0.011	18	0.0	2.471	A
4	397	120	1548	0.256	395	0.4	3.429	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	695	55	1199	0.579	693	1.5	7.789	A
2	178	633	1215	0.147	178	0.2	3.818	A
3	22	683	1543	0.014	22	0.0	2.602	A
4	474	144	1534	0.309	473	0.5	3.731	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	851	67	1193	0.713	847	2.6	11.278	B
2	218	773	1129	0.193	218	0.3	4.344	A
3	26	835	1439	0.018	26	0.0	2.802	A
4	580	176	1514	0.383	579	0.7	4.233	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	851	67	1193	0.713	851	2.7	11.556	B
2	218	777	1127	0.193	218	0.3	4.357	A
3	26	839	1437	0.018	26	0.0	2.806	A
4	580	176	1514	0.383	580	0.7	4.240	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	695	55	1199	0.579	699	1.5	7.992	A
2	178	639	1211	0.147	178	0.2	3.833	A
3	22	689	1539	0.014	22	0.0	2.608	A
4	474	144	1534	0.309	475	0.5	3.740	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	582	46	1204	0.483	584	1.0	6.405	A
2	149	533	1276	0.117	149	0.1	3.517	A
3	18	575	1617	0.011	18	0.0	2.476	A
4	397	121	1548	0.256	397	0.4	3.441	A

Existing Layout - 2020 + Development , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	6.61	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)
D5	2020 + Development	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	704	100.000
2		✓	120	100.000
3		✓	30	100.000
4		✓	589	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	6	33	87	578
	2	91	0	5	24
	3	26	0	2	2
	4	564	6	18	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.64	9.04	1.9	A
2	0.12	3.94	0.1	A
3	0.02	2.73	0.0	A
4	0.42	4.45	0.8	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	530	20	1218	0.435	527	0.8	5.703	A
2	90	518	1285	0.070	90	0.1	3.313	A
3	23	524	1652	0.014	23	0.0	2.430	A
4	443	94	1564	0.283	442	0.4	3.523	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	633	24	1216	0.521	632	1.2	6.762	A
2	108	621	1222	0.088	108	0.1	3.552	A
3	27	628	1581	0.017	27	0.0	2.548	A
4	529	112	1553	0.341	529	0.6	3.865	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	775	30	1213	0.639	772	1.9	8.929	A
2	132	759	1138	0.116	132	0.1	3.937	A
3	33	768	1485	0.022	33	0.0	2.726	A
4	649	137	1538	0.422	648	0.8	4.444	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	775	30	1213	0.639	775	1.9	9.040	A
2	132	762	1136	0.116	132	0.1	3.944	A
3	33	771	1483	0.022	33	0.0	2.729	A
4	649	138	1538	0.422	648	0.8	4.453	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	633	24	1216	0.521	636	1.2	6.863	A
2	108	625	1220	0.088	108	0.1	3.564	A
3	27	632	1578	0.017	27	0.0	2.554	A
4	529	113	1553	0.341	530	0.6	3.877	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	530	20	1218	0.435	531	0.9	5.781	A
2	90	522	1282	0.070	90	0.1	3.324	A
3	23	528	1649	0.014	23	0.0	2.436	A
4	443	94	1564	0.283	444	0.4	3.535	A

Existing Layout - 2020 + Development , PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	6.85	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)
D6	2020 + Development	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	711	100.000
2		✓	175	100.000
3		✓	22	100.000
4		✓	612	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	6	88	85	532
	2	116	0	12	47
	3	18	0	2	2
	4	559	25	27	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.65	9.56	2.1	A
2	0.17	4.08	0.2	A
3	0.02	2.72	0.0	A
4	0.44	4.65	0.9	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	535	41	1207	0.444	532	0.9	5.840	A
2	132	488	1303	0.101	131	0.1	3.376	A
3	17	525	1651	0.010	17	0.0	2.422	A
4	461	107	1557	0.296	459	0.5	3.601	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	639	49	1202	0.532	638	1.2	6.995	A
2	157	586	1244	0.126	157	0.2	3.644	A
3	20	630	1579	0.013	20	0.0	2.538	A
4	550	128	1544	0.356	550	0.6	3.980	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	783	60	1196	0.654	780	2.0	9.426	A
2	193	716	1164	0.166	192	0.2	4.075	A
3	24	770	1484	0.016	24	0.0	2.712	A
4	674	156	1526	0.441	673	0.9	4.634	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	783	61	1196	0.654	783	2.1	9.564	A
2	193	719	1162	0.166	193	0.2	4.083	A
3	24	773	1482	0.016	24	0.0	2.715	A
4	674	156	1526	0.442	674	0.9	4.645	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	639	50	1202	0.532	642	1.3	7.110	A
2	157	590	1241	0.127	158	0.2	3.654	A
3	20	634	1577	0.013	20	0.0	2.542	A
4	550	128	1544	0.356	551	0.6	3.995	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	535	41	1207	0.444	537	0.9	5.927	A
2	132	493	1300	0.101	132	0.1	3.388	A
3	17	530	1648	0.010	17	0.0	2.429	A
4	461	107	1556	0.296	461	0.5	3.617	A

Existing Layout - 2028 + Development , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	7.66	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)
D7	2028 + Development	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	768	100.000
2		✓	136	100.000
3		✓	33	100.000
4		✓	655	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	7	37	98	626
	2	103	0	6	27
	3	29	0	2	2
	4	627	7	20	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.70	10.82	2.5	B
2	0.14	4.19	0.2	A
3	0.03	2.83	0.0	A
4	0.47	4.91	1.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	578	22	1217	0.475	574	1.0	6.129	A
2	102	564	1257	0.081	102	0.1	3.428	A
3	25	572	1619	0.015	25	0.0	2.483	A
4	493	106	1557	0.317	491	0.5	3.709	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	690	27	1214	0.569	689	1.4	7.508	A
2	122	676	1188	0.103	122	0.1	3.713	A
3	30	685	1542	0.019	30	0.0	2.618	A
4	589	127	1544	0.381	588	0.7	4.139	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	846	33	1211	0.698	841	2.5	10.593	B
2	150	826	1097	0.137	150	0.2	4.179	A
3	36	838	1438	0.025	36	0.0	2.825	A
4	721	155	1527	0.472	720	1.0	4.900	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	846	33	1211	0.698	845	2.5	10.816	B
2	150	830	1094	0.137	150	0.2	4.191	A
3	36	841	1435	0.025	36	0.0	2.829	A
4	721	155	1527	0.472	721	1.0	4.914	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	690	27	1214	0.569	694	1.5	7.677	A
2	122	682	1185	0.103	122	0.1	3.729	A
3	30	690	1538	0.019	30	0.0	2.626	A
4	589	127	1544	0.381	590	0.7	4.155	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	578	23	1217	0.475	580	1.0	6.241	A
2	102	569	1254	0.082	103	0.1	3.439	A
3	25	577	1616	0.015	25	0.0	2.490	A
4	493	106	1557	0.317	494	0.5	3.726	A

