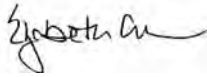
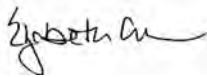


**High Street, Great Houghton
Proposed Residential Development
Transport Assessment**

May 2022 (Post Planning Issue)

**Prepared on behalf of
Harron Homes Limited**

Quality Management

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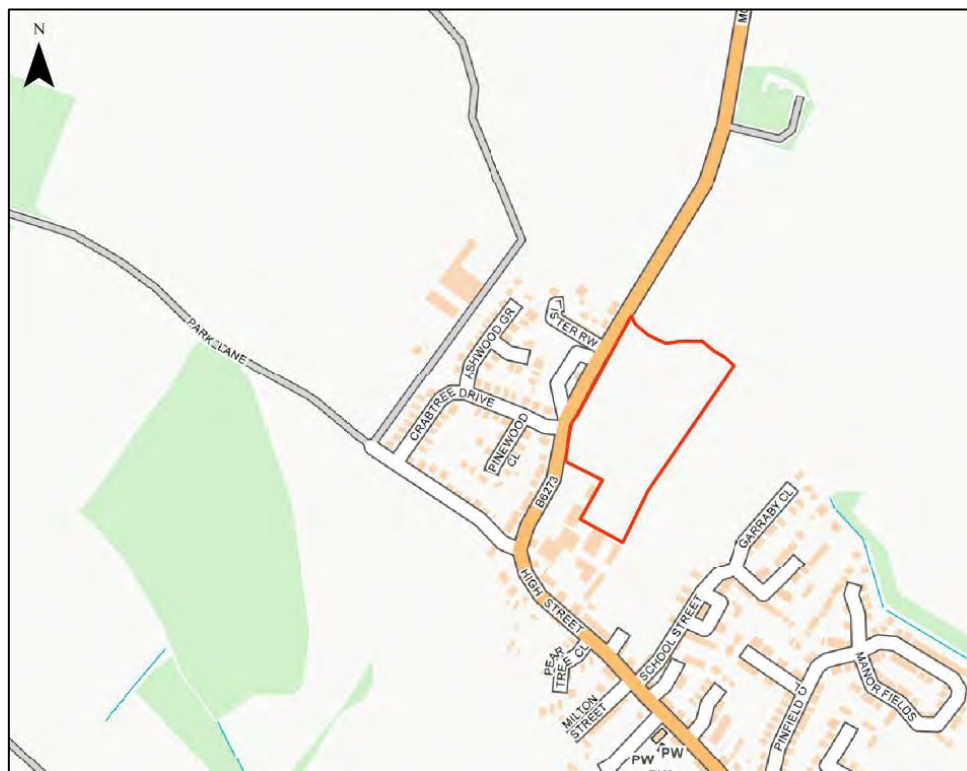
1. Introduction

1.1 INTRODUCTION

1.1.1 Optima Highways and Transportation Consultancy Limited (Optima) has been appointed by Harron Homes Limited to prepare a Transport Assessment (TA) that considers the highways and transportation matters associated with a planning application for residential development. The Site is located to the east of B6273 High Street in Great Houghton.

1.1.2 The Site in relation to the local highway network is shown in Figure 1 with an extract provided in Image 1.1.

Image 1.1 Site Location



1.2 PLANNING BACKGROUND

1.2.1 The Site is a Housing Allocation (Site Reference: HS90 - Land off High Street) in the Barnsley Local Plan that was adopted in January 2019. The Site Description within the Local Plan contains no specific requirements in relation to transport and highways.

1.2.2 A Full Planning Application was submitted in respect of the development of the Site on 23rd August 2021 and registered on 23rd September 2021. The Development Description is *“Residential development of 86no. dwellings including demolition of existing farm buildings, associated works and provision of on-site open space”*.

1.2.3 A draft version of this TA (text only) was submitted with the planning application and initial comments were received from Highways Development Control (email dated 27th October 2021). A second version of the TA was prepared to address the initial response and subsequent comments have been received from Highways Development Control (email dated 1st April 2022). For completeness, both responses are contained at Appendix A and this second revision of the TA has been prepared to address the later comments and consider the latest planning layout.



1.3 SCHEME PROPOSAL AND SCOPE OF REPORT

1.3.1 The scheme proposals now comprise some 87 dwellings on the Site which is located to the east of High Street in Great Houghton. The proposals are discussed in more detail in Section 4.

1.3.2 This TA has been prepared in accordance with the Department for Communities and Local Government (DCLG) 'National Planning Practice Guidance' published in 2014 which supersedes the Department for Transport (DfT) and DCLG's 'Guidance on Transport Assessment' (GTA) document. Cognisance has also been taken of the National Planning Policy Framework (NPPF), as well as the BMBC Local Plan.

1.3.3 Paragraph 111 of NPPF, July 2020 states that:

“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.”

1.3.4 This report sets out the transport impacts relating to the development proposals and considers the sustainability and accessibility of the Site, reviewing the provision and quality of facilities and connections to and from the surrounding areas. The document structure is as follows:

- Section 2 - contains an overview of local and national Transport Policy relevant to the Site;
- Section 3 - describes the Site, its surroundings and existing transport conditions including access by all modes of transport;
- Section 4 - sets out the development proposals including means of access;
- Section 5 - considers the accessibility of the Site and the opportunities to influence travel behaviour;
- Section 6 - contains details of likely trip generation and distribution;
- Section 7 - describes the build-up of traffic flow information for the base and design years;
- Section 8 - provides a commentary of the junction assessments that have been undertaken to determine the impact of the development; and
- Section 9 - contains the summary of the findings and conclusions of the TA.



2. Planning Policy Context

2.1 INTRODUCTION

2.1.1 This section of the TA sets out planning policy context against which the proposed development is to be considered insofar as it relates to transportation and highway matters. It sets out the relevant statements of planning policy within the statutory development plan and the National Planning Policy Framework (NPPF) that relate to the scheme. The Government also publishes National Planning Practice Guidance (NPPG) to explain how NPPF policy should be implemented.

2.1.2 S38(6) of the Planning and Compulsory Purchase Act 2004 states that *“If regard is to be had to the development plan for the purpose of any determination to be made under the planning Acts the determination must be made in accordance with the plan unless material considerations indicate otherwise.”* Therefore, the development plan is the starting point for the determination of planning applications.

2.1.3 The proposed development lies within the administrative boundary of Barnsley Metropolitan Borough Council (BMBC). BMBC is a Unitary Authority and consequently has responsibility for highways and transportation matters within its administrative boundary. Barnsley’s Local Plan is the statutory development plan.

2.2 LOCAL POLICY

Barnsley Local Plan

2.2.1 Following public consultation and examination by an Independent Planning Inspector, Barnsley’s Local Plan was adopted by Full Council on 3rd January 2019.

2.2.2 The Local Plan identifies Great Houghton as being a ‘Village’ and notes that villages vary in size from larger villages to small hamlets but are generally categorised by a more limited range of services and public transport compared with Urban Barnsley and the Principal Towns.

2.2.3 As already identified, the Site is a housing allocation; HS90 - Land off High Street, Great Houghton. The Local Plan allocation considers that the Site has an indicative capacity of 67 dwellings. The site description has no specific requirements in relation to highways and transport.

2.2.4 To the east of the Site there is an area of Safeguarded Land (Site Reference: SL22 – Off High Street). The Local Plan states that development on safeguarded land will normally only be allowed where it is consistent with the National Planning Policy Framework. Policy GB6 Safeguarded Land states that permanent development of safeguarded land will only be permitted following review of the Local Plan which proposes such development.

2.2.5 Policy T3 ‘New Development and Sustainable Travel’ sets out the expectations of new development in relation to these matters. This policy sets out that new development should be located and designed to reduce the need to travel, be accessible to public transport and meet the needs of pedestrians and cyclists. Parking is to be provided to at least the minimum levels for cycles, motorbikes, scooters, mopeds and disabled people as set out in the relevant Supplementary Planning Document and Transport Assessments / Statements and Travel Plans are to be provided.

2.2.6 The Local Plan sets out detailed requirements for both Transport Assessments and Travel Plans and notes that Active Traffic Management and Integrated Demand Management types of intervention are preferable to capacity improvements.



2.2.7 Policy T4 'New Development and Transport Safety' is specifically concerned with development being *"expected to be designed and built to provide all transport users within and surrounding the development with safe, secure and convenient access and movement."*

Supplementary Planning Documents and Planning Advice Notes

2.2.8 Following the adoption of the Barnsley Local Plan, BMBC has also adopted several Supplementary Planning Documents (SPD) and Planning Advice Notes (PAN) of which the following, all adopted in November 2019, are concerned with highway and transport-related topics:

2.2.9 Sustainable Travel SPD – seeks contributions for sustainable and active travel. This SPD also sets out the number of electric vehicle charging points to be provided by developments as a minimum;

2.2.10 Section 278 Agreements SPD – sets out the process of Section 278 agreements which relate to works within the highway;

2.2.11 Parking SPD – gives guidance on parking standards; and

2.2.12 Section 38 Agreements PAN – sets out the process of Section 38 agreements which relate to adoption of highway.

Sheffield City Region Transport Strategy (2011-2026)

2.2.13 The Sheffield City Region Transport Strategy (2011-2026) (SCRTS) is part of the Third Local Transport Plan for South Yorkshire, which includes the districts of Barnsley, Doncaster, Rotherham and Sheffield. It is complemented by an implementation plan which explains how the strategic priorities identified in the SCRTS will be delivered. Due to its strong economic links to West Yorkshire, Barnsley also forms part of the Leeds City Region and is therefore also covered by the Leeds City Region Transport Strategy although as one of the four South Yorkshire districts, Barnsley's transport priorities are fully addressed in the SCRTS.

2.2.14 The SCRTS has four goals for the transport system which are underpinned by a set of 26 policies:

2.2.15 To support the economic growth of the SCR;

2.2.16 To enhance social inclusion and health;

2.2.17 To reduce emissions from vehicles; and

2.2.18 To make transport increasingly safe and secure.

2.2.19 The SCRTS also sets out the desired outcomes of the strategy following the same themes identified in the four goals. A development according with Policies T3 and T4 of the Barnsley Local Plan will play its part in contributing to the desired outcomes of the SCRTS across all four themes.

2.3 SOUTH YORKSHIRE RESIDENTIAL DESIGN GUIDE (2011)

2.3.1 The South Yorkshire Residential Design Guide (SYRDG) was published in January 2011 and is for residential developers and their design professionals, consultants and agents in formulating designs and making applications for planning permission for residential development in South Yorkshire. It is used by the four South Yorkshire local authorities, including BMBC, to support their assessment of proposals and it incorporates both their planning and highway responsibilities.



2.3.2 The Residential Design Guide covers all aspects of design for residential development including provision for cyclists, pedestrians and users of public transport as well as street / junction design and parking provision.

2.3.3 At Section N1.2 the SYRDG covers Accessibility and tables walking distances for residential areas in different types of settlement to local services, the nearest bus/tram stop and primary health/education. In the context of the table at Section N1.2, it is considered that Great Houghton is a rural settlement and therefore the residential area should be a bus ride to local services, a 10 minute walk to a bus/tram stop depending on destination and a 40 minute journey to primary health/education.

2.4 NATIONAL POLICY

National Planning Policy Framework

2.4.1 The National Planning Policy Framework (NPPF) was originally published in March 2012, revised in July 2018 and updated in February 2019. The NPPF has been further revised on 20th July 2021.

2.4.2 Paragraph 1 of NPPF states that *“The National Planning Policy Framework sets out the Government’s planning policies for England and how these should be applied. It provides a framework within which locally-prepared plans for housing and other development can be produced.”*

2.4.3 Section 9 of NPPF (paras. 104 to 113) is concerned with ‘Promoting sustainable development’. Para. 104 states that:

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

- a) the potential impacts of development on transport can be addressed;*
- b) opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;*
- c) opportunities to promote walking, cycling and public transport use are identified and pursued;*
- d) the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and*
- e) patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places.”*

2.4.4 Para. 105 notes that the planning system should actively manage patterns of growth in support of these objectives and 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. The NPPF recognises that opportunities to maximise transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-taking.

2.4.5 Paras. 110 to 113 are concerned with ‘Considering development proposals’. Para. 110 states that:



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

- a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
- b) safe and suitable access to the site can be achieved for all users;*
- c) the design of streets, parking areas, other transport elements and the context of associated design standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and*
- d) 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.”*

2.4.6 Para. 111 concludes that *“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.”*

2.4.7 At para. 112, NPPF provides details of what is expected from development proposals in terms of transport provision stating that:

“Within this context, applications for development should:

- a) give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;*
- b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*
- c) create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*
- d) allow for efficient delivery of good, 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.”*

2.4.8 Finally, in this section of the NPPF it is stated that *“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.”*

National Planning Practice Guidance

2.4.9 On 6th March 2014 the Department for Communities and Local Government launched its planning practice guidance web-based resource. The Ministry of Housing, Communities & Local Government continues to update this resource and will continue to do so, where necessary, to reflect changes to NPPF. Transportation and highways matters are addressed under the heading of ‘Travel Plans, Transport Assessments and Statements’, 6th March 2014 and ‘Design: process and tools’, 1st October 2019.



Travel Plans, Transport Assessments and Statements

2.4.10 The NPPG explains that Travel Plans (TP) and Transport Assessments (TA) are ways of assessing and mitigating the negative transport impacts of development in order to promote sustainable development and that they are required for developments which generate significant amounts of traffic movements (Paragraph: 002 Reference ID: 42-002-20140306).

2.4.11 It goes on to advise that a TA may propose mitigation measures where these are necessary to avoid unacceptable or “severe” impacts. Travel Plans are identified as playing an effective role in taking forward those mitigation measures which relate to on-going occupation and operation of the development (Paragraph: 004 Reference ID: 42-005-21040306).

2.4.12 The guidance goes on to state (Paragraph: 006 Reference ID: 42-006-20140306) that TAs and TPs can positively contribute to:

- encouraging sustainable travel;
- lessening traffic generation and its detrimental impacts;
- reducing carbon emissions and climate impacts;
- creating accessible, connected, inclusive communities;
- improving health outcomes and quality of life;
- improving road safety; and
- reducing the need for new development to increase existing road capacity or provide new roads.

2.4.13 The guidance notes that it is important to give appropriate consideration to the cumulative impacts arising from other committed development (i.e. development that is consented or allocated and there is a reasonable degree of certainty it proceed within the next 3 years). At the decision-taking stage this may require the developer to carry out an assessment of the impact of those adopted Local Plan allocations which have the potential to impact on the same sections of transport network as well as other relevant local sites benefitting from as yet unimplemented planning approval (Paragraph: 104 Reference ID: 42-006-20140306)

2.4.14 With regard to TPs, the guidance advises that these should identify the specific required outcomes, targets and measures, and set out clear future monitoring and management arrangements all of which should be proportionate. TPs should also consider what additional measures may be required to offset unacceptable impacts if targets are not met.

2.4.15 It is necessary for TPs to set out explicit outcomes rather than just identify processes to be followed. A TP should also address all journeys resulting from a proposed development by anyone who may need to visit or stay, and it should seek to fit in with wider strategies for transport in the area (Paragraph: 011 Reference ID: 42-011-20140306).

2.4.16 An important part of the overall strategy for the proposed development is the implementation, maintenance and monitoring of a Residential Travel Plan. The Residential Travel Plan in conjunction with the Transport Assessment are geared towards encouraging sustainable travel.

Design: process and tools

2.4.17 In Paragraph: 001 Reference ID: 29-001-2019001, the NPPG refers to the ‘National design guide’ (NDG). The NDG contains a section on ‘Movement – Accessible and easy to move around’



and within this section it is noted that *“Successful development depends upon a movement network that makes connections to destinations, places and communities, both within the site and beyond its boundaries.”*

2.4.18 The NDG covers matters of:

- A connected network of routes for all modes of transport;
- Active travel; and
- Well-considered parking, servicing and utilities infrastructure for all users.

2.4.19 The design of the proposed development very much responds to the NDG in that it aims to address the needs of people and to encourage all users of the development to use sustainable modes for travel both within and to and from the development.



3. Existing Site Conditions

3.1 INTRODUCTION

3.1.1 This section describes the location of the Site and considers the existing conditions of the surrounding highway network for a range of transport modes.

3.1.2 The section also includes a review of recent personal injury collision data and describes the existing local facilities in the vicinity of the Site.

3.2 EXISTING SITE

3.2.1 The Site is generally rectangular in shape, has an overall area of approximately 3.56 hectares, and is currently undeveloped agricultural land.

3.2.2 The Site is bound to the west by B6273 High Street, to the north by an existing hedgerow beyond which is further agricultural land, to the east by a hedge line beyond which is another agricultural field and to the south by farm buildings belonging to Manor Farm.

3.2.3 The Site is located to the north west of the village which takes a generally linear form to both sides of B6273 High Street. Great Houghton and the Site is some 8.5km to the east of Barnsley Town Centre and some 15km to the west of Doncaster Town Centre.

3.2.4 The location of the Site in relation to the wider surroundings is shown in Figure 2.

3.3 EXISTING LOCAL HIGHWAY NETWORK

3.3.1 B6273 High Street which abuts the western frontage is a lit, adopted highway with a typical carriageway width of some 5.5m and is flanked by a footway to the west and a grass verge to the east, along the Site frontage.

3.3.2 In the vicinity of the Site frontage, High Street is subject to a 30mph speed limit. At the northern boundary of the Site, High Street becomes Moor Lane and, just to the north, the speed limit for traffic in a northbound direction changes to 60mph, the National Speed Limit for a single carriageway road. On the southbound approach, there are 'Dragon's Teeth' road markings to denote the change in speed limit from 60mph to 30mph.

3.3.3 B6273 Moor Lane runs in a generally northerly direction into Southmoor Road and meets A628 at a four-arm roundabout just to the south of Hemsworth. To the west of the roundabout, A628 is a key route into the centre of Barnsley which lies to the south west. To the east of the roundabout, A628 continues to another four-arm roundabout with B6422 Hemsworth Road and continues again to a three arm roundabout with A6201.

3.3.4 At this three-arm roundabout, A6201 as Sprockhovel Way and Wrangbrook Lane continues in a generally easterly direction to Barnsdale Bar on the A1. A628 continues in a generally northerly direction through Ackworth and into Pontefract.

3.3.5 In the centre of Great Houghton, B6411 Thurnscoe Lane leaves B6273 at a priority T junction leading in a generally easterly direction through the neighbouring village of Thurnscoe to join the A635 Doncaster Road at Hickleton. A635 is a key route between Barnsley to the west and Doncaster to the east and also connects to Junction 37 on A1(M) Doncaster Bypass, this interchange is known as Marr Roundabout.

3.3.6 To the south of Great Houghton, B6273 continues as Rotherham Road to connect with A6195 Dearne Towns Link Road just to the east of Darfield at Rotherham Road Roundabout. The Dearne Towns Link Road is a dual carriageway road that connects the Dearne towns of Darfield, Wombwell,



Brampton, Hemingfield and Hoyland with Junction 36 of the M1 Motorway. A6195 also intersects with A635 at Cathill Roundabout which is some 450m south of Rotherham Road Roundabout.

3.4 EXISTING PEDESTRIAN AND CYCLE FACILITIES

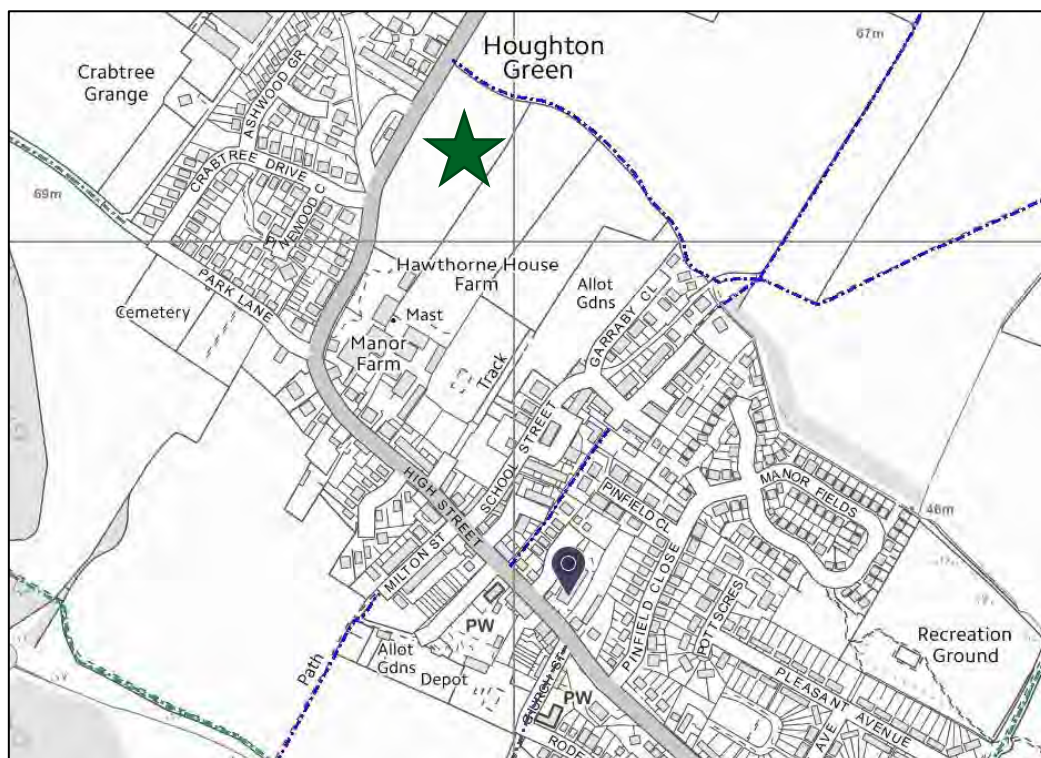
Pedestrian Infrastructure

3.4.1 There is a footway on High Street on the opposite side to the Site frontage and at the southern end of the frontage there is a footway to both sides. The footway on the eastern side is separated from the edge of carriageway by a grassed verge. There is continuous footway provision into the village to the south.

3.4.2 There are no Public Rights of Way within the Site and Footpath Number 4 follows the northern boundary running into Footpath Numbers 2 and 3 to the west of the Site. Footpath Number 5 which is a Bridleway leads in a north westerly direction off the end of Park Lane on the opposite side of High Street.

3.4.3 An extract from Barnsley's Public Rights of Way map is shown in Image 2.1 with Footpaths shown in blue, Bridleways in green and Restricted Byways in purple.

Image 3.1 Public Rights of Way in the vicinity of the Site



Source: www.barnsley.gov.uk/barnsley-maps/public-rights-of-way/

Cycle Infrastructure

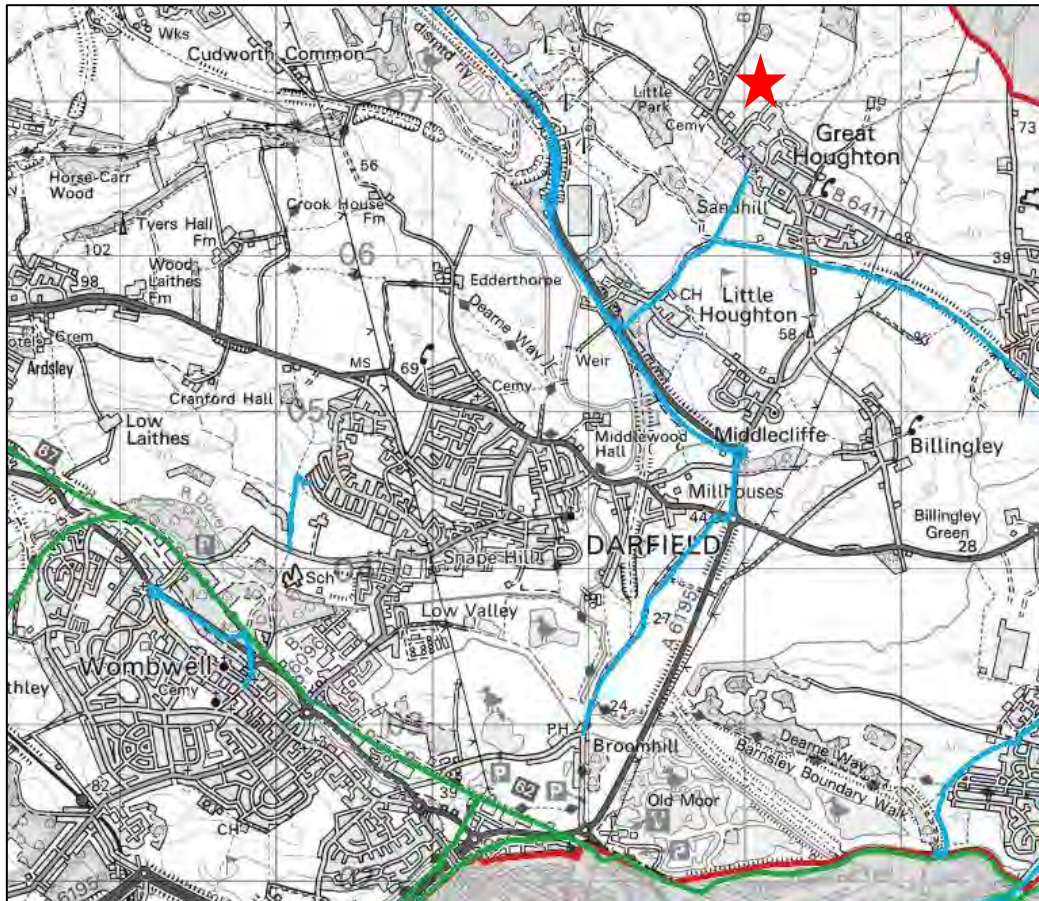
3.4.4 The Restricted Byway that leads to the south from Church Street to the south of the village is designated as Cycle Route Number 3i – Great Houghton to Park Springs Road (A6195). This leads to a network of cycle routes in the Barnsley District including National Cycle Route 67 which is the Transpennine Trail.



3.4.5 The coast-to-coast section of the trail runs between Southport and Hornsea and locally can be utilised to access Barnsley and Doncaster, and within a wider, regional context can be utilised to access Sheffield, Leeds, Chesterfield and Hull.

3.4.6 An extract from Barnsley's Cycle Network map is shown in Image 3.2 with existing routes shown in blue and traffic-free national routes shown in green.

Image 3.2 Barnsley Cycle Network



Source: www.barnsley.gov.uk/barnsley-maps/national-cycle-network/

3.5 EXISTING DATA

Junction Turning Counts

3.5.1 Fully classified turning count surveys have been carried out for several junctions on the local highway network. The surveys are scheduled in Table 3.1.

Table 3.1 Fully Classified Junction Turning Count Surveys

Ref	Location	Date Undertaken	Survey Periods
1	B6273 High Street / B6411 Thurnscoe Lane	Thursday 10 th June 2021	07:00-10:00 and 15:00-19:00
2	Rotherham Road Roundabout (B6273/A6195)	Thursday 10 th June 2021	07:00-10:00 and 15:00-19:00
3	Cathill Roundabout (A6195/A635)	Thursday 10 th June 2021	07:00-10:00 and 15:00-19:00



Automatic Traffic Survey (ATC)

3.5.2 An Automatic Traffic Survey (ATC) was undertaken on B6273 High Street in the vicinity of the proposed access into the Site over a period of 7 days between Wednesday 9th June and Tuesday 15th June 2021. The results of the ATC have informed the design of the access into the proposed development.

Radar Speed Survey

3.5.3 A radar gun speed survey have been undertaken on B6273 High Street generally in accordance with DMRB CA 185 'Vehicle speed measurement' and a copy of the data is contained at Appendix B.

3.5.4 The survey was undertaken on Wednesday 4th May 2022 between the hours of 11:00 and 13:00 when the weather was overcast and the road surface was dry. The speeds were recorded in locations suitable to obtain data to inform the design of the access junction and in free-flowing traffic conditions.

3.5.5 The 85th percentile wet weather values that have been calculated from the results of the speed survey are as follows:

- High Street (Northbound) – 32.5 mph; and
- High Street (Southbound) – 35.1 mph.

Personal Injury Collision Data

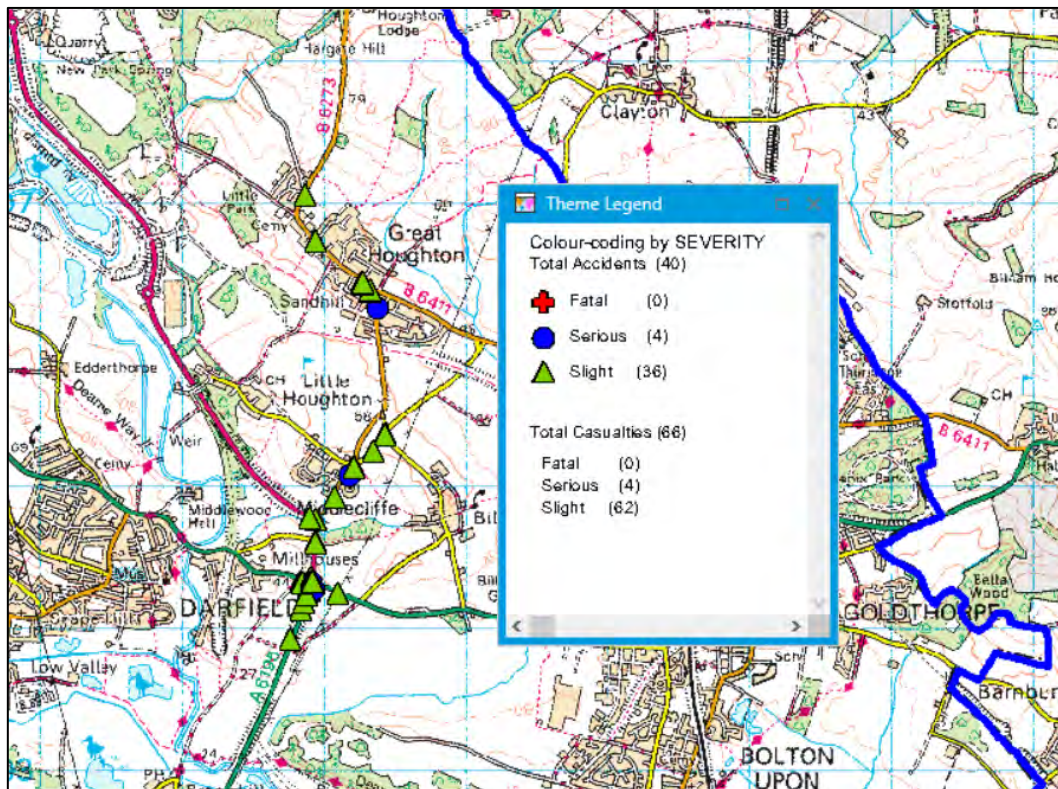
3.5.6 BMBC has provided Personal Injury Collision (PIC) data for the latest available 5 year (60 month) period from 1st January 2016 to 31st December 2020.

3.5.7 The study area includes B6273 High Street in the vicinity of the Site frontage and to the south east to the junction with B6411 Thurnscoe Lane and also Rotherham Road Roundabout (B6273/A6195) and Cathill Roundabout (A6195/A635).

3.5.8 The data includes a Location Plan as shown on Image 3.3 and a copy of the data is contained at Appendix C.



Image 3.3 PIC Locations



Source: Barnsley Metropolitan Borough Council

3.5.9 As can be seen from Image 3.3, there has been a total of 40 collisions in the 5 year period resulting in a total of 66 casualties, 62 of which were classified as slight and 4 as serious. There have been no collisions resulting in a fatality.

3.5.10 BMBC in its initial consultation response to the draft TA highlighted a collision that occurred in the vicinity of the access in to the proposed development and it has been necessary to cross-reference with Crashmap to identify this incident within the data provided by the Council.

3.5.11 The incident occurred on 14th May 2016 and involved two vehicles (BMBC ref: 16119684). The description of the incident is as follows:

“High Street (B6273) Barnsley at or within 20mts of access road. V1 has come along Rotherham Road (sic) and V2 has pulled out of the junc with Lister Row and collided with V1.”

3.5.12 Visibility out of the junction is potentially sub-standard but there is no reason to suggest that traffic that will be generated by the proposed development would exacerbate this problem and, in fact, traffic turning into and out of the development along with associated traffic management measures will have the effect of calming traffic speeds on this part of High Street.

3.5.13 There have been two collisions at Rotherham Road Roundabout, both of which were classified as slight in severity. One collision occurred on the Park Spring Road arm and the other on the A6195 Rotherham Road arm, both on the approach to the junction.

3.5.14 There has been a total of five collisions at or near the junction of A5195 Rotherham Road and Fitzwilliam Road, all of which have been classified as slight in severity. It is not clear whether any of these collisions are associated with the close proximities of Rotherham Road Roundabout to the north.



3.5.15 Fifteen of the collisions have occurred at or near Cathill Roundabout, two of which resulted in serious injury and the remainder were classified as slight in severity. As can be seen from Image 3.3, several of the collisions appear to have occurred on A6195 arm to the south of the roundabout (eight in number), most of which were rear-end shunt type collisions involving two or more vehicles.

3.5.16 One of the collisions that has been classified as serious in severity appears to be a result of a passenger on a PSV reporting a minor injury to the driver away from the scene of the incident (which involved the PSV driver braking suddenly but not colliding with another vehicle). The other serious injury resulted from a cyclist being knocked from his cycle on the circulatory carriageway.

3.5.17 The remaining two serious injuries occurred to an elderly pedestrian who admitted stepping into the path of a vehicle whilst crossing B6273 Rotherham Road near the Post Office and to a young cyclist who is reported to have fallen from his cycle into the carriageway and under an HGV.

3.5.18 Based on the information available there is no evidence to suggest that there is a particular road safety issue in the local area or that the traffic that will be generated by the proposed development will exacerbate the current situation.

3.6 EXISTING PUBLIC TRANSPORT SERVICES/FACILITIES

Bus

3.6.1 The nearest bus stop is opposite the Site frontage within a bus turnaround area. This stop (High Street/Crabtree Drive) which has a pole and timetable information is used by several services as summarised in Table 3.1.

3.6.2 There is also a pair of bus stops on High Street to the south some 500m from the centre of the Site, both of which have shelters and are used by the same services as the nearer stop.

Table 3.2 Bus Services at High Street/Crabtree Drive Stop

Service	Route	Days of Operation	Approx. Frequency	Operating Hours
219	Doncaster Town Centre to Barnsley Interchange	Monday - Friday	1 per hour	07:34-23:00
		Saturday	Up to 1 per hour	08:17-23:01
		Sunday	1 per hour	09:06-23:01
219	Barnsley Town Centre to Doncaster Interchange	Monday - Friday	Up to 1 per hour	07:18-23:24
		Saturday	Up to 1 per hour	06:29-23:24
		Sunday	1 per hour	09:17-23:24
219a	Goldthorpe to Barnsley Interchange	Monday - Friday	Up to 1 per hour	06:40-17:52
		Saturday	1 per hour	07:06-17:47
		Sunday	No service	-
219a	Barnsley Town Centre to Goldthorpe	Monday - Friday	1 per hour	06:44-18:03
		Saturday	1 per hour	08:56-17:56
		Sunday	No service	-

Rail

3.6.3 The nearest railway station to the Site is at Thurnscoe and situated some 3.75km away to the east. Thurnscoe Station is operated by Northern and is on the Leeds to Sheffield and Doncaster route (Wakefield Line). There is an hourly service in both directions Monday to Saturday and also on Sunday over a shorter time period.



3.6.4 Thurnscoe Station has a car park with 60 spaces and is free of charge. There is also storage for 8 bicycles which has a shelter and is covered by CCTV.



4. Development Proposals

4.1 DEVELOPMENT PROPOSALS

4.1.1 The proposed development is shown on Harron Homes Proposed Site Layout, drawing number 563-PL-01 Rev R, a copy of which contained in Appendix D. The proposals can be summarised as follows:

- 87 residential units – a mix of 22 two bed, 39 three bed and 26 four bed; 78 units will be open market and 9 will be affordable;
- Vehicular access from High Street; and
- Associated Parking, Landscaping and Infrastructure Works.

4.1.2 There will be a pedestrian link out of the development to the north to link into the existing PROW network.

4.2 VEHICULAR ACCESS

4.2.1 The main vehicular access into the Site will be via a simple priority junction on to High Street. A small number of dwellings will be served from private drives directly off High Street, one private drive to either side of the main access. The layout of the proposed access is indicated on the Harron Homes Proposed Site Layout.

4.2.2 The length of the visibility splays at the proposed access have been informed by the results of the radar speed survey. The 85th percentile wet weather values that have been calculated from the results of the speed survey are as follows:

- High Street (Northbound) – 32.5 mph; and
- High Street (Southbound) – 35.1 mph.

4.2.3 In accordance with Table 7.1 of Manual for Streets (MfS) which is referenced in the South Yorkshire Residential Design Guide (SYRDG), visibility splays of 2.4m x 56m are provided. Similar provision will be available at each of the private drive accesses.

4.3 INTERNAL LAYOUT AND SERVICING

4.3.1 Within the development there will be network of residential streets with the main spine street having a footway to both sides. Parts of the development are served from a shared surface streets and some properties will be served from shared private drives.

4.3.2 Appropriate forward visibility is available around bends in the street network with 2.4m x 25m visibility splays being provided at junctions of the lower order streets that serve the northern and southern parts of the development on to the main street.

4.3.3 Appropriate turning facilities are provided to allow the development to be serviced by the refuse collection vehicle and delivery vehicles. Swept path analysis for a refuse collection vehicle, a fire tender, a home delivery vehicle and a large car has been carried out and this is contained at Appendix E.

4.4 PARKING PROVISION

4.4.1 BMBC has produced a Supplementary Planning Document (SPD) on 'Parking' which was adopted in November 2019 to support its emerging Local Plan. Table 1 of the Parking SPD sets out parking standards for broad categories of development and for C3 Dwelling Houses Borough wide



(excluding Barnsley Urban) the maximum number of spaces allowed are 1 space for dwellings with 1 or 2 bedrooms and 2 spaces for dwellings with 3 or more bedrooms.

4.4.2 Table 1 of the Parking SPD also requires 1 visitor space per 4 dwellings subject to layout with flexibility for visitor parking being considered on a site by site basis.

4.4.3 The Parking SPD refers to the Sustainable Travel SPD in relation to the requirement for electric vehicle charging points (EVCPs) and the requirement for residential development is 1 charging point per dwelling with dedicated parking or 1 charging point per 10 spaces where parking is unallocated.