Existing Layout - 2028 + Development , PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	8.56	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2028 + Development	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	800	100.000
2		✓	198	100.000
3		✓	24	100.000
4		✓	672	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	7	100	96	597
	2	131	0	14	53
	3	20	0	2	2
	4	613	28	30	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.74	12.64	3.0	B
2	0.20	4.45	0.3	A
3	0.02	2.85	0.0	A
4	0.49	5.11	1.0	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	602	46	1204	0.500	598	1.1	6.487	A
2	149	548	1267	0.118	148	0.1	3.539	A
3	18	590	1606	0.011	18	0.0	2.492	A
4	506	120	1548	0.327	504	0.5	3.782	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	719	55	1199	0.600	717	1.6	8.171	A
2	178	657	1200	0.148	178	0.2	3.874	A
3	22	708	1526	0.014	22	0.0	2.630	A
4	604	144	1534	0.394	603	0.7	4.256	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	881	67	1193	0.738	875	3.0	12.260	B
2	218	802	1111	0.196	218	0.3	4.430	A
3	26	864	1420	0.019	26	0.0	2.841	A
4	740	176	1514	0.489	739	1.0	5.097	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	881	67	1193	0.738	881	3.0	12.644	B
2	218	807	1109	0.197	218	0.3	4.446	A
3	26	868	1417	0.019	26	0.0	2.847	A
4	740	176	1514	0.489	740	1.0	5.114	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	719	55	1199	0.600	725	1.7	8.432	A
2	178	664	1196	0.149	178	0.2	3.891	A
3	22	714	1522	0.014	22	0.0	2.638	A
4	604	144	1534	0.394	605	0.7	4.271	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	602	46	1204	0.500	605	1.1	6.631	A
2	149	554	1263	0.118	149	0.1	3.557	A
3	18	596	1603	0.011	18	0.0	2.498	A
4	506	121	1548	0.327	507	0.5	3.804	A

Appendix Q

Level Crossing Assessment Results

LinSig V1 style report

User and Project Details

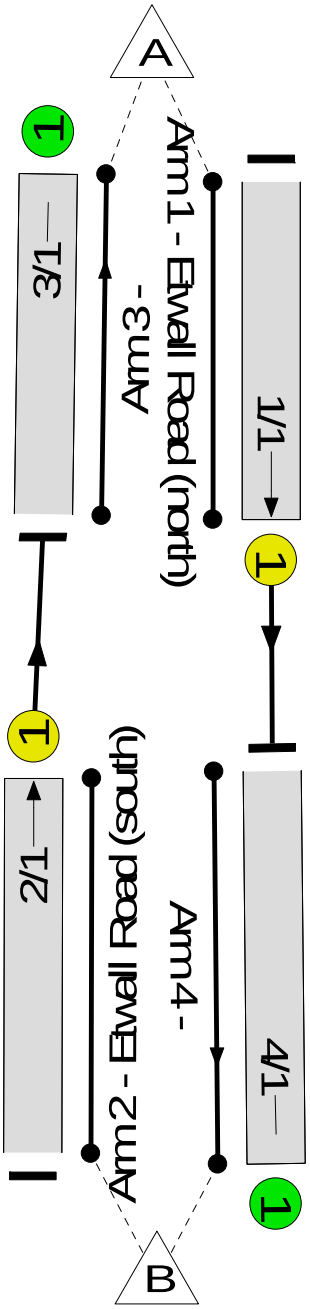
Project:	**Burnaston Cross**
Title:	**Etwall Road Rail Crossing**
Location:	South Derbyshire
Client:	Brackley Property Developments
Additional detail:	
File name:	Rail Crossing Existing.lsg3x
Author:	MAM
Company:	BSP
Address:	Notts

Network Layout Diagram

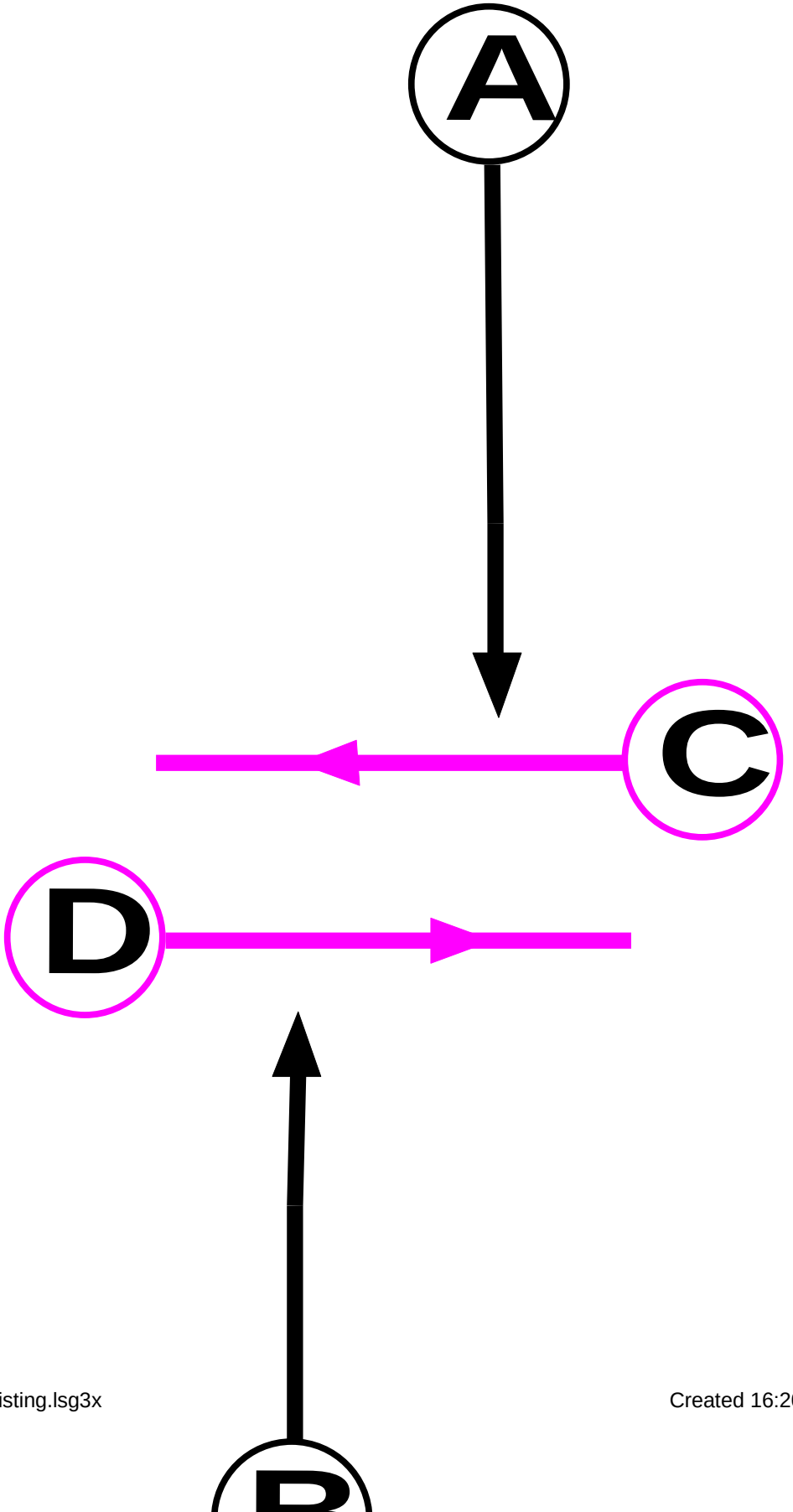
Etwall Road Rail Crossing

Peak period surveys indicate that the crossing is called every 30mins. A cycle time of 1,800secs has therefore been adopted.

Information provided by network rail indicate that the crossing will be improved in the future and this should be taken into account within any assessment work. The improved crossing is estimated to result in the crossing being down for 30 seconds to 1min when called. Phases C & D (30 secs each) run one after the



Phase Diagram


A
C
D
B

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	LRT		30	30
D	LRT		30	30

Phase Intergreens Matrix

		Starting Phase			
Terminating Phase		A	B	C	D
	A		-	6	-
	B	-		6	-
	C	-	-		-
	D	6	6	-	

Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

		To Stage		
From Stage		1	2	3
	1		6	2
	2	2		2
	3	6	2	

Phases in Stage

Stage No.	Phases in Stage
1	A B
2	C
3	D

Give-Way Lane Input Data

Junction: Etwall Road Rail Crossing
There are no Opposed Lanes in this Junction

Lane Input Data

Junction: Etwall Road Rail Crossing												
Lane	**Lane Type**	**Phases**	**Start Disp.**	**End Disp.**	**Physical Length (PCU)**	**Sat Flow Type**	**Def User Saturation Flow (PCU/Hr)**	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Turns**	**Turning Radius (m)**
1/1 (Etwall Road (north))	U	A	2	3	60.0	Geom	-	3.75	0.00	Y	Arm 4 Ahead	Inf
2/1 (Etwall Road (south))	U	B	2	3	60.0	Geom	-	3.75	0.00	Y	Arm 3 Ahead	Inf
3/1	U		2	3	60.0	Inf	-	-	-	-	-	-
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Lane Saturation Flows

Scenario 1: '2020 Base + Com - AM' (FG1: '2020 Base + Com - AM', Plan 1: 'Network Control Plan 1')

Junction: Etwall Road Rail Crossing								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Etwall Road (north))	3.75	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1990	1990
2/1 (Etwall Road (south))	3.75	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1990	1990
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2020 Base + Com - PM' (FG2: '2020 Base + Com - PM', Plan 1: 'Network Control Plan 1')

Junction: Etwall Road Rail Crossing								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Etwall Road (north))	3.75	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1990	1990
2/1 (Etwall Road (south))	3.75	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1990	1990
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 3: '2028 Base + Com - AM' (FG3: '2028 Base + Com - AM', Plan 1: 'Network Control Plan 1')

Junction: Etwall Road Rail Crossing								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Etwall Road (north))	3.75	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1990	1990
2/1 (Etwall Road (south))	3.75	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1990	1990
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2028 Base + Com - PM' (FG4: '2028 Base + Com - PM', Plan 1: 'Network Control Plan 1')

Junction: Etwall Road Rail Crossing								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Etwall Road (north))	3.75	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1990	1990
2/1 (Etwall Road (south))	3.75	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1990	1990
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 5: '2020 With Development - AM' (FG5: '2020 With Development - AM', Plan 1: 'Network Control Plan 1')

Junction: Etwall Road Rail Crossing								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Etwall Road (north))	3.75	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1990	1990
2/1 (Etwall Road (south))	3.75	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1990	1990
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 6: '2020 with Development - PM' (FG6: '2020 With Development - PM', Plan 1: 'Network Control Plan 1')

Junction: Etwall Road Rail Crossing								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Etwall Road (north))	3.75	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1990	1990
2/1 (Etwall Road (south))	3.75	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1990	1990
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 7: '2028 With Developemnt - AM' (FG7: '2028 With Development - AM', Plan 1: 'Network Control Plan 1')

Junction: Etwall Road Rail Crossing								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Etwall Road (north))	3.75	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1990	1990
2/1 (Etwall Road (south))	3.75	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1990	1990
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 8: '2028 With Development - PM' (FG8: '2028 With Development - PM', Plan 1: 'Network Control Plan 1')

Junction: Etwall Road Rail Crossing								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Etwall Road (north))	3.75	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1990	1990
2/1 (Etwall Road (south))	3.75	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1990	1990
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2020 Base + Com - AM'	08:00	09:00	01:00	
2: '2020 Base + Com - PM'	17:00	18:00	01:00	
3: '2028 Base + Com - AM'	08:00	09:00	01:00	
4: '2028 Base + Com - PM'	17:00	18:00	01:00	
5: '2020 With Development - AM'	08:00	09:00	01:00	
6: '2020 With Development - PM'	17:00	18:00	01:00	
7: '2028 With Development - AM'	08:00	09:00	01:00	
8: '2028 With Development - PM'	17:00	18:00	01:00	

Traffic Flows, Desired

FG1: '2020 Base + Com - AM'
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	415	415
	B	526	0	526
	Tot.	526	415	941

FG2: '2020 Base + Com - PM'
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	554	554
	B	467	0	467
	Tot.	467	554	1021

FG3: '2028 Base + Com - AM'
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	467	467
	B	592	0	592
	Tot.	592	467	1059

FG4: '2028 Base + Com - PM'
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	626	626
	B	527	0	527
	Tot.	527	626	1153

FG5: '2020 With Development - AM'
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	430	430
	B	583	0	583
	Tot.	583	430	1013

FG6: '2020 With Development - PM'
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	600	600
	B	474	0	474
	Tot.	474	600	1074