4.4.4 The SPD also refers to the South Yorkshire Residential Design Guide (SYRDG) for advice on the design of residential car parking and garages and states that developments will be expected to meet the standards for parking design set out in the SYRDG considering cycle, motorcycle and car parking as an integral part of the design of residential development.

4.4.5 Parking at the proposed development is in line with BMBC's standards and is provided as a mix of off-road parking spaces, driveways and garages. Visitor parking is provided on-street and this can be accommodated whilst allowing satisfactory servicing of the development by the standard refuse vehicle.



5. Site Accessibility and Measures to Influence Travel Behaviour

5.1 ACCESSIBILITY ON FOOT

5.1.1 The measures proposed which will positively influence trips on foot by residents and visitors include:

- Boundary connections with the existing highway network on the western frontage on to High Street;
- Internal links and pedestrian routes to create the shortest possible distances to the boundary connections; and
- Travel Plan initiatives for residents.

5.1.2 The residential design guide 'Manual for Streets' (MfS) advises that *"walkable neighbourhoods are typically characterised by having a range of facilities within ten minutes (up to about 800m) walking distance of residential areas..."* (ref para 4.4.1). However, this is not regarded as an upper limit in MfS and reference is also made to walking offering *"the greatest potential to replace short car trips, particularly those under 2km"*. The acceptability of walking trips up to 2km (an approximate 25 minutes' walk time) is also supported in the Chartered Institution of Highways and Transportation (CIHT) document 'Providing for Journeys on Foot', 2000.

5.1.3 The Department for Education (DfE) statutory guidance document, 'Home to School Travel and Transport', July 2014, defines an even greater maximum walking distance to schools of 2 miles (3.2km) and 3 miles (4.8km) for children under and over 8 years, respectively.

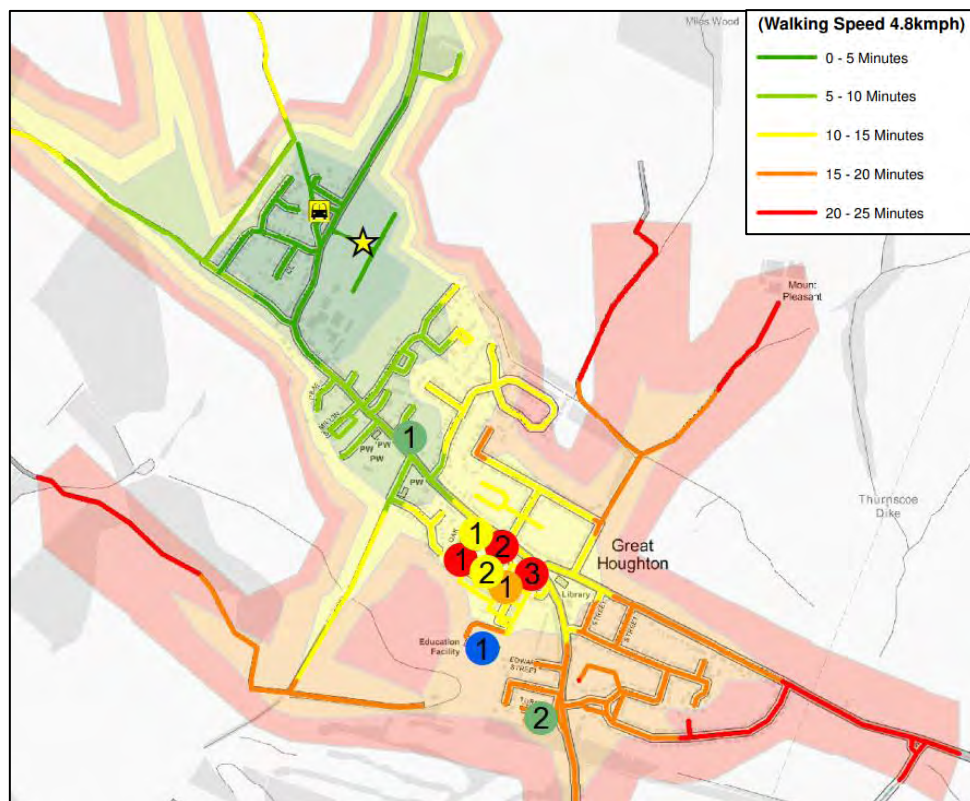
5.1.4 Using GIS Network Analysis software, typical walk times (up to 25 minutes which equates to a distance of 2km) from the centre of the Site are shown on Figure 4 with an extract provided in Image 5.1 below. This figure and the extract in Image 5.1 demonstrate that the Site is within an easy walking distance of the following:

- Sandhill Primary School off Dearne Street (within a 15-20 minute walk);
- The Co-op and Post Office on High Street (within a 10-15 minute walk);
- Great Houghton Medical Centre on Oak Haven Avenue and Pharmacy on High Street (within a 10-15 minute walk); and
- The Houghton Arms on High Street (within a 5-10 minute walk).

5.1.5 There are other facilities within Great Houghton including a café, two takeaway outlets and another public house. The nearest bus stop is within a five minute walk. The facilities within Great Houghton can be accessed using the continuous footway provision from the site frontage continuing in a southerly and then easterly direction into the village centre. The footway is in a reasonable state of repair and there are dropped crossings at side road junctions.



Image 5.1 Extract from Pedestrian Accessibility Plan



5.1.6 It is concluded that the proposed residential development will be provided with good accessibility on foot to a range of services and facilities in accordance with nationally recognised MfS, CIHT and DfE guidance.

5.2 ACCESSIBILITY BY CYCLE

5.2.1 The measures proposed to positively influence trips on foot will also assist in influencing trips by cycle.

5.2.2 An acceptable and comfortable distance for general cycling trips is considered to be up to 5 kilometres as referred to in DfT's Local Transport Note 2/08. However, the same guidance also refers to commuting cycle trips of up to 8km. Whilst, in terms of design guidance for cycle facilities, this LTN has now been superseded by LTN 1/20, there is no reason to suggest that the accepted cycle distances have changed.

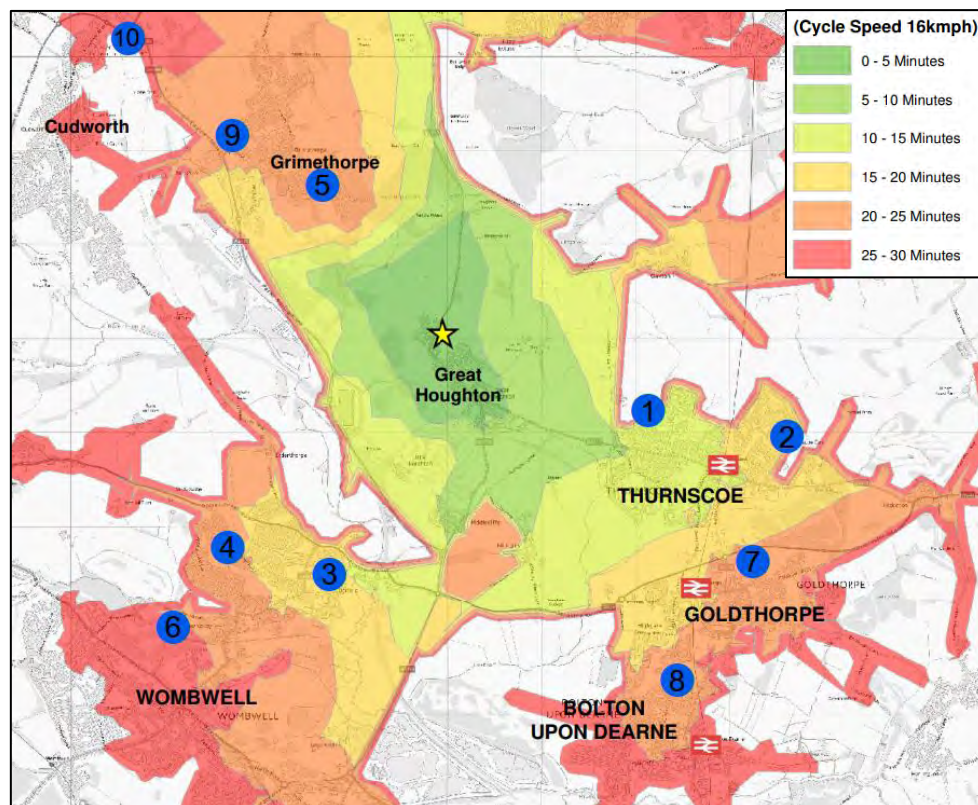
5.2.3 From the Site, an 8km catchment area encompasses Grimethorpe, Thurnscoe, Goldthorpe and parts of Wombwell and Wath Upon Dearne which opens up a wider variety of employment opportunities for residents. Langthwaite Business Park in South Kirkby and Goldthorpe Industrial Estate are accessible by cycle.

5.2.4 Thurnscoe Railway Station is a 10-15 minute cycle ride from the Site.

5.2.5 Using GIS Network Analyst software typical cycle times (up to 30 minutes which broadly equates to a distance of 8km) from the Site are shown in Figure 4 and an extract is provided in Image 5.2.



Image 5.2 Extract from Cycle Accessibility Plan



5.2.6 It is concluded that the proposed residential development will be provided with good accessibility by cycle to a wide range of local services, facilities and employment opportunities, many of which are within a short cycling distance.

5.3 ACCESSIBILITY BY PUBLIC TRANSPORT

Bus

5.3.1 The nearest bus stop to the Site is a short walk across to the western side of High Street and into the bus terminus area to the rear. An hourly service between Barnsley and Doncaster Town Centres uses this stop and buses to and from Goldthorpe are also available. The services interchange with rail at Barnsley and Doncaster and also at Thurnscoe.

5.3.2 The journey time between the Site and Doncaster Town Centre is typically 55 minutes and between the Site and Barnsley Town Centre it is 30 minutes.

Rail

5.3.3 Thurnscoe Railway Station provides connection to several key destinations within the local region including Leeds (45 minute journey time) and Sheffield (40 minute journey time). From Leeds it is possible to interchange on to trains to Manchester, Birmingham, Newcastle and London. From Sheffield similar interchange opportunities are available.

5.3.4 The railway station can be accessed by:

- Cycle – within a 10-15 minute journey time; and
- By car – typical 5 minute journey time (plus any walking time between car park and platforms)



5.3.5 It is therefore concluded that the Site will be provided with reasonable accessibility by public transport to principal local and regional destinations which offer a vast range of services, facilities and employment opportunities.

5.4 RESIDENTIAL TRAVEL PLAN

5.4.1 A Residential Travel Plan has been prepared to accompany this Transport Assessment. This demonstrates the connectivity between the Site and surrounding amenities, highlighting the opportunities for future residents to access these by means other than the car. It also sets out the ways in which the applicant will facilitate and encourage trips by sustainable modes of travel, by implementing a series of measures including (but not limited to):

- The appointment of a Travel Plan Coordinator to ensure the Travel Plan is delivered to full effect;
- A travel information guide that will be displayed in the sales office to sell the accessibility of the development to potential future residents, this guide will also be provided to all new occupiers;
- The potential for personalised journey planning; and
- Ongoing communication with residents regarding local travel options via an annual newsletter.

5.4.2 The Travel Plan also includes targets, which reflect the trip generation within this Transport Assessment; monitoring will be undertaken on an annual basis, following first occupation and the results of this process reported to BMBC.

5.5 SUMMARY

5.5.1 In summary it is concluded that the proposed residential development will be provided with generally good accessibility for pedestrians, cyclists and by public transport to a wide range of local services, facilities and employment facilities. This will be reinforced by the implementation, management and monitoring of a Residential Travel Plan at the development.

5.5.2 As such the Site is in a sustainable location and is compliant with NPPF which requires that *“appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location”* and *“safe and suitable access to the site can be achieved for all users”* (para 108) and states that *“applications for development should 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 and other public transport services, and appropriate facilities that encourage public transport use”* (para 110).



6. Trip Generation and Distribution

6.1 VEHICULAR TRIP GENERATION

6.1.1 In order to obtain a suitable vehicular trip rate for the proposed development, the TRICS 7.8.1 on-line database has been interrogated using the following parameters:

- Land use: 03 – Residential, Category: A Houses Privately Owned;
- Calculation options: Vehicular trip rates selected;
- Regions: Greater London and Irish sites excluded;
- Number of dwellings: 4 to 250 units selected, actual range – 8 to 207 units;
- Date range: 01/01/13 to 20/10/20;
- Survey days: Monday – Friday; and
- Location type: Suburban Area and Neighbourhood Area.

6.1.2 The full TRICS output is contained at Appendix F with the 85th percentile weekday AM and PM peak hour trip rates and resultant generated traffic for 87 dwellings shown tabulated below in Table 6.1. 85th percentile trip rates have been assumed to ensure a robust assessment of the likely impact of the proposed development on the local highway network.

Table 6.1 85th Percentile Trip Rates and Resultant Traffic Generation

Time Period	Vehicular Trip Rates (per dwelling)			Traffic Generation (87 Dwellings)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
AM Peak 08:00-09:00	0.157	0.588	0.745	14	51	65
PM Peak 17:00-18:00	0.304	0.348	0.652	27	30	57

6.2 TRIP DISTRIBUTION AND ASSIGNMENT

6.2.1 Having established the weekday AM and PM peak hour vehicular trip generation for the proposed development, as shown in Table 6.1, a distribution exercise has been completed to predict the assignment of these trips on to the local highway network.

6.2.2 The Site is in the Barnsley 020 Super Output Area – Middle Layer (MSOA) for the purposes of the 2011 Census data. This latest Census dataset (WU03EW – Location of usual residence and place of work by method of travel to work (MSOA level)) has been interrogated to obtain places of work by MSOA for residents of Barnsley 020 MSOA.

6.2.3 Once the destinations for the trips have been ascertained, an assessment has been made based on journey time of the likely routes that will be taken and, from this, the trips have been assigned to the local highway network. The spreadsheet at Appendix G provides details of the trip distribution exercise and Figure 106 shows the route assignment on percentage terms and this is summarised in Table 6.2.

Table 6.2 Percentage Route Assignment

Route	Percentage Assignment
From Site Access Point	
B6273 High Street (N)	16%
B6273 High Street (S)	84%



Route	Percentage Assignment
On Wider Highway Network	
B6411 Thurnscoe Lane	8%
A6195 Park Spring Road	5%
A635 (E)	3%
A6195 (S)	34%
A635 Doncaster Road	34%

6.2.4 The weekday AM and PM peak hour traffic flows from the proposed development are then shown in Figures 107 and 108 respectively.



7. Build Up of Traffic Flows

7.1 EXISTING TRAFFIC FLOWS

7.1.1 The June 2021 traffic surveys identified the following existing weekday peak hour periods:

- Weekday AM Peak Hour: 07:30 – 08:30; and
- Weekday PM Peak Hour: 15:00 – 16:00.

7.1.2 The traffic count flows for these periods at the junctions within the study area are shown in Figures 100 and 101 respectively.

Covid-19 Factor

7.1.3 It is widely accepted that the COVID-19 pandemic has resulted in reduced volumes of traffic during traditional peak hours throughout the country, mainly due to the introduction of wide ranging travel restrictions and an increase in the number of people working from home on a temporary basis.

7.1.4 Although the traffic surveys have not been undertaken during a period of 'national lockdown' it is fair to assume that the lingering effects of the pandemic, for example, an increase in people temporarily working from home, could impact the survey results to the extent that volumes would be less than if undertaken pre-pandemic.

7.1.5 Therefore, to provide a robust and fair traffic impact assessment, a COVID factor has been applied to the initial survey results to give a better reflection of the traffic impact from the proposed development based on as neutral as possible conditions.

7.1.6 The Department for Transport (DfT) has been monitoring the impact of the COVID-19 pandemic on a range of transport modes since 1st March 2020. The data has shown that the pandemic has reduced levels of road traffic to different extents throughout the pandemic period as travel restrictions have been altered in line with national and, at times, tiered lockdown approaches.

7.1.7 On the day the traffic surveys for this application were undertaken (10/06/2021) the levels of road traffic relative to neutral pre-pandemic conditions were recorded, with this illustrated in Table 7.1.

Table 7.1 Impact of COVID-19 on Road Traffic

Date	Cars	LGV	HGV	Total Vehicles
10/06/2021	92%	106%	107%	96%

Source: www.gov.uk/government/statistics/transport-use-during-the-coronavirus-covid-19-pandemic

7.1.8 An increase of 4% has therefore been applied to total vehicles with a 7% reduction applied to the numbers of heavy good vehicles recorded, with the resulting traffic flows illustrated on Figures 102 and 103 for the AM and PM peak hours respectively.

7.2 BASE TRAFFIC FLOWS

Traffic Growth

7.2.1 Traffic growth is predicted based on a combination of proposed future development, car ownership and changing attitudes in the way people use and have access to their vehicles. To reflect the likely growth in existing traffic at the full Opening Year for the proposed development, TEMPro growth factors have been obtained to be applied to the 2021 existing peak hour flows.



7.2.2 An initial Design Year of 2025 has been assumed to represent the full Opening Year of the proposed development based on a construction period of some 2-3 years (35 dwellings per annum), starting in 2022.

7.2.3 Traffic growth rates, between 2021 and 2025, have been obtained from the TEMPro v7.2c software for the Barnsley 020 Super Output Area - Mid Layer (MSOA). The resulting values for the AM and PM peak hour growth between 2021 and 2025 are as follows with the TEMPro output provided at Appendix H:

- AM Peak TEMPro Traffic Growth Rate 2021-2025: 1.0360; and
- PM Peak TEMPro Traffic Growth Rate 2021-2025: 1.0364.

7.2.4 The traffic growth rates have been applied to the 2021 AM and PM Covid-adjusted peak hour traffic flows to obtain 2025 Base AM and PM peak hour traffic flows and these are shown in Figures 104 and 105 respectively.

7.2.5 BMBC Highways Development Control has requested that a later Design Year of 2030 is considered to cover five years post-occupation.

7.2.6 Traffic growth rates, between 2021 and 2030, have also been obtained from TEMPro v7.2c for the Barnsley 020 MSA. The resulting values for the AM and PM peak hour growth between 2021 and 2030 are as follows with the TEMPro output also provided at Appendix H:

- AM Peak TEMPro Traffic Growth Rate 2021-2030: 1.0762; and
- PM Peak TEMPro Traffic Growth Rate 2021-2030: 1.0773.

7.2.7 The 2030 Base AM and PM peak hour traffic flows as shown in Figures 117 and 118 respectively also include the committed development flows as described below. This provides a very robust assessment for the later 2030 Design Year as the TEMPro growth factors will take account of development in the local area.

Committed Development

7.2.8 BMBC Highways Development Control has provided information regarding the planning applications which are to be considered as committed development and specifically assessed within this TA. These are as follows:

- Planning ref: 2020/1032 – Erection of a new factory/warehouse for The Symphony Group at Park Spring Road, Grimethorpe;
- Planning ref: 2021/1511 – Creation of a new roundabout on A635 Barnsley Road, Gawthorpe (to serve allocated Site ES10); and
- Planning ref: 2021/1282 – Erection of flexible employment space at Houghton Main, Park Spring Road, Little Houghton.

7.2.9 Each of the above applications was accompanied by a Transport report (Assessment, Statement or Technical Note) with varying degrees of relevant information in relation to the extent of the highway network considered in this TA.

7.2.10 To generate turning movements at the junctions under consideration in this TA, if these are not explicitly provided, these have been derived on a pro-rata basis from any available link flows based on existing AM and PM peak hour turning movements at the junction in question.

7.2.11 The AM and PM peak hour committed development flows are provided in Figures 111 to 116.



7.3 DESIGN TRAFFIC FLOWS

7.3.1 Adding the proposed development trips shown in Figures 107 and 108 for the AM and PM peak hours respectively to the 2025 Base Traffic Flows provides the 2025 Design Traffic Flows which are shown in Figures 109 and 110 for the AM and PM peak hours respectively.

7.3.2 Adding the proposed development trips shown in Figures 107 and 108 for the AM and PM peak hours respectively to the 2030 Base Traffic Flows provides the 2030 Design Traffic Flows which are shown in Figures 119 and 120 for the AM and PM peak hours respectively.



8. Junction Capacity Assessment

8.1 INTRODUCTION

8.1.1 This section of the Transport Assessment sets out the results of the individual junction capacity assessments that have been undertaken to determine the impact of the development proposals on key junctions on the local highway network.

8.1.2 Two future year scenarios have been considered; 2025 and 2030, and, to recap, the 2030 Base and Design scenarios consider both full TEMPro growth and committed development and as such provide a very robust assessment of the operation of each junction in this later Design Year.

8.1.3 This section also contains the capacity assessment of the development access junction to demonstrate that the form of junction that is proposed is adequate and appropriate to serve the quantum of development proposed.

8.1.4 The output for all junction capacity assessment is contained at Appendix I with the results summarised in the tables below.

8.2 B6273 HIGH STREET / B6411 THURNSCOE LANE

8.2.1 This priority junction has been modelled using the PICADY 9 Priority Intersection module in the TRL software, Junctions 9. Three and four-arm unsignalised give-way intersections are modelled using well-established TRL/Kimber capacity relationships, which consider key geometries such as road widths, visibility and the space available for traffic making an offside turn. This empirical framework intrinsically links priority junction geometry to driver behaviour and in turn to predicted capacities, queues and delays.

8.2.2 The existing layout of the junction is shown in Figure 5 and the junction has initially been modelled for the 2021 Covid Factored weekday AM and PM peak hours. The results of the modelling are summarised in Table 8.1.

Table 8.1 B6273 High Street / B6411 Thurnscoe Lane – 2021 Covid Factored PICADY Results

Movement	AM Peak (07:30-08:30)			PM Peak (15:00-16:00)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Stream B-AC (Thurnscoe Lane – High Street/Rotherham Road)	0.26	10.50	0.4	0.46	16.12	0.9
Stream C-AB (Rotherham Road – High Street/ Thurnscoe Lane)	0.04	6.54	0.1	0.06	5.72	0.1

8.2.3 A Ratio of Flow to Capacity (RFC) value below 0.85 indicates that a junction or arm is operating within spare 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 will occur. An RFC value greater than 1.00 indicates that the junction or arm is operating beyond its theoretical capacity.

8.2.4 The junction has then been modelled for the AM and PM 2025 Base and Design scenarios and the results are summarised in Tables 8.2 and 8.3. Tables 8.4 and 8.5 provide a summary of the assessment of the AM and PM 2030 Base and Design scenarios.



Table 8.2 B6273 High Street / B6411 Thurnscoe Lane – 2025 Base PICADY Results

Movement	AM Peak (07:30-08:30)			PM Peak (15:00-16:00)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Stream B-AC (Thurnscoe Lane – High Street/Rotherham Road)	0.28	10.82	0.4	0.48	16.88	1.0
Stream C-AB (Rotherham Road – High Street/ Thurnscoe Lane)	0.04	6.45	0.1	0.07	5.68	0.1

Table 8.3 B6273 High Street / B6411 Thurnscoe Lane – 2025 Design PICADY Results

Movement	AM Peak (07:30-08:30)			PM Peak (15:00-16:00)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Stream B-AC (Thurnscoe Lane – High Street/Rotherham Road)	0.29	11.19	0.4	0.50	17.96	1.0
Stream C-AB (Rotherham Road – High Street/ Thurnscoe Lane)	0.05	6.42	0.1	0.07	5.61	0.1

Table 8.4 B6273 High Street / B6411 Thurnscoe Lane – 2030 Base PICADY Results

Movement	AM Peak (07:30-08:30)			PM Peak (15:00-16:00)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Stream B-AC (Thurnscoe Lane – High Street/Rotherham Road)	0.29	11.52	0.4	0.52	18.89	1.1
Stream C-AB (Rotherham Road – High Street/ Thurnscoe Lane)	0.05	6.33	0.1	0.08	5.49	0.1

Table 8.5 B6273 High Street / B6411 Thurnscoe Lane – 2030 Design PICADY Results

Movement	AM Peak (07:30-08:30)			PM Peak (15:00-16:00)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Stream B-AC (Thurnscoe Lane – High Street/Rotherham Road)	0.31	12.05	0.4	0.53	19.84	1.2
Stream C-AB (Rotherham Road – High Street/ Thurnscoe Lane)	0.05	6.30	0.1	0.08	5.43	0.2

8.2.5 The results in Table 8.1 demonstrate that the junction currently operates with significant spare capacity and minimal queues and delay. Even with the addition of general traffic growth to a Design Year of 2025, which represents the full Opening Year for the proposed development, and the traffic predicted to be generated by the development, the junction will continue to operate with significant spare capacity with RFC values well below 0.85, minimal queuing and delay.

8.2.6 At the later Design Year of 2030, with the addition of committed development traffic and full TEMPro growth, the junction will continue to operate with significant spare capacity.

8.2.7 No mitigation is therefore required at the existing B6273 High Street / B6411 Thurnscoe Lane priority junction.

8.3 ROTHERHAM ROAD ROUNDABOUT (B6273/A6195)

8.3.1 The roundabout has been modelled using the ARCADY 9 Roundabout module of the TRL software, Junctions 9. Roundabouts are modelled using the well-established TRL/Kimber capacity



relationships which take into account key roundabout geometries such as entry width, approach width, flare length, conflict angle, inscribed circle diameter and entry radius. The empirical framework intrinsically links roundabout geometry to driver behaviour and in turn to predict capacities, queues and delays.

8.3.2 The existing layout of the junction is shown in Figure 6 and the junction has initially been modelled for the 2021 existing weekday AM and PM peak hours. The results of the modelling are summarised in Table 8.6.

Table 8.6 Rotherham Road Roundabout – 2021 Covid Factored ARCADY Results

Approach Arm	AM Peak (07:30-08:30)			PM Peak (15:00-16:00)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Arm 1 – A6195 Rotherham Road	0.51	4.45	1.1	0.62	5.69	1.7
Arm 2 – A6195 Park Spring Road	0.37	4.36	0.7	0.55	5.99	1.2
Arm 3 – B6273 Rotherham Road	0.50	6.63	1.0	0.62	9.37	1.8

8.3.3 The roundabout has then been modelled for the AM and PM 2025 and 2030 Base and Design peak hour scenarios and the results are summarised in Tables 8.7 to 8.10.

Table 8.7 Rotherham Road Roundabout – 2025 Base ARCADY Results

Approach Arm	AM Peak (07:30-08:30)			PM Peak (15:00-16:00)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Arm 1 – A6195 Rotherham Road	0.53	4.61	1.2	0.64	6.05	1.9
Arm 2 – A6195 Park Spring Road	0.39	4.46	0.7	0.57	6.38	1.4
Arm 3 – B6273 Rotherham Road	0.52	7.04	1.1	0.65	10.26	1.8

Table 8.8 Rotherham Road Roundabout – 2025 Design ARCADY Results

Approach Arm	AM Peak (07:30-08:30)			PM Peak (15:00-16:00)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Arm 1 – A6195 Rotherham Road	0.53	4.68	1.2	0.66	6.24	2.0
Arm 2 – A6195 Park Spring Road	0.39	4.48	0.7	0.58	6.53	1.4
Arm 3 – B6273 Rotherham Road	0.56	7.49	1.3	0.67	11.02	2.1

Table 8.9 Rotherham Road Roundabout – 2030 Base ARCADY Results

Approach Arm	AM Peak (07:30-08:30)			PM Peak (15:00-16:00)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Arm 1 – A6195 Rotherham Road	0.60	5.51	1.6	0.70	7.19	2.4
Arm 2 – A6195 Park Spring Road	0.42	4.78	0.8	0.67	8.41	2.1
Arm 3 – B6273 Rotherham Road	0.58	8.05	1.4	0.71	13.39	2.5



Table 8.10 Rotherham Road Roundabout – 2030 Design ARCADY Results

Approach Arm	AM Peak (07:30-08:30)			PM Peak (15:00-16:00)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Arm 1 – A6195 Rotherham Road	0.61	5.60	1.6	0.71	7.48	2.6
Arm 2 – A6195 Park Spring Road	0.43	4.81	0.8	0.68	8.64	2.1
Arm 3 – B6273 Rotherham Road	0.62	8.77	1.6	0.74	14.65	2.8

8.3.4 The results in Table 8.6 demonstrate that the roundabout currently operates with spare capacity and minimal queues and delay. Even with the addition of general traffic growth to a Design Year of 2025, which represents the full Opening Year for the proposed development, and the traffic predicted to be generated by the development, the roundabout will continue to operate with spare capacity with RFC values well below 0.85, minimal queuing and delay.

8.3.5 At the later Design Year of 2030, with the addition of committed development traffic and full TEMPro growth, the junction will continue to operate within practical reserve capacity.

8.3.6 No mitigation is therefore required at the existing Rotherham Road Roundabout.

8.4 CATHILL ROUNDABOUT (A6195/A635)

8.4.1 The draft version of the TA showed the Cathill Roundabout to be at or nearing capacity in the existing and future year assessments. Subsequently, BMBC has advised that there have recently been improvements made to the roundabout as part of the A6195 Goldthorpe Interventions Scheme. Whilst there has been no alteration to the size of the roundabout, these improvements have resulted in better allocation of road space and the following assessments have therefore been based on the improved geometry which is shown on the BMBC drawing contained at Appendix J.

8.4.2 The roundabout has also been modelled using the ARCADY 9 Roundabout module of the TRL software, Junctions 9, initially for the 2021 Covid Factored weekday AM and PM peak hours.

8.4.3 The results of the modelling are summarised in Table 8.11.

Table 8.11 Cathill Roundabout – 2021 Covid Factored ARCADY Results

Approach Arm	AM Peak (07:30-08:30)			PM Peak (15:00-16:00)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Arm 1 – A6195 South	0.47	3.43	0.9	0.56	4.26	1.3
Arm 2 – A635 West	0.61	5.23	1.7	0.73	7.68	2.9
Arm 3 – A6195 North	0.38	3.12	0.6	0.37	3.16	0.6
Arm 4 – A635 East	0.51	4.41	1.1	0.65	6.00	1.9

8.4.4 The assessment has shown that the improved roundabout is now operating with spare capacity, RFC on all arms is less than 0.85 and there are minimal queues and delays.

8.4.5 The roundabout has then been modelled for the AM and PM 2025 and 2030 Base and Design peak hour scenarios and the results are summarised in Tables 8.12 to 8.15.



Table 8.12 Cathill Roundabout – 2025 Base ARCADY Results

Approach Arm	AM Peak (07:30-08:30)			PM Peak (15:00-16:00)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Arm 1 – A6195 South	0.49	3.61	1.0	0.58	4.57	1.5
Arm 2 – A635 West	0.64	5.66	1.9	0.77	8.88	3.4
Arm 3 – A6195 North	0.40	3.27	0.7	0.39	3.28	0.7
Arm 4 – A635 East	0.53	4.73	1.2	0.68	6.78	2.2

Table 8.13 Cathill Roundabout – 2025 Design ARCADY Results

Approach Arm	AM Peak (07:30-08:30)			PM Peak (15:00-16:00)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Arm 1 – A6195 South	0.49	3.66	1.1	0.59	4.68	1.5
Arm 2 – A635 West	0.64	5.73	2.0	0.78	9.23	3.6
Arm 3 – A6195 North	0.42	3.38	0.8	0.40	3.36	0.7
Arm 4 – A635 East	0.54	4.87	1.3	0.69	6.89	2.3

Table 8.14 Cathill Roundabout – 2030 Base ARCADY Results

Approach Arm	AM Peak (07:30-08:30)			PM Peak (15:00-16:00)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Arm 1 – A6195 South	0.58	4.50	1.5	0.68	6.48	2.2
Arm 2 – A635 West	0.83	12.73	5.2	0.87	15.38	6.3
Arm 3 – A6195 North	0.49	4.29	1.0	0.47	3.95	0.9
Arm 4 – A635 East	0.64	6.12	1.9	0.90	20.69	8.3

Table 8.15 Cathill Roundabout – 2030 Design ARCADY Results

Approach Arm	AM Peak (07:30-08:30)			PM Peak (15:00-16:00)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Arm 1 – A6195 South	0.58	4.58	1.5	0.69	6.67	2.3
Arm 2 – A635 West	0.84	12.99	5.3	0.87	16.39	6.8
Arm 3 – A6195 North	0.51	4.49	1.1	0.48	4.05	1.0
Arm 4 – A635 East	0.65	6.34	1.9	0.91	22.25	8.9

8.4.6 Following the works recently carried out to improve the capacity of Cathill Roundabout it has been demonstrated that, with the benefit of these improvements, the junction will continue to operate with spare capacity with the addition of general traffic growth to a Design Year of 2025, which represents the full Opening Year for the proposed development, and the traffic predicted to be generated by the development.

8.4.7 In the later Design Year of 2030, with the addition of full TEMPro growth and committed development traffic (2030 Base), the roundabout is predicted to be operating at around its practical reserve capacity level (RFC values around 0.85 but below 1.00). The addition of traffic generated by the proposed development causes only a very slight change in the level of operation (Levels of Service (LOS) is unchanged on all arms and there is a very slight increase in RFC value on one or more arms).



8.4.8 No further improvements are therefore required at Cathill Roundabout to accommodate traffic generated by the proposed development and general traffic growth which represents other committed and Local Plan development in the local area.

8.5 PROPOSED SITE ACCESS

8.5.1 The layout of the proposed junction on to B6273 High Street is described in Section 4 and shown on Harron Homes Proposed Site Layout.

8.5.2 The junction has been modelled using the PICADY module within the Junctions 9 software for the later 'with development' 2030 Design scenario. The results for the AM and PM peak hour periods are summarised in Table 8.16.

Table 8.16 Proposed Site Access Junction – 2030 Design PICADY Results

Movement	AM Peak (07:30-08:30)			PM Peak (15:00-16:00)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
B-AC Left and Right turn from Site Access on to High Street	0.11	7.70	0.1	0.06	7.40	0.1
C-AB Right turn from High Street into Site Access	0.03	4.55	0.0	0.05	4.71	0.1

8.5.3 The results demonstrate that the proposed junction will operate comfortably within capacity during both the AM and PM peak hour periods in the 2030 Design scenario comfortably accommodating the traffic generated by 87 dwellings.



9. Summary and Conclusions

9.1 SUMMARY

9.1.1 This Transport Assessment has been prepared by Optima Highways and Transportation Ltd to consider the highways and transportation matters associated with a proposed residential development on land to the east of High Street in Great Houghton.

9.1.2 The TA has been prepared to accompany a full planning application for the construction of up to 87 dwellings including access, landscaping and parking provision.

9.1.3 The main vehicular access into the proposed development will be via a simple priority junction on B6273 High Street. Pedestrians and cyclists will be able to access the development at the same point. Capacity analysis has been carried out that demonstrates that this is a suitable form of access for the level of development proposed.

9.1.4 This report has provided a commentary on the Site and its existing conditions. It has demonstrated that the Site is accessible by foot, cycle and public transport to numerous local facilities and employment opportunities. In accordance with the NPPE, this provides future residents with the choice to travel via alternative modes of transport and minimise trips made by the private car. Furthermore, the additional use of these facilities by the residents at proposed development e.g. public transport and the local commerce, will assist in supporting and sustaining them.

9.1.5 An assessment of the available personal injury collision data has been undertaken for the study area. Based on the information currently available there is no evidence to suggest that there is a particular road safety issue or that the traffic that will be generated by the proposed development will exacerbate the current situation.

9.1.6 Junction capacity assessments have been undertaken across the local highway network using industry standard software for a development Design Year of 2025 and a future Design year of 2030. The capacity assessments have demonstrated that all the junctions in the study area are operating within capacity in both the 2025 and 2030 Base and Design scenarios and as such the impact of the development will be accommodated.

9.1.7 Cathill Roundabout has recently been improved and this junction can now accommodate traffic from the proposed development and general traffic growth which represents other committed and Local Plan development in the local area.

9.2 CONCLUSIONS

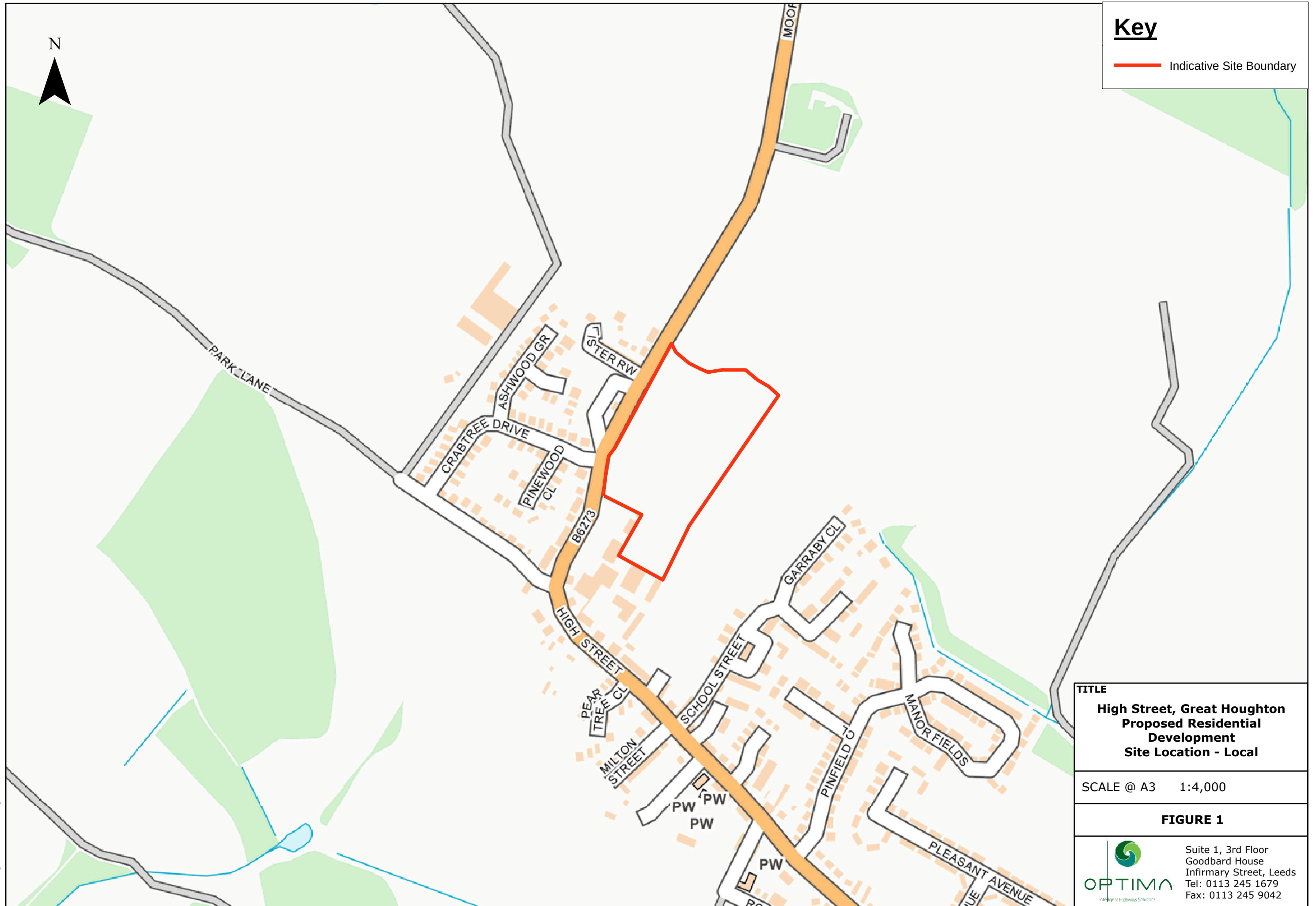
9.2.1 This Transport Assessment has demonstrated that safe and suitable access to the proposed development can be achieved for all users and that there will be no unacceptable impacts from the development on the transport network or on highway safety.