FG7: '2028 With Development - AM'
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	482	482
	B	649	0	649
	Tot.	649	482	1131

FG8: '2028 With Development - PM'
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	671	671
	B	534	0	534
	Tot.	534	671	1205

Stage Timings

Scenario 1: '2020 Base + Com - AM' (FG1: '2020 Base + Com - AM', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	1726	30	30
Change Point	0	1732	1768

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**27.5%**
Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**27.5%**
1/1	Etwall Road (north) Ahead	U	N/A	N/A	A		1	1726	-	415	1990	1909	21.7%
2/1	Etwall Road (south) Ahead	U	N/A	N/A	B		1	1726	-	526	1990	1909	27.5%
3/1		U	N/A	N/A	-		-	-	-	526	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	415	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**0.5**	**0.3**	**0.0**	**0.8**	**-**	**-**	**-**	**-**
Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**0.5**	**0.3**	**0.0**	**0.8**	**-**	**-**	**-**	**-**
1/1	415	415	-	-	-	0.2	0.1	-	0.4	3.1	10.6	0.1	10.7
2/1	526	526	-	-	-	0.3	0.2	-	0.5	3.3	14.5	0.2	14.7
3/1	526	526	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	415	415	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 226.7 Total Delay for Signalled Lanes (pcuHr): 0.84 Cycle Time (s): 1800
PRC Over All Lanes (%): 226.7 Total Delay Over All Lanes(pcuHr): 0.84

Stage Timings

Scenario 2: '2020 Base + Com - PM' (FG2: '2020 Base + Com - PM', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	1726	30	30
Change Point	0	1732	1768

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Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**29.0%**
Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**29.0%**
1/1	Etwall Road (north) Ahead	U	N/A	N/A	A		1	1726	-	554	1990	1909	29.0%
2/1	Etwall Road (south) Ahead	U	N/A	N/A	B		1	1726	-	467	1990	1909	24.5%
3/1		U	N/A	N/A	-		-	-	-	467	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	554	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**0.6**	**0.4**	**0.0**	**0.9**	**-**	**-**	**-**	**-**
Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**0.6**	**0.4**	**0.0**	**0.9**	**-**	**-**	**-**	**-**
1/1	554	554	-	-	-	0.3	0.2	-	0.5	3.4	15.5	0.2	15.7
2/1	467	467	-	-	-	0.3	0.2	-	0.4	3.2	12.3	0.2	12.5
3/1	467	467	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	554	554	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 210.2 Total Delay for Signalled Lanes (pcuHr): 0.93 Cycle Time (s): 1800
PRC Over All Lanes (%): 210.2 Total Delay Over All Lanes(pcuHr): 0.93

Stage Timings

Scenario 3: '2028 Base + Com - AM' (FG3: '2028 Base + Com - AM', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	1726	30	30
Change Point	0	1732	1768

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Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**31.0%**
Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**31.0%**
1/1	Etwall Road (north) Ahead	U	N/A	N/A	A		1	1726	-	467	1990	1909	24.5%
2/1	Etwall Road (south) Ahead	U	N/A	N/A	B		1	1726	-	592	1990	1909	31.0%
3/1		U	N/A	N/A	-		-	-	-	592	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	467	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**0.6**	**0.4**	**0.0**	**1.0**	**-**	**-**	**-**	**-**
Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**0.6**	**0.4**	**0.0**	**1.0**	**-**	**-**	**-**	**-**
1/1	467	467	-	-	-	0.3	0.2	-	0.4	3.2	12.3	0.2	12.5
2/1	592	592	-	-	-	0.3	0.2	-	0.6	3.5	16.9	0.2	17.2
3/1	592	592	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	467	467	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 190.3 Total Delay for Signalled Lanes (pcuHr): 0.98 Cycle Time (s): 1800
PRC Over All Lanes (%): 190.3 Total Delay Over All Lanes(pcuHr): 0.98

Stage Timings

Scenario 4: '2028 Base + Com - PM' (FG4: '2028 Base + Com - PM', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	1726	30	30
Change Point	0	1732	1768

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Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**32.8%**
Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**32.8%**
1/1	Etwall Road (north) Ahead	U	N/A	N/A	A		1	1726	-	626	1990	1909	32.8%
2/1	Etwall Road (south) Ahead	U	N/A	N/A	B		1	1726	-	527	1990	1909	27.6%
3/1		U	N/A	N/A	-		-	-	-	527	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	626	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**0.7**	**0.4**	**0.0**	**1.1**	**-**	**-**	**-**	**-**
Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**0.7**	**0.4**	**0.0**	**1.1**	**-**	**-**	**-**	**-**
1/1	626	626	-	-	-	0.4	0.2	-	0.6	3.6	18.4	0.2	18.7
2/1	527	527	-	-	-	0.3	0.2	-	0.5	3.3	14.5	0.2	14.7
3/1	527	527	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	626	626	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 174.5 Total Delay for Signalled Lanes (pcuHr): 1.10 Cycle Time (s): 1800
PRC Over All Lanes (%): 174.5 Total Delay Over All Lanes(pcuHr): 1.10

Stage Timings

Scenario 5: '2020 With Development - AM' (FG5: '2020 With Development - AM', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	1726	30	30
Change Point	0	1732	1768

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Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**30.5%**
Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**30.5%**
1/1	Etwall Road (north) Ahead	U	N/A	N/A	A		1	1726	-	430	1990	1909	22.5%
2/1	Etwall Road (south) Ahead	U	N/A	N/A	B		1	1726	-	583	1990	1909	30.5%
3/1		U	N/A	N/A	-		-	-	-	583	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	430	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**0.6**	**0.4**	**0.0**	**0.9**	**-**	**-**	**-**	**-**
Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**0.6**	**0.4**	**0.0**	**0.9**	**-**	**-**	**-**	**-**
1/1	430	430	-	-	-	0.2	0.1	-	0.4	3.1	11.1	0.1	11.3
2/1	583	583	-	-	-	0.3	0.2	-	0.6	3.5	16.7	0.2	16.9
3/1	583	583	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	430	430	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 194.7 Total Delay for Signalled Lanes (pcuHr): 0.93 Cycle Time (s): 1800
PRC Over All Lanes (%): 194.7 Total Delay Over All Lanes(pcuHr): 0.93

Stage Timings

Scenario 6: '2020 with Development - PM' (FG6: '2020 With Development - PM', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	1726	30	30
Change Point	0	1732	1768

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Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**31.4%**
Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**31.4%**
1/1	Etwall Road (north) Ahead	U	N/A	N/A	A		1	1726	-	600	1990	1909	31.4%
2/1	Etwall Road (south) Ahead	U	N/A	N/A	B		1	1726	-	474	1990	1909	24.8%
3/1		U	N/A	N/A	-		-	-	-	474	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	600	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**0.6**	**0.4**	**0.0**	**1.0**	**-**	**-**	**-**	**-**
Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**0.6**	**0.4**	**0.0**	**1.0**	**-**	**-**	**-**	**-**
1/1	600	600	-	-	-	0.4	0.2	-	0.6	3.5	17.3	0.2	17.6
2/1	474	474	-	-	-	0.3	0.2	-	0.4	3.2	12.5	0.2	12.7
3/1	474	474	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	600	600	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 186.4 Total Delay for Signalled Lanes (pcuHr): 1.00 Cycle Time (s): 1800
PRC Over All Lanes (%): 186.4 Total Delay Over All Lanes(pcuHr): 1.00

Stage Timings

Scenario 7: '2028 With Developemnt - AM' (FG7: '2028 With Development - AM', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	1726	30	30
Change Point	0	1732	1768

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Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**34.0%**
Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**34.0%**
1/1	Etwall Road (north) Ahead	U	N/A	N/A	A		1	1726	-	482	1990	1909	25.2%
2/1	Etwall Road (south) Ahead	U	N/A	N/A	B		1	1726	-	649	1990	1909	34.0%
3/1		U	N/A	N/A	-		-	-	-	649	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	482	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**0.7**	**0.4**	**0.0**	**1.1**	**-**	**-**	**-**	**-**
Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**0.7**	**0.4**	**0.0**	**1.1**	**-**	**-**	**-**	**-**
1/1	482	482	-	-	-	0.3	0.2	-	0.4	3.2	12.9	0.2	13.0
2/1	649	649	-	-	-	0.4	0.3	-	0.7	3.6	19.5	0.3	19.7
3/1	649	649	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	482	482	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 164.8 Total Delay for Signalled Lanes (pcuHr): 1.08 Cycle Time (s): 1800
PRC Over All Lanes (%): 164.8 Total Delay Over All Lanes(pcuHr): 1.08

Stage Timings

Scenario 8: '2028 With Development - PM' (FG8: '2028 With Development - PM', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	1726	30	30
Change Point	0	1732	1768

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Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**35.1%**
Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**35.1%**
1/1	Etwall Road (north) Ahead	U	N/A	N/A	A		1	1726	-	671	1990	1909	35.1%
2/1	Etwall Road (south) Ahead	U	N/A	N/A	B		1	1726	-	534	1990	1909	28.0%
3/1		U	N/A	N/A	-		-	-	-	534	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	671	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**0.7**	**0.5**	**0.0**	**1.2**	**-**	**-**	**-**	**-**
Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**0.7**	**0.5**	**0.0**	**1.2**	**-**	**-**	**-**	**-**
1/1	671	671	-	-	-	0.4	0.3	-	0.7	3.7	20.5	0.3	20.8
2/1	534	534	-	-	-	0.3	0.2	-	0.5	3.3	14.7	0.2	14.9
3/1	534	534	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	671	671	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 156.1 Total Delay for Signalled Lanes (pcuHr): 1.18 Cycle Time (s): 1800
PRC Over All Lanes (%): 156.1 Total Delay Over All Lanes(pcuHr): 1.18

LinSig V1 style report

User and Project Details

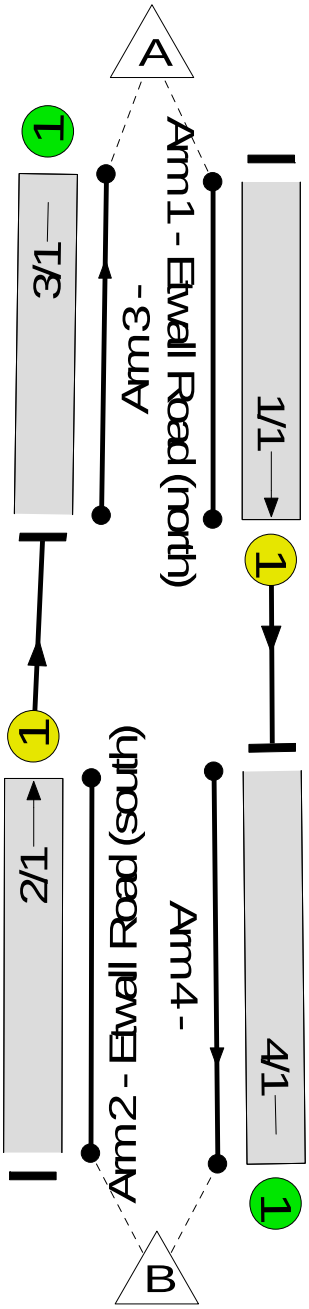
Project:	**Burnaston Cross**
Title:	**Etwall Road Rail Crossing**
Location:	South Derbyshire
Client:	Brackley Property Developments
Additional detail:	
File name:	Rail Crossing.lsg3x
Author:	MAM
Company:	BSP
Address:	Notts