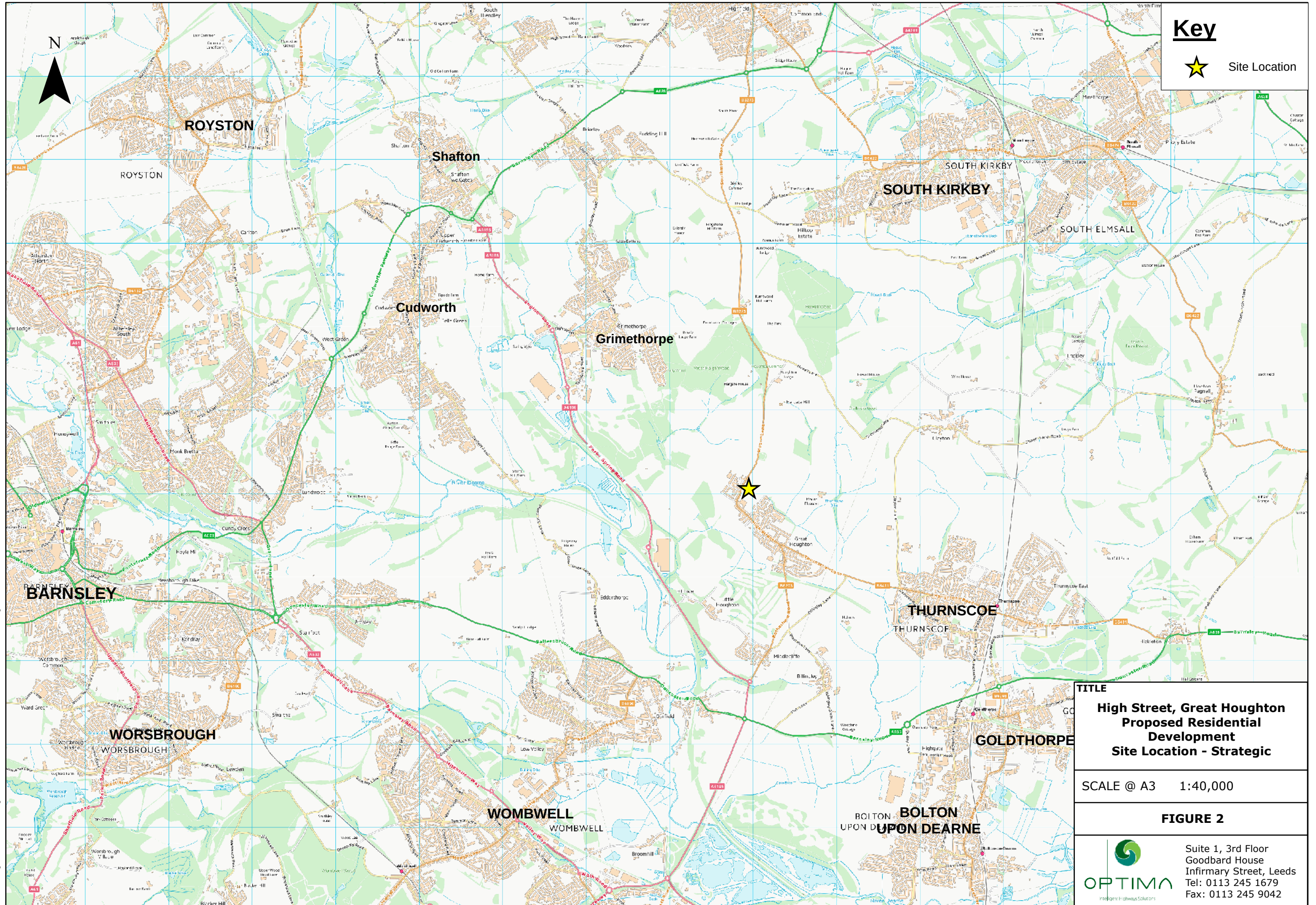
9.2.2 It is therefore concluded that there are no reasons on highways or transport grounds why the detailed development proposals on this Local Plan residential allocation should not be granted planning permission.



Figures







Key

★ Site Location

Pedestrian Accessibility

(Walking Speed 4.8kmph)

- 0 - 5 Minutes
- 5 - 10 Minutes
- 10 - 15 Minutes
- 15 - 20 Minutes
- 20 - 25 Minutes

Public Transport

Nearest Bus Stop

Education

1 Sandhill Primary School

Recreation & Leisure

- 1 Houghton Arms
- 2 Sandhill Tavern

Services

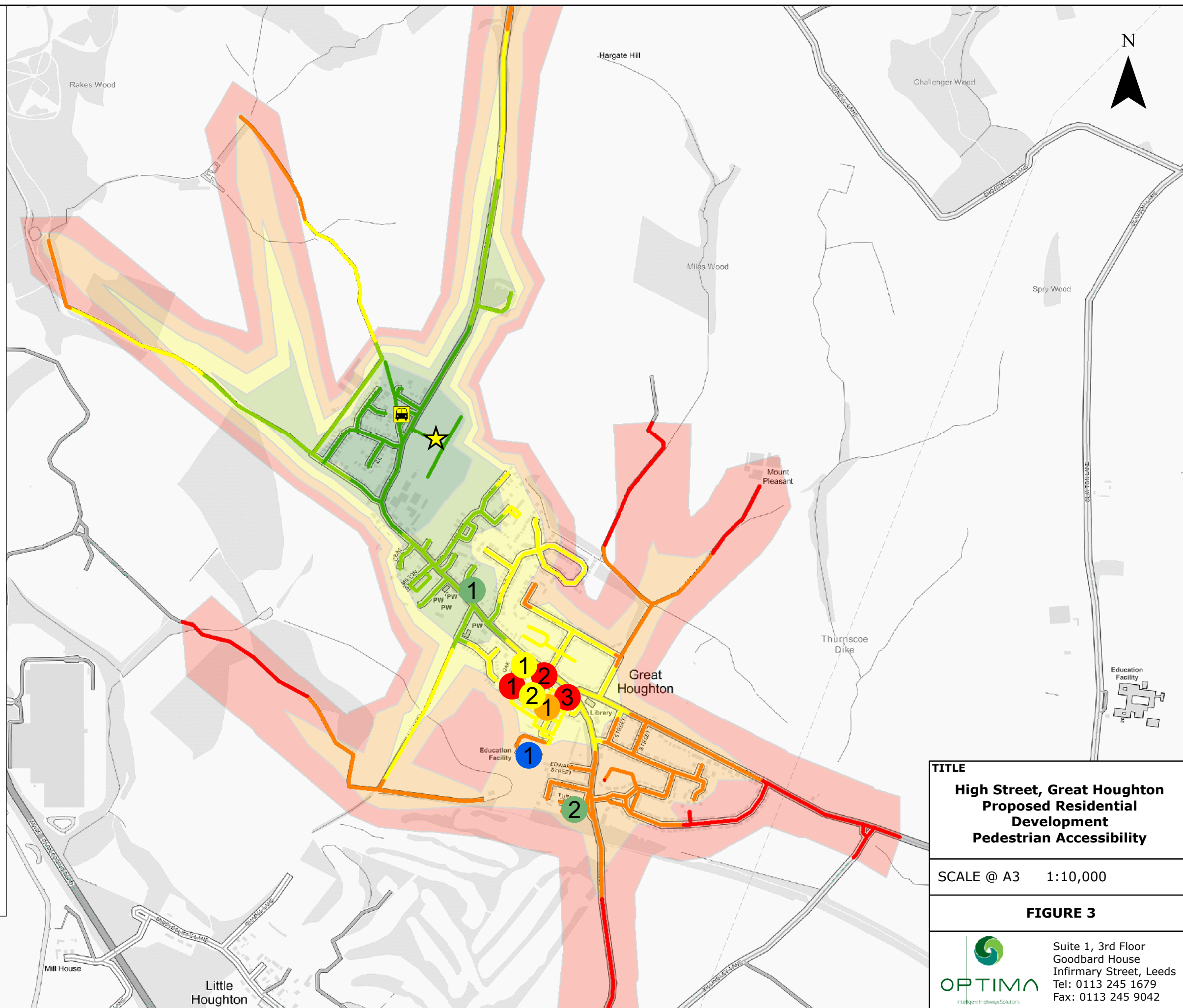
1 Great Houghton Post Office

Health

- 1 Hollygreen Practice
- 2 Rotherham Road Pharmacy
- 3 The Vetinary Surgery

Retail

- 1 Texaco PFS
- 2 The Co-operative Food



TITLE
High Street, Great Houghton
Proposed Residential
Development
Pedestrian Accessibility

SCALE @ A3 1:10,000

FIGURE 3

OPTIMA
intelligence | highwaysolutions
Suite 1, 3rd Floor
Goodbard House
Infirmary Street, Leeds
Tel: 0113 245 1679
Fax: 0113 245 9042

Key

★ Site Location

Cycle Accessibility
(Cycle Speed 16kmph)

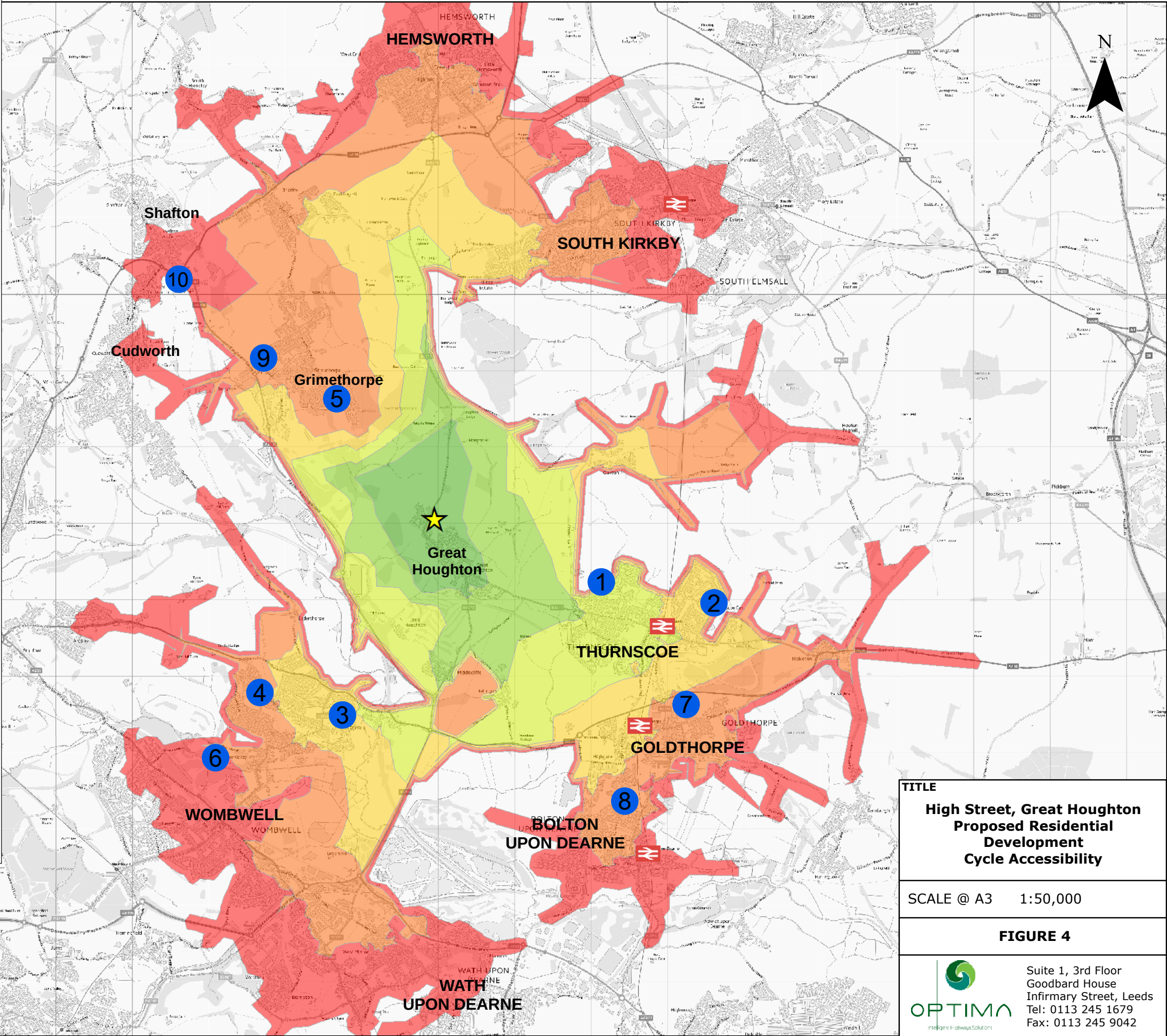
- 0 - 5 Minutes
- 5 - 10 Minutes
- 10 - 15 Minutes
- 15 - 20 Minutes
- 20 - 25 Minutes
- 25 - 30 Minutes

Public Transport

⚡ Railway Station

Education

- 1 Gooseacre Primary Academy
- 2 The Hill Primary Academy
- 3 All Saints Academy
- 4 Darfield Upperwood Primary School
- 5 Grimethorpe Ladywood Primary School
- 6 Netherwood Academy
- 7 Sacred Heart Catholic Primary School
- 8 Carfield Primary Academy
- 9 Milefield Primary School
- 10 Outwood Academy Shafton



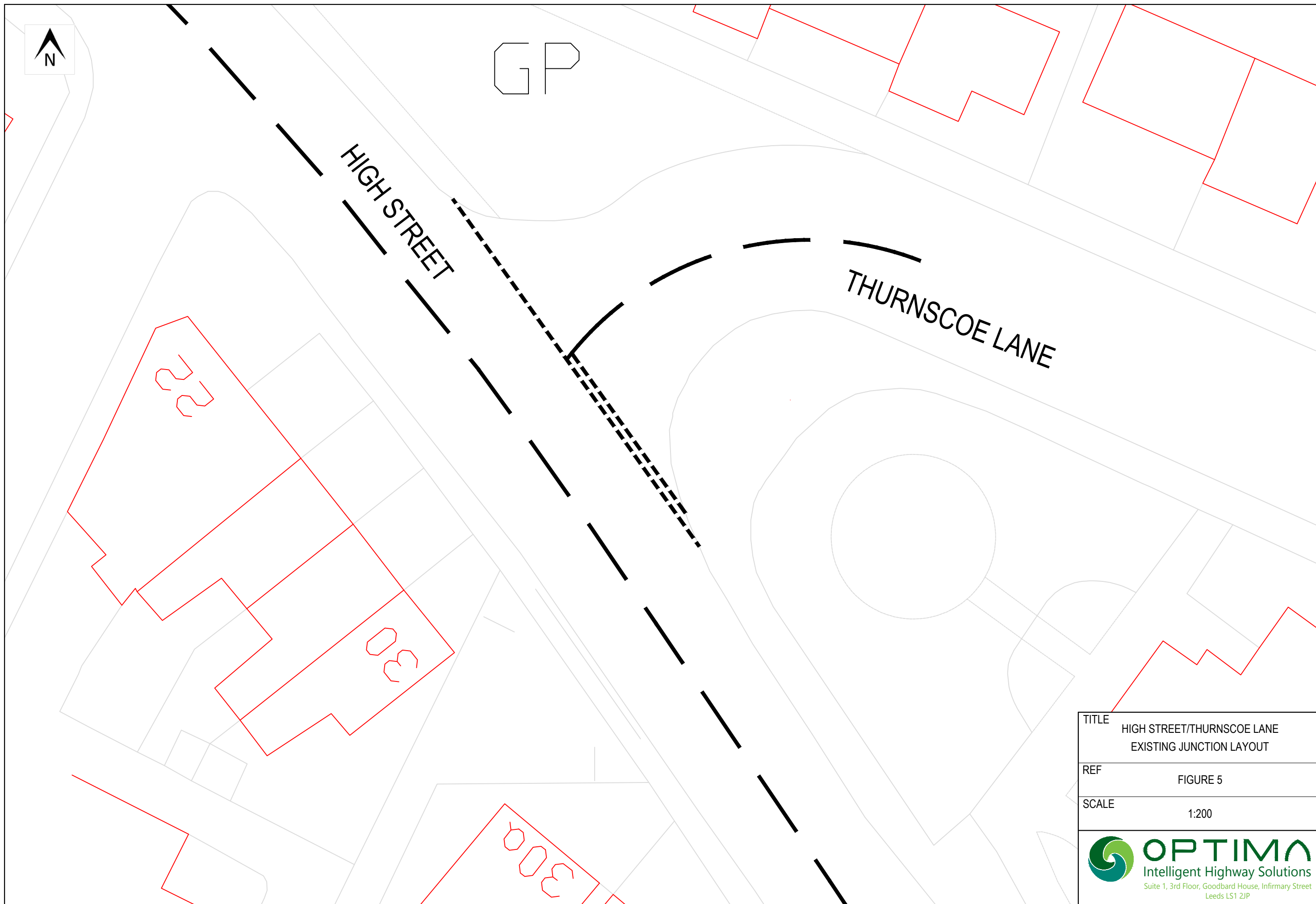
TITLE
**High Street, Great Houghton
Proposed Residential
Development
Cycle Accessibility**

SCALE @ A3 1:50,000

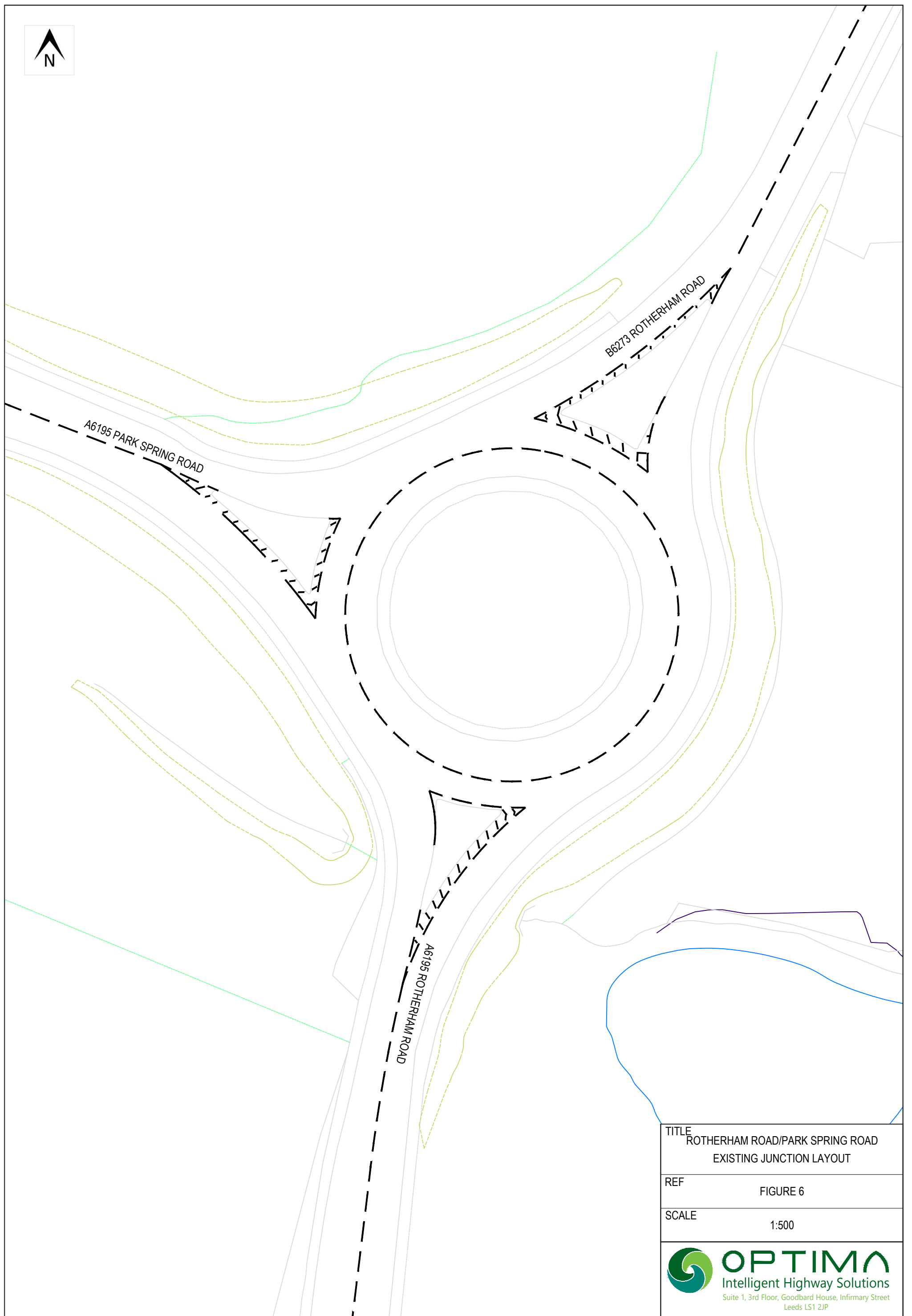
FIGURE 4

OPTIMA
intelligence | highwaysolutions

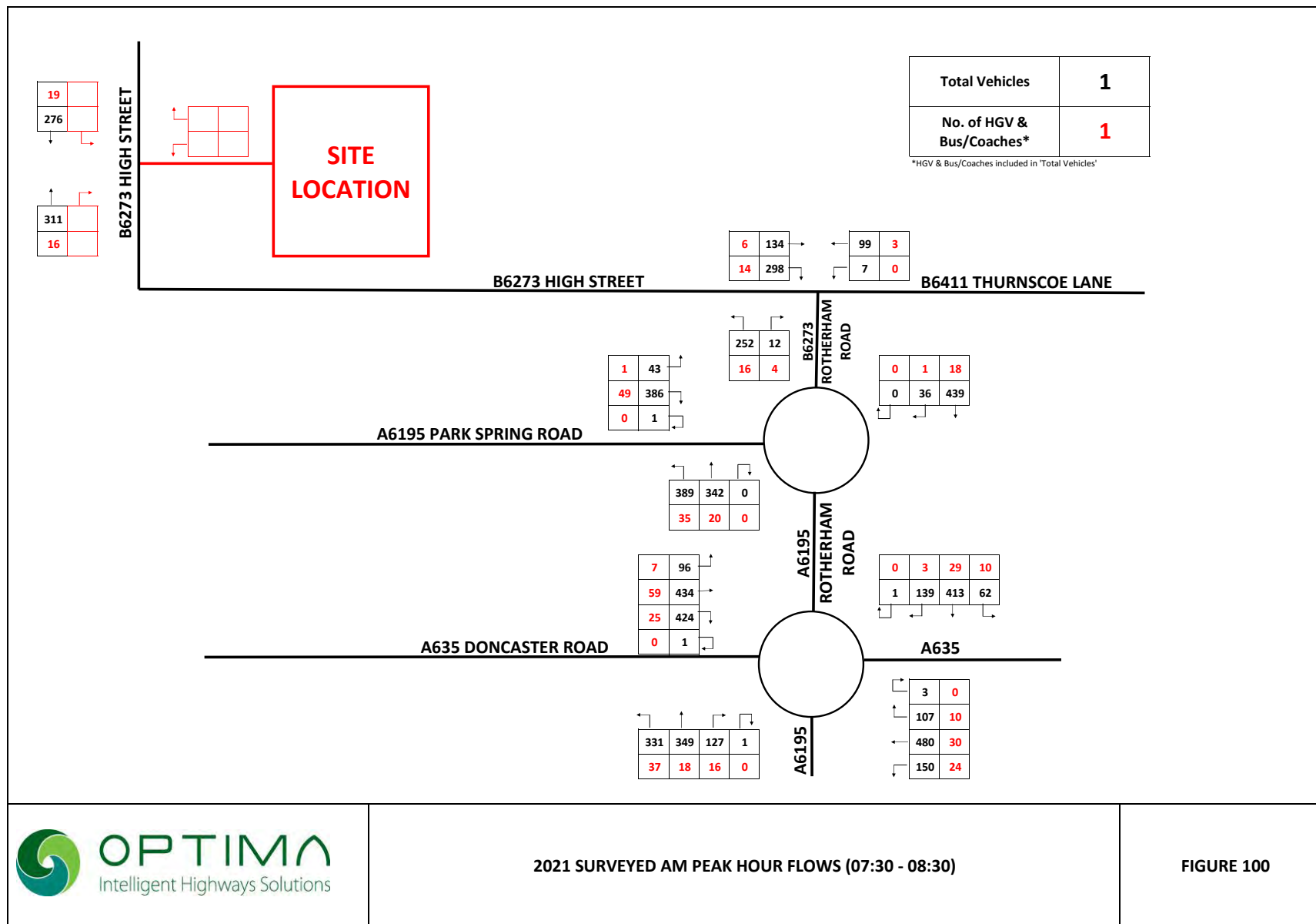
Suite 1, 3rd Floor
Goodbard House
Infirmary Street, Leeds
Tel: 0113 245 1679
Fax: 0113 245 9042

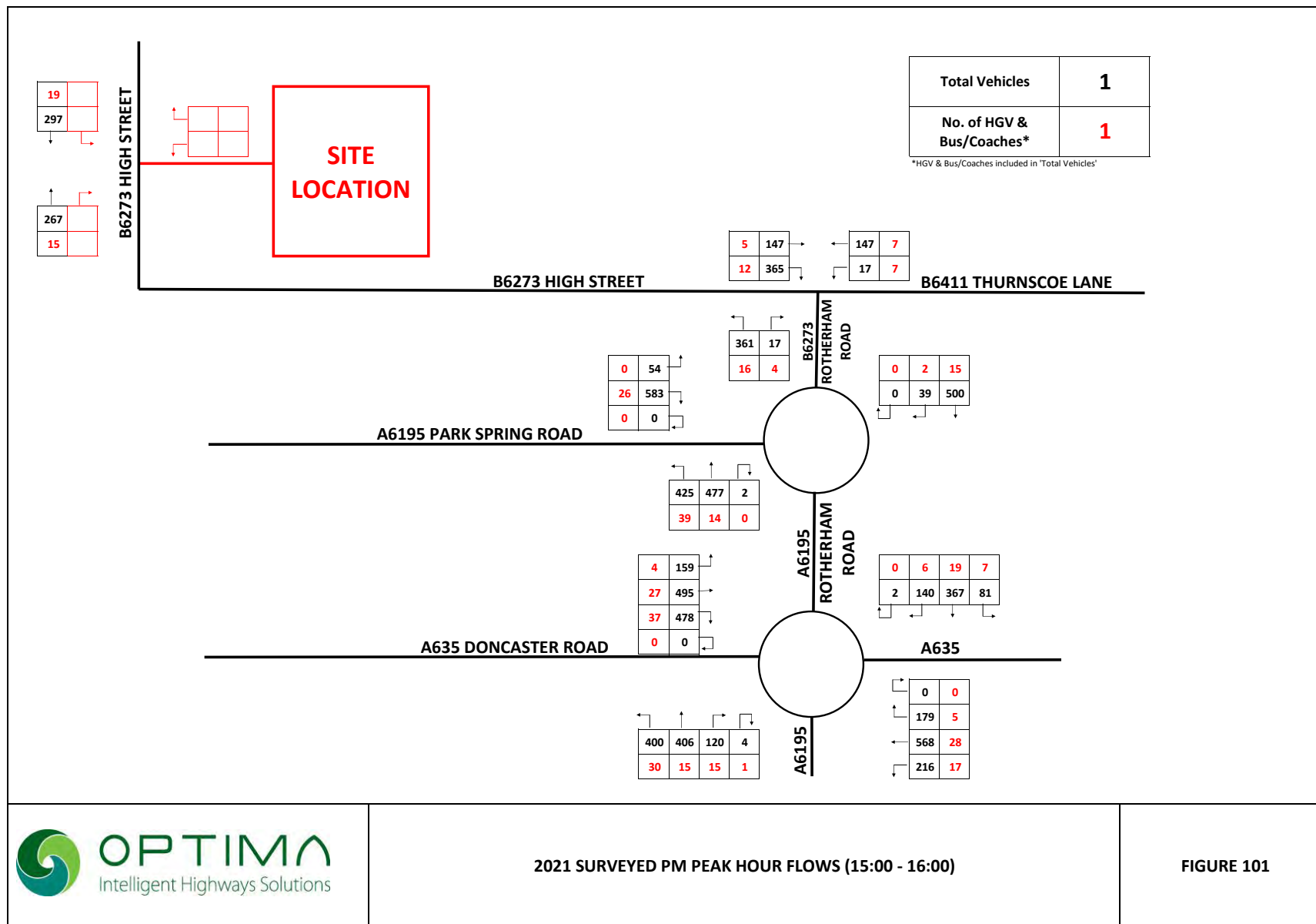


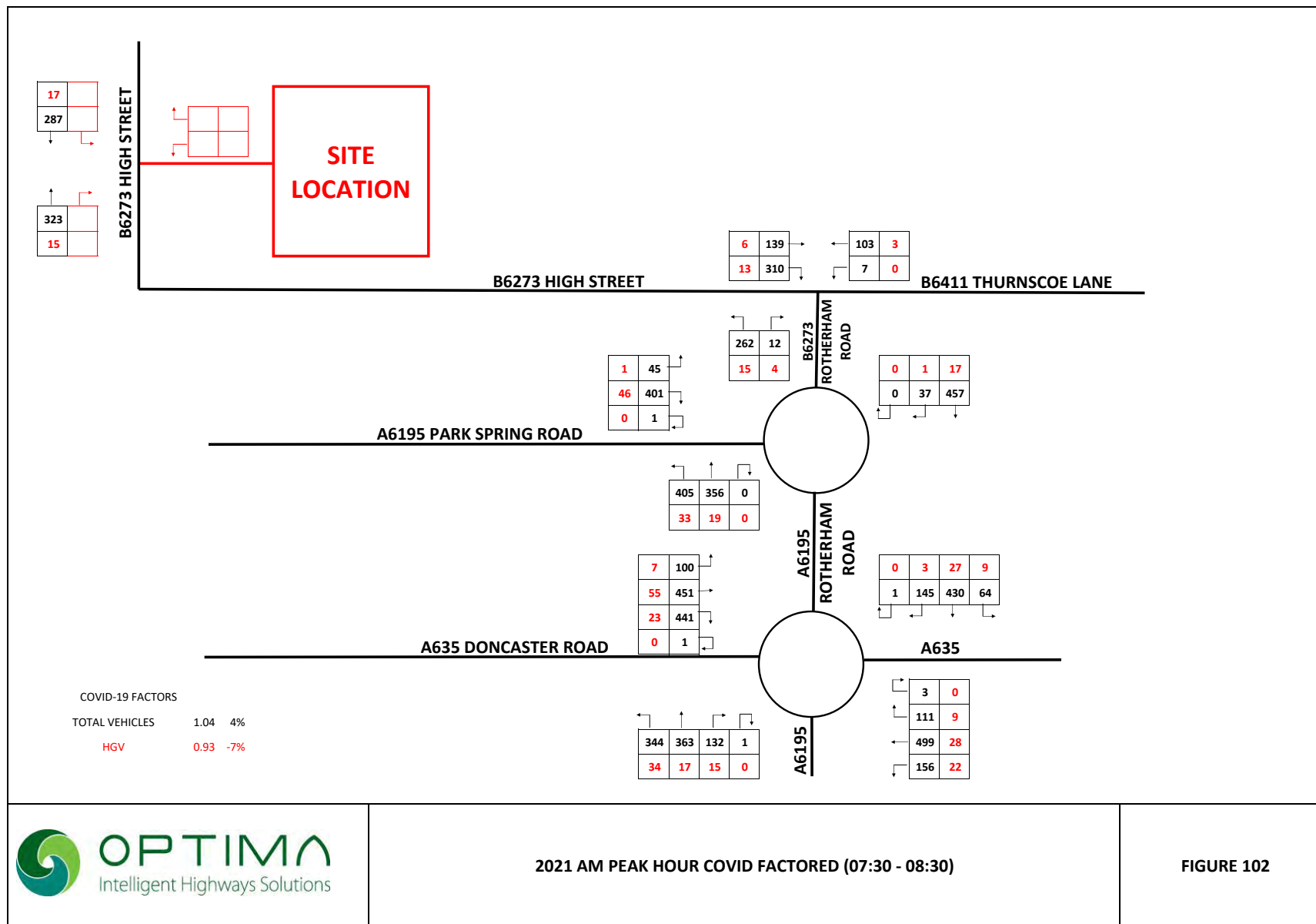
TITLE	HIGH STREET/THURNSCOE LANE EXISTING JUNCTION LAYOUT
REF	FIGURE 5
SCALE	1:200
 Intelligent Highway Solutions Suite 1, 3rd Floor, Goodbard House, Infirmary Street Leeds LS1 2JP	

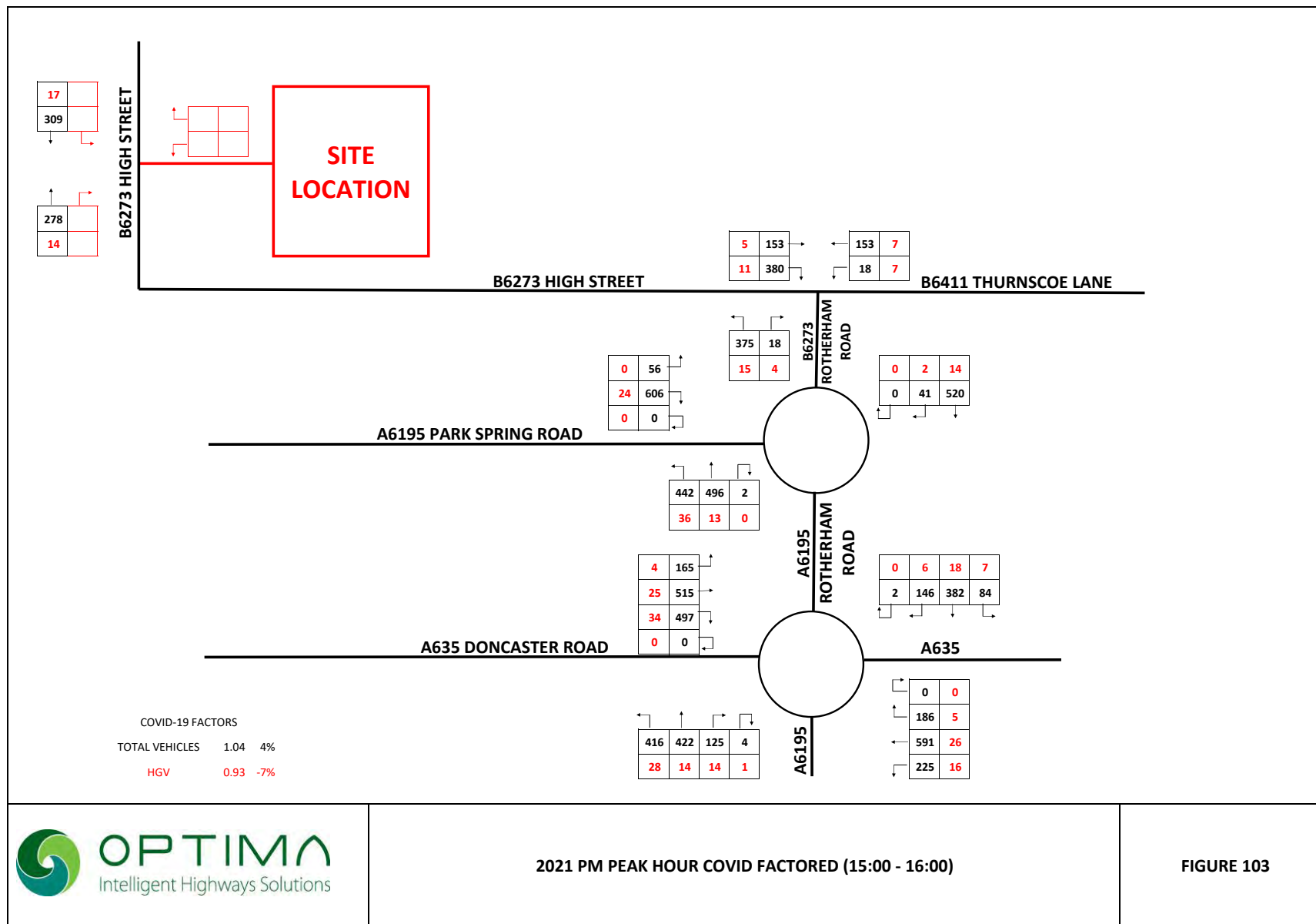


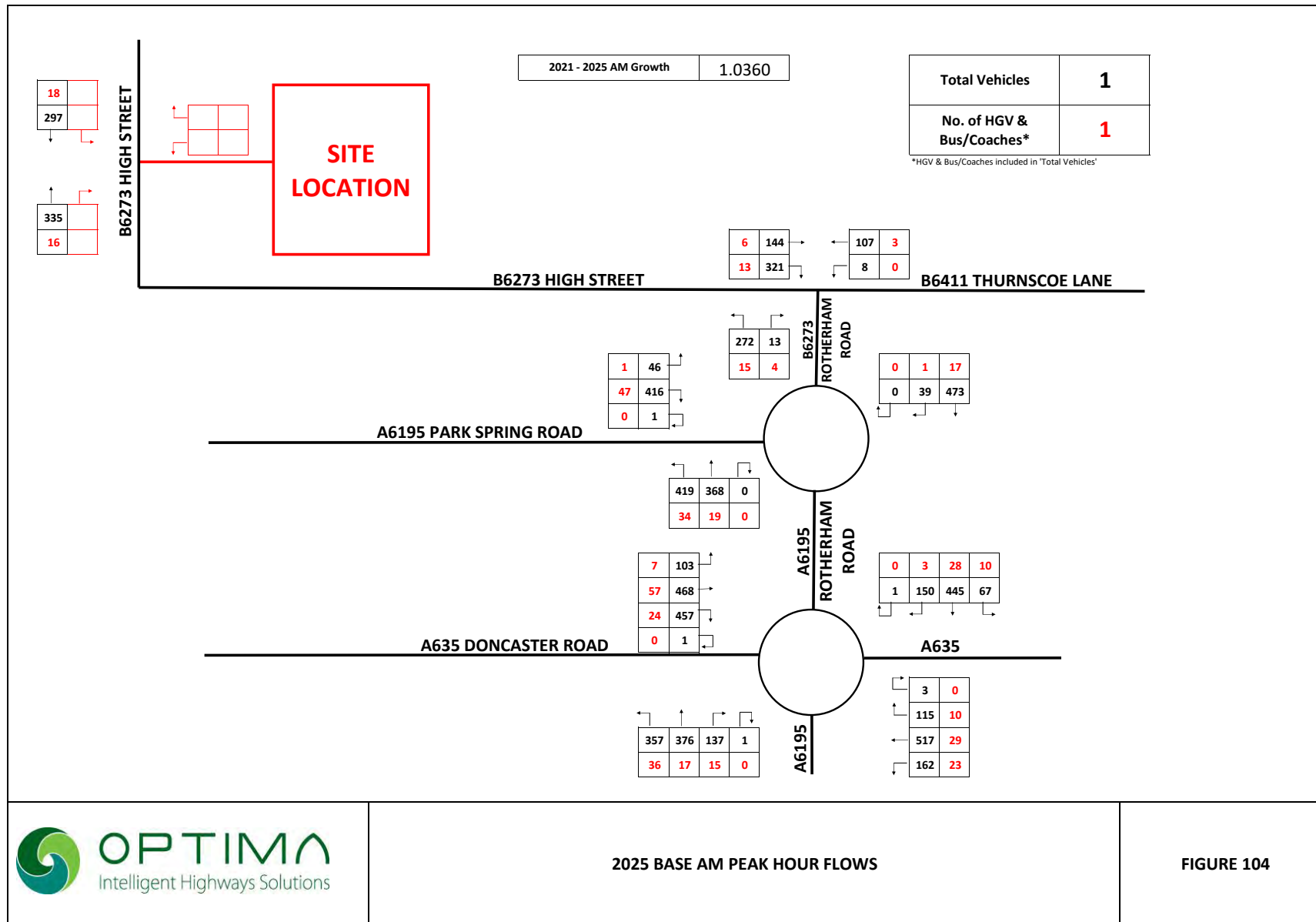
TITLE	ROTHERHAM ROAD/PARK SPRING ROAD EXISTING JUNCTION LAYOUT
REF	FIGURE 6
SCALE	1:500
 Intelligent Highway Solutions Suite 1, 3rd Floor, Goodbard House, Infirmary Street Leeds LS1 2JP	