Network Layout Diagram

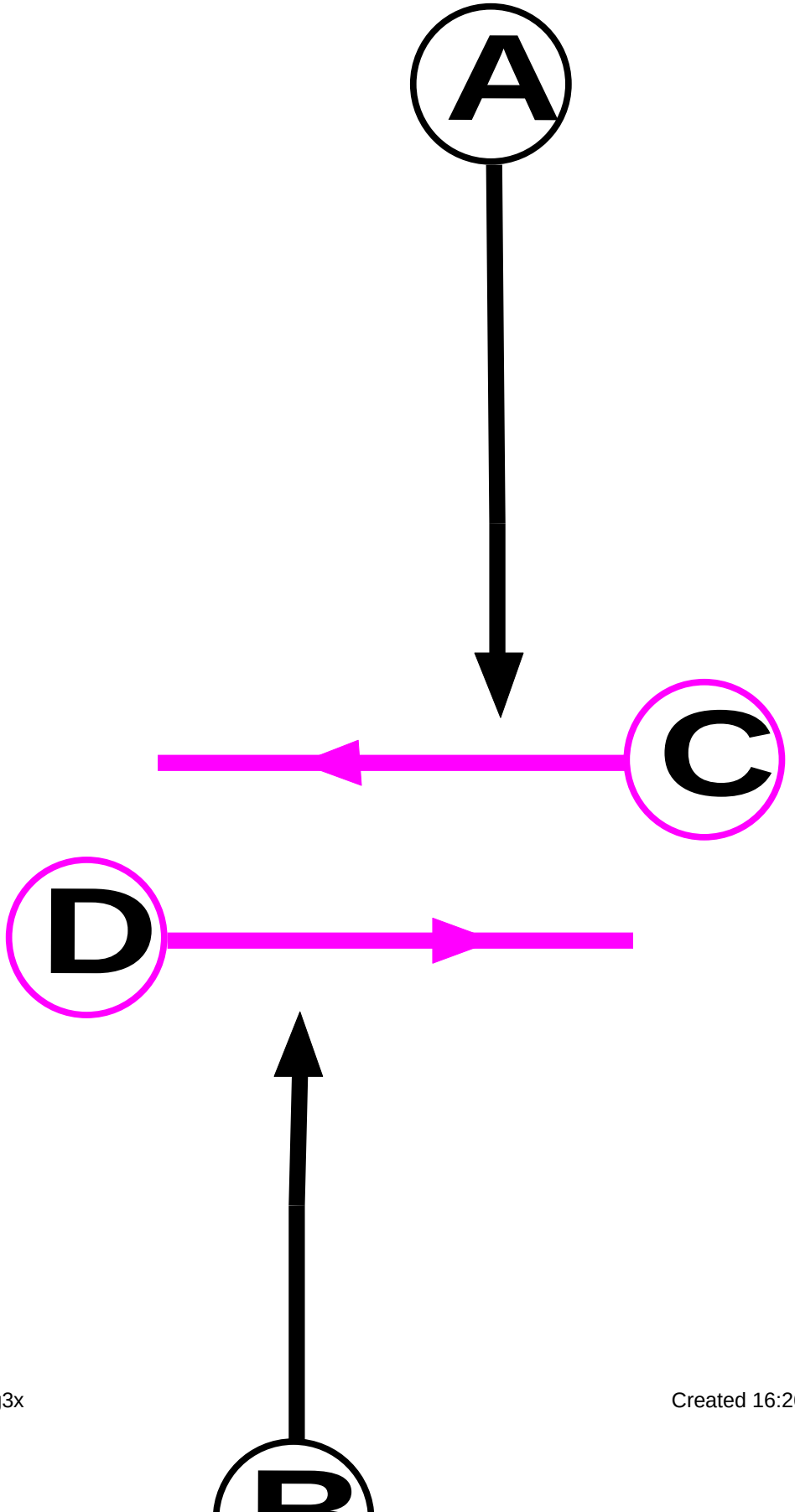
Etwall Road Rail Crossing

Peak period surveys indicate that the crossing is called every 30mins. A cycle time of 1,800secs has therefore been adopted.

Information provided by network rail indicate that the crossing will be improved in the future and this should be taken into account within any assessment work. The improved crossing is estimated to result in the crossing being down for 3mins when called. Phases C & D (90 secs each) run one after the other to take this



Phase Diagram


A
C
D
B

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	LRT		90	90
D	LRT		90	90

Phase Intergreens Matrix

		Starting Phase			
Terminating Phase		A	B	C	D
	A		-	6	-
	B	-		6	-
	C	-	-		-
	D	6	6	-	

Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

		To Stage		
		1	2	3
From Stage	1		6	2
	2	2		2
	3	6	2	

Phases in Stage

Stage No.	Phases in Stage
1	A B
2	C
3	D

Give-Way Lane Input Data

Junction: Etwall Road Rail Crossing
There are no Opposed Lanes in this Junction

Lane Input Data

Junction: Etwall Road Rail Crossing												
Lane	**Lane Type**	**Phases**	**Start Disp.**	**End Disp.**	**Physical Length (PCU)**	**Sat Flow Type**	**Def User Saturation Flow (PCU/Hr)**	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Turns**	**Turning Radius (m)**
1/1 (Etwall Road (north))	U	A	2	3	60.0	Geom	-	3.75	0.00	Y	Arm 4 Ahead	Inf
2/1 (Etwall Road (south))	U	B	2	3	60.0	Geom	-	3.75	0.00	Y	Arm 3 Ahead	Inf
3/1	U		2	3	60.0	Inf	-	-	-	-	-	-
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Lane Saturation Flows

Scenario 1: '2020 Base + Com - AM' (FG1: '2020 Base + Com - AM', Plan 1: 'Network Control Plan 1')

Junction: Etwall Road Rail Crossing								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Etwall Road (north))	3.75	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1990	1990
2/1 (Etwall Road (south))	3.75	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1990	1990
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2020 Base + Com - PM' (FG2: '2020 Base + Com - PM', Plan 1: 'Network Control Plan 1')

Junction: Etwall Road Rail Crossing								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Etwall Road (north))	3.75	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1990	1990
2/1 (Etwall Road (south))	3.75	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1990	1990
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 3: '2028 Base + Com - AM' (FG3: '2028 Base + Com - AM', Plan 1: 'Network Control Plan 1')

Junction: Etwall Road Rail Crossing								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Etwall Road (north))	3.75	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1990	1990
2/1 (Etwall Road (south))	3.75	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1990	1990
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2028 Base + Com - PM' (FG4: '2028 Base + Com - PM', Plan 1: 'Network Control Plan 1')

Junction: Etwall Road Rail Crossing								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Etwall Road (north))	3.75	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1990	1990
2/1 (Etwall Road (south))	3.75	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1990	1990
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 5: '2020 With Development - AM' (FG5: '2020 With Development - AM', Plan 1: 'Network Control Plan 1')

Junction: Etwall Road Rail Crossing								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Etwall Road (north))	3.75	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1990	1990
2/1 (Etwall Road (south))	3.75	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1990	1990
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 6: '2020 with Development - PM' (FG6: '2020 With Development - PM', Plan 1: 'Network Control Plan 1')

Junction: Etwall Road Rail Crossing								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Etwall Road (north))	3.75	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1990	1990
2/1 (Etwall Road (south))	3.75	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1990	1990
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 7: '2028 With Developemnt - AM' (FG7: '2028 With Development - AM', Plan 1: 'Network Control Plan 1')

Junction: Etwall Road Rail Crossing								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Etwall Road (north))	3.75	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1990	1990
2/1 (Etwall Road (south))	3.75	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1990	1990
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 8: '2028 With Development - PM' (FG8: '2028 With Development - PM', Plan 1: 'Network Control Plan 1')

Junction: Etwall Road Rail Crossing								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Etwall Road (north))	3.75	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1990	1990
2/1 (Etwall Road (south))	3.75	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1990	1990
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2020 Base + Com - AM'	08:00	09:00	01:00	
2: '2020 Base + Com - PM'	17:00	18:00	01:00	
3: '2028 Base + Com - AM'	08:00	09:00	01:00	
4: '2028 Base + Com - PM'	17:00	18:00	01:00	
5: '2020 With Development - AM'	08:00	09:00	01:00	
6: '2020 With Development - PM'	17:00	18:00	01:00	
7: '2028 With Development - AM'	08:00	09:00	01:00	
8: '2028 With Development - PM'	17:00	18:00	01:00	