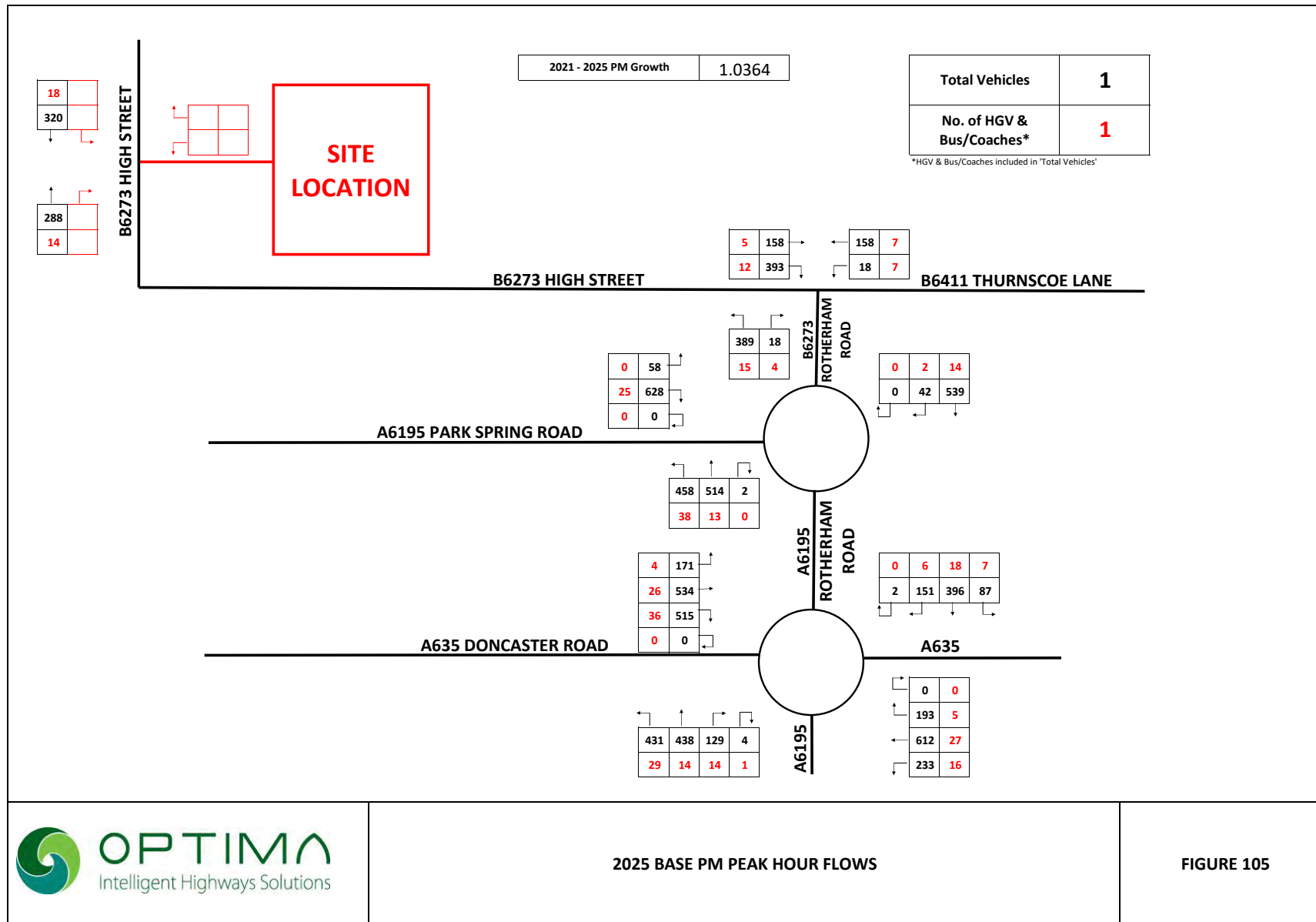


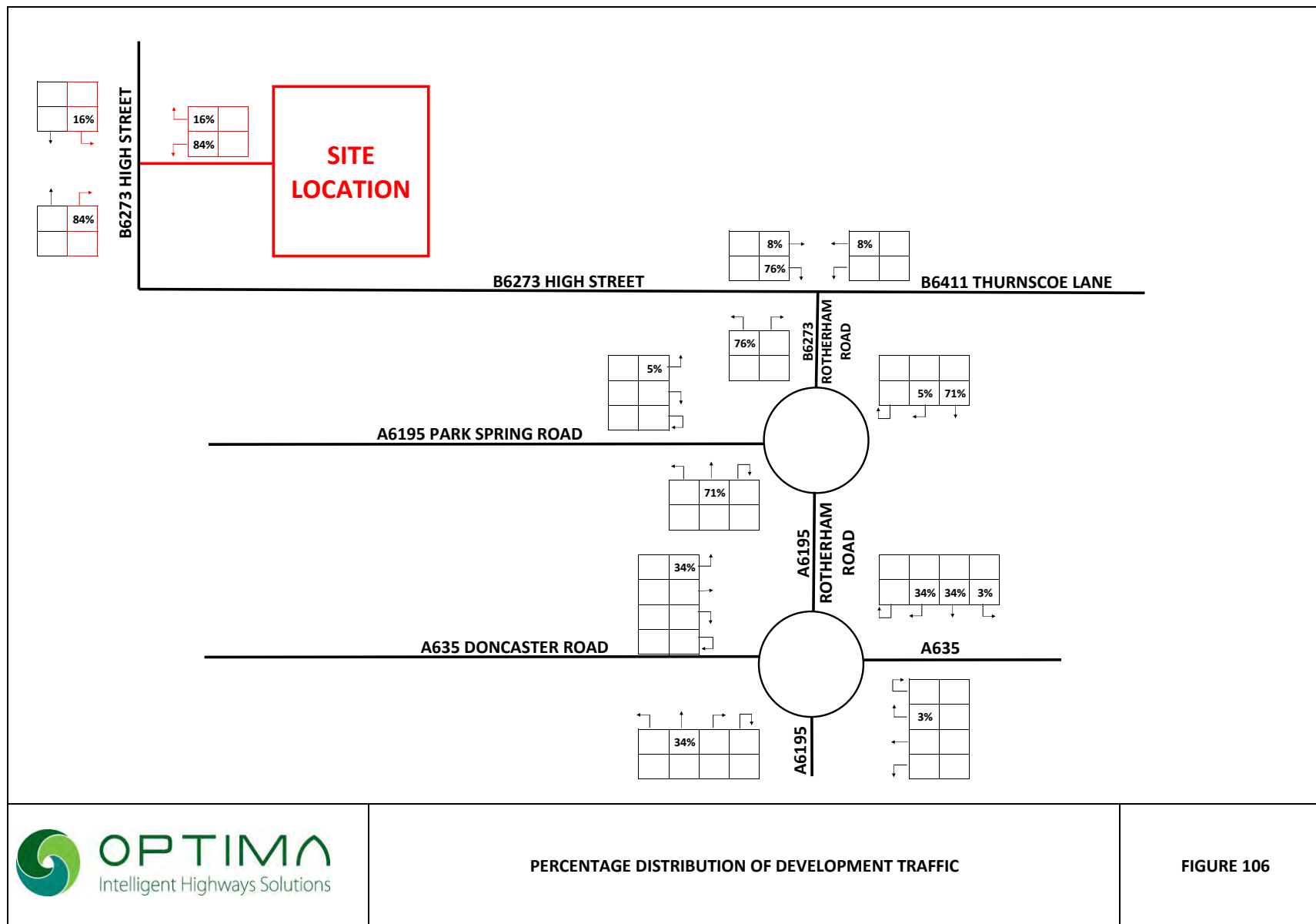


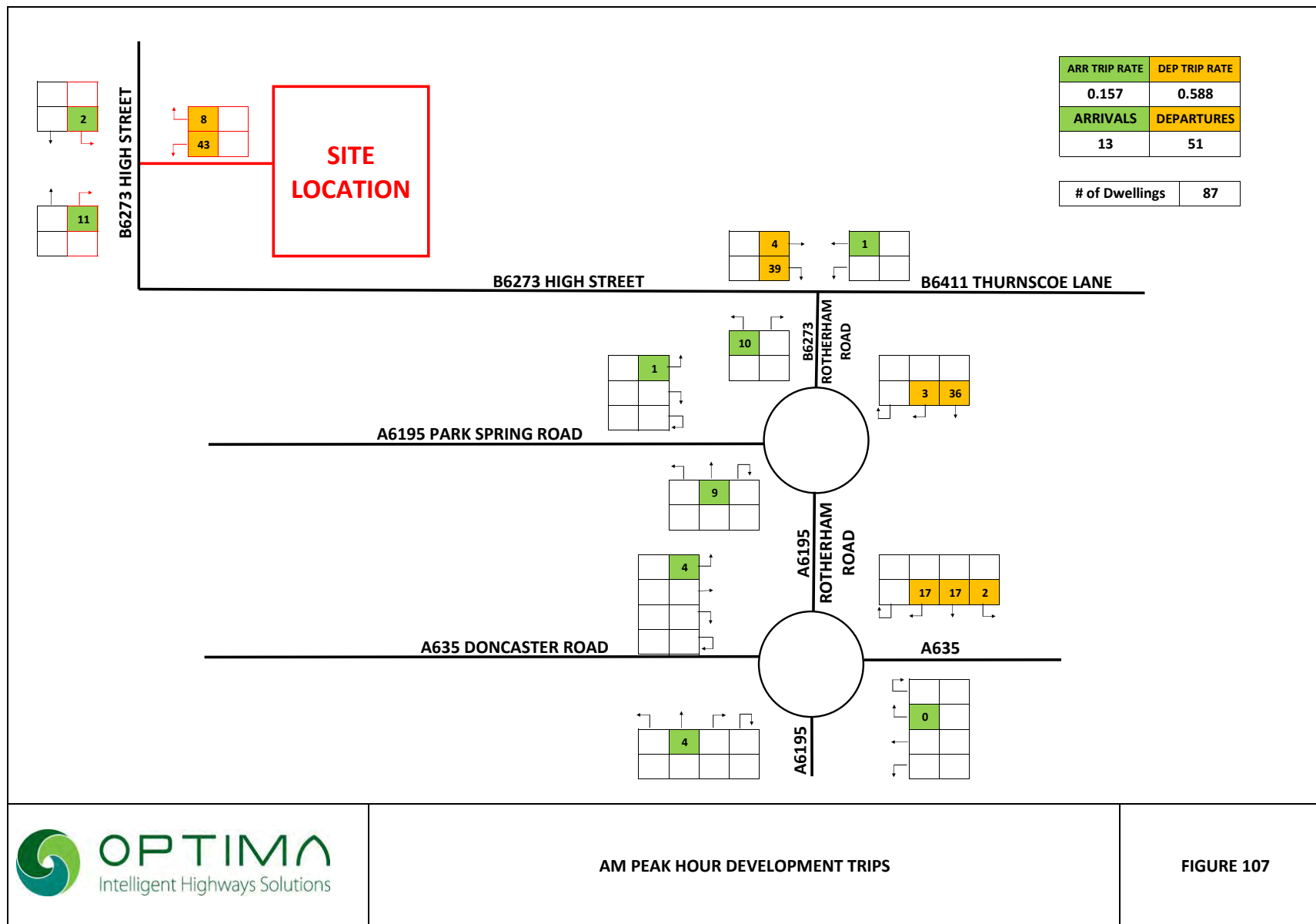


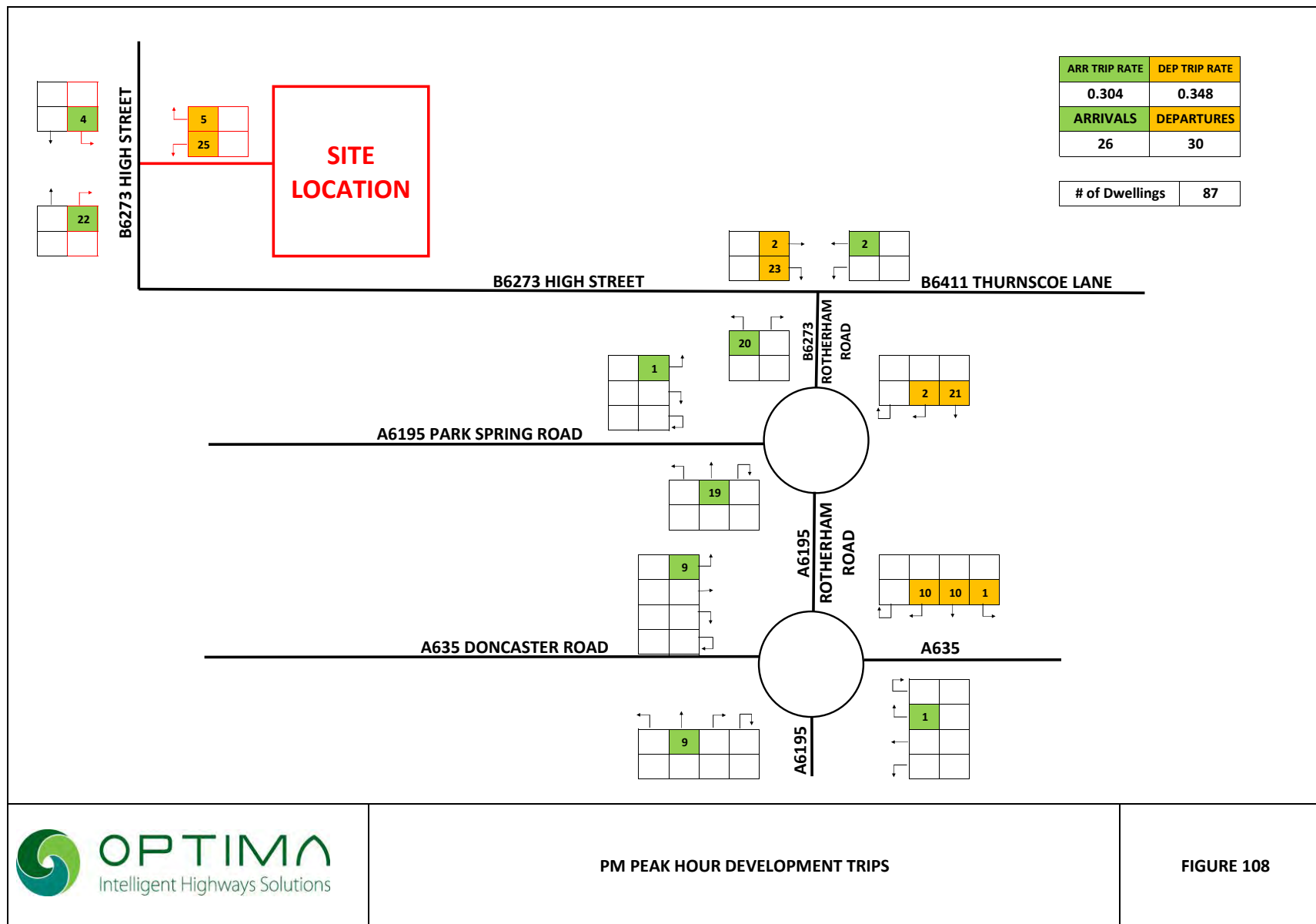


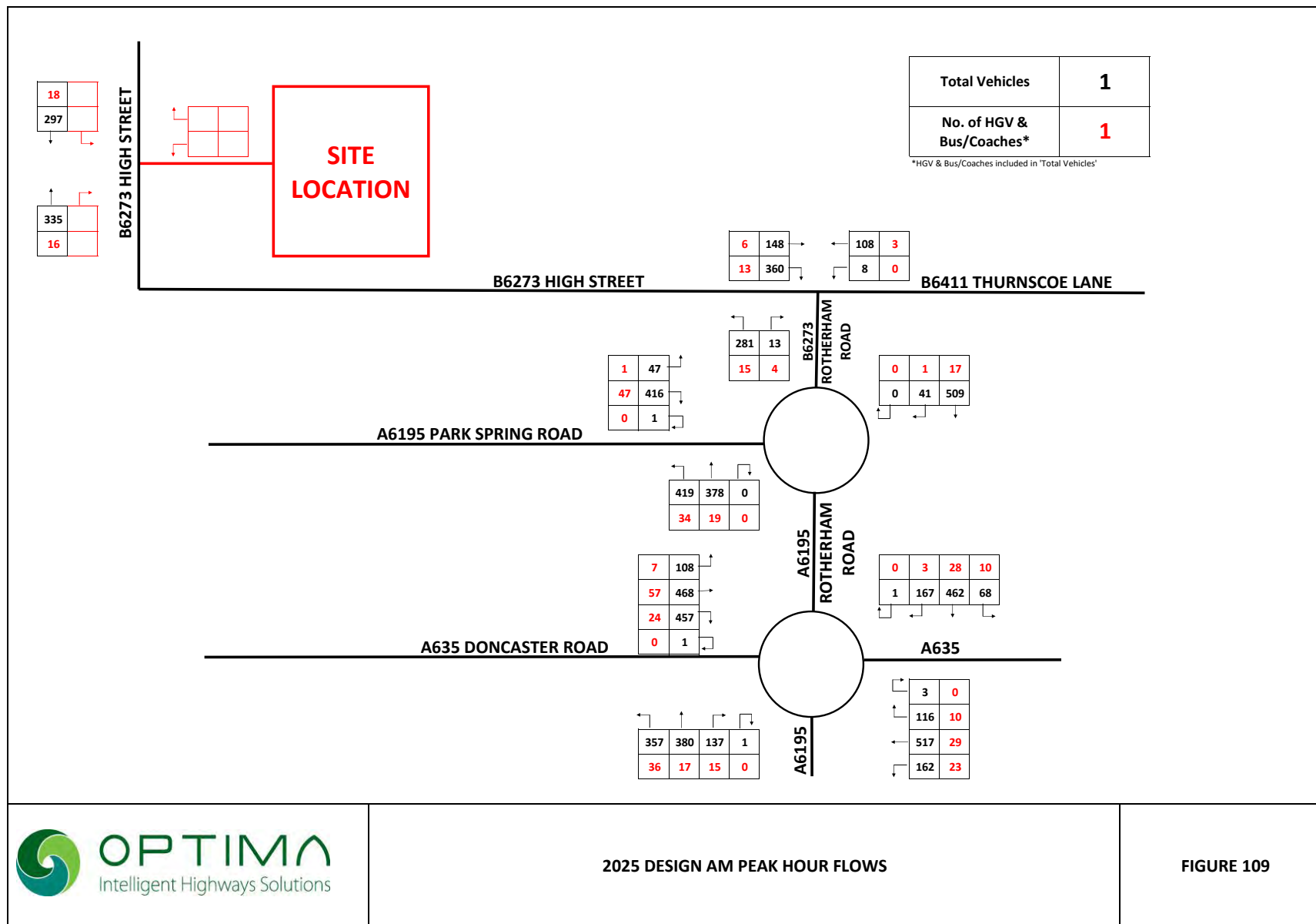


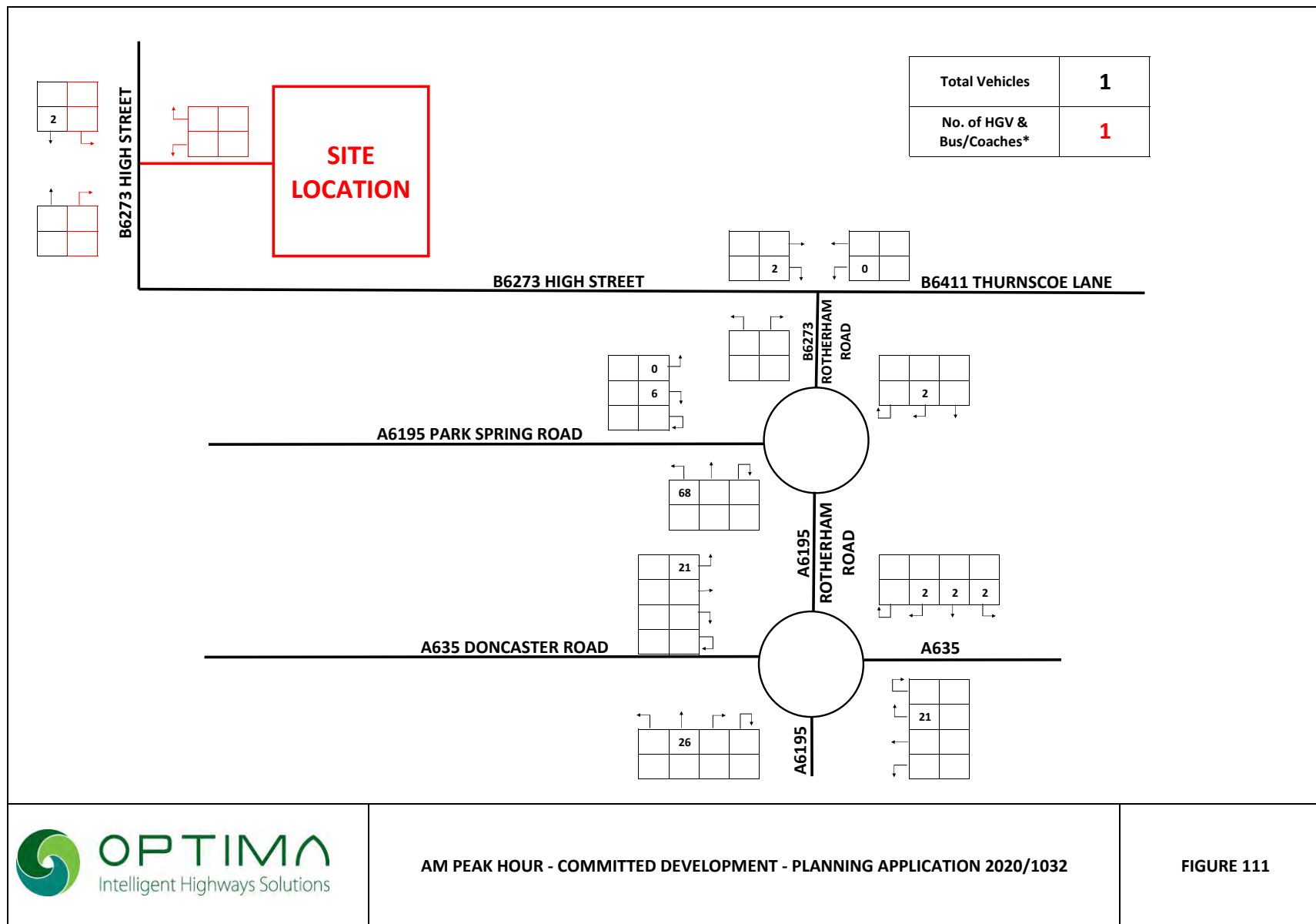


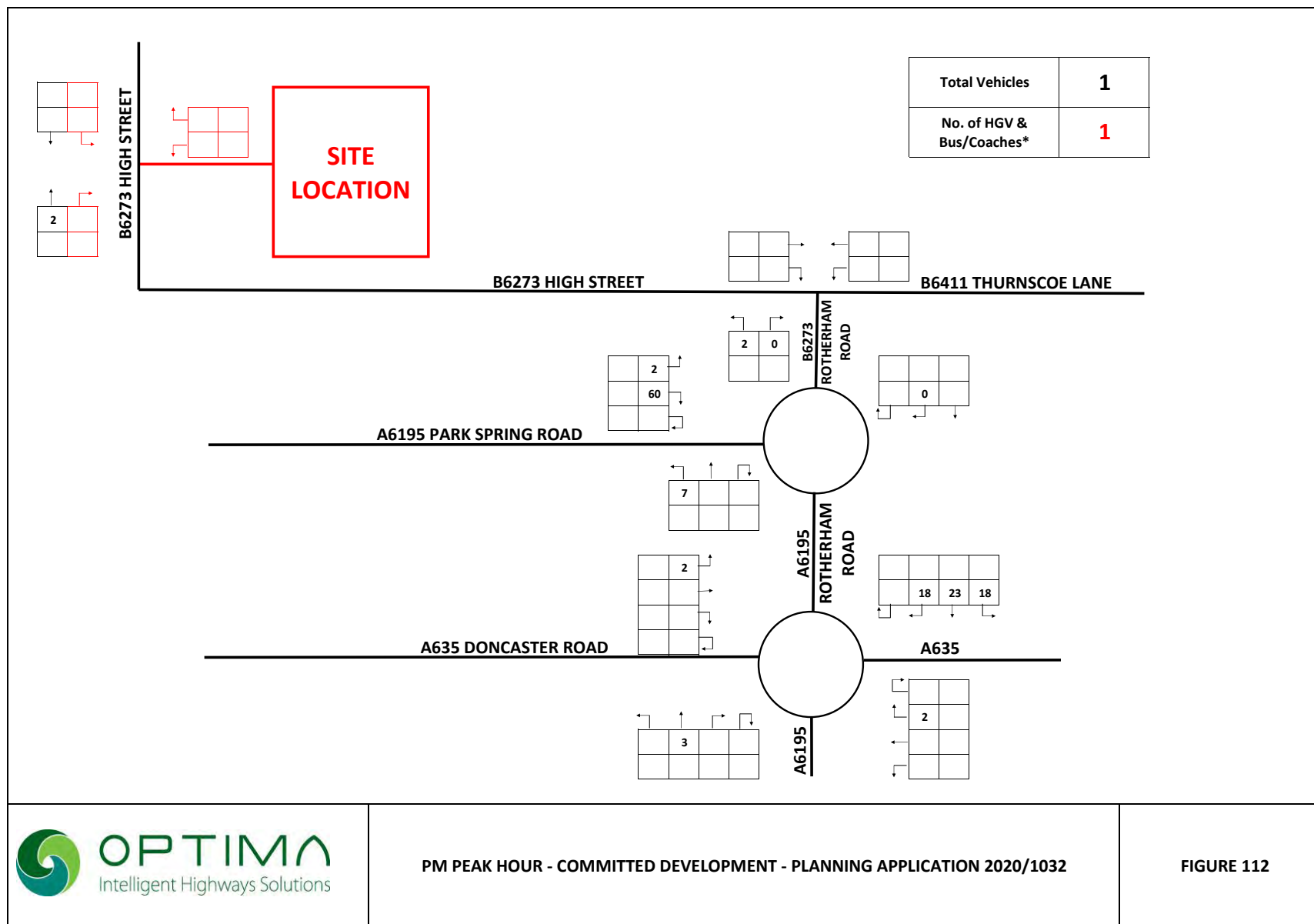


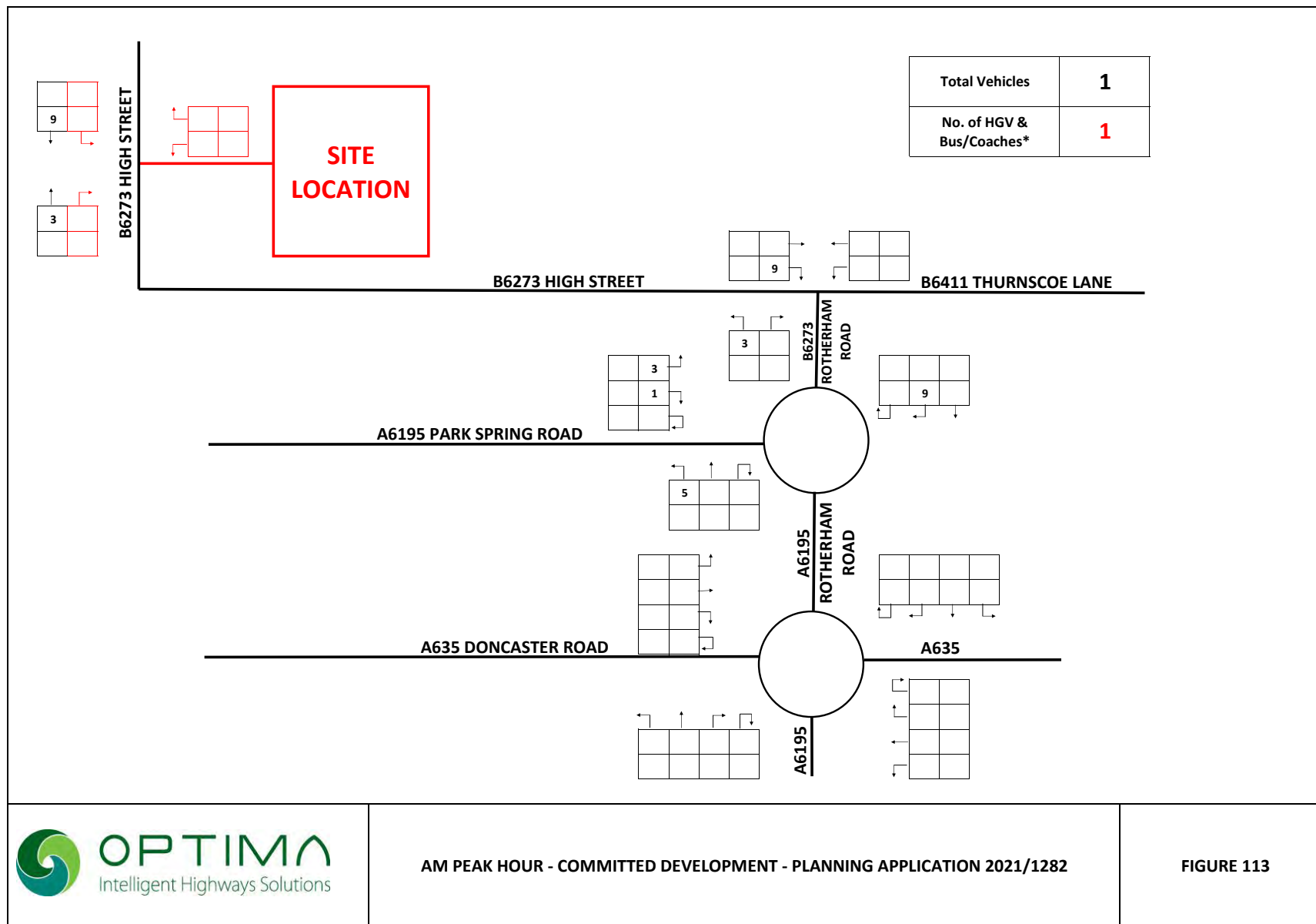


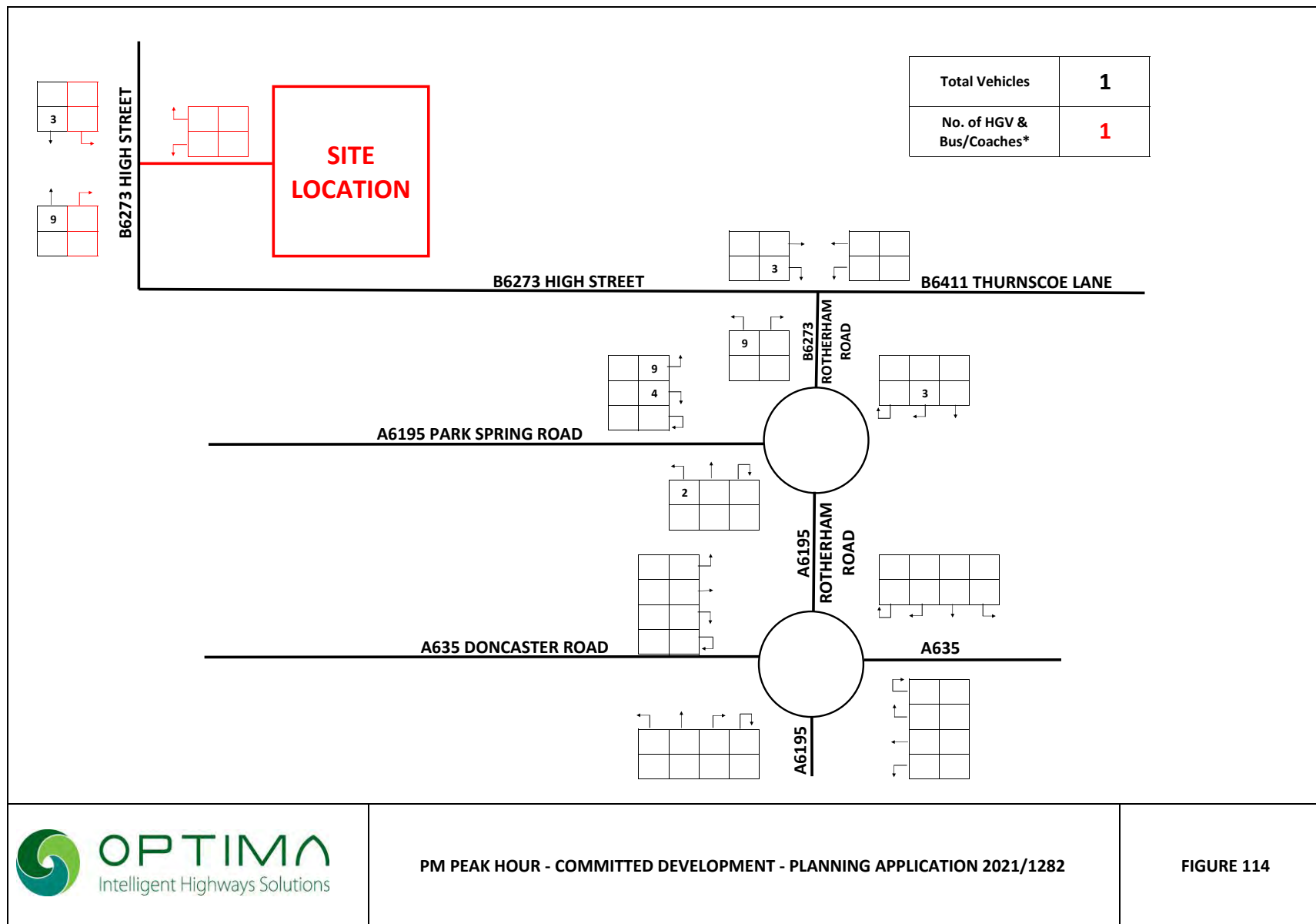


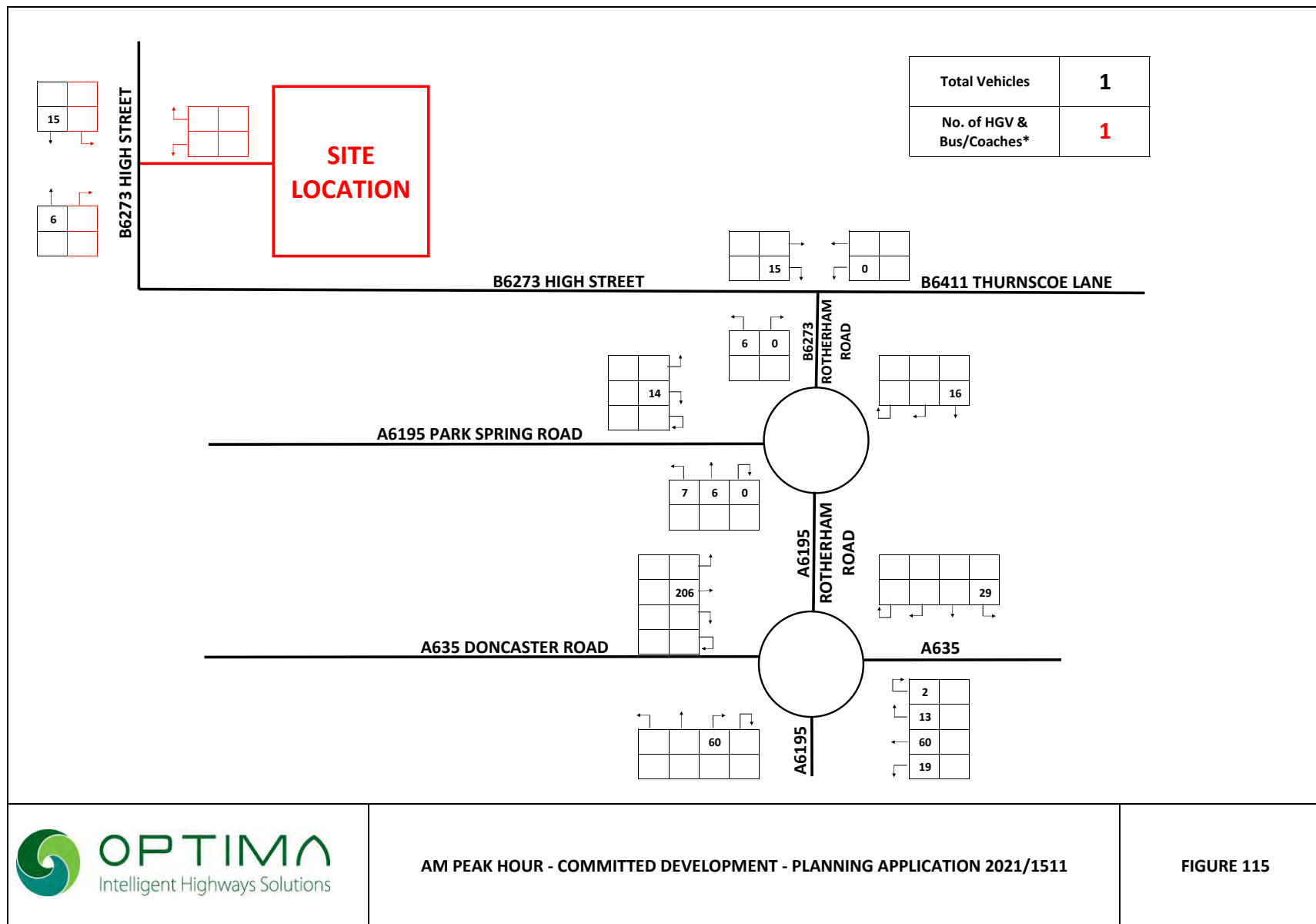


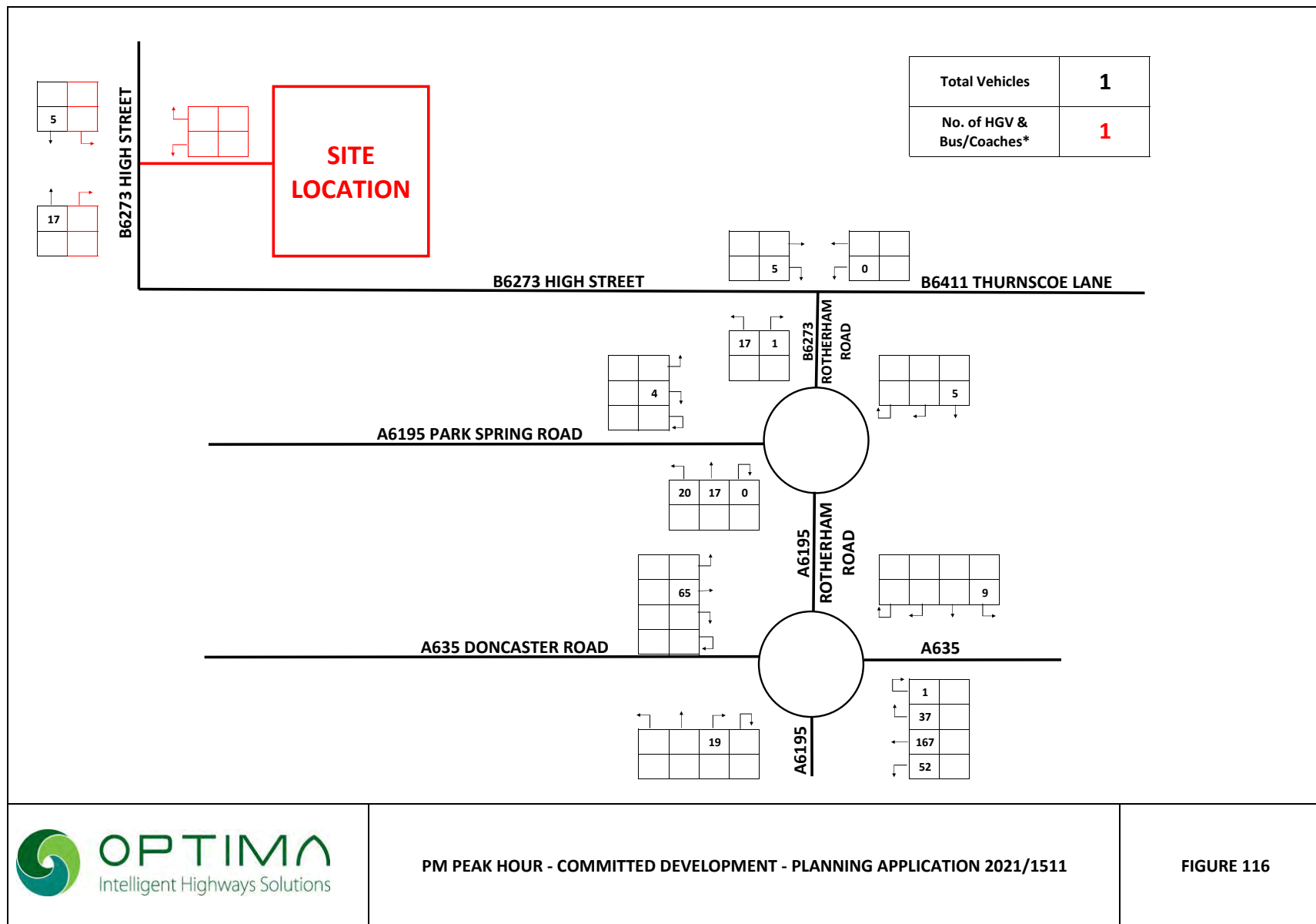


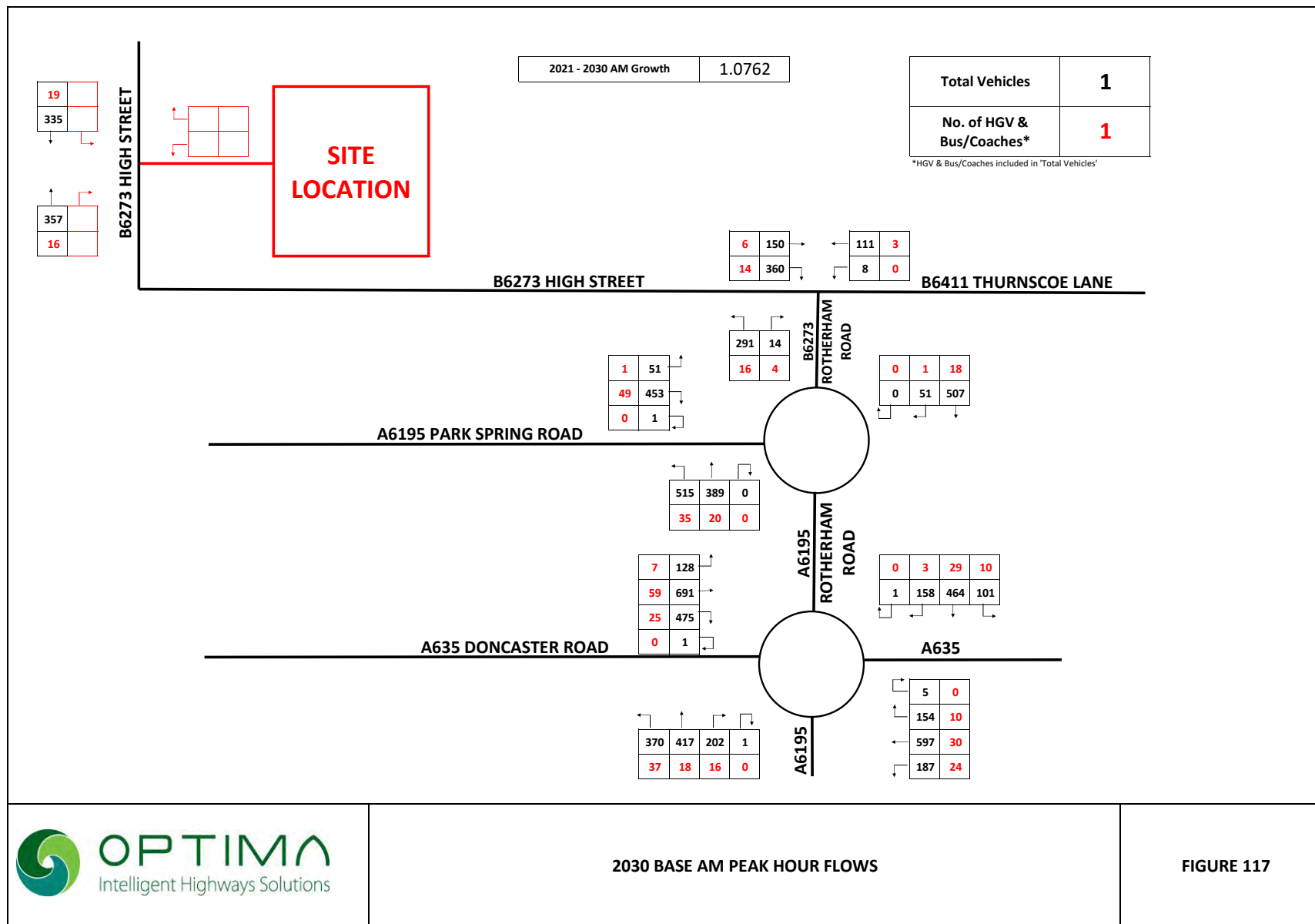


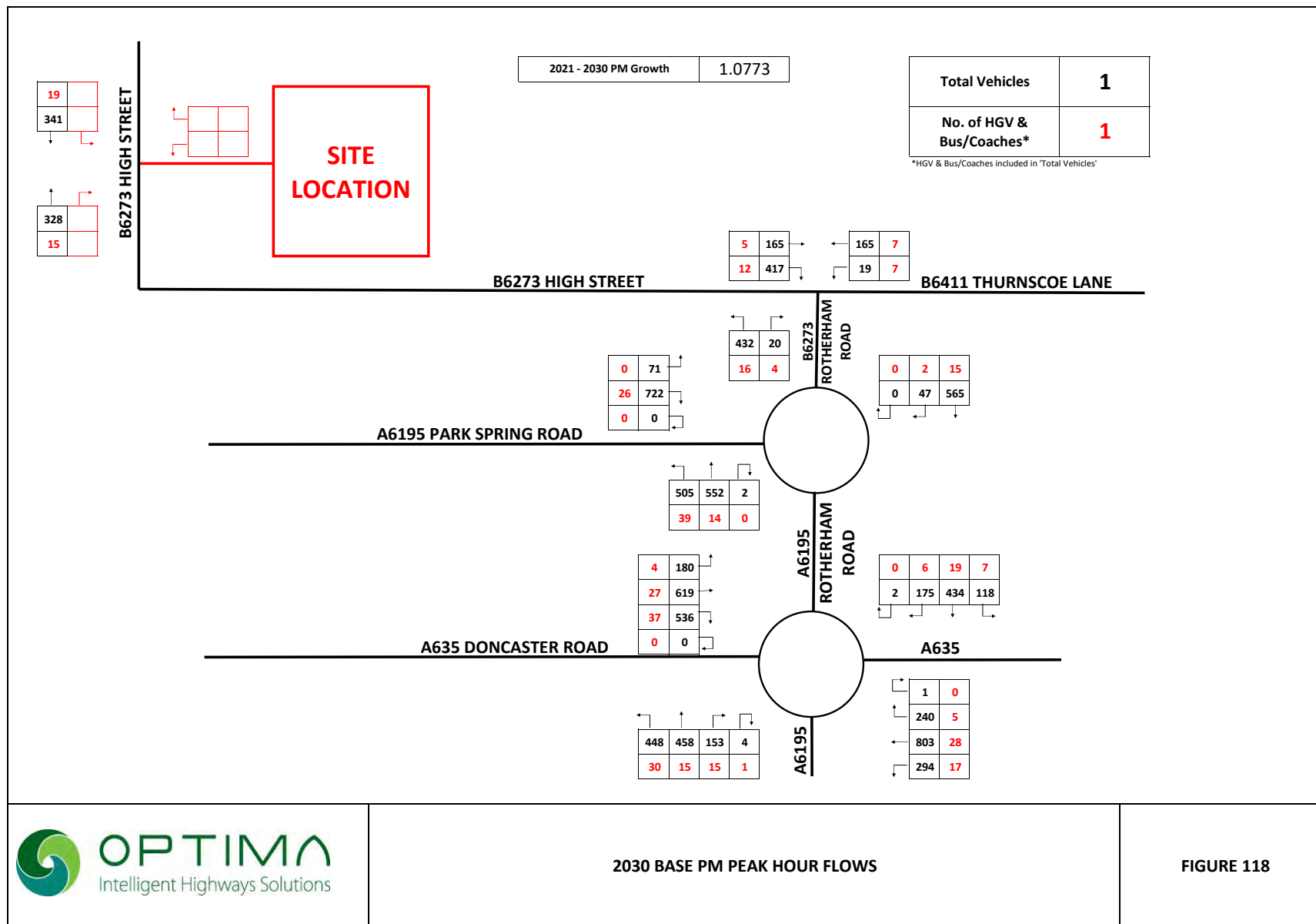


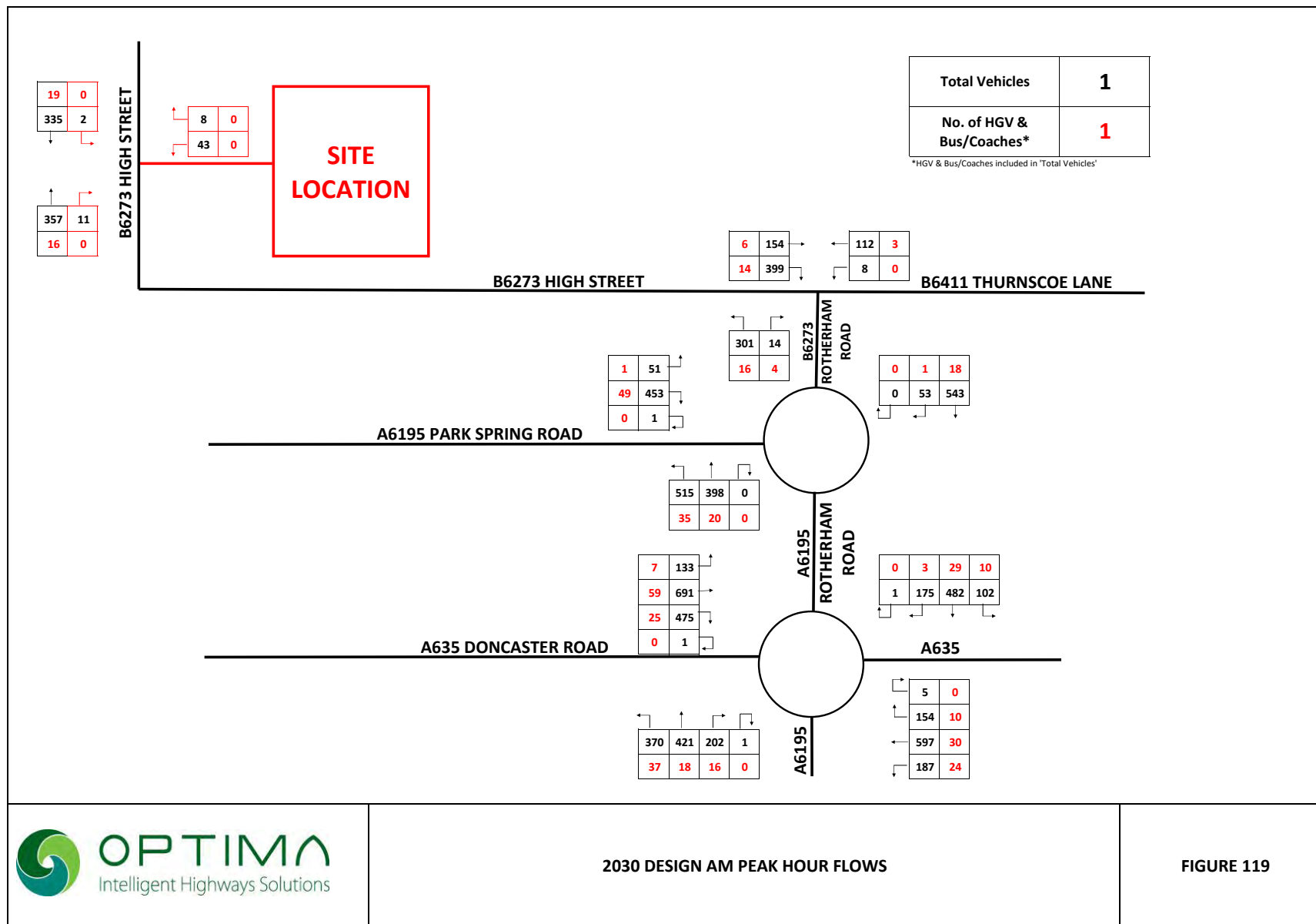


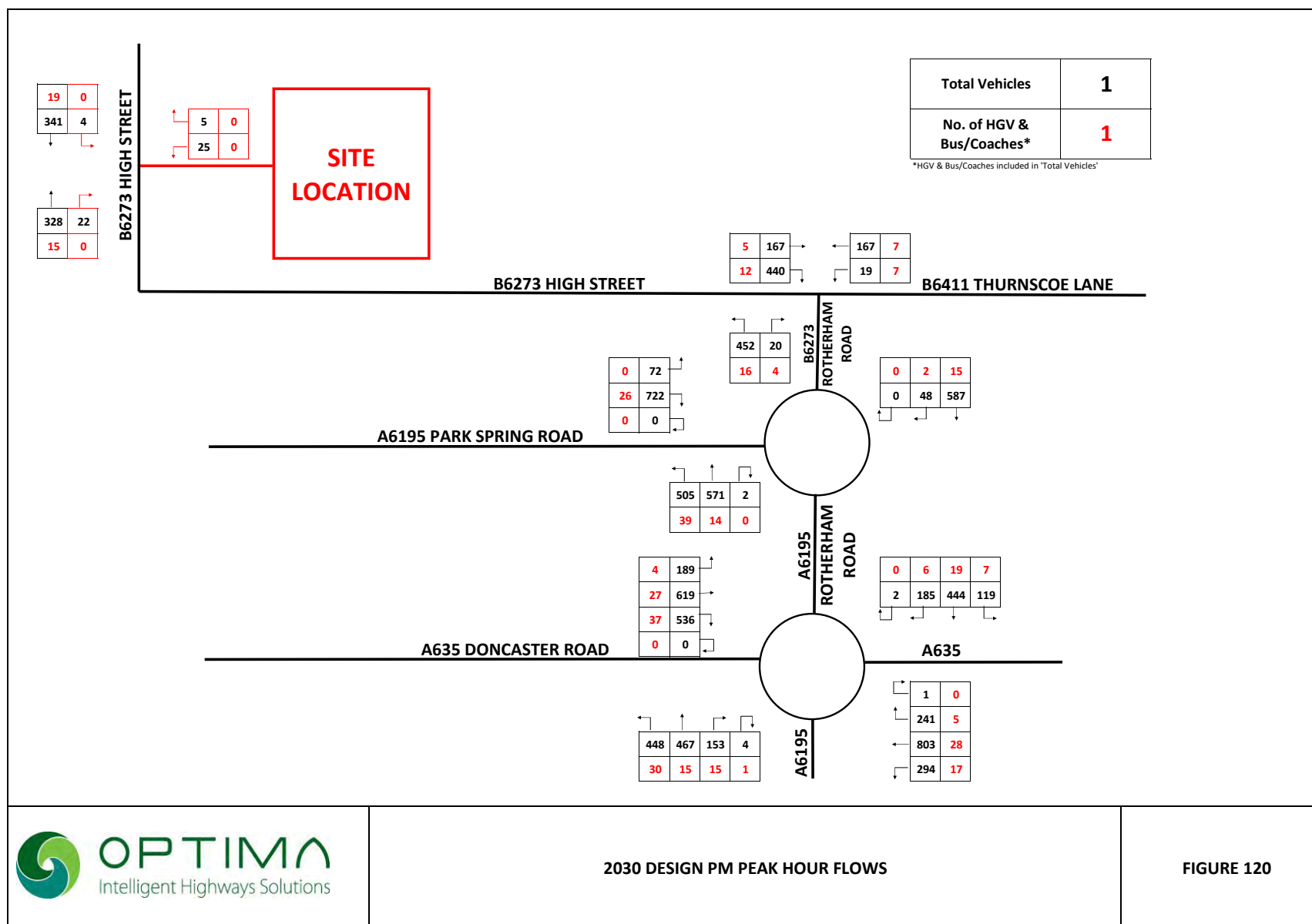












Appendices



Appendix A BMBC Highways Development Control Comments on Draft and TA (Revision 1)



From: Andrew , Hannah (SENIOR PLANNING OFFICER)
<HannahAndrew@barnsley.gov.uk>
Sent: 28 October 2021 14:08
To: Josh Brear; Sam Ruthven
Subject: FW: Planning Application 2021/1149 - 86 Dwellings High Street, Great Houghton

FYI

From: HighwaysPIngApps <HighwaysPIngApps@barnsley.gov.uk>
Sent: 26 October 2021 15:42
To: Andrew , Hannah (SENIOR PLANNING OFFICER) <HannahAndrew@barnsley.gov.uk>; Lake , Wayne (GROUP LEADER HDC) <WayneLake@barnsley.gov.uk>
Cc: HighwaysPIngApps <HighwaysPIngApps@barnsley.gov.uk>
Subject: RE: Planning Application 2021/1149 - 86 Dwellings High Street, Great Houghton

Hi Hannah,

In advance of your meeting on Thursday I have reviewed the site plan associated with the above application and have the following comments;

I note that this site is included within the local plan allocation HS90. Adjacent to this site is a parcel of safeguarded land referenced under SL72. Whilst the site allocation is for 67 dwellings, the applicant has presented a development for 86 dwellings, a considerable number of units over the allocation.

With regards to the proposed access points for the site, there are three proposed directly from High Street consisting of a main access serving the development and 2 shared private drives. Particularly in relation to the most northern access and the main site access, I would recommend that speed surveys be carried out to ensure that the proposed visibility splays are adequate. Just to the north of the site is a change in speed limit from 30mph to 60mph and it essential to determine the 85th percentile wet weather speeds in this location to determine whether there are any speed related issues along this stretch of high street and whether any means of speed reduction measures are required.

I note that there are a number of shared private drives proposed throughout the development, the majority of which are in excess of 25m without the inclusion of any turning provision. Whilst adequate turning should be provided to ensure that a fire appliance is able to gain access and turn satisfactorily, I have concerns that general day to day servicing, such a delivery vans or supermarket delivery vehicles would also struggle to access properties within the shared private drives.

There is an excessive length of shared space proposed within the site serving nearly half of the development which is unacceptable and a traditional construction would be preferred.

The internal layout of the site does not include any pedestrian connectivity either within the site or out on to High Street. Sustainability should be at the forefront of the developers mind and emphasis should be on pedestrian and cycle connectivity through to the wider network in order to encourage the use of sustainable modes of travel. Furthermore, I would expect to see clear linkages to the public transport network with bus stops highlighted on the site plan to ensure that acceptable walking distances are not being exceeded.

It is unclear from the site plan whether a footway is to be provided along the site frontage. Currently there is no footway and it would be expected as part of the development that a 2m wide footway be provided along the whole site frontage, tying in the with existing footway to the south of the site. Furthermore, I note that there is an existing public right of way abutting the site to north and would expect the provision of the footway to extend to the start of the PROW and possible pedestrian connectivity provided within the site.

The layout itself is heavily dominated with frontage parking with a distinct lack of visitor parking. The applicant should be mindful that frontage dominated parking restricts the opportunity for on street parking and I would make reference to the Parking SPD which states 2 allocated spaces for properties with 3+ bedrooms together with 1 allocated visitor space per 4 dwellings.

Unfortunately I am annual leave on Thursday and won't be able to attend the meeting, however Wayne will be attending in my absence and as such, I have included him on this email for his awareness. I have also contacted Stuart Bullen to determine whether there are any active travel aspirations/plans for the area that will require developer contribution and once I have received a response, I will forward that to you.

Kind regards,

Sarah Sharp MIHE
Senior Engineer
Highways Development Control



Consider the environment. Please don't print this e-mail unless you really need to.

From: DevelopmentManagement@barnsley.gov.uk <DevelopmentManagement@barnsley.gov.uk>
Sent: 23 September 2021 12:55
To: HighwaysPIngApps <HighwaysPIngApps@barnsley.gov.uk>
Subject: Planning Application 2021/1149
Importance: High

You have received this email from Barnsley MBC Planning Service, in relation to a planning matter.

The attached correspondence contains important information; please retain it for your records.

If you would like to respond, please reply to DevelopmentManagement@barnsley.gov.uk. In any correspondence, please quote the Council reference number, which is included in the attached letter.

If you have received this email in error, please forward it to DevelopmentManagement@barnsley.gov.uk.

If you cannot open the attachment you can download the following software free of charge: - Microsoft Word Viewer for Word attachments. - Adobe Reader for PDF attachments.

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From: Andrew , Hannah (SENIOR PLANNING OFFICER) <HannahAndrew@barnsley.gov.uk>
Sent: 01 April 2022 15:53
To: Jason Pritchard <jasonpritchard@harronhomes.co.uk>
Subject: FW: 2021/1149 - Land off High Street, Great Houghton, Barnsley.

Jason,

As discussed.

If you want to set up a meeting to discuss once you and your consultants have digested the comments I can look to do so.

Kind regards

Hannah

From: Lake , Wayne (GROUP LEADER HDC) <WayneLake@barnsley.gov.uk>
Sent: 01 April 2022 15:32
To: Andrew , Hannah (SENIOR PLANNING OFFICER) <HannahAndrew@barnsley.gov.uk>
Cc: HighwaysPlngApps <HighwaysPlngApps@barnsley.gov.uk>
Subject: 2021/1149 - Land off High Street, Great Houghton, Barnsley.

Good morning Hannah,

Re: 2021/1149 - Residential development of 87no. dwellings including demolition of existing farm buildings, associated works and provision of on site open space

Many thanks for consulting Highways Development control in respect of the Travel Plan, updated layout, and updated Transport Assessment in respect of the above development. Whilst there are no objections to the principle of the development proposals, at present they are viewed unfavourably from a highways perspective.

Further to initial comments made on the development proposal please find below the following:

Site Layout (563 PL-01 Rev O):

The site is an allocated housing site within the Local Plan reference HS90 and adjacent to the site is a parcel of safeguarded land reference SL22. Whilst the site allocation for HS90 is 67 dwellings the application is for 87 which is a considerable increase over the allocation within the Local Plan.

Previously concerns were raised over the visibility splays of 2.4m x 43m for the northern shared private drives and main site access to High Street due to the proximity of the speed limit from de-restricted to 30mph just north of the site. It was recommended that speed surveys were undertaken to ensure that the proposed visibility splays were adequate and that it was essential to determine the 85th percentile wet weather speeds at this locale to identify and speed related issues. However no speed survey results have been presented to demonstrate the proposed splays are satisfactory and as such I would request again that speed surveys are undertaken in accordance with DMRB CA 185 Vehicle speed measurement in order to ensure appropriate visibility standards can be provided in accordance with the relevant stopping sight distance. Notwithstanding this request, it is noted that the TA section 4.2.3 reads "*In discussions with BMBC, the applicant has been advised that a scheme to calm traffic speeds along the site frontage, particularly those of vehicles travelling in a southbound direction would be beneficial. Optima drawing number 21069/GA/01, a copy of which is contained at Appendix D shows the proposed traffic calming gateway scheme comprising a build out that requires southbound traffic to give way to northbound traffic leaving the village*" However, I am not aware of any discussions between the applicant and BMBC regarding a traffic calming scheme and would request that clarification is provided as to who these discussions were with as from a HDC perspective, I

would not be supportive of such a scheme circa 30m from the change in limit from 60mph to 30mph. Clearly it is imperative that the speed surveys are undertaken in order to ensure a safe access can be provided.

Whilst swept path analysis results have been presented, these are based on a previous site layout and will need to be updated to reflect the most up to date layout. In terms of design vehicles, I am satisfied with the design vehicle for home deliveries, however the fire appliance is smaller than that used within South Yorkshire and will require amending (Scania Rescue Pump 8.5m in length x 2.55 m in width (incl wing mirrors)) and I will require swept paths to ensure that two cars (Autotrack – large car 2006) can pass on the bends within the site. In terms of the site entrance, swept path results are to be presented for a refuse vehicle undertaking a left in left out manoeuvre. It should be noted that if the volume of two way traffic on High Street is greater than 500 vph in any peak hours, the refuse design vehicle must be able to undertake a left in left out manoeuvre without encroachment into the opposing lane. Lastly I will require the individual driveways taking access from High Street to have swept paths undertaken utilising the private car design vehicle (large car 2006) to ensure the driveways can accommodate parking and turning within the site curtilages in order to avoid the need to reverse onto High street (classified road). For reference, swept path analysis is to be carried out in accordance with the requirements contained within the South Yorkshire Residential Design Guide (SYRDG) sections 4b.2.1.28-29 and 4B.3.3.9-4B.3.3.12

It is unclear from the site layout whether a footway is to be provided along the site frontage. Currently there is no footway and as such there is a requirement to provide a 2m wide footway along the whole site frontage to tie into the existing footway on the south west fringe of the site.

Notwithstanding previous comments in relation to frontage parking, there remain areas where frontage parking dominates the street scene. Design of parking shall conform to the requirements set out within the Design of Housing Development SPD – accessed via: <https://www.barnsley.gov.uk/media/15709/design-of-housing-development-spd.pdf> Note – the maximum number of frontage parking spaces in a row is 4. There are areas where this is exceeded.

A number of shared private drives exceed 20m without turning suitable for a fire appliance / home delivery vehicles leading to the need for excessive reversing and contrary to Building Regulations Approved document B (Fire Safety)

Shared private drives are to have a refuse collection areas adjacent to the adoptable highway sufficient to accommodate 2 bins per property.

The maximum length of adoptable highway without turning provision suitable for a refuse vehicle to manoeuvre is 20m. The turning head adjacent to plots 60-63 exceeds this distance.

Visibility splays are to be shown at all internal site junctions in accordance with SSD's shown in table 7.1 of MfS replicated on P139 SYRDG. This is to include forward visibility curves on internal bends within the layout (See SYRDG page 138).

There is a distinct lack of speed restraint throughout the site. Streets serving residential sites and to be designed to achieve speeds of no more than 20mph with shared space streets designed to achieve speeds of circa 10mph. Individual speed controlling features for following design speeds are required at these spacing's: 20mph – 70 metres; Less than 20mph – 40 metres

Hoggin type footpaths are considered unsuitable for use in a residential development setting. There are approx. 8 locations where these interface with the adoptable highway and migration of loose material onto the highway is not acceptable.

The northern and southern cul-de-sacs served from the main spine access road retain a footway or pedestrian protected zone to one side of the carriageway with hard margin to the other, however there is no transition to shared space on entry. Clarification is sought over the detailed engineering arrangement proposed for this as it is normally expected that the front edge of the hard margin be faced with a 25mm high plasmobility kerb or similar with the transition to shared space via a 2m long ramp with footways extending 2m beyond the top of the ramp to ensure a smooth transition to shared space for pedestrians. Notwithstanding this the lack of footway between the northern cul-de-sac and eastern site boundary and area between site boundary and visitor parking bays adjacent to

plot 47 will compromise development of the safeguarded land SL22 and will therefore require a 2m wide footway to ensure future pedestrian connectivity is accommodated.

The main spine access road changes from 6m wide down to 5.5m wide at the junction with the northern cul-de-sac with the kerb line offset by 500mm. This is not acceptable and requires a constant carriageway width along its length.

There is no provision for pedestrians to access the footway along the front of plots 52-71 from the shared space street at the southern end of the development.

The minimum separation distance between the carriageway of High Street to the first vehicular access within the site e.g. driveway shall be 20m.

No proposals have been presented to facilitate improved pedestrian linkage between High Street and bus terminus to the Western side of High street. In order to improve accessibility by public transport this will be required due to the demand from the development site.

It is unclear what the two parallel lines across the main spine access road denote. Similarly there are two lines on the bend opposite plot 56 which are unclear.

Transport Assessment (Rev 1):

Para 1.2.3 refers to the planning layout contained in Appendix B, however Appendix B contains PIC data.

Para 1.3.1 is to reference 87 dwellings not 91.

Para 2.4.13 references current guidance on Travel Plans, Transport Assessment and Statements found on the Gov.uk website:

It is important to give appropriate consideration to the cumulative impacts arising from other committed development (i.e. development that is consented or allocated where there is a reasonable degree of certainty will proceed within the next 3 years). At the decision-taking stage this may require the developer to carry out an assessment of the impact of those adopted Local Plan allocations which have the potential to impact on the same sections of transport network as well as other relevant local sites benefitting from as yet unimplemented planning approval. The need for the developers consultant to be cognisant of this was raised in highways original comments on the TA, however no committed development has been considered within the capacity assessments to ensure the cumulative assessment of traffic impacts are taken account of. Please action accordingly.

Para 4.2.3 refers to a traffic calming scheme, please see comments on site layout and amend accordingly

Para 4.3 Please refer to comments on site layout above.

Section 5 Site Accessibility and Measures to influence Travel Behaviour – The summary concludes that there is generally good accessibility for pedestrians, cyclists and by public transport to a wide range of services and facilities. However this is based on distance of the site from local amenities and no assessment is provided in this or the existing infrastructure section of the suitability of the highway network to accept the additional sustainable mode trips associated with the application.

Para 6.1.2 – Refers to 86 dwellings relating to table 6.1, however table 6.1 refers to 91 dwellings. Notwithstanding this inconsistency the current proposal is for 87 dwellings

Para 7.1.2 – Figures 100 /101 - No baseline traffic flows have been shown on High Street at the proposed site access junction.

Para 7.1.10 – Previous comment remains applicable in that: *It is noted that the assessment only provides a future year assessment to 2025. The assessment would be considered more robust if 5 year post commencement future*

year assessment was undertaken. As such please amend the design year to commencement of development plus 5 years.

Para 7.1.12 - reference is made to 2021 AM and PM existing peak hour traffic flows. Presumably this should refer to Covid adjusted flows.

Para 7.1.13 Design Traffic Flows. There is a need to include committed development traffic flows in order to fully assess the cumulative impact of developments as referenced in the latest guidance on Travel Plans, Transport Assessment and Statements cited above.

Para 7.2.2 – This reads *“This section also contains the capacity assessment of the development access junction to demonstrate that the form of junction that is proposed is adequate and appropriate to serve the quantum of development proposed.”* However no such assessment has been undertaken. This is required to demonstrate that the proposed junction is adequate and appropriate to serve the quantum of development proposed.

Junction Capacity Assessment – General comment

The capacity assessment results carry a warning in relation to HV% being zero for all movements / Time segments. However where HGV's are part of the overall vehicle composition, there is a need for the vehicle mix matrix to be completed whether working in PCU's or not. This is because some parts of the models work with PCU and others use vehicles. If HV%ages are not entered, there is a risk that in particular queue and delay results may not be accurate.

Travel Plan

The development proposal needs to reflect the current quantum of development and layout. Furthermore, the proposed access needs to reflect the relevant visibility splays post speed survey (See comments above)

The Travel plan reads far too subjectively with use of the words should and could within the document. The plan is to be explicit in stating what measures will be implemented and what outcomes and targets will be have been set together with a clear monitoring and management arrangement identified. Examples within the document which are considered too vague are:

The use of could include within section 9.4 (Communication)

The use of should be undertaken within para 5.3.3;

The statement “consideration should be given to different groups that should be targeted” within para 9.4.1 (Communication).

The following is also to be included within the travel plan:

Firm financial commitments with regards to funding for the proposed measures.

Consistency between the targets for vehicle trip generation, and the vehicle trips assessed in the TA

Targets are to include those targets for all trips by sustainable modes and should reflect a proposed increase in walking and public transport trips. Secondary measures are also to reflect all sustainable modes.

Kind Regards

Wayne

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Appendix B Results of Radar Speed Survey



Great Houghton Speed Survey, B6273

Road Data Services Ltd.