Traffic Flows, Desired

FG1: '2020 Base + Com - AM'
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	415	415
	B	526	0	526
	Tot.	526	415	941

FG2: '2020 Base + Com - PM'
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	554	554
	B	467	0	467
	Tot.	467	554	1021

FG3: '2028 Base + Com - AM'
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	467	467
	B	592	0	592
	Tot.	592	467	1059

FG4: '2028 Base + Com - PM'
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	626	626
	B	527	0	527
	Tot.	527	626	1153

FG5: '2020 With Development - AM'
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	430	430
	B	583	0	583
	Tot.	583	430	1013

FG6: '2020 With Development - PM'
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	600	600
	B	474	0	474
	Tot.	474	600	1074

FG7: '2028 With Development - AM'
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	482	482
	B	649	0	649
	Tot.	649	482	1131

FG8: '2028 With Development - PM'
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	671	671
	B	534	0	534
	Tot.	534	671	1205

Stage Timings

Scenario 1: '2020 Base + Com - AM' (FG1: '2020 Base + Com - AM', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	1606	90	90
Change Point	0	1612	1708

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Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**29.6%**
Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**29.6%**
1/1	Etwall Road (north) Ahead	U	N/A	N/A	A		1	1606	-	415	1990	1777	23.4%
2/1	Etwall Road (south) Ahead	U	N/A	N/A	B		1	1606	-	526	1990	1777	29.6%
3/1		U	N/A	N/A	-		-	-	-	526	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	415	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**3.6**	**0.4**	**0.0**	**3.9**	**-**	**-**	**-**	**-**
Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**3.6**	**0.4**	**0.0**	**3.9**	**-**	**-**	**-**	**-**
1/1	415	415	-	-	-	1.5	0.2	-	1.7	14.4	28.0	0.2	28.2
2/1	526	526	-	-	-	2.1	0.2	-	2.3	15.5	38.3	0.2	38.5
3/1	526	526	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	415	415	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 204.0 Total Delay for Signalled Lanes (pcuHr): 3.92 Cycle Time (s): 1800
PRC Over All Lanes (%): 204.0 Total Delay Over All Lanes(pcuHr): 3.92

Stage Timings

Scenario 2: '2020 Base + Com - PM' (FG2: '2020 Base + Com - PM', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	1606	90	90
Change Point	0	1612	1708

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Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**31.2%**
Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**31.2%**
1/1	Etwall Road (north) Ahead	U	N/A	N/A	A		1	1606	-	554	1990	1777	31.2%
2/1	Etwall Road (south) Ahead	U	N/A	N/A	B		1	1606	-	467	1990	1777	26.3%
3/1		U	N/A	N/A	-		-	-	-	467	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	554	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**4.0**	**0.4**	**0.0**	**4.4**	**-**	**-**	**-**	**-**
Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**4.0**	**0.4**	**0.0**	**4.4**	**-**	**-**	**-**	**-**
1/1	554	554	-	-	-	2.2	0.2	-	2.4	15.8	41.1	0.2	41.3
2/1	467	467	-	-	-	1.8	0.2	-	1.9	14.9	32.7	0.2	32.9
3/1	467	467	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	554	554	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 188.6 Total Delay for Signalled Lanes (pcuHr): 4.37 Cycle Time (s): 1800
PRC Over All Lanes (%): 188.6 Total Delay Over All Lanes(pcuHr): 4.37

Stage Timings

Scenario 3: '2028 Base + Com - AM' (FG3: '2028 Base + Com - AM', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	1606	90	90
Change Point	0	1612	1708

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Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**33.3%**
Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**33.3%**
1/1	Etwall Road (north) Ahead	U	N/A	N/A	A		1	1606	-	467	1990	1777	26.3%
2/1	Etwall Road (south) Ahead	U	N/A	N/A	B		1	1606	-	592	1990	1777	33.3%
3/1		U	N/A	N/A	-		-	-	-	592	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	467	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**4.2**	**0.4**	**0.0**	**4.6**	**-**	**-**	**-**	**-**
Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**4.2**	**0.4**	**0.0**	**4.6**	**-**	**-**	**-**	**-**
1/1	467	467	-	-	-	1.8	0.2	-	1.9	14.9	32.7	0.2	32.9
2/1	592	592	-	-	-	2.4	0.2	-	2.7	16.2	45.1	0.2	45.3
3/1	592	592	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	467	467	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 170.1 Total Delay for Signalled Lanes (pcuHr): 4.60 Cycle Time (s): 1800
PRC Over All Lanes (%): 170.1 Total Delay Over All Lanes(pcuHr): 4.60

Stage Timings

Scenario 4: '2028 Base + Com - PM' (FG4: '2028 Base + Com - PM', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	1606	90	90
Change Point	0	1612	1708

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Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**35.2%**
Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**35.2%**
1/1	Etwall Road (north) Ahead	U	N/A	N/A	A		1	1606	-	626	1990	1777	35.2%
2/1	Etwall Road (south) Ahead	U	N/A	N/A	B		1	1606	-	527	1990	1777	29.7%
3/1		U	N/A	N/A	-		-	-	-	527	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	626	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**4.7**	**0.5**	**0.0**	**5.2**	**-**	**-**	**-**	**-**
Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**4.7**	**0.5**	**0.0**	**5.2**	**-**	**-**	**-**	**-**
1/1	626	626	-	-	-	2.6	0.3	-	2.9	16.7	48.9	0.3	49.1
2/1	527	527	-	-	-	2.1	0.2	-	2.3	15.5	38.4	0.2	38.6
3/1	527	527	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	626	626	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 155.4 Total Delay for Signalled Lanes (pcuHr): 5.17 Cycle Time (s): 1800
PRC Over All Lanes (%): 155.4 Total Delay Over All Lanes(pcuHr): 5.17

Stage Timings

Scenario 5: '2020 With Development - AM' (FG5: '2020 With Development - AM', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	1606	90	90
Change Point	0	1612	1708

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**32.8%**
Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**32.8%**
1/1	Etwall Road (north) Ahead	U	N/A	N/A	A		1	1606	-	430	1990	1777	24.2%
2/1	Etwall Road (south) Ahead	U	N/A	N/A	B		1	1606	-	583	1990	1777	32.8%
3/1		U	N/A	N/A	-		-	-	-	583	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	430	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**3.9**	**0.4**	**0.0**	**4.4**	**-**	**-**	**-**	**-**
Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**3.9**	**0.4**	**0.0**	**4.4**	**-**	**-**	**-**	**-**
1/1	430	430	-	-	-	1.6	0.2	-	1.7	14.5	29.4	0.2	29.5
2/1	583	583	-	-	-	2.4	0.2	-	2.6	16.1	44.0	0.2	44.3
3/1	583	583	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	430	430	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 174.3 Total Delay for Signalled Lanes (pcuHr): 4.35 Cycle Time (s): 1800
PRC Over All Lanes (%): 174.3 Total Delay Over All Lanes(pcuHr): 4.35