Weather:
Overcast

Wednesday 4th May 2022
11:00-13:00

Northbound							
	Speeds (mph)		Speeds (mph)		Speeds (mph)		Speeds (mph)
1	20	51	26	101	29	151	34
2	22	52	26	102	29	152	34
3	23	53	26	103	29	153	34
4	23	54	26	104	29	154	34
5	23	55	26	105	29	155	34
6	23	56	26	106	29	156	34
7	23	57	26	107	29	157	35
8	23	58	26	108	30	158	35
9	23	59	26	109	30	159	35
10	23	60	26	110	30	160	35
11	23	61	26	111	30	161	35
12	23	62	26	112	30	162	35
13	23	63	26	113	30	163	35
14	23	64	26	114	30	164	35
15	23	65	26	115	30	165	36
16	23	66	26	116	30	166	36
17	23	67	26	117	30	167	36
18	23	68	26	118	30	168	36
19	24	69	26	119	30	169	36
20	24	70	27	120	30	170	36
21	24	71	27	121	31	171	36
22	24	72	27	122	31	172	36
23	24	73	27	123	31	173	36
24	24	74	27	124	31	174	36
25	24	75	27	125	31	175	37
26	24	76	27	126	31	176	37
27	24	77	27	127	31	177	37
28	24	78	27	128	31	178	37
29	25	79	27	129	31	179	37
30	25	80	27	130	31	180	37
31	25	81	27	131	31	181	38
32	25	82	27	132	31	182	38
33	25	83	27	133	32	183	38
34	25	84	28	134	32	184	38
35	25	85	28	135	32	185	38
36	25	86	28	136	32	186	38
37	25	87	28	137	32	187	38
38	25	88	28	138	33	188	38
39	25	89	28	139	33	189	39
40	25	90	28	140	33	190	39
41	25	91	28	141	33	191	39
42	25	92	28	142	33	192	39
43	25	93	28	143	33	193	39
44	25	94	28	144	33	194	39
45	25	95	28	145	33	195	39
46	25	96	28	146	33	196	39
47	26	97	29	147	33	197	40
48	26	98	29	148	33	198	40
49	26	99	29	149	33	199	41
50	26	100	29	150	34	200	41
ROAD SURFACE - DRY							

Average (mph)	29.8
Standard Deviation (mph)	5.0
85th Percentile (mph)	35.0
Wet Weather 85th Percentile (mph)	32.5
% > Speed Limit	40.0
% > 15mph over Speed Limit	0.0

SPEED
LIMIT



All speeds are recorded from free flowing vehicles

Southbound							
	Speeds (mph)		Speeds (mph)		Speeds (mph)		Speeds (mph)
1	22	51	27	101	32	151	36
2	22	52	27	102	32	152	36
3	23	53	27	103	32	153	36
4	24	54	27	104	32	154	37
5	24	55	27	105	32	155	37
6	24	56	27	106	32	156	37
7	24	57	28	107	32	157	37
8	24	58	28	108	32	158	37
9	24	59	28	109	33	159	37
10	24	60	28	110	33	160	37
11	24	61	28	111	33	161	37
12	24	62	28	112	33	162	37
13	24	63	28	113	33	163	37
14	24	64	28	114	33	164	37
15	24	65	29	115	33	165	38
16	24	66	29	116	33	166	38
17	25	67	29	117	33	167	38
18	25	68	29	118	33	168	38
19	25	69	29	119	33	169	38
20	25	70	29	120	33	170	38
21	25	71	29	121	33	171	39
22	25	72	29	122	34	172	39
23	25	73	29	123	34	173	39
24	25	74	30	124	34	174	39
25	25	75	30	125	34	175	39
26	25	76	30	126	34	176	39
27	25	77	30	127	34	177	39
28	26	78	30	128	34	178	39
29	26	79	30	129	34	179	39
30	26	80	30	130	34	180	40
31	26	81	30	131	34	181	40
32	26	82	31	132	35	182	40
33	26	83	31	133	35	183	40
34	26	84	31	134	35	184	40
35	26	85	31	135	35	185	40
36	26	86	31	136	35	186	41
37	26	87	31	137	35	187	41
38	26	88	31	138	35	188	41
39	26	89	31	139	35	189	41
40	26	90	31	140	35	190	41
41	27	91	31	141	35	191	41
42	27	92	31	142	35	192	41
43	27	93	31	143	35	193	41
44	27	94	31	144	36	194	41
45	27	95	31	145	36	195	42
46	27	96	32	146	36	196	42
47	27	97	32	147	36	197	43
48	27	98	32	148	36	198	43
49	27	99	32	149	36	199	43
50	27	100	32	150	36	200	43
ROAD SURFACE - DRY							

Average (mph)	32.0
Standard Deviation (mph)	5.4
85th Percentile (mph)	37.6
Wet Weather 85th Percentile (mph)	35.1
% > Speed Limit	59.5
% > 15mph over Speed Limit	0.0

SPEED
LIMIT



Appendix C Personal Injury Collision Data



Details of Personal Injury Accidents for Period - 01/01/2016 to 31/12/2020 (60) months

Selection: Notes:

Selected using Manual Selection

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

1638996 Wednesday DONCASTER ROAD (A635) Veh 1 M/C < 125 cc Starting S to N Dri M 22 Slight
06/01/2016 BARNSLEY AT OR WITHIN 20 MTS Veh 2 Car Going ahead W to N
0745hrs OF ROTHERHAM ROAD (A6195)
R1: A 635 Darkness: street lights present a
R2: A 6195 Wet/Damp
E 442,881 Fine without high winds
N 404,319 60 mph

Causation Factor: Participant: Confidence:
1st: Junction restart Vehicle 2 Very Likely
V1 IN NEARSIDE OF CATHILL RB HEASING IN DIRECTION OF THE A6195, V2 OULLS OUT OF THE DONCASTER ROAD JUNCTION, VAUSING V1 TO TAKE EVASIVE ACTION. V1 FALLS TO THE FLOOR, DAMAGE TO V1 AND DRIVER. V2 FAILS TO EXCHANGE DETAIL!

1647906 Thursday ROTHERHAM ROAD (A6195) Veh 1 Car Wait to turn right N to W Dri M 34 Slight
18/02/2016 BARNSLEY AT OR WITHIN 20 MTS Veh 1 Car Wait to turn right N to W FSP F 30 Slight
1320hrs OF FITZWILLIAM ROAD Veh 2 Car Going ahead N to S
R1: A 6195 Daylight:street lights present
R2: U Dry
E 442,933 Fine without high winds
N 404,608 60 mph

Causation Factor: Participant: Confidence:
1st: Following too close Vehicle 2 Very Likely
2nd: Poor turn or manoeuvre Vehicle 1 Possible
3rd: Careless/Reckless/In a hurry Vehicle 2
V1 WAS TURNGIN RIGHT, VEH2 HAS COLLIDED WITH RER OF V2, DID NOT SEE VEH 1 STOP

1662467 Wednesday ROTHERHAM ROAD (B6273) Veh 1 Car Turning right SW to SE Dri M 53 Slight
20/04/2016 BARNSLEY AT OR WITHIN 20 MTS Veh 2 Car Wait to turn right SW to SE Dri F 20 Slight
1815hrs OF MIDDLECLIFFE LANE
R1: B 6273 Daylight:street lights present
R2: U Dry
E 443,207 Fine without high winds
N 405,145 30 mph

Causation Factor: Participant: Confidence:
1st: Failed to look properly Vehicle 1 Very Likely
V1 WAITING TO TURN RIGHT HIT BY V2 FROM BEHIND

Details of Personal Injury Accidents for Period - 01/01/2016 to 31/12/2020 (60) months

Selection: Notes:

Selected using Manual Selection

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

1672628 Monday PARK SPRING ROAD (A6195) Veh 1 Car Starting W to E
 02/05/2016 BARNSELY AT OR WITHIN 20 MTS OF ROTHERHAM ROAD (B6273) Veh 2 M/C < 125 cc Wait go ahead held W to E Dri M 23 Slight
 R1: A 6195 0630hrs
 R2: B 6273 Daylight:street lights present
 E 442,929 Dry
 N 404,762 Fine without high winds
 60 mph

Causation Factor: Participant: Confidence:
 1st: Failed to look properly Vehicle 1 Possible
 2nd: Failed to judge other persons path or speed Vehicle 2 Possible
 V2 M/CYCLE WAITING TO JOIN ROUNDABOUT. V1 BEHIND V2 SETS OFF AND COLL WITH REAR OF M/CYCLE.

16119684 Saturday HIGH STREET (B6273) BARNSELY AT Veh 1 Car Going ahead RH bend S to N Dri M 19 Slight
 14/05/2016 OR WITHIN 20 MTS OF ACCESS Veh 1 Car Going ahead RH bend S to N FSP F 17 Slight
 R1: B 6273 1755hrs ROAD Veh 2 Car Starting N to S Dri M 20 Slight
 R2: U Daylight:street lights present Veh 2 Car Starting N to S M 21 Slight
 E 442,864 Dry
 N 407,052 Fine without high winds
 30 mph

Causation Factor: Participant: Confidence:
 1st: Failed to look properly Vehicle 2 Possible
 2nd: Road layout (eg bend, hill crest) Vehicle 2 Possible
 V1 HAS COME ALONG ROTHERHAM ROAD AND V2 HAS PULLED OUT THE JUNC WITH LISTER ROW AND COLLIDED WITH V1.

1674364 Monday ROTHERHAM ROAD (A6195) Veh 1 Car O/take s/veh o/side N to S Dri F 39 Slight
 23/05/2016 BARNSELY AT OR WITHIN 20 MTS OF FITZWILLIAM ROAD Veh 1 Car O/take s/veh o/side N to S FSP F 11 Slight
 R1: A 6195 2120hrs Veh 2 Car Turning right N to W
 R2: U Darkness: street lights present a
 E 442,932 Dry
 N 404,606 Fine without high winds
 60 mph

Causation Factor: Participant: Confidence:
 1st: Failed to judge other persons path or speed Vehicle 1 Possible
 V1 OVERATKING V2, V2 TURNS RIGHT COLL WITH V1. V2 FTS

Details of Personal Injury Accidents for Period - 01/01/2016 to 31/12/2020 (60) months

Selection: Notes:

Selected using Manual Selection

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

Causation Factor:

1690171 Wednesday A6195 BARNSLEY AT OR WITHIN 20 MTS OF DONCASTER ROAD (A635) Veh 1 Car Wait go ahead held S to N FSP F Slight
20/07/2016 1620hrs Veh 2 Car Wait go ahead held S to N
R1: A 6195
R2: A 635 Daylight:street lights present
E 442,887 Dry
N 404,270 Fine without high winds 60 mph

Causation Factor:

1st: Poor turn or manoeuvre
2nd: Failed to judge other persons path or speed
3rd: Failed to look properly

Participant:

Vehicle 2
Vehicle 2
Vehicle 2

Confidence:

Possible
Possible

V1 AT ROUNDABOUT (GOING AHEAD) V2 TRIES TO MOVE PAST, HITS V1 TWICE.

1690997 Thursday WEST KIRK LANE BARNSLEY AT OR WITHIN 20 MTS OF MIDDLECLIFF LANE Veh 1 Car Turning right SW to SE
21/07/2016 0855hrs Veh 2 M/C < 50 cc Going ahead SE to NW Dri M 29 Slight
R1: U
R2: U Daylight:street lights present
E 443,426 Dry
N 405,368 Fine without high winds 60 mph

Causation Factor:

1st: Failed to look properly
2nd: Junction restart
3rd: Vegetation

Participant:

Vehicle 1
Vehicle 1
Vehicle 1

Confidence:

Very Likely
Very Likely

V1 TURNED RIGHT AT JUNCTION. V2 TV WEST KIRK LANE. COLL OCCURRED.

1699985 Tuesday ROTHERHAM ROAD (B6273) BARNSLEY Veh 1 Car Wait go ahead held NE to SW Dri M 41 Slight
16/08/2016 1740hrs Veh 2 Car Wait go ahead held NE to SW
R1: B 6273
Daylight:street lights present
E 443,064 Dry
N 404,923 Fine without high winds 30 mph

Causation Factor:

1st: Driver using mobile phone

Participant:

Vehicle 2

Confidence:

Possible

V1 HAS BEEN PARKED IN WAITING TRAFFIC, V2 HAS HIT REAR OF V1. V1 DRIVER SUSTAINED WHIPLASH INJURIES

Details of Personal Injury Accidents for Period - 01/01/2016 to 31/12/2020 (60) months

Selection: Notes:

Selected using Manual Selection

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

Causation Factor:

16133535 Wednesday THURNSCOE LANE (B6411) Veh 1 Car Going ahead SE to SW Ped F 20 Slight
12/10/2016 BARNSELY AT OR WITHIN 20 MTS
0700hrs OF HIGH STREET (B6273)
R1: B 6411 Daylight:street lights present
R2: B 6273 Dry
E 443,324 Unknown
N 406,381 30 mph

Causation Factor:

1st: Careless/Reckless/In a hurry
2nd: Failed to signal/Misleading signal

Participant:

Vehicle 1
Vehicle 1

Confidence:

Possible
Very Likely

PEDN BEGINS TO CROSS ROAD WHEN VEH TRAVELS AROUND CORNER AND CLIPS PEDN.

16121680 Sunday ROTHERHAM ROAD (A6195) Veh 1 Car Going ahead N to S Dri F 50 Slight
16/10/2016 BARNSELY AT OR WITHIN 20 MTS Veh 2 Car Wait go ahead held N to S Dri M 41 Slight
1400hrs OF FITZWILLIAM ROAD Veh 3 Car Wait go ahead held N to S
R1: A 6195 Daylight:street lights present
R2: U Dry
E 442,934 Fine without high winds
N 404,611 60 mph

Causation Factor:

1st: Following too close
2nd: Failed to look properly
3rd: Failed to judge other persons path or speed
4th: Driver using mobile phone
5th: Careless/Reckless/In a hurry

Participant:

Vehicle 1
Vehicle 1
Vehicle 1
Vehicle 1
Vehicle 1

Confidence:

Possible
Possible
Possible
Possible
Very Likely

V1 COLLIDES WITH REAR OF V2 AND SHUNTS IT INTO REAR OF V3

16146601 Saturday HIGH STREET (B6273) BARNSELY AT Veh 1 M/C < 125 cc Going ahead SE to NW Dri M 21 Slight
05/11/2016 OR WITHIN 20 MTS OF THURNSCOE Veh 2 Car Wait to turn right NE to NW
1300hrs LANE (B6411)
R1: B 6273 Daylight:street lights present
R2: B 6411 Dry
E 443,318 Fine without high winds
N 406,377 30 mph

Causation Factor:

1st: Distraction outside vehicle
2nd: Failed to look properly

Participant:

Vehicle 2
Vehicle 1

Confidence:

Very Likely
Possible

V1 COLL WITH V2 AT STATED LOCATION

Details of Personal Injury Accidents for Period - 01/01/2016 to 31/12/2020 (60) months

Selection: Notes:

Selected using Manual Selection

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

Causation Factor:

16131715 Monday WEST KIRK LANE BARNSELY AT OR Veh 1 Car Going ahead S to N Dri F 53 Slight
14/11/2016 WITHIN 20 MTS OF BILLINGLEY Veh 2 Car Going ahead NE to SW
R1: U 1230hrs LANE
R2: U Daylight:street lights present
E 443,427 Dry
N 405,365 Fine without high winds
60 mph

Causation Factor:

Participant:

Confidence:

1st: Disobeyed Give Way or Stop sign or markings Vehicle 2 Very Likely
V1 TRAVELLING TW GREAT HOUGHTON APPROACHING XROADS. V2 TRAVELLING BILLINGLEY LANE FAILED TO STOP AT JUNC AND COLL OCCURRED.

16145745 Monday HIGH STREET (B6273) BARNSELY AT Veh 1 Goods < 3.5t Going ahead NWto SE Ped F 7 Slight
12/12/2016 OR WITHIN 20 MTS OF MOUNT
R1: B 6273 1603hrs AVENUE
R2: U Daylight:street lights present
E 443,256 Dry
N 406,438 Fine without high winds
30 mph

Causation Factor:

Participant:

Confidence:

1st: Failed to look properly Casualty 1 Very Likely
VEH TRAVELLING ROTHERHAM ROAD FROM HEMSWORTH TOWARDS THURNSCOPE. PEDN RUNS OUT INTO ROAD AND A COLL OCCURS.

16139040 Monday DONCASTER ROAD (A635) Veh 1 Car Turning right S to E Dri F 32 Slight
12/12/2016 BARNSELY J/W PRIVATE ENTRANCE Veh 2 Car Going ahead W to E Dri M 23 Slight
R1: A 635 0727hrs Veh 3 Car Going ahead E to W
R2: U Darkness: street lights present a
E 442,828 Dry
N 404,328 Fine without high winds
60 mph

Causation Factor:

Participant:

Confidence:

1st: Failed to look properly Vehicle 1 Very Likely
2nd: Failed to judge other persons path or speed Vehicle 1 Possible
VEHICLE 1 PULLING OUT OF CATHILL SERVICE STATION, TURNING RIGHT ONTO A695 - HITS VEHICLE 2 WHICH SPINS & HITS VEHICLE 3 TRAVELLING OPPOSITE DIRECTION.

Details of Personal Injury Accidents for Period - 01/01/2016 to 31/12/2020 (60) months

Selection: Notes:

Selected using Manual Selection

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

17162880 Thursday WEST KIRK LANE BARNSELY AT OR 23/02/2017 NR JN WITH BILLINGLEY LANE
R1: U 1613hrs
R2: U Daylight:street lights present
E 443,426 Wet/Damp
N 405,365 Raining with high winds 60 mph

Causation Factor: Participant: Confidence:
1st: Failed to look properly Vehicle 1 Very Likely
V2 TRAVELLING TOWARD GREAT HOUGHTON ON WEST KIRK LANE. V1 TRAVELLING ON BILLING LANE TOWARDS LITTLE HOUGHTON FAILS TO STOP AND COLL WITH OFFSIDE OF V2.

17169153 Tuesday ROTHERHAM ROAD (B6273) 21/03/2017 BARNSELY AT OR NR JN WITH JOHN STREET
R1: B 6273 0828hrs
R2: U Daylight:street lights present
E 443,370 Dry
N 406,274 Fine without high winds 30 mph

Causation Factor: Participant: Confidence:
1st: Cyclist entering road from pavement Vehicle 2 Very Likely
WITNESSES SEE CHILD ON BICYCLE, ON PAVEMENT SAME DIRECTION AS V1, TOWARDS BRIERLY. CHILD FALLS OFF BICYCLE FOR NO APPARENT REASON, INTO CARRIAGEWAY AND UNDER THE FOREMOST OF THE HGV'S REAR AXLES.

17169008 Saturday DEARNE VALLEY PARKWAY (A6195) 25/03/2017 BARNSELY AT OR NR JN WITH CATHILL ROUNDABOUT (A635)
R1: A 6195 1417hrs
R2: A 635 Daylight:street lights present
E 442,886 Dry
N 404,271 Fine without high winds 60 mph

Causation Factor: Participant: Confidence:
1st: Failed to look properly Vehicle 2 Possible
2nd: Failed to judge other persons path or speed Vehicle 2 Possible
3rd: Careless/Reckless/In a hurry Vehicle 2
V1 APPROPRACHING ROUNDABOUT. V1 COMES TO A STOP, HIT BY V2 BEHIND, DRIVER OF V2 FTS, VRM OBTAINED

Details of Personal Injury Accidents for Period - 01/01/2016 to 31/12/2020 (60) months

Selection: Notes:

Selected using Manual Selection

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

17216552	Friday	DEARNE VALLEY PARKWAY (A6195)	Veh 1	Car	Stopping	S	to	N	Dri	M	27	Slight
	11/08/2017	BARNSELY	Veh 1	Car	Stopping	S	to	N	RSP	M	4	Slight
R1: A 6195	1642hrs		Veh 1	Car	Stopping	S	to	N	FSP	F	32	Slight
	Daylight:street lights present		Veh 2	Car	Stopping	S	to	N	Dri	M	49	Slight
E 442,834	Dry		Veh 3	Car	Going ahead	S	to	N	Dri	F	27	Slight
N 404,131	Fine without high winds		Veh 3	Car	Going ahead	S	to	N	FSP	M	5	Slight
	60 mph											

Causation Factor:		Participant:	Confidence:
1st:	Sudden braking	Vehicle 3	Very Likely
2nd:	Failed to look properly	Vehicle 3	Very Likely
VEHICLE 3 DRIVER HAS BEEN DISTRACTED BY SON IN THE CAR, SHE HAS TURNED TO LOK AT HIM THEN TURNED BACK AS THE TRAFFIC IN FRONT HAS COME TO OR ABOUT TO STOP. V3 HAS HIT V2 SHUNTING IT INTO V1 ALL INJURIES ARE MINOR.			

17217414	Friday	ROTHERHAM ROAD (A6195)	Veh 1	Bus/coach	Stopping	N	to	S	Seat	F	55	Serious
	18/08/2017	BARNSELY AT OR NR JN WITH	Veh 2	Car	Going ahead	W	to	E				
R1: A 6195	1120hrs	CATHILL ROUNDABOUT (A635)										
R2: A 635	Daylight:street lights present											
E 442,907	Dry											
N 404,335	Fine without high winds											
	60 mph											

Causation Factor:		Participant:	Confidence:
1st:	Sudden braking	Vehicle 1	Very Likely
VEHICLE 1 APPROACHING CATHILL ROUNDABOUT, TRAVELLING ALONG ROTHERHAM ROAD A6195. VEHICLE 2 TRAVELLING AROUND THE ROUNDABOUT INDICATING THAT IT WOULD TAKE THE ROTHERHAM ROAD JUNCTION BUT CONTINUES ONTO THE A635 PASSING V1. V1 HAS TO BRAKE SUDDENLY TO AVOID IMPACT WITH V2. PASSENGER NOTIFY'S THE DRIVER IN BARNSELY THAT THEY HAVE MINOR INJURY DUE TO FALLING OFF THE SEAT.			

17219615	Monday	DONCASTER ROAD (A635)	Veh 1	Car	Stopping	W	to	E	Dri	F	51	Slight
	04/09/2017	BARNSELY	Veh 2	Car	Going ahead	W	to	E	Dri	F	54	Slight
R1: A 635	1312hrs		Veh 2	Car	Going ahead	W	to	E	FSP	F	33	Slight
	Daylight:street lights present		Veh 2	Car	Going ahead	W	to	E	RSP	F	10	Slight
E 443,093	Dry											
N 404,242	Fine without high winds											
	60 mph											

Causation Factor:		Participant:	Confidence:
1st:	Failed to judge other persons path or speed	Vehicle 2	Very Likely
2nd:	Failed to look properly	Vehicle 2	Very Likely
VEHICLE 1 WAS TRAVELLING ALONG A635 TOWARDS GOLDTHORPE VEHICLE 2 FILLowing AND VEHICLE 1 STOPS AND VEHICLE : BRAKES BUT A COLLISION OCCURS			

Details of Personal Injury Accidents for Period - 01/01/2016 to 31/12/2020 (60) months

Selection: Notes:

Selected using Manual Selection

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

17242294 Saturday HIGH STREET (B6273) BARNSLEY AT Veh 1 Car Going ahead SE to NW Ped M 12 Slight
04/11/2017 OR NR JN WITH MILTON STREET
R1: B 6273 1130hrs
R2: U Daylight:street lights present
E 442,935 Dry
N 406,734 Fine without high winds
30 mph

Causation Factor:

1st: Failed to look properly

2nd: Failed to judge vehicles path or speed

3rd: Failed to judge other persons path or speed

Participant:

Casualty 1

Casualty 1

Vehicle 1

Confidence:

Very Likely

Very Likely

10 YEAR OLD CHILD CROSSING THE HIGH STREET, GREAT HOUGHTON, APPEARS NOT TO HAVE LOOKED FULLY. THE DRIVER, TRAVELLING FROM DIRECTION OF CATHILL TOWARDS BRIERLEY HAS SEEN THE CHILD IN THE ROAD AT THE LAST MOMENT AND HAS BEEN UNABLE TO STOP. A LOW SPEED, LOW IMPACT COLLISION HAS OCCURED. THE DRIVER HAS STOPPED AND RETURNED THE CHILD TO HIS HOME ADDRESS ACROSS THE STREET. HERE THE POLICE HAVE BEEN CONTACTED AND DETAILS EXCHANGED. THE CHILD WAS CONVEYED TO BDGH AS A PRECAUTION

17242458 Monday DEARNE VALLEY PARKWAY (A6195) Veh 1 Car Stopping S to W RSP F 4 Slight
06/11/2017 BARNSLEY AT OR NR JN WITH Veh 1 Car Stopping S to W Dri M 29 Slight
R1: A 6195 0920hrs CATHILL ROUNDABOUT (A635) Veh 2 Car Starting S to N
R2: A 635 Daylight:street lights present
E 442,883 Dry
N 404,274 Fine without high winds
60 mph

Causation Factor:

1st: Distraction outside vehicle

Participant:

Vehicle 1

Confidence:

Very Likely

V001 WAS WAITING TO ENTER ROUNDABOUT (GOING SOUTH TO WEST), HOWEVER STOPPED SUDDENLY DUE TO ANOTHER VEHICLE CUTTING ACROSS LANES CAUSING V002 (SOUTH TO NORTH) TO COLLIDE INTO THE REAR OF IT.

17257467 Tuesday CATHILL ROUNDABOUT (A635) Veh 1 Pedal cycle Going ahead N to S Dri M 50 Serious
19/12/2017 BARNSLEY AT OR NR JN WITH Veh 2 Car Going ahead E to W
R1: A 635 2110hrs DEARNE VALLEY PARKWAY (A6195)
R2: A 6195 Darkness: street lights present a
E 442,924 Wet/Damp
N 404,290 Fine without high winds
60 mph

Causation Factor:

1st: Failed to look properly

Participant:

Vehicle 2

Confidence:

Very Likely

VEH 1 A PUSH BIKE RIDING AROUND CATHILL ROUNDABOUT INTENDING TO EXIT FOR WOMBWELL FROM THE A6195 (GREAT HOUGHTON). VEH 2 HAS ENTERED THE ROUNDABOUT FROM DONCASTER ROAD (GOLDTHORPE) AND COLLIDED WITH VEH 1 CAUSING RIDER TO FALL FROM HIS BIKE AND BANG HIS HEAD ON THE FLOOR. HELMET IS SMASHED AND RIDER WAS SEMI CONSCIOUS/UNCONSCIOUS. RIDER HAS SEEN HIS OWN DOCTOR ON THE 21/12/2017. THE LADY DRIVER OF VEH 2 IS A PRISON OFFICER.

Details of Personal Injury Accidents for Period - 01/01/2016 to 31/12/2020 (60) months

Selection: Notes:

Selected using Manual Selection

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

18261701	Saturday	DEARNE VALLEY PARKWAY (A6195)	Veh 1	Car	Going ahead	S	to	N			
	06/01/2018	BARNSELY	Veh 2	Car	Stopping	S	to	N	FSP	F	24 Slight
R1: A 6195	1420hrs		Veh 2	Car	Stopping	S	to	N	Dri	M	53 Slight
	Daylight:street lights present		Veh 3	Car	Stopping	S	to	N			
E 442,853	Dry										
N 404,177	Fine without high winds										
	60 mph										

Causation Factor:	Participant:	Confidence:
1st: Failed to judge other persons path or speed	Vehicle 1	Very Likely
2nd: Sudden braking	Vehicle 2	Possible
3rd: Sudden braking	Vehicle 1	Possible
4th: Sudden braking	Vehicle 3	Possible

V002 AND V003 WERE TRAVELLING ALONG THE A635 DEARNE VALLEY PARKWAY BETWEEN BROOMHILL ROUNDABOUT AND CATHILL ROUNDABOUT. AS THE VEHICLES BEGAN TO APPROACH WITHIN 200 METRES OF CATHILL ROUNDABOUT, AN UNKNOWN VEHICLE AHEAD HAS BRAKED. V003 HAS BEGUN TO SLOW AT WHICH POINT V002 HAS PULLED OUT SLIGHTLY TOWARDS THE WHITE LINE TO AVOID COLLISION. V001 THEN COLLIDED WITH V002 WHICH IN TURN THEN COLLIDED WITH V003 SHUNTING BOTH VEHICLES.

18289191	Wednesday	ROTHERHAM ROAD (A6195)	Veh 1	Car	Turning right	N	to	W			
	18/04/2018	BARNSELY AT OR NR JN WITH	Veh 2	Pedal cycle	O/take m/veh o/side	N	to	S	Dri	M	44 Slight
R1: A 6195	1714hrs	FITZWILLIAM ROAD									
R2: U	Daylight:street lights present										
E 442,932	Dry										
N 404,603	Fine without high winds										
	60 mph										

Causation Factor:	Participant:	Confidence:
1st: Failed to look properly	Vehicle 1	Possible
2nd: Failed to judge other persons path or speed	Vehicle 2	Possible

VEHICLE 1 WAITING TO TURN RIGHT INTO ROAD TO OFFSIDE IN QUEUE OF TRAFFIC. VEHICLE 2 PASSES BY FILTERING TRAFFIC AND AS VEHICLE 2 DRAWS ALONGSIDE VEHICLE 1, VEHICLE 1 SETS OFF TURNS RIGHT AND A MINOR COLLISION OCCURS. RIDER OF VEHICLE 2 FALLS OFF BIKE HAVING DOWN AN EMERGENCY STOP. HE RECEIVES CUTS AND BRUISES.

Details of Personal Injury Accidents for Period - 01/01/2016 to 31/12/2020 (60) months

Selection: Notes:

Selected using Manual Selection

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

18291217 Thursday MIDDLECLIFFE LANE BARNSELY Veh 1 Going ahead NE to SW Dri M 16 Slight
26/04/2018 Veh 2 Goods Unknown O/take m/veh o/side NE to SW
R1: U 1230hrs
Daylight:street lights present
E 443,342 Dry
N 405,243 Fine with high winds
60 mph

Causation Factor: Participant: Confidence:
1st: Careless/Reckless/In a hurry Vehicle 2 Very Likely
DRIVER ON SCOOTER TRAVELLING FROM THURNSCOE DOWN BILLINGLEY LANE TOWARDS MIDDLECLIFFE. HE BELIEVES A BLACK NISSAN OR MERCEDES VAN HAS OVERTAKEN HIM AND KNOCKED HIM OFF HIS SCOOTER. VAN HAS THEN FAILED TO STOP AND LEFT LOCATION. NO VRM OBTAINED FOR OF FENDING VEHICLE. DRIVER OF SCOOTER SUFFERED INJURIES TO HIS RIGHT HIP AND POSSIBLE CONCUSSION. TRANSPORTED TO NGH VIA AMBULANCE.

18323278 Tuesday ROTHERHAM ROAD (A6195) Veh 1 M/C > 500 cc O/take s/veh o/side N to S Dri M 37 Slight
21/08/2018 BARNSELY AT OR NR JN WITH Veh 2 Car Turning right N to W
R1: A 6195 1730hrs FITZWILLIAM ROAD
R2: U Daylight:street lights present
E 442,932 Dry
N 404,606 Fine without high winds
60 mph

Causation Factor: Participant: Confidence:
1st: Failed to judge other persons path or speed Vehicle 1 Very Likely
M/CYCLE WAS FILTERING PAST NEAR STATIONARY TRAFFIC WHERE CAR IN FRONT TURNED RIGHT, HAVING FIRST INDICATED INTENTIONS. M/CYCLE CLIPED REAR CORNER.

18338451 Wednesday DEARNE VALLEY PARKWAY (A6195) Veh 1 Car Going ahead S to N
17/10/2018 BARNSELY Veh 2 Car Going ahead S to N Dri M 62 Slight
R1: A 6195 0720hrs Veh 3 Car Going ahead S to N
Darkness: no street lighting Veh 4 Car Stopping S to N Dri M 35 Slight
E 442,875 Dry
N 404,234 Fine without high winds
60 mph

Causation Factor: Participant: Confidence:
1st: Careless/Reckless/In a hurry Vehicle 1 Very Likely
2nd: Failed to look properly Vehicle 1 Possible
4 VEHICLE RTC MINOR INJURIES APPROACHING CATHILL R'BOUT. TRAFFIC CAME TO A STOP AND CARS COLLIDED INTO EACH OTHER, SHUNTING ONES INFRONT.

Details of Personal Injury Accidents for Period - 01/01/2016 to 31/12/2020 (60) months

Selection: Notes:

Selected using Manual Selection

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

Causation Factor:

18342567 Thursday CATHILL ROUNDABOUT (A635) Veh 1 Turning left W to N
01/11/2018 BARNSELEY AT JN WITH Veh 2 M/C < 50 cc Going ahead W to E Dri M 45 Slight
0530hrs ROTHERHAM ROAD (A6195)
R1: A 635 Darkness: street lights present a
R2: A 6195 Dry
E 442,890 Fine without high winds
N 404,328 60 mph

Causation Factor:

1st: Careless/Reckless/In a hurry Participant: Vehicle 1 Confidence: Very Likely
2nd: Disobeyed Give Way or Stop sign or markings Participant: Vehicle 1 Confidence: Very Likely
V2 NEGOTIATING ROUNDABOUT AND IS PASSING THE EXIT TOWARDS FITZWILLIAM ROAD. V1 HAS COLLIDED WITH THE REAR OF V2 CAUSING THE RIDER TO FALL FROM HIS BIKE, CAUSING SLIGHT INJURY AND DAMAGE. V1 FAILS TO STOP AT THE SCENE.

19814448 Friday ROTHERHAM ROAD (B6273) Veh 1 Car Going ahead SE to NW Ped M 12 Slight
08/02/2019 BARNSELEY AT OR NR JN WITH
R1: B 6273 0720hrs MOUNT AVENUE
R2: U Daylight:street lights present
E 443,266 Dry
N 406,426 Unknown
30 mph

Causation Factor:

1st: Crossed road masked by stationary veh Participant: Casualty 1 Confidence: Very Likely
VEHICLE HAS BEEN DRIVING ALONG ROTHERHAM ROAD GREAT HOUGHTON, IN THE OPPOSITE DIRECTION A BUS HAS STOPPED. THE VEHICLE HAS SLOWED DOWN TO 19 MPH AS IT PASSES THE BUS, THE CASUALTY THEN RUNS OUT FROM BEHIND THE BUS INTO THE ROAD RESULTING IN THE VEHICLE COLLIDING WITH HIM.

19816788 Monday ROTHERHAM ROAD (B6273) Veh 1 Car Reversing SE to NW Ped M 87 Slight
18/02/2019 BARNSELEY AT OR NR JN WITH
R1: B 6273 1221hrs MOUNT AVENUE
R2: U Daylight:street lights present
E 443,268 Dry
N 406,436 Fine without high winds
30 mph

Causation Factor:

1st: Careless/Reckless/In a hurry Participant: Vehicle 1 Confidence: Possible
2nd: Crossed road masked by stationary veh Participant: Casualty 1 Confidence: Very Likely
V1 WAS PARKED ON ROTHERHAM ROAD, FACING TOWARDS LITTLE HOUGHTON WITH THE NEARSIDE WHEELS ON THE PAVEMENT TO PREVENT CAUSING AN OBSTRUCTION TO OTHER ROAD USERS. THERE HAS BEEN ANOTHER VEHICLE PARKED IN FRONT OF V1 AND SO HE HAS REVERSED SLIGHTLY, TO ENABLE HIM TO PULL AWAY. HE HAS NOT SEEN THE MALE STOOD IMMEDIATELY BEHIND HIS VEHICLE ON THE CORNER OF ROTHERHAM ROAD AND MOUNT AVENUE AND HAS REVERSED INTO HIM, CAUSING HIM TO FALL INTO THE ROAD.

Details of Personal Injury Accidents for Period - 01/01/2016 to 31/12/2020 (60) months

Selection: Notes:

Selected using Manual Selection

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

19827482 Friday ROTHERHAM ROAD (B6273) Veh 1 Car Going ahead SW to NE Ped F 74 Serious
29/03/2019 BARNSLEY
R1: B 6273 1115hrs
Daylight:street lights present
E 443,169 Dry
N 405,088 Fine without high winds
30 mph

Causation Factor: Participant: Confidence:
1st: Failed to look properly Casualty 1 Very Likely
PEDESTRIAN (IP1) WAS CROSSING THE ROAD TO POST A LETTER. SHE HAS STATED THAT SHE FAILED TO LOOK PROPERLY AND WAS STRUCK BY V1 AT LOW SPEED.

19851604 Wednesday DONCASTER ROAD (A635) Veh 1 Car Turning right W to SE FSP F 11 Slight
26/06/2019 BARNSLEY AT JN WITH TEXACO Veh 2 Goods Unknown Going ahead W to SE
R1: A 635 1820hrs FILLING STATION
R2: U Daylight:street lights present
E 442,841 Dry
N 404,318 Fine without high winds
60 mph

VEHICLE 1 HAD JUST STARTED TO PULL ONTO PETROL STATION JUST MOVING FORWARD VEHICLE2 A FORD TRANSIT PICKUP HAD DELIBERATELY RAMMED VEHICLE 2 PUSHED IT FORWARD THEN REVERSED AND DROVE OFF LEAVING NO DETAILS ,

19903375 Tuesday CATHILL ROUNDABOUT (A635) Veh 1 Car Going ahead to Dri M 22 Slight
12/11/2019 BARNSLEY AT OR NR JN WITH Veh 2 Car Parked 0 to 0
R1: A 635 1008hrs ROTHERHAM ROAD (A6195) Veh 3 Car Going ahead to
R2: A 6195 Daylight:street lights present Veh 4 Car Starting to
E 442,901 Dry
N 404,326 Unknown
60 mph

Causation Factor: Participant: Confidence:
1st: Inexperienced or learner driver/rider Vehicle 3 Possible
NO CIRCUS ON PRONTO - PICKED UP FROM FAILED QUEUE.

Details of Personal Injury Accidents for Period - 01/01/2016 to 31/12/2020 (60) months

Selection: Notes:

Selected using Manual Selection

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

Causation Factor:

19904659 Monday DEARNE VALLEY PARKWAY (A6195) Veh 1 Car Stopping S to N FSP F 37 Slight
02/12/2019 BARNSELEY Veh 2 Car Going ahead S to N Dri F 57 Slight
R1: A 6195 1344hrs Veh 3 Car Going ahead S to N Dri F 26 Slight
Daylight:street lights present Veh 4 Car Going ahead N to S Dri M 57 Slight
E 442,754 Wet/Damp
N 403,925 Fine without high winds
60 mph

Causation Factor:

1st: Following too close
2nd: Following too close

Participant:

Vehicle 2 Very Likely
Vehicle 3 Very Likely

Confidence:

V001 BRAKES FOR TRAFFIC AHEAD WHERE V002 COLLIDES WITH REAR OF V001. V002 LEAVES CARRIEGWAY WHERE V003 COLLIDES WITH ON COMING V04.

20915633 Monday ROTHERHAM ROAD (A6195) Veh 1 M/C < 125 cc O/take s/veh o/side N to S Dri M 28 Slight
06/01/2020 BARNSELEY Veh 2 Car Change lane to right N to S
R1: A 6195 0730hrs
Darkness: street lights present a
E 442,906 Dry
N 404,356 Fine without high winds
60 mph

Causation Factor:

1st: Careless/Reckless/In a hurry
2nd: Careless/Reckless/In a hurry

Participant:

Vehicle 1 Possible
Vehicle 2 Possible

Confidence:

V1 OVERTAKING QUEUING TRAFFIC. V2 PULLS OUT FROM THE QUEUING TRAFFIC, CROSSING BROKEN CENTRE WHITE LINE TO GET IN CLEAR RIGHT HAND LANE OF ROUNDABOUT. APPROX 30M FROM ROUNABOUT. V2 AND V1 COLLIDE.

20962378 Monday ROTHERHAM ROAD (B6273) Veh 1 Car Turning right NE to NW Dri F 29 Slight
06/07/2020 BARNSELEY AT OR NR JN WITH Veh 2 Car Going ahead NE to SW
R1: B 6273 1230hrs MIDDLECLIFFE LANE
R2: U Daylight:street lights present
E 443,200 Dry
N 405,136 Fine without high winds
30 mph

Causation Factor:

1st: Failed to look properly
2nd: Failed to judge other persons path or speed
3rd: Following too close
4th: Aggressive driving
5th: Defective brakes

Participant:

Vehicle 2 Very Likely
Vehicle 2 Very Likely
Vehicle 2 Possible
Vehicle 2 Possible
Vehicle 2 Possible

Confidence:

V1 TRAVELLING ALONG ROTHERHAM ROAD AND PREPARING TO TURN RIGHT. V2 HAS DRIVEN INTO THE BACK OF V1.

Details of Personal Injury Accidents for Period - 01/01/2016 to 31/12/2020 (60) months

Selection: Notes:

Selected using Manual Selection

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

20964867 Tuesday CATHILL ROUNDABOUT (A635) Veh 1 Car Starting N to W FSP F 23 Slight
 14/07/2020 BARNSELY AT OR NR JN WITH Veh 2 Car Going ahead W to E
 R1: A 635 1800hrs ROTHERHAM ROAD (A6195)
 R2: A 6195 Daylight:street lights present
 E 442,909 Dry
 N 404,324 Fine without high winds
 60 mph

Causation Factor: Participant: Confidence:
 1st: Failed to judge other persons path or speed Vehicle 1 Very Likely
 VEHICLE 1 WAS WAITING TO PULL OUT OF A JUCTION TURNING RIGHT. VEHICLE 2 WAS TRAVELING ALONG MAIN ROAD WITH HI
 LEFT HAND INDICATOR ON. VEHICLE 1 HAS ASSUMED THAT VEHICLE 2 IS TURNING LEFT SO HAS PULLED OUT. VEHICLE 2 HAS
 HIT VEHICLE 1 ON THE O/S

20986485 Friday PARK SPRING ROAD (A6195) Veh 1 Car Starting NWto SE Ped M 40 Slight
 02/10/2020 BARNSELY
 R1: A 6195 1920hrs
 Darkness: street lights present a
 E 442,890 Dry
 N 404,776 Fine without high winds
 60 mph

Causation Factor: Participant: Confidence:
 1st: Aggressive driving Vehicle 1 Very Likely
 V1 HAS BEEN TRAVELLING WITH NO LIGHTS, IP HAS BEEN TRAVELLING IN A DIFFERENT VEHICLE AND HAS STOPPED AND GOT
 OUT TO INFORM V1 THEY HAVE NO LIGHTS ON. DRIVER OF V1 GOT OUT THE CAR WAS VERBALLY ABUSIVE TO IP BEFORE
 GETTING BACK IN HIS CAR AND HAS DRIVING A
 T IP, HIT HIM CAUSING INJURY.

Appendix D Harron Homes Proposed Site Layout





KEY:

- 1800mm BRICK WALL
- 1800mm TIMBER FENCE
- PIER & PANEL FENCING
- 1200mm HIGH BLACK ESTATE RAILING
- TIMBER KNEE RAIL FENCE
- INDICATIVE EXTENT OF CRIBBLOCK WALL, SUBJECT TO ENGINEERING REVIEW
- MASONRY RETAINING WALL AND FENCE
- AFFORDABLE
- GATE
- BIN COLLECTION POINT CONSISTING OF 1No. 800x900mm CONCRETE PAVING SLAB PER BIN
- BLOCK PAVING
- TARMAC PRIVATE DRIVE
- HOGGIN FOOTPATH
- TRAFFIC CALMING TO BE AGREED THROUGH SECTION 38 PROCESS.
- VISITOR PARKING BAY
- INDICATIVE BANKING, GRADIENT SHOWN ON ENGINEERING LAYOUT
- EXISTING HEDGE ROW RETAINED
- MAINTENANCE ACCESS FOR ADJACENT FARM BUILDINGS
- PROPOSED TRAFFIC CALMING
- INDICATIVE LOCATION OF TREE PLANTING. SEE LANDSCAPING LAYOUT FOR FURTHER DETAILS
- VISIBILITY SPLAY

House Type	GFA	#	SqM	%
The Windlow (T4)	228	5	3790	3.7%
The Brackley (T7)	359	4	2632	4.6%
TOTAL EMPLOYED HOUSES		9	7622	10.3%
2 BEDS				
The Ludlow (13 Bungalow)	679	4	2712	4.6%
The Windlow (T4)	759	13	9854	14.0%
3 BEDS				
The Brackley (T7)	359	10	9579	11.5%
The Mawley (T8)	920	5	4648	5.7%
The Stockley (T10)	1102	12	13295	13.8%
The Warkley (T36)	1275	8	8600	9.2%
4 BLDG				
The Sheldor (T16)	1455	6	8732	6.9%
The Moreton (T32)	1355	6	8130	6.9%
The Empingham (T11/v1)	1540	8	17481	9.2%
The Embury (T19)	1722	6	10333	5.9%
TOTAL OPEN MARKET		78	85365	89.7%
GRAND TOTAL		87	95988	100.0%

Notes

1. Do not scale from this drawing. All dimensions must be checked on site prior to the commencement of any fabrication or building works. Where applicable, dimensions and details are to be read in conjunction with specialist consultants' drawings and/or other specifications; any disparity is to be brought to the attention of the office & clarification sought before proceeding.

2. Any dimensions shown on this drawing are in (millimetres/metres)

[REV: R]	[DATE: 06.05.22]	[DRAWN: JFE]	[CHECKED: JFE]
LAYOUT UPDATED IN LINE WITH COMMENTS RECEIVED FROM HIGHWAYS. T32 HOUSE TYPES REDUCED TO 6No. T17v1 INCREASED TO 8No.			
[REV: O]	[DATE: 24.03.22]	[DRAWN: JFE]	[CHECKED: JFE]
HOUSE TYPE INFORMATION UPDATED			
[REV: P]	[DATE: 14.03.22]	[DRAWN: JFE]	[CHECKED: JFE]
LAYOUT UPDATED TO SUITE VEHICLE TRACKING.			
[REV: O]	[DATE: 04.02.22]	[DRAWN: JFE]	[CHECKED: JFE]
LAYOUT AND MIX ADJUSTED TO REFLECT LATEST PLANNING COMMENTS.			
[REV: N]	[DATE: 17.07.22]	[DRAWN: GY]	[CHECKED: JFE]
LAYOUT AMENDED TO REFLECT CHANGE IN HOUSE TYPE MIX FOR THE WHOLE SITE.			
[REV: W]	[DATE: 17.01.22]	[DRAWN: GY]	[CHECKED: JFE]
PLOTS 52-56 AMENDED TO ACCOMMODATE LOSS OF LAND AT BOUNDARY OF APPROX 131M2. PLOTS 70-72 AMENDED TO OPEN MARKET.			
[REV: L]	[DATE: 17.12.21]	[DRAWN: JFE]	[CHECKED: ##]
MIX ADJUSTED TO REDUCE DENSITY. TOTAL NUMBER OF UNITS DECREASED TO 88. TONBRIDGE AND WARKWORTH HOUSE TYPES REMOVED FROM MIX AND REPLACED BY THE T16 & T19. PLOTS 7-11 REORIENTED TO FACE ONTO POS. POS IN THIS AREA INCREASED. GARDEN LENGTHS TO PLOTS TO SOUTH OF SITE INCREASED FURTHER TO COMMENTS FROM PLANNING. ROAD PATTERN TO SOUTH OF SITE ADJUSTED TO SUIT.			
[REV: K]	[DATE: 24.11.21]	[DRAWN: JFE]	[CHECKED: ##]
PLOTS 1-3, 29 & 30 RECONFIGURED. ADOPTED HIGHWAY TO FRONT OF PLOTS 23-25 EXTENDED AND TURNING HEAD ADDED. TURNING HEADS ON PRIVATE DRIVES ADJUSTED TO SUIT VEHICLE TRACKING.			
[REV: J]	[DATE: 08.11.21]	[DRAWN: JFE]	[CHECKED: ##]
PLOTS 50 & 51 HANDED, TO AVOID ENCROACHMENT INTO MAINTENANCE STRIP.			
[REV: I]	[DATE: 01.11.21]	[DRAWN: JFE]	[CHECKED: ##]
PLOTS 56-67 RECONFIGURED FURTHER TO COMMENTS FROM PLANNING. SHARED SURFACED TO SOUTH OF SITE REDUCED. FURTHER TO COMMENTS FROM HIGHWAYS. VISITOR PARKINGS ADDED. ENTRANCE ROAD WIDENED TO 6M TO ALLOW ON STREET PARKING. TURNING FACILITIES ADDED TO PRIVATE DRIVES WHERE NECESSARY.			
[REV: H]	[DATE: 24.08.21]	[DRAWN: JFE]	[CHECKED: ##]
SOUTH OF SITE RECONFIGURED TO ALLOW SPACE FOR A 6M MAINTENANCE ACCESS STRIP FOR ADJACENT FARM BUILDINGS.			
[REV: G]	[DATE: 28.07.21]	[DRAWN: JB]	[CHECKED: ##]
BIRWTH HOUSE TYPES REMOVED AND REPLACED WITH T32 HOUSE TYPES AND ADDITIONAL BAYBRIDGE TYPES. SCHEDULE OF ACCOMMODATION UPDATED.			
[REV: F]	[DATE: 23.07.21]	[DRAWN: JB]	[CHECKED: ##]
FOOTPATH AMENDED TO HARD MARGIN TO FRONT OF PLOTS 18 TO 23 AND PLOTS PULLED FORWARD TO AVOID EXISTING HEDGE. PLOTS 3, 4, 5, 12, 13, 14, 15 MOVED FURTHER WEST. TURNING HEAD ADDED ADJACENT PLOT 90.			
[REV: E]	[DATE: 19.07.21]	[DRAWN: JB]	[CHECKED: ##]
THE ALDERTON AMENDED TO BAYBRIDGE. SETTLE V1 ADDED. SCHEDULE OF ACCOMMODATION UPDATED. BLOCK PAVING SHOWN TO OPEN MARKET BAMBURGH TYPES. BASIN AMENDED TO LATEST ENGINEERS PROPOSALS.			
[REV: D]	[DATE: 05.07.21]	[DRAWN: JB]	[CHECKED: ##]
HOUSE TYPE MIX AMENDED. SCHEDULE OF ACCOMMODATION UPDATED.			
[REV: C]	[DATE: 02.06.21]	[DRAWN: JB]	[CHECKED: ##]
NEW SUB STATION ADDED TO PRIVATE DRIVE BETWEEN PLOTS 75 & 78.			
[REV: B]	[DATE: 07.05.21]	[DRAWN: JB]	[CHECKED: ##]
ROAD AMENDED TO FRONT OF PLOTS 51 & 66. PLOTS 63-66 POSITIONS ADJUSTED. TURNING HEAD ADDED TO PRIVATE DRIVE SERVING PLOTS 12-15. BASINS ADDED IN LINE WITH ENGINEERS PROPOSALS.			
[REV: A]	[DATE: 18.04.21]	[DRAWN: JB]	[CHECKED: ##]
FW SEWER & EASEMENT ADJUSTED IN LINE WITH FULL UTILITY SURVEY RECEIVED.			

Revisions



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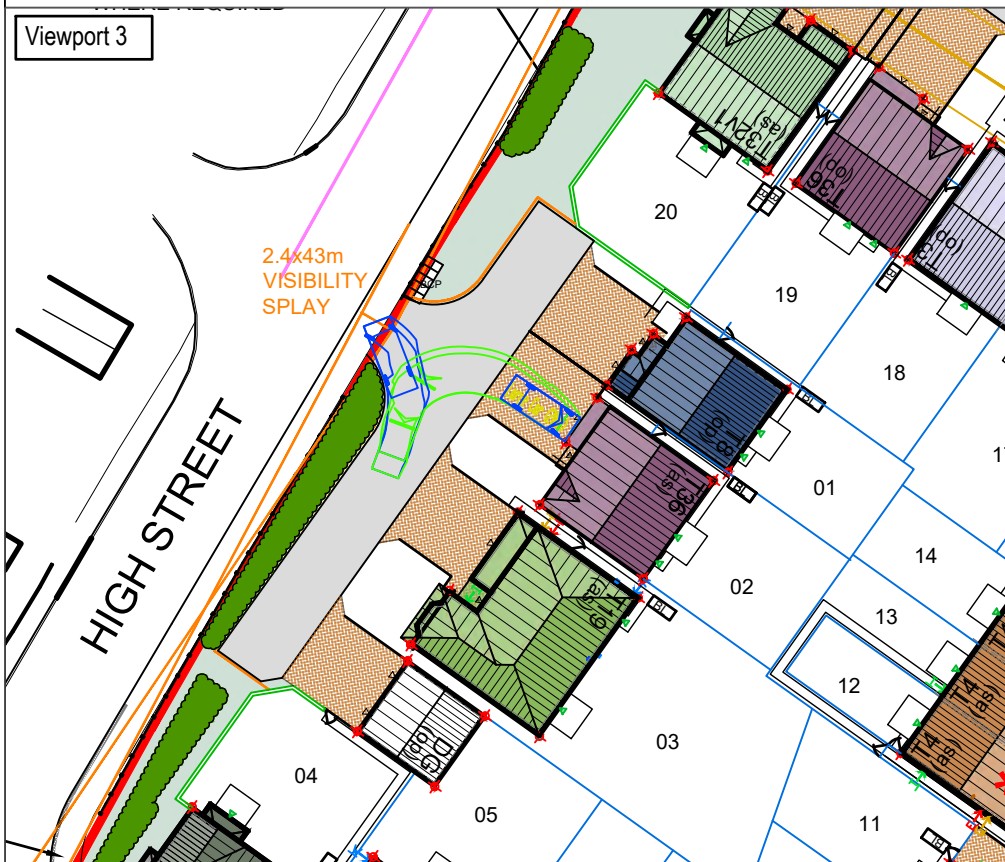
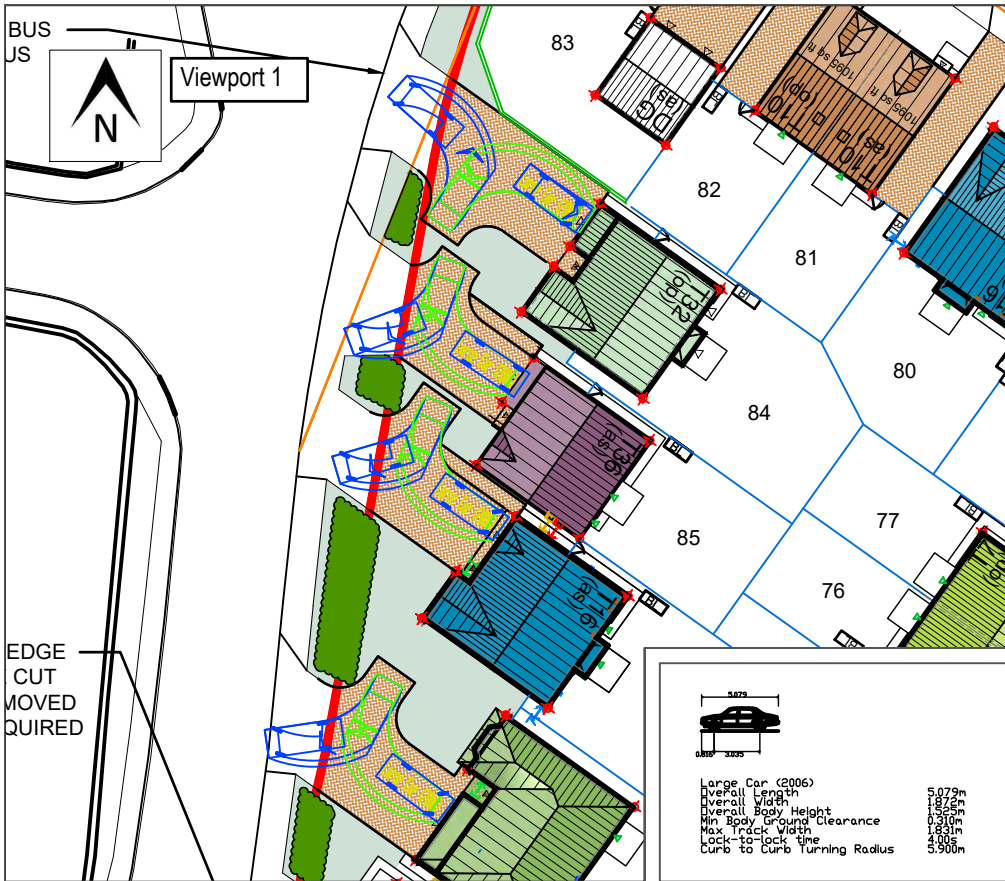
Appendix E Swept Path Analysis





Based on 563-PL-01-J-Great Houghton Site Layout Rev R

						PROJECT HIGH STREET GREAT HOUGHTON	CLIENT HARRON HOMES YORKSHIRE				 OPTIMA Intelligent Highway Solutions Suite 1, 3rd Floor, Goodbard House, Infirmary Street Leeds LS1 2JP optimahighways.com T 0113 245 1679
B	10/05/22	CJF	AMENDED LAYOUT FOR REV R	EAG	EAG		DRAWING TITLE	CHECKED	APPROVED	DRG No.	
A	15/03/22	MSP	AMENDED FOR LAYOUT REV P	EAG	EAG			EAG	EAG	21069/ATR/03	
-	09/03/22	MSP	INITIAL ISSUE	EAG	EAG						
REV	DATE	BY	DESCRIPTION	CHK	APP	SITE LAYOUT ARRANGEMENTS REFUSE VEHICLE AND LARGE CAR SWEPT PATH ANALYSIS	DRAWN BY:	SCALE @ A2	DATE	REV.	
STATUS							CJF	1:500	10/05/22	B	
PRELIMINARY											



Based on 563-PL-01-J-Great Houghton Site Layout Rev R

						PROJECT HIGH STREET GREAT HOUGHTON	CLIENT HARRON HOMES YORKSHIRE				 OPTIMA Intelligent Highway Solutions Suite 1, 3rd Floor, Goodbard House, Infirmary Street Leeds LS1 2JP optimahighways.com T 0113 245 1679	
-	10/05/22	CJF	INITIAL ISSUE	EAG	EAG		DRAWING TITLE	CHECKED EAG	APPROVED EAG	DRG No. 21069/ATR/06		
REV	DATE	BY	DESCRIPTION	CHK	APP		PRIVATE DRIVEWAY ARRANGEMENTS LARGE CAR SWEPT PATH ANALYSIS	DRAWN BY: CJF	SCALE @ A3 1:500	DATE MAY 2022		REV. -
STATUS PRELIMINARY												

Appendix F TRICS Data



TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST	
	HC HAMPSHIRE	1 days
	KC KENT	3 days
	SC SURREY	1 days
	WS WEST SUSSEX	1 days
03	SOUTH WEST	
	DV DEVON	3 days
	SM SOMERSET	2 days
	WL WILTSHIRE	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	2 days
	SF SUFFOLK	3 days
05	EAST MIDLANDS	
	LE LEICESTERSHIRE	1 days
	NR NORTHAMPTONSHIRE	2 days
06	WEST MIDLANDS	
	WK WARWICKSHIRE	1 days
	WM WEST MIDLANDS	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	3 days
	SY SOUTH YORKSHIRE	3 days
	WY WEST YORKSHIRE	1 days
08	NORTH WEST	
	CH CHESHIRE	1 days
	GM GREATER MANCHESTER	1 days
	MS MERSEYSIDE	1 days
09	NORTH	
	DH DURHAM	2 days
	TW TYNE & WEAR	2 days
10	WALES	
	PS POWYS	1 days
11	SCOTLAND	
	FA FALKIRK	2 days
	HI HIGHLAND	1 days

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

Primary Filtering selection:

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

Parameter: No of Dwellings
Actual Range: 8 to 207 (units:)
Range Selected by User: 4 to 250 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/13 to 20/10/20

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

Selected survey days:

Monday	9 days
Tuesday	7 days
Wednesday	9 days
Thursday	9 days
Friday	6 days

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

Selected survey types:

Manual count	40 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	21
Neighbourhood Centre (PPS6 Local Centre)	19

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	25
Village	15

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

Secondary Filtering selection:

Use Class:

C3	40 days
----	---------

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

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,000 or Less	2 days
1,001 to 5,000	12 days
5,001 to 10,000	10 days
10,001 to 15,000	3 days
15,001 to 20,000	4 days
20,001 to 25,000	2 days
25,001 to 50,000	6 days
50,001 to 100,000	1 days

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

Secondary Filtering selection (Cont.):

Population within 5 miles:

5,001 to 25,000	4 days
25,001 to 50,000	5 days
50,001 to 75,000	6 days
75,001 to 100,000	6 days
100,001 to 125,000	1 days
125,001 to 250,000	10 days
250,001 to 500,000	6 days
500,001 or More	2 days

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

Car ownership within 5 miles:

0.6 to 1.0	15 days
1.1 to 1.5	21 days
1.6 to 2.0	4 days

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

Travel Plan:

Yes	4 days
No	36 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	40 days
-----------------	---------

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

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions
-----------------------	-----	--

LIST OF SITES relevant to selection parameters

1	CA-03-A-05 EASTFIELD ROAD PETERBOROUGH	DETACHED HOUSES	CAMBRIDGESHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 28 Survey date: MONDAY 17/10/16		
2	CA-03-A-06 CRAFT'S WAY NEAR CAMBRIDGE BAR HILL	MIXED HOUSES	CAMBRIDGESHIRE
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 207 Survey date: FRIDAY 22/06/18		
3	CH-03-A-11 LONDON ROAD NORTHWICH LEFTWICH	TOWN HOUSES	CHESHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 24 Survey date: THURSDAY 06/06/19		
4	DH-03-A-01 GREENFIELDS ROAD BISHOP AUCKLAND	SEMI DETACHED	DURHAM
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 50 Survey date: TUESDAY 28/03/17		
5	DH-03-A-02 LEAZES LANE BISHOP AUCKLAND ST HELEN AUCKLAND	MIXED HOUSES	DURHAM
	Neighbourhood Centre (PPS6 Local Centre) Residential Zone Total No of Dwellings: 125 Survey date: MONDAY 27/03/17		
6	DV-03-A-01 BRONSHILL ROAD TORQUAY	TERRACED HOUSES	DEVON
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 37 Survey date: WEDNESDAY 30/09/15		
7	DV-03-A-02 MILLHEAD ROAD HONITON	HOUSES & BUNGALOWS	DEVON
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 116 Survey date: FRIDAY 25/09/15		
8	DV-03-A-03 LOWER BRAND LANE HONITON	TERRACED & SEMI DETACHED	DEVON
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 70 Survey date: MONDAY 28/09/15		
9	FA-03-A-01 MANDELA AVENUE FALKIRK	SEMI-DETACHED / TERRACED	FALKIRK
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 37 Survey date: THURSDAY 30/05/13		

Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

10	FA-03-A-02	MIXED HOUSES	FALKIRK
	ROSEBANK AVENUE & SPRINGFIELD DRIVE		
	FALKIRK		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	161	
	Survey date: WEDNESDAY	29/05/13	Survey Type: MANUAL
11	GM-03-A-11	TERRACED & SEMI-DETACHED	GREATER MANCHESTER
	RUSHFORD STREET		
	MANCHESTER		
	LEVENSHULME		
	Neighbourhood Centre (PPS6 Local Centre)		
	Residential Zone		
	Total No of Dwellings:	37	
	Survey date: MONDAY	26/09/16	Survey Type: MANUAL
12	HC-03-A-23	HOUSES & FLATS	HAMPSHIRE
	CANADA WAY		
	LIPHOOK		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	62	
	Survey date: TUESDAY	19/11/19	Survey Type: MANUAL
13	HI-03-A-14	SEMI-DETACHED & TERRACED	HIGHLAND
	KING BRUDE ROAD		
	INVERNESS		
	SCORGUIE		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	40	
	Survey date: WEDNESDAY	23/03/16	Survey Type: MANUAL
14	KC-03-A-03	MIXED HOUSES & FLATS	KENT
	HYTHE ROAD		
	ASHFORD		
	WILLESBOROUGH		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	51	
	Survey date: THURSDAY	14/07/16	Survey Type: MANUAL
15	KC-03-A-05	DETACHED & SEMI-DETACHED	KENT
	ROCHESTER ROAD		
	NEAR CHATHAM		
	BURHAM		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	8	
	Survey date: FRIDAY	22/09/17	Survey Type: MANUAL
16	KC-03-A-08	MIXED HOUSES	KENT
	MAIDSTONE ROAD		
	CHARING		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	159	
	Survey date: TUESDAY	22/05/18	Survey Type: MANUAL
17	LE-03-A-02	DETACHED & OTHERS	LEICESTERSHIRE
	MELBOURNE ROAD		
	IBSTOCK		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	85	
	Survey date: THURSDAY	28/06/18	Survey Type: MANUAL
18	MS-03-A-03	DETACHED	MERSEYSIDE
	BEMPTON ROAD		
	LIVERPOOL		
	OTTERSPOOL		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	15	
	Survey date: FRIDAY	21/06/13	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

19	NR-03-A-02	DETACHED & SEMI-DETACHED	NORTHAMPTONSHIRE
	HARLESTONE ROAD NEAR NORTHAMPTON CHAPEL BRAMPTON Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 47 Survey date: TUESDAY 20/10/20 Survey Type: MANUAL		
20	NR-03-A-03	MIXED HOUSES & FLATS	NORTHAMPTONSHIRE
	MAIN STREET NEAR WELLINGBOROUGH LITTLE HARROWDEN Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 44 Survey date: TUESDAY 20/10/20 Survey Type: MANUAL		
21	NY-03-A-08	TERRACED HOUSES	NORTH YORKSHIRE
	NICHOLAS STREET YORK Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 21 Survey date: MONDAY 16/09/13 Survey Type: MANUAL		
22	NY-03-A-09	MIXED HOUSING	NORTH YORKSHIRE
	GRAMMAR SCHOOL LANE NORTHALLERTON Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 52 Survey date: MONDAY 16/09/13 Survey Type: MANUAL		
23	NY-03-A-13	TERRACED HOUSES	NORTH YORKSHIRE
	CATTERICK ROAD CATTERICK GARRISON OLD HOSPITAL COMPOUND Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 10 Survey date: WEDNESDAY 10/05/17 Survey Type: MANUAL		
24	PS-03-A-02	DETACHED / SEMI-DETACHED	POWYS
	GUNROG ROAD WELSHPOOL Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 28 Survey date: MONDAY 11/05/15 Survey Type: MANUAL		
25	SC-03-A-06	MIXED HOUSES & FLATS	SURREY
	AMLETS LANE CRANLEIGH Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 116 Survey date: THURSDAY 08/10/20 Survey Type: MANUAL		
26	SF-03-A-06	DETACHED & SEMI-DETACHED	SUFFOLK
	BURY ROAD KENTFORD Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 38 Survey date: FRIDAY 22/09/17 Survey Type: MANUAL		

LIST OF SITES relevant to selection parameters (Cont.)

27	SF-03-A-07	MIXED HOUSES	SUFFOLK
	FOXHALL ROAD		
	IPSWICH		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	73	
	Survey date: THURSDAY	09/05/19	Survey Type: MANUAL
28	SF-03-A-08	MIXED HOUSES	SUFFOLK
	STANNINGFIELD ROAD		
	NEAR BURY ST EDMUNDS		
	GREAT WHELNETHAM		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	34	
	Survey date: WEDNESDAY	16/09/20	Survey Type: MANUAL
29	SM-03-A-02	MIXED HOUSES	SOMERSET
	HYDE LANE		
	NEAR TAUNTON		
	CREECH SAINT MICHAEL		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	42	
	Survey date: TUESDAY	25/09/18	Survey Type: MANUAL
30	SM-03-A-03	MIXED HOUSES	SOMERSET
	HYDE LANE		
	NEAR TAUNTON		
	CREECH ST MICHAEL		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	41	
	Survey date: TUESDAY	25/09/18	Survey Type: MANUAL
31	SY-03-A-01	SEMI DETACHED HOUSES	SOUTH YORKSHIRE
	A19 BENTLEY ROAD		
	DONCASTER		
	BENTLEY RISE		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	54	
	Survey date: WEDNESDAY	18/09/13	Survey Type: MANUAL
32	SY-03-A-02	DETACHED & BUNGALOWS	SOUTH YORKSHIRE
	MANOR ROAD		
	NEAR SHEFFIELD		
	WALES		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	25	
	Survey date: THURSDAY	10/09/20	Survey Type: MANUAL
33	SY-03-A-03	BUNGALOWS & DETACHED	SOUTH YORKSHIRE
	CHURCH LANE		
	NEAR BARNSELEY		
	WORSBROUGH		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	19	
	Survey date: WEDNESDAY	09/09/20	Survey Type: MANUAL
34	TW-03-A-02	SEMI-DETACHED	TYNE & WEAR
	WEST PARK ROAD		
	GATESHEAD		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	16	
	Survey date: MONDAY	07/10/13	Survey Type: MANUAL
35	TW-03-A-03	MIXED HOUSES	TYNE & WEAR
	STATION ROAD		
	NEAR NEWCASTLE		
	BACKWORTH		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	33	
	Survey date: FRIDAY	13/11/15	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

36	WK-03-A-03	DETACHED HOUSES	WARWICKSHIRE
	BRESE AVENUE		
	WARWICK		
	GUYS CLIFFE		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	23	
	Survey date: WEDNESDAY	25/09/19	Survey Type: MANUAL
37	WL-03-A-02	SEMI DETACHED	WILTSHIRE
	HEADLANDS GROVE		
	SWINDON		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	27	
	Survey date: THURSDAY	22/09/16	Survey Type: MANUAL
38	WM-03-A-04	TERRACED HOUSES	WEST MIDLANDS
	OSBORNE ROAD		
	COVENTRY		
	EARLSDON		
	Neighbourhood Centre (PPS6 Local Centre)		
	Residential Zone		
	Total No of Dwellings:	39	
	Survey date: MONDAY	21/11/16	Survey Type: MANUAL
39	WS-03-A-07	BUNGALOWS	WEST SUSSEX
	EMMS LANE		
	NEAR HORSHAM		
	BROOKS GREEN		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	57	
	Survey date: THURSDAY	19/10/17	Survey Type: MANUAL
40	WY-03-A-01	MIXED HOUSING	WEST YORKSHIRE
	SPRING VALLEY CRESCENT		
	LEEDS		
	BRAMLEY		
	Neighbourhood Centre (PPS6 Local Centre)		
	Residential Zone		
	Total No of Dwellings:	46	
	Survey date: WEDNESDAY	21/09/16	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.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
AN-03-A-08	Ireland
BN-03-A-03	Greater London
CS-03-A-03	Ireland
CS-03-A-04	Ireland
DN-03-A-05	Ireland
DN-03-A-08	Ireland
HG-03-A-01	Greater London
LT-03-A-01	Ireland
RO-03-A-04	Ireland
WX-03-A-01	Ireland

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

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

15th Percentile = No. 34 WS-03-A-07 Tot: 0.280

85th Percentile = No. 7 KC-03-A-03 Tot: 0.745

Median Values

Arrivals: 0.212

Departures: 0.292

Totals: 0.504

Mean Values

Arrivals: 0.151

Departures: 0.356

Totals: 0.507

Rank	Site-Ref	Description	Town/City	Area	DWELLS	Day	Date	Trip Rate (Sorted by Totals)			Park Spaces Per Dwelling
								Arrivals	Departures	Totals	
1	MS-03-A-03	DETACHED	LIVERPOOL	MERSEYSIDE	15	Fri	21/06/13	0.400	0.933	1.333	3.00
2	WL-03-A-02	SEMI DETACHED	SWINDON	WILTSHIRE	27	Thu	22/09/16	0.444	0.481	0.925	4.52
3	NY-03-A-13	TERRACED HOUSE	CATTERICK GARRISON	NORTH YORKSHIRE	10	Wed	10/05/17	0.200	0.700	0.900	1.90
4	CH-03-A-11	TOWN HOUSES	NORTHWICH	CHESHIRE	24	Thu	06/06/19	0.292	0.542	0.834	1.96
5	SM-03-A-02	MIXED HOUSES	NEAR TAUNTON	SOMERSET	42	Tue	25/09/18	0.286	0.500	0.786	3.38
6	TW-03-A-03	MIXED HOUSES	NEAR NEWCASTLE	TYNE & WEAR	33	Fri	13/11/15	0.212	0.545	0.757	4.00
7	KC-03-A-03	MIXED HOUSES &	ASHFORD	KENT	51	Thu	14/07/16	0.157	0.588	0.745	2.16
8	SY-03-A-02	DETACHED & BUN	NEAR SHEFFIELD	SOUTH YORKSHIRE	25	Thu	10/09/20	0.200	0.480	0.680	4.08
9	CA-03-A-05	DETACHED HOUSE	PETERBOROUGH	CAMBRIDGESHIRE	28	Mon	17/10/16	0.143	0.536	0.679	3.50
10	TW-03-A-02	SEMI-DETACHED	GATESHEAD	TYNE & WEAR	16	Mon	07/10/13	0.188	0.438	0.626	2.38
11	FA-03-A-01	SEMI-DETACHED/	FALKIRK	FALKIRK	37	Thu	30/05/13	0.189	0.432	0.621	1.41
12	DV-03-A-01	TERRACED HOUSE	TORQUAY	DEVON	37	Wed	30/09/15	0.162	0.459	0.621	2.78
13	DV-03-A-03	TERRACED & SEM	HONITON	DEVON	70	Mon	28/09/15	0.086	0.529	0.615	1.66
14	HC-03-A-23	HOUSES & FLATS	LIPHOOK	HAMPSHIRE	62	Tue	19/11/19	0.113	0.500	0.613	2.19
15	HI-03-A-14	SEMI-DETACHED	INVERNESS	HIGHLAND	40	Wed	23/03/16	0.125	0.475	0.600	2.23
16	CA-03-A-06	MIXED HOUSES	NEAR CAMBRIDGE	CAMBRIDGESHIRE	207	Fri	22/06/18	0.184	0.401	0.585	3.75
17	LE-03-A-02	DETACHED & OTH	IBSTOCK	LEICESTERSHIRE	85	Thu	28/06/18	0.212	0.353	0.565	4.27
18	SM-03-A-03	MIXED HOUSES	NEAR TAUNTON	SOMERSET	41	Tue	25/09/18	0.171	0.390	0.561	2.88
19	SF-03-A-07	MIXED HOUSES	IPSWICH	SUFFOLK	73	Thu	09/05/19	0.082	0.438	0.520	2.32
20	SC-03-A-06	MIXED HOUSES &	CRANLEIGH	SURREY	116	Thu	08/10/20	0.207	0.302	0.509	2.19
21	WY-03-A-01	MIXED HOUSING	LEEDS	WEST YORKSHIRE	46	Wed	21/09/16	0.217	0.283	0.500	1.26
22	PS-03-A-02	DETACHED/SEMI-	WELSHPOOL	POWYS	28	Mon	11/05/15	0.179	0.321	0.500	2.32
23	SY-03-A-01	SEMI DETACHED	DONCASTER	SOUTH YORKSHIRE	54	Wed	18/09/13	0.056	0.389	0.445	1.13
24	SF-03-A-08	MIXED HOUSES	NEAR BURY ST EDMUND	SUFFOLK	34	Wed	16/09/20	0.118	0.294	0.412	2.03
25	NY-03-A-09	MIXED HOUSING	NORTHALLERTON	NORTH YORKSHIRE	52	Mon	16/09/13	0.173	0.212	0.385	2.60
26	WM-03-A-04	TERRACED HOUSE	COVENTRY	WEST MIDLANDS	39	Mon	21/11/16	0.128	0.256	0.384	1.15
27	DV-03-A-02	HOUSES & BUNGA	HONITON	DEVON	116	Fri	25/09/15	0.103	0.241	0.344	2.25
28	FA-03-A-02	MIXED HOUSES	FALKIRK	FALKIRK	161	Wed	29/05/13	0.062	0.280	0.342	1.66
29	NR-03-A-02	DETACHED & SEM	NEAR NORTHAMPTON	NORTHAMPTONSHIRE	47	Tue	20/10/20	0.191	0.149	0.340	2.85
30	NY-03-A-08	TERRACED HOUSE	YORK	NORTH YORKSHIRE	21	Mon	16/09/13	0.048	0.286	0.334	1.14
31	KC-03-A-08	MIXED HOUSES	CHARING	KENT	159	Tue	22/05/18	0.113	0.214	0.327	3.02
32	SY-03-A-03	BUNGALOWS & DE	NEAR BARNSELY	SOUTH YORKSHIRE	19	Wed	09/09/20	0.105	0.211	0.316	2.00
33	SF-03-A-06	DETACHED & SEM	KENTFORD	SUFFOLK	38	Fri	22/09/17	0.053	0.237	0.290	0.92
34	WS-03-A-07	BUNGALOWS	NEAR HORSHAM	WEST SUSSEX	57	Thu	19/10/17	0.140	0.140	0.280	1.89
35	NR-03-A-03	MIXED HOUSES &	NEAR WELLINGBOROUGH	NORTHAMPTONSHIRE	44	Tue	20/10/20	0.091	0.182	0.273	1.11
36	WK-03-A-03	DETACHED HOUSE	WARWICK	WARWICKSHIRE	23	Wed	25/09/19	0.087	0.174	0.261	2.74
37	GM-03-A-11	TERRACED & SEM	MANCHESTER	GREATER MANCHESTER	37	Mon	26/09/16	0.054	0.108	0.162	1.08
38	DH-03-A-01	SEMI DETACHED	BISHOP AUCKLAND	DURHAM	50	Tue	28/03/17	0.020	0.140	0.160	1.74
39	DH-03-A-02	MIXED HOUSES	BISHOP AUCKLAND	DURHAM	125	Mon	27/03/17	0.032	0.104	0.136	0.99

Rank	Site-Ref	Description	Town/City	Area	DWELLS	Day	Date	Trip Rate (Sorted by Totals)			Park Spaces
								Arrivals	Departures	Totals	Per Dwelling
40	KC-03-A-05	DETACHED & SEM	NEAR CHATHAM	KENT	8	Fri	22/09/17	0.000	0.000	0.000	2.00

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

The table itself displays details of each individual survey, alongside arrivals, departures and totals trip rates, sorted by whichever of the three directional options has been chosen by the user. As with the preceeding trip rate calculation results table, the trip rates shown are per the calculation factor (e.g. per 100m2 GFA, per employee, per hectare, etc). Note that if the peak period option has been selected (as opposed to a specific chosen time period), the peak period for each individual survey day in the table is also displayed.