Stage Timings

Scenario 6: '2020 with Development - PM' (FG6: '2020 With Development - PM', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	1606	90	90
Change Point	0	1612	1708

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Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**33.8%**
Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**33.8%**
1/1	Etwall Road (north) Ahead	U	N/A	N/A	A		1	1606	-	600	1990	1777	33.8%
2/1	Etwall Road (south) Ahead	U	N/A	N/A	B		1	1606	-	474	1990	1777	26.7%
3/1		U	N/A	N/A	-		-	-	-	474	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	600	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**4.3**	**0.4**	**0.0**	**4.7**	**-**	**-**	**-**	**-**
Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**4.3**	**0.4**	**0.0**	**4.7**	**-**	**-**	**-**	**-**
1/1	600	600	-	-	-	2.5	0.3	-	2.7	16.3	46.0	0.3	46.3
2/1	474	474	-	-	-	1.8	0.2	-	2.0	15.0	33.3	0.2	33.5
3/1	474	474	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	600	600	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 166.5 Total Delay for Signalled Lanes (pcuHr): 4.69 Cycle Time (s): 1800
PRC Over All Lanes (%): 166.5 Total Delay Over All Lanes(pcuHr): 4.69

Stage Timings

Scenario 7: '2028 With Developemnt - AM' (FG7: '2028 With Development - AM', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	1606	90	90
Change Point	0	1612	1708

LinSig V1 style report

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**36.5%**
Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**36.5%**
1/1	Etwall Road (north) Ahead	U	N/A	N/A	A		1	1606	-	482	1990	1777	27.1%
2/1	Etwall Road (south) Ahead	U	N/A	N/A	B		1	1606	-	649	1990	1777	36.5%
3/1		U	N/A	N/A	-		-	-	-	649	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	482	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**4.6**	**0.5**	**0.0**	**5.1**	**-**	**-**	**-**	**-**
Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**4.6**	**0.5**	**0.0**	**5.1**	**-**	**-**	**-**	**-**
1/1	482	482	-	-	-	1.8	0.2	-	2.0	15.0	34.0	0.2	34.2
2/1	649	649	-	-	-	2.8	0.3	-	3.1	17.0	51.6	0.3	51.8
3/1	649	649	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	482	482	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 146.4 Total Delay for Signalled Lanes (pcuHr): 5.07 Cycle Time (s): 1800
PRC Over All Lanes (%): 146.4 Total Delay Over All Lanes(pcuHr): 5.07

Stage Timings

Scenario 8: '2028 With Development - PM' (FG8: '2028 With Development - PM', Plan 1: 'Network Control Plan 1')

Stage	1	2	3
Duration	1606	90	90
Change Point	0	1612	1708

LinSig V1 style report

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**37.8%**
Etwall Road Rail Crossing	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**37.8%**
1/1	Etwall Road (north) Ahead	U	N/A	N/A	A		1	1606	-	671	1990	1777	37.8%
2/1	Etwall Road (south) Ahead	U	N/A	N/A	B		1	1606	-	534	1990	1777	30.1%
3/1		U	N/A	N/A	-		-	-	-	534	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	671	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**5.0**	**0.5**	**0.0**	**5.5**	**-**	**-**	**-**	**-**
Etwall Road Rail Crossing	**-**	**-**	**0**	**0**	**0**	**5.0**	**0.5**	**0.0**	**5.5**	**-**	**-**	**-**	**-**
1/1	671	671	-	-	-	2.9	0.3	-	3.2	17.2	54.2	0.3	54.5
2/1	534	534	-	-	-	2.1	0.2	-	2.3	15.6	39.0	0.2	39.2
3/1	534	534	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	671	671	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 138.3 Total Delay for Signalled Lanes (pcuHr): 5.53 Cycle Time (s): 1800
PRC Over All Lanes (%): 138.3 Total Delay Over All Lanes(pcuHr): 5.53

Existing Barrier System - Double Arrival Rate

0700 - 0900 (Weekday AM Peak)

	2018 Base		Development Traffic				Seconds Barrier Down	Additional Queue	
	Queue Length		(per Hour)		(per second) x2				
Sample	L1	L2	L1	L2	L1	L2		L1	L2
1	2	3	57	15	0.0316667	0.0083333	26	1	0
2	9	11	57	15	0.0316667	0.0083333	50	2	0
3	9	1	57	15	0.0316667	0.0083333	30	1	0
4	3	3	57	15	0.0316667	0.0083333	56	2	0

1600 - 1800 (Weekday PM Peak)

	2018 Base		Development Traffic				Seconds Barrier Down	Additional Queue	
	Queue Length		(per Hour)		(per second) x2				
Sample	L1	L2	L1	L2	L1	L2		L1	L2
1	0	4	7	45	0.0038889	0.025	38	0	1
2	9	26	7	45	0.0038889	0.025	51	0	1
3	6	28	7	45	0.0038889	0.025	32	0	1
4	5	31	7	45	0.0038889	0.025	49	0	1

L1 = Etwall Road (South)

L2 = Etwall Road (North)

Potential Barrier System - Double Arrival Rate

0700 - 0900 (Weekday AM Peak)

	2018 Base		Development Traffic				Seconds Barrier Down	Additional Queue	
	Queue Length		(per Hour)		(per second) x2				
Sample	L1	L2	L1	L2	L1	L2		L1	L2
1	2	3	57	15	0.0316667	0.0083333	180	6	2
2	9	11	57	15	0.0316667	0.0083333	180	6	2
3	9	1	57	15	0.0316667	0.0083333	180	6	2
4	3	3	57	15	0.0316667	0.0083333	180	6	2

1600 - 1800 (Weekday PM Peak)

	2018 Base		Development Traffic				Seconds Barrier Down	Additional Queue	
	Queue Length		(per Hour)		(per second) x2				
Sample	L1	L2	L1	L2	L1	L2		L1	L2
1	0	4	7	45	0.0038889	0.025	180	1	5
2	9	26	7	45	0.0038889	0.025	180	1	5
3	6	28	7	45	0.0038889	0.025	180	1	5
4	5	31	7	45	0.0038889	0.025	180	1	5

L1 = Etwall Road (South)

L2 = Etwall Road (North)