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST	
	HC HAMPSHIRE	1 days
	KC KENT	3 days
	SC SURREY	1 days
	WS WEST SUSSEX	1 days
03	SOUTH WEST	
	DV DEVON	3 days
	SM SOMERSET	2 days
	WL WILTSHIRE	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	2 days
	SF SUFFOLK	3 days
05	EAST MIDLANDS	
	LE LEICESTERSHIRE	1 days
	NR NORTHAMPTONSHIRE	2 days
06	WEST MIDLANDS	
	WK WARWICKSHIRE	1 days
	WM WEST MIDLANDS	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	3 days
	SY SOUTH YORKSHIRE	3 days
	WY WEST YORKSHIRE	1 days
08	NORTH WEST	
	CH CHESHIRE	1 days
	GM GREATER MANCHESTER	1 days
	MS MERSEYSIDE	1 days
09	NORTH	
	DH DURHAM	2 days
	TW TYNE & WEAR	2 days
10	WALES	
	PS POWYS	1 days
11	SCOTLAND	
	FA FALKIRK	2 days
	HI HIGHLAND	1 days

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

Primary Filtering selection:

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

Parameter: No of Dwellings
Actual Range: 8 to 207 (units:)
Range Selected by User: 4 to 250 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/13 to 20/10/20

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

Selected survey days:

Monday	9 days
Tuesday	7 days
Wednesday	9 days
Thursday	9 days
Friday	6 days

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

Selected survey types:

Manual count	40 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	21
Neighbourhood Centre (PPS6 Local Centre)	19

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	25
Village	15

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

Secondary Filtering selection:

Use Class:

C3	40 days
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This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,000 or Less	2 days
1,001 to 5,000	12 days
5,001 to 10,000	10 days
10,001 to 15,000	3 days
15,001 to 20,000	4 days
20,001 to 25,000	2 days
25,001 to 50,000	6 days
50,001 to 100,000	1 days

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

Secondary Filtering selection (Cont.):

Population within 5 miles:

5,001 to 25,000	4 days
25,001 to 50,000	5 days
50,001 to 75,000	6 days
75,001 to 100,000	6 days
100,001 to 125,000	1 days
125,001 to 250,000	10 days
250,001 to 500,000	6 days
500,001 or More	2 days

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

Car ownership within 5 miles:

0.6 to 1.0	15 days
1.1 to 1.5	21 days
1.6 to 2.0	4 days

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

Travel Plan:

Yes	4 days
No	36 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	40 days
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This data displays the number of selected surveys with PTAL Ratings.

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions
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LIST OF SITES relevant to selection parameters

1	CA-03-A-05 EASTFIELD ROAD PETERBOROUGH	DETACHED HOUSES	CAMBRIDGESHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:	28	
	Survey date: MONDAY	17/10/16	Survey Type: MANUAL
2	CA-03-A-06 CRAFT'S WAY NEAR CAMBRIDGE BAR HILL	MIXED HOUSES	CAMBRIDGESHIRE
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings:	207	
	Survey date: FRIDAY	22/06/18	Survey Type: MANUAL
3	CH-03-A-11 LONDON ROAD NORTHWICH LEFTWICH	TOWN HOUSES	CHESHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:	24	
	Survey date: THURSDAY	06/06/19	Survey Type: MANUAL
4	DH-03-A-01 GREENFIELDS ROAD BISHOP AUCKLAND	SEMI DETACHED	DURHAM
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:	50	
	Survey date: TUESDAY	28/03/17	Survey Type: MANUAL
5	DH-03-A-02 LEAZES LANE BISHOP AUCKLAND ST HELEN AUCKLAND	MIXED HOUSES	DURHAM
	Neighbourhood Centre (PPS6 Local Centre) Residential Zone Total No of Dwellings:	125	
	Survey date: MONDAY	27/03/17	Survey Type: MANUAL
6	DV-03-A-01 BRONSHILL ROAD TORQUAY	TERRACED HOUSES	DEVON
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:	37	
	Survey date: WEDNESDAY	30/09/15	Survey Type: MANUAL
7	DV-03-A-02 MILLHEAD ROAD HONITON	HOUSES & BUNGALOWS	DEVON
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:	116	
	Survey date: FRIDAY	25/09/15	Survey Type: MANUAL
8	DV-03-A-03 LOWER BRAND LANE HONITON	TERRACED & SEMI DETACHED	DEVON
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:	70	
	Survey date: MONDAY	28/09/15	Survey Type: MANUAL
9	FA-03-A-01 MANDELA AVENUE FALKIRK	SEMI-DETACHED / TERRACED	FALKIRK
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:	37	
	Survey date: THURSDAY	30/05/13	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

10	FA-03-A-02	MIXED HOUSES	FALKIRK
	ROSEBANK AVENUE & SPRINGFIELD DRIVE		
	FALKIRK		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	161	
	Survey date: WEDNESDAY	29/05/13	Survey Type: MANUAL
11	GM-03-A-11	TERRACED & SEMI-DETACHED	GREATER MANCHESTER
	RUSHFORD STREET		
	MANCHESTER		
	LEVENSHULME		
	Neighbourhood Centre (PPS6 Local Centre)		
	Residential Zone		
	Total No of Dwellings:	37	
	Survey date: MONDAY	26/09/16	Survey Type: MANUAL
12	HC-03-A-23	HOUSES & FLATS	HAMPSHIRE
	CANADA WAY		
	LIPHOOK		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	62	
	Survey date: TUESDAY	19/11/19	Survey Type: MANUAL
13	HI-03-A-14	SEMI-DETACHED & TERRACED	HIGHLAND
	KING BRUDE ROAD		
	INVERNESS		
	SCORGUIE		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	40	
	Survey date: WEDNESDAY	23/03/16	Survey Type: MANUAL
14	KC-03-A-03	MIXED HOUSES & FLATS	KENT
	HYTHE ROAD		
	ASHFORD		
	WILLESBOROUGH		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	51	
	Survey date: THURSDAY	14/07/16	Survey Type: MANUAL
15	KC-03-A-05	DETACHED & SEMI-DETACHED	KENT
	ROCHESTER ROAD		
	NEAR CHATHAM		
	BURHAM		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	8	
	Survey date: FRIDAY	22/09/17	Survey Type: MANUAL
16	KC-03-A-08	MIXED HOUSES	KENT
	MAIDSTONE ROAD		
	CHARING		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	159	
	Survey date: TUESDAY	22/05/18	Survey Type: MANUAL
17	LE-03-A-02	DETACHED & OTHERS	LEICESTERSHIRE
	MELBOURNE ROAD		
	IBSTOCK		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	85	
	Survey date: THURSDAY	28/06/18	Survey Type: MANUAL
18	MS-03-A-03	DETACHED	MERSEYSIDE
	BEMPTON ROAD		
	LIVERPOOL		
	OTTERSPOOL		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	15	
	Survey date: FRIDAY	21/06/13	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

19	NR-03-A-02	DETACHED & SEMI-DETACHED	NORTHAMPTONSHIRE
	HARLESTONE ROAD NEAR NORTHAMPTON CHAPEL BRAMPTON Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 47 Survey date: TUESDAY 20/10/20		
	Survey Type: MANUAL		
20	NR-03-A-03	MIXED HOUSES & FLATS	NORTHAMPTONSHIRE
	MAIN STREET NEAR WELLINGBOROUGH LITTLE HARROWDEN Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 44 Survey date: TUESDAY 20/10/20		
	Survey Type: MANUAL		
21	NY-03-A-08	TERRACED HOUSES	NORTH YORKSHIRE
	NICHOLAS STREET YORK Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 21 Survey date: MONDAY 16/09/13		
	Survey Type: MANUAL		
22	NY-03-A-09	MIXED HOUSING	NORTH YORKSHIRE
	GRAMMAR SCHOOL LANE NORTHALLERTON Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 52 Survey date: MONDAY 16/09/13		
	Survey Type: MANUAL		
23	NY-03-A-13	TERRACED HOUSES	NORTH YORKSHIRE
	CATTERICK ROAD CATTERICK GARRISON OLD HOSPITAL COMPOUND Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 10 Survey date: WEDNESDAY 10/05/17		
	Survey Type: MANUAL		
24	PS-03-A-02	DETACHED / SEMI-DETACHED	POWYS
	GUNROG ROAD WELSHPOOL Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 28 Survey date: MONDAY 11/05/15		
	Survey Type: MANUAL		
25	SC-03-A-06	MIXED HOUSES & FLATS	SURREY
	AMLETS LANE CRANLEIGH Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 116 Survey date: THURSDAY 08/10/20		
	Survey Type: MANUAL		
26	SF-03-A-06	DETACHED & SEMI-DETACHED	SUFFOLK
	BURY ROAD KENTFORD Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 38 Survey date: FRIDAY 22/09/17		
	Survey Type: MANUAL		

LIST OF SITES relevant to selection parameters (Cont.)

27	SF-03-A-07	MIXED HOUSES	SUFFOLK
	FOXHALL ROAD		
	IPSWICH		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	73	
	Survey date: THURSDAY	09/05/19	Survey Type: MANUAL
28	SF-03-A-08	MIXED HOUSES	SUFFOLK
	STANNINGFIELD ROAD		
	NEAR BURY ST EDMUNDS		
	GREAT WHELNETHAM		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	34	
	Survey date: WEDNESDAY	16/09/20	Survey Type: MANUAL
29	SM-03-A-02	MIXED HOUSES	SOMERSET
	HYDE LANE		
	NEAR TAUNTON		
	CREECH SAINT MICHAEL		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	42	
	Survey date: TUESDAY	25/09/18	Survey Type: MANUAL
30	SM-03-A-03	MIXED HOUSES	SOMERSET
	HYDE LANE		
	NEAR TAUNTON		
	CREECH ST MICHAEL		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	41	
	Survey date: TUESDAY	25/09/18	Survey Type: MANUAL
31	SY-03-A-01	SEMI DETACHED HOUSES	SOUTH YORKSHIRE
	A19 BENTLEY ROAD		
	DONCASTER		
	BENTLEY RISE		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	54	
	Survey date: WEDNESDAY	18/09/13	Survey Type: MANUAL
32	SY-03-A-02	DETACHED & BUNGALOWS	SOUTH YORKSHIRE
	MANOR ROAD		
	NEAR SHEFFIELD		
	WALES		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	25	
	Survey date: THURSDAY	10/09/20	Survey Type: MANUAL
33	SY-03-A-03	BUNGALOWS & DETACHED	SOUTH YORKSHIRE
	CHURCH LANE		
	NEAR BARNSELEY		
	WORSBROUGH		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	19	
	Survey date: WEDNESDAY	09/09/20	Survey Type: MANUAL
34	TW-03-A-02	SEMI-DETACHED	TYNE & WEAR
	WEST PARK ROAD		
	GATESHEAD		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	16	
	Survey date: MONDAY	07/10/13	Survey Type: MANUAL
35	TW-03-A-03	MIXED HOUSES	TYNE & WEAR
	STATION ROAD		
	NEAR NEWCASTLE		
	BACKWORTH		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	33	
	Survey date: FRIDAY	13/11/15	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

36	WK-03-A-03	DETACHED HOUSES	WARWICKSHIRE
	BRESE AVENUE		
	WARWICK		
	GUYS CLIFFE		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	23	
	Survey date: WEDNESDAY	25/09/19	Survey Type: MANUAL
37	WL-03-A-02	SEMI DETACHED	WILTSHIRE
	HEADLANDS GROVE		
	SWINDON		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	27	
	Survey date: THURSDAY	22/09/16	Survey Type: MANUAL
38	WM-03-A-04	TERRACED HOUSES	WEST MIDLANDS
	OSBORNE ROAD		
	COVENTRY		
	EARLSDON		
	Neighbourhood Centre (PPS6 Local Centre)		
	Residential Zone		
	Total No of Dwellings:	39	
	Survey date: MONDAY	21/11/16	Survey Type: MANUAL
39	WS-03-A-07	BUNGALOWS	WEST SUSSEX
	EMMS LANE		
	NEAR HORSHAM		
	BROOKS GREEN		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	57	
	Survey date: THURSDAY	19/10/17	Survey Type: MANUAL
40	WY-03-A-01	MIXED HOUSING	WEST YORKSHIRE
	SPRING VALLEY CRESCENT		
	LEEDS		
	BRAMLEY		
	Neighbourhood Centre (PPS6 Local Centre)		
	Residential Zone		
	Total No of Dwellings:	46	
	Survey date: WEDNESDAY	21/09/16	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.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
AN-03-A-08	Ireland
BN-03-A-03	Greater London
CS-03-A-03	Ireland
CS-03-A-04	Ireland
DN-03-A-05	Ireland
DN-03-A-08	Ireland
HG-03-A-01	Greater London
LT-03-A-01	Ireland
RO-03-A-04	Ireland
WX-03-A-01	Ireland

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

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

15th Percentile = No. 34 PS-03-A-02 Tot: 0.178

85th Percentile = No. 7 WK-03-A-03 Tot: 0.652

Median Values

Arrivals: 0.235

Departures: 0.196

Totals: 0.430

Mean Values

Arrivals: 0.282

Departures: 0.152

Totals: 0.434

Rank	Site-Ref	Description	Town/City	Area	DWELLS	Day	Date	Trip Rate (Sorted by Totals)			Park Spaces Per Dwelling
								Arrivals	Departures	Totals	
1	KC-03-A-03	MIXED HOUSES &	ASHFORD	KENT	51	Thu	14/07/16	0.569	0.314	0.883	2.16
2	SY-03-A-02	DETACHED & BUN	NEAR SHEFFIELD	SOUTH YORKSHIRE	25	Thu	10/09/20	0.480	0.320	0.800	4.08
3	CA-03-A-05	DETACHED HOUSE	PETERBOROUGH	CAMBRIDGESHIRE	28	Mon	17/10/16	0.357	0.429	0.786	3.50
4	WL-03-A-02	SEMI DETACHED	SWINDON	WILTSHIRE	27	Thu	22/09/16	0.519	0.259	0.778	4.52
5	SF-03-A-07	MIXED HOUSES	IPSWICH	SUFFOLK	73	Thu	09/05/19	0.438	0.288	0.726	2.32
6	SM-03-A-03	MIXED HOUSES	NEAR TAUNTON	SOMERSET	41	Tue	25/09/18	0.537	0.146	0.683	2.88
7	WK-03-A-03	DETACHED HOUSE	WARWICK	WARWICKSHIRE	23	Wed	25/09/19	0.304	0.348	0.652	2.74
8	SM-03-A-02	MIXED HOUSES	NEAR TAUNTON	SOMERSET	42	Tue	25/09/18	0.452	0.190	0.642	3.38
9	HC-03-A-23	HOUSES & FLATS	LIPHOOK	HAMPSHIRE	62	Tue	19/11/19	0.532	0.097	0.629	2.19
10	HI-03-A-14	SEMI-DETACHED	INVERNESS	HIGHLAND	40	Wed	23/03/16	0.425	0.200	0.625	2.23
11	DV-03-A-02	HOUSES & BUNGA	HONITON	DEVON	116	Fri	25/09/15	0.388	0.233	0.621	2.25
12	TW-03-A-03	MIXED HOUSES	NEAR NEWCASTLE	TYNE & WEAR	33	Fri	13/11/15	0.333	0.273	0.606	4.00
13	SF-03-A-08	MIXED HOUSES	NEAR BURY ST EDMUND	SUFFOLK	34	Wed	16/09/20	0.353	0.206	0.559	2.03
14	LE-03-A-02	DETACHED & OTH	IBSTOCK	LEICESTERSHIRE	85	Thu	28/06/18	0.329	0.212	0.541	4.27
15	FA-03-A-02	MIXED HOUSES	FALKIRK	FALKIRK	161	Wed	29/05/13	0.317	0.224	0.541	1.66
16	TW-03-A-02	SEMI-DETACHED	GATESHEAD	TYNE & WEAR	16	Mon	07/10/13	0.438	0.063	0.500	2.38
17	CA-03-A-06	MIXED HOUSES	NEAR CAMBRIDGE	CAMBRIDGESHIRE	207	Fri	22/06/18	0.348	0.140	0.488	3.75
18	DV-03-A-01	TERRACED HOUSE	TORQUAY	DEVON	37	Wed	30/09/15	0.297	0.189	0.486	2.78
19	DV-03-A-03	TERRACED & SEM	HONITON	DEVON	70	Mon	28/09/15	0.371	0.100	0.471	1.66
20	NY-03-A-09	MIXED HOUSING	NORTHALLERTON	NORTH YORKSHIRE	52	Mon	16/09/13	0.269	0.192	0.461	2.60
21	NY-03-A-13	TERRACED HOUSE	CATTERICK GARRISON	NORTH YORKSHIRE	10	Wed	10/05/17	0.200	0.200	0.400	1.90
22	MS-03-A-03	DETACHED	LIVERPOOL	MERSEYSIDE	15	Fri	21/06/13	0.200	0.200	0.400	3.00
23	SC-03-A-06	MIXED HOUSES &	CRANLEIGH	SURREY	116	Thu	08/10/20	0.216	0.164	0.380	2.19
24	FA-03-A-01	SEMI-DETACHED/	FALKIRK	FALKIRK	37	Thu	30/05/13	0.243	0.135	0.378	1.41
25	SF-03-A-06	DETACHED & SEM	KENTFORD	SUFFOLK	38	Fri	22/09/17	0.263	0.079	0.342	0.92
26	NY-03-A-08	TERRACED HOUSE	YORK	NORTH YORKSHIRE	21	Mon	16/09/13	0.286	0.048	0.334	1.14
27	SY-03-A-01	SEMI DETACHED	DONCASTER	SOUTH YORKSHIRE	54	Wed	18/09/13	0.278	0.056	0.334	1.13
28	NR-03-A-03	MIXED HOUSES &	NEAR WELLINGBOROUGH	NORTHAMPTONSHIRE	44	Tue	20/10/20	0.227	0.091	0.318	1.11
29	KC-03-A-08	MIXED HOUSES	CHARING	KENT	159	Tue	22/05/18	0.220	0.088	0.308	3.02
30	NR-03-A-02	DETACHED & SEM	NEAR NORTHAMPTON	NORTHAMPTONSHIRE	47	Tue	20/10/20	0.191	0.106	0.297	2.85
31	DH-03-A-01	SEMI DETACHED	BISHOP AUCKLAND	DURHAM	50	Tue	28/03/17	0.220	0.020	0.240	1.74
32	GM-03-A-11	TERRACED & SEM	MANCHESTER	GREATER MANCHESTER	37	Mon	26/09/16	0.108	0.108	0.216	1.08
33	WM-03-A-04	TERRACED HOUSE	COVENTRY	WEST MIDLANDS	39	Mon	21/11/16	0.103	0.103	0.206	1.15
34	PS-03-A-02	DETACHED / SEMI-	WELSHPOOL	POWYS	28	Mon	11/05/15	0.107	0.071	0.178	2.32
35	WS-03-A-07	BUNGALOWS	NEAR HORSHAM	WEST SUSSEX	57	Thu	19/10/17	0.088	0.070	0.158	1.89
36	WY-03-A-01	MIXED HOUSING	LEEDS	WEST YORKSHIRE	46	Wed	21/09/16	0.043	0.109	0.152	1.26
37	KC-03-A-05	DETACHED & SEM	NEAR CHATHAM	KENT	8	Fri	22/09/17	0.125	0.000	0.125	2.00
38	DH-03-A-02	MIXED HOUSES	BISHOP AUCKLAND	DURHAM	125	Mon	27/03/17	0.064	0.016	0.080	0.99
39	SY-03-A-03	BUNGALOWS & DE	NEAR BARNSELY	SOUTH YORKSHIRE	19	Wed	09/09/20	0.053	0.000	0.053	2.00

Rank	Site-Ref	Description	Town/City	Area	DWELLS	Day	Date	Trip Rate (Sorted by Totals)			Park Spaces
								Arrivals	Departures	Totals	Per Dwelling
40	CH-03-A-11	TOWN HOUSES	NORTHWICH	CHESHIRE	24	Thu	06/06/19	0.000	0.000	0.000	1.96

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

The table itself displays details of each individual survey, alongside arrivals, departures and totals trip rates, sorted by whichever of the three directional options has been chosen by the user. As with the preceeding trip rate calculation results table, the trip rates shown are per the calculation factor (e.g. per 100m2 GFA, per employee, per hectare, etc). Note that if the peak period option has been selected (as opposed to a specific chosen time period), the peak period for each individual survey day in the table is also displayed.

Appendix G Traffic Distribution



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
 usual residence E02001528 : Barnsley 020 (2011 super output area - middle layer)

place of work : 2011 super output area - middle layer	All categories:		Percentage	Route				
	Method of travel to work (2001 specification)	Driving a car or van						
E02001521 : Barnsley 013	305	226	8.5	10 A635W	A635W	34	34%	
E02001579 : Rotherham 002	194	153	5.8	7 A6195S	A6195S	34	34%	
E02001523 : Barnsley 015	170	125	4.7	6 A635W	B6273N	16	16%	
E02001578 : Rotherham 001	161	120	4.5	5 A6195S	TL	8	8%	
E02001531 : Barnsley 023	155	112	4.2	5 A635W	A635E	3	3%	
E02001528 : Barnsley 020	292	93	3.5	4 Internal		4	4%	
E02001520 : Barnsley 012	108	84	3.2	4 A635W	PSR	1	1%	
E02001530 : Barnsley 022	102	70	2.6	3 A635E				
E02001534 : Barnsley 026	116	59	2.2	3 A6195S				
E02001560 : Doncaster 022	73	58	2.2	3 TL				
E02001522 : Barnsley 014	82	57	2.1	3 TL				
E02001510 : Barnsley 002	69	54	2.0	2 B6273N				
E02001518 : Barnsley 010	60	47	1.8	2 A635W				
E02001594 : Rotherham 017	37	37	1.4	2 A6195S				
E02001536 : Barnsley 028	39	35	1.3	2 A6195S				
E02001632 : Sheffield 022	37	32	1.2	1 A6195S				
E02001513 : Barnsley 005	40	31	1.2	1 A635W				
E02001514 : Barnsley 006	36	31	1.2	1 B6273N				
E02001515 : Barnsley 007	36	31	1.2	1 B6273N				
E02001519 : Barnsley 011	33	28	1.1	1 A635W				
E02002481 : Wakefield 044	31	28	1.1	1 B6273N				
E02001566 : Doncaster 028	28	27	1.0	1 TL				
E02001516 : Barnsley 008	30	23	0.9	1 PSR				
E02001614 : Sheffield 004	27	23	0.9	1 A6195S				
E02001628 : Sheffield 018	25	22	0.8	1 A6195S				
E02001525 : Barnsley 017	31	20	0.8	1 A635W				
E02001538 : Barnsley 030	20	20	0.8	1 A6195S				
E02002451 : Wakefield 014	20	19	0.7	1 B6273N				
E02002456 : Wakefield 019	20	19	0.7	1 B6273N				
E02001529 : Barnsley 021	21	18	0.7	1 A635W				
E02001602 : Rotherham 025	20	18	0.7	1 A6195S				
E02006875 : Leeds 111	24	18	0.7	1 B6273N				
E02001527 : Barnsley 019	27	17	0.6	1 A635W				
E02001526 : Barnsley 018	27	16	0.6	1 A635W				
E02002480 : Wakefield 043	25	16	0.6	1 B6273N				
E02001595 : Rotherham 018	15	15	0.6	1 A6195S				
E02006876 : Leeds 112	16	15	0.6	1 B6273N				
E02001533 : Barnsley 025	21	14	0.5	1 A6195S				
E02001593 : Rotherham 016	15	14	0.5	1 A6195S				
E02006843 : Sheffield 073	23	14	0.5	1 A6195S				
E02002454 : Wakefield 017	14	14	0.5	1 B6273N				
E02001537 : Barnsley 029	17	13	0.5	1 A6195S				
E02001569 : Doncaster 031	14	13	0.5	1 A6195S				
E02001580 : Rotherham 003	14	13	0.5	1 A6195S				
E02002479 : Wakefield 042	14	13	0.5	1 B6273N				
E02001532 : Barnsley 024	13	12	0.5	1 A6195S				
E02001568 : Doncaster 030	12	12	0.5	1 A6195S				
E02001600 : Rotherham 023	13	12	0.5	1 A6195S				
E02006013 : Shropshire 034	13	12	0.5	1 A6195S				
E02001524 : Barnsley 016	11	11	0.4	1 A635W				
E02001558 : Doncaster 020	13	11	0.4	1 TL				
E02001585 : Rotherham 008	12	11	0.4	1 A6195S				
E02001624 : Sheffield 014	13	11	0.4	1 A6195S				
E02001591 : Rotherham 014	13	10	0.4	0 A6195S				
E02005818 : Selby 010	9	9	0.3	0 B6273N				
E02001542 : Doncaster 004	9	9	0.3	0 B6273N				
E02001557 : Doncaster 019	11	9	0.3	0 TL				
E02006868 : Sheffield 075	12	9	0.3	0 A6195S				
E02002465 : Wakefield 028	10	9	0.3	0 B6273N				
E02001540 : Doncaster 002	10	8	0.3	0 B6273N				
E02001543 : Doncaster 005	8	8	0.3	0 B6273N				
E02001627 : Sheffield 017	8	8	0.3	0 A6195S				
E02002327 : Kirklees 057	8	8	0.3	0 B6273N				
E02001511 : Barnsley 003	9	7	0.3	0 B6273N				
E02001512 : Barnsley 004	12	7	0.3	0 B6273N				
E02001535 : Barnsley 027	9	7	0.3	0 A6195S				
E02001545 : Doncaster 007	7	7	0.3	0 TL				
E02001637 : Sheffield 027	7	7	0.3	0 A6195S				
E02002450 : Wakefield 013	8	7	0.3	0 B6273N				
E02002453 : Wakefield 016	8	7	0.3	0 B6273N				
E02002461 : Wakefield 024	7	7	0.3	0 B6273N				
E02001509 : Barnsley 001	6	6	0.2	0 B6273N				
E02001517 : Barnsley 009	17	6	0.2	0 A635W				
E02001553 : Doncaster 015	7	6	0.2	0 TL				
E02001567 : Doncaster 029	6	6	0.2	0 A6195S				

Appendix H TEMPro Output



2021 – 2025 AM Growth

Level Area Local Growth Figure

E02001528 Barnsley 020 1.03602564412494

NTM Traffic Growth Calculations

1: Select NTM Dataset:

NTM Dataset Description	From	To
RTF 2018 Scenario 1 - Reference	2015	2050
NTM AF15 Dataset	2010	2040

2: Select Areas to make up the geographic region:

☒ Barnsley 020 (E02001528)

3: Select area type:

☐ Urban
☐ Rural
☒ All

4: Select road type:

☐ Motorway
☐ Trunk
☐ Principal
☐ Minor
☒ All

5: Select which area it serves:

☒ Region
☐ England

Calculate the adjusted local growth figure

Results

Level	Area	Local Growth Figure
E02001528	Barnsley 020	1.0360

2021 – 2025 PM Growth

Level Area Local Growth Figure

E02001528 Barnsley 020 1.03642823824516

NTM Traffic Growth Calculations

1: Select NTM Dataset:

NTM Dataset Description	From	To
RTF 2018 Scenario 1 - Reference	2015	2050
NTM AF15 Dataset	2010	2040

2: Select Areas to make up the geographic region:

☒ Barnsley 020 (E02001528)

3: Select area type:

☐ Urban
☐ Rural
☒ All

4: Select road type:

☐ Motorway
☐ Trunk
☐ Principal
☐ Minor
☒ All

5: Select which area it serves:

☒ Region
☐ England

Calculate the adjusted local growth figure

Results

Level	Area	Local Growth Figure
E02001528	Barnsley 020	1.0364

2021 – 2030 AM Growth

Level Area Local Growth Figure

E02001528 Barnsley 020 1.07615631222952

Weekday AM peak period (0700 - 0959)

Trip end type

☐ Production/Attraction

☒ Origin/Destination

Reset Selections

Car Driver Combined Modes

Area Description		All Purposes	
Level	Name	Origin	Destination
E02001528	Barnsley 020	1.0628	1.065

NTM Traffic Growth Calculations

1: Select NTM Dataset:

NTM Dataset Description	From	To
RTF 2018 Scenario 1 - Reference	2015	2050
NTM AF15 Dataset	2010	2040

2: Select Areas to make up the geographic region:

☒ Barnsley 020 (E02001528)

3: Select area type:

☐ Urban

☐ Rural

☒ All

4: Select road type:

☐ Motorway

☐ Trunk

☐ Principal

☐ Minor

☒ All

5: Select which area it serves:

☒ Region

☐ England

Calculate the adjusted local growth figure

Results

Level	Area	Local Growth Figure
E02001528	Barnsley 020	1.0762

E02001528	Barnsley 020	1.07731956042866
-----------	--------------	------------------

Select time period: Future year data *Italicised results indicate that there is a lower level of confidence in data presented at the zonal level than when aggregated to higher geographical levels

Weekday PM peak period (1600 - 1859) ▼

Trip end type

☐ Production/Attraction

☒ Origin/Destination

Reset Selections

Car Driver Combined Modes

Area Description		All Purposes	
Level	Name	Origin	Destination
E02001528	Barnsley 020	1.0664	1.0637

NTM Traffic Growth Calculations

1: Select NTM Dataset:

NTM Dataset Description	From	To
RTF 2018 Scenario 1 - Reference	2015	2050
NTM AF15 Dataset	2010	2040

2: Select Areas to make up the geographic region:

☒ Barnsley 020 (E02001528)

3. Select area type:

☐ Urban
☐ Rural
☒ All

4. Select road type:

☐ Motorway
☐ Trunk
☐ Principal
☐ Minor
☒ All

5. Select which area it serves:

☒ Region
☐ England

Calculate the adjusted local growth figure

Results

Level	Area	Local Growth Figure
E02001528	Barnsley 020	1.0773

Appendix I Junctions 9 Output



Junctions 9														
PICADY 9 - Priority Intersection Module														
Version: 9.5.2.1013 © Copyright TRL Limited, 2019														
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk														
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution														

Filename: HighSt-ThurnscoeLn-RotherhamRdV2.j9

Path: O:\High Street, Great Houghton\ANALYSIS\CAPACITY\Priority Junctions\HighSt-ThurnscoeLn-RotherhamRd

Report generation date: 10/05/2022 11:38:51

»2021 COVID FACTORED, AM

»2021 COVID FACTORED, PM

»2025 BASE, AM

»2025 BASE, PM

»2025 DESIGN, AM

»2025 DESIGN, PM

»2030 BASE, AM

»2030 BASE, PM

»2030 DESIGN, AM

»2030 DESIGN, PM

Summary of junction performance

	AM							PM						
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Network Residual Capacity	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Network Residual Capacity
	2021 COVID FACTORED													
Stream B-AC	D1	0.4	10.50	0.26	B	1.55	87 %	D2	0.9	16.12	0.46	C	2.81	33 %
Stream C-AB		0.1	6.54	0.04	A		[Stream B-AC]		0.1	5.72	0.06	A		[Stream B-AC]
	2025 BASE													
Stream B-AC	D3	0.4	10.82	0.28	B	1.60	80 %	D4	1.0	16.88	0.48	C	2.91	29 %
Stream C-AB		0.1	6.45	0.04	A		[Stream B-AC]		0.1	5.68	0.07	A		[Stream B-AC]
	2025 DESIGN													
Stream B-AC	D5	0.4	11.19	0.29	B	1.58	72 %	D6	1.0	17.96	0.50	C	3.01	25 %
Stream C-AB		0.1	6.42	0.05	A		[Stream B-AC]		0.1	5.61	0.07	A		[Stream B-AC]
	2030 BASE													
Stream B-AC	D7	0.4	11.52	0.29	B	1.63	68 %	D8	1.1	18.89	0.52	C	3.17	22 %
Stream C-AB		0.1	6.33	0.05	A		[Stream B-AC]		0.1	5.49	0.08	A		[Stream B-AC]
	2030 DESIGN													
Stream B-AC	D9	0.4	12.05	0.31	B	1.63	61 %	D10	1.2	19.84	0.53	C	3.23	19 %
Stream C-AB		0.1	6.30	0.05	A		[Stream B-AC]		0.2	5.43	0.08	A		[Stream B-AC]

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	23/06/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OPTIMA\Optima
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	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	2021 COVID FACTORED	AM	ONE HOUR	00:00	01:30	15	✓
D2	2021 COVID FACTORED	PM	ONE HOUR	00:00	01:30	15	✓
D3	2025 BASE	AM	ONE HOUR	00:00	01:30	15	✓
D4	2025 BASE	PM	ONE HOUR	00:00	01:30	15	✓
D5	2025 DESIGN	AM	ONE HOUR	00:00	01:30	15	✓
D6	2025 DESIGN	PM	ONE HOUR	00:00	01:30	15	✓
D7	2030 BASE	AM	ONE HOUR	00:00	01:30	15	✓
D8	2030 BASE	PM	ONE HOUR	00:00	01:30	15	✓
D9	2030 DESIGN	AM	ONE HOUR	00:00	01:30	15	✓
D10	2030 DESIGN	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

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

2021 COVID FACTORED, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.55	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	87	Stream B-AC

Arms

Arms

Arm	Name	Description	Arm type
A	B6273 HIGH STREET		Major
B	B6411 THURNSCOE LANE		Minor
C	B6273 ROTHERHAM ROAD		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - B6273 ROTHERHAM ROAD	8.71			94.7	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - B6411 THURNSCOE LANE	One lane	4.73	48	89

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	630	0.101	0.256	0.161	0.366
B-C	798	0.108	0.273	-	-
C-B	629	0.215	0.215	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2021 COVID FACTORED	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B6273 HIGH STREET		ONE HOUR	✓	468	100.000
B - B6411 THURNSCOE LANE		ONE HOUR	✓	113	100.000
C - B6273 ROTHERHAM ROAD		ONE HOUR	✓	293	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
A - B6273 HIGH STREET		0	145	323
B - B6411 THURNSCOE LANE		106	0	7
C - B6273 ROTHERHAM ROAD		277	16	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
A - B6273 HIGH STREET		0	4	4
B - B6411 THURNSCOE LANE		3	0	0
C - B6273 ROTHERHAM ROAD		6	33	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.26	10.50	0.4	B	104	156
C-AB	0.04	6.54	0.1	A	23	35
C-A					246	368
A-B					133	200
A-C					296	445

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	85	21	528	0.161	84	0.0	0.2	8.325	A
C-AB	17	4	698	0.025	17	0.0	0.0	6.538	A
C-A	203	51			203				
A-B	109	27			109				
A-C	243	61			243				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	102	25	507	0.201	101	0.2	0.3	9.127	A
C-AB	22	6	713	0.031	22	0.0	0.0	6.396	A
C-A	241	60			241				
A-B	130	33			130				
A-C	290	73			290				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	124	31	477	0.261	124	0.3	0.4	10.477	B
C-AB	30	8	735	0.041	30	0.0	0.1	6.179	A
C-A	292	73			292				
A-B	160	40			160				
A-C	356	89			356				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	124	31	477	0.261	124	0.4	0.4	10.502	B
C-AB	30	8	735	0.041	30	0.1	0.1	6.139	A
C-A	292	73			292				
A-B	160	40			160				
A-C	356	89			356				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	102	25	507	0.201	102	0.4	0.3	9.156	A
C-AB	22	6	713	0.031	22	0.1	0.1	6.305	A
C-A	241	60			241				
A-B	130	33			130				
A-C	290	73			290				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	85	21	528	0.161	85	0.3	0.2	8.363	A
C-AB	17	4	698	0.025	17	0.1	0.0	6.494	A
C-A	203	51			203				
A-B	109	27			109				
A-C	243	61			243				

2021 COVID FACTORED, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

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

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	33	Stream B-AC

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	2021 COVID FACTORED	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B6273 HIGH STREET		ONE HOUR	✓	549	100.000
B - B6411 THURNSCOE LANE		ONE HOUR	✓	185	100.000
C - B6273 ROTHERHAM ROAD		ONE HOUR	✓	412	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	158	391
	B - B6411 THURNSCOE LANE	160	0	25
	C - B6273 ROTHERHAM ROAD	390	22	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	3	3
	B - B6411 THURNSCOE LANE	5	0	39
	C - B6273 ROTHERHAM ROAD	4	22	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.46	16.12	0.9	C	170	255
C-AB	0.06	5.72	0.1	A	39	58
C-A					340	509
A-B					145	217
A-C					359	538

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	139	35	511	0.273	138	0.0	0.4	10.438	B
C-AB	27	7	745	0.037	27	0.0	0.1	5.722	A
C-A	283	71			283				
A-B	119	30			119				
A-C	294	74			294				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	166	42	484	0.344	166	0.4	0.6	12.273	B
C-AB	36	9	772	0.047	36	0.1	0.1	5.561	A
C-A	334	84			334				
A-B	142	36			142				
A-C	352	88			352				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	204	51	446	0.457	202	0.6	0.9	15.957	C
C-AB	52	13	809	0.064	52	0.1	0.1	5.336	A
C-A	402	100			402				
A-B	174	43			174				
A-C	430	108			430				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	204	51	446	0.457	204	0.9	0.9	16.121	C
C-AB	52	13	809	0.064	52	0.1	0.1	5.309	A
C-A	402	100			402				
A-B	174	43			174				
A-C	430	108			430				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	166	42	483	0.344	168	0.9	0.6	12.423	B
C-AB	36	9	772	0.047	37	0.1	0.1	5.499	A
C-A	334	83			334				
A-B	142	36			142				
A-C	352	88			352				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	139	35	511	0.273	140	0.6	0.4	10.566	B
C-AB	27	7	746	0.037	28	0.1	0.1	5.691	A
C-A	283	71			283				
A-B	119	30			119				
A-C	294	74			294				

2025 BASE, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.60	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	80	Stream B-AC

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	2025 BASE	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B6273 HIGH STREET		ONE HOUR	✓	484	100.000
B - B6411 THURNSCOE LANE		ONE HOUR	✓	118	100.000
C - B6273 ROTHERHAM ROAD		ONE HOUR	✓	304	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	150	334
	B - B6411 THURNSCOE LANE	110	0	8
	C - B6273 ROTHERHAM ROAD	287	17	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	4	4
	B - B6411 THURNSCOE LANE	3	0	0
	C - B6273 ROTHERHAM ROAD	6	31	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.28	10.82	0.4	B	108	162
C-AB	0.04	6.45	0.1	A	25	38
C-A					254	381
A-B					138	206
A-C					306	460

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	89	22	525	0.169	88	0.0	0.2	8.451	A
C-AB	19	5	700	0.026	18	0.0	0.0	6.445	A
C-A	210	53			210				
A-B	113	28			113				
A-C	251	63			251				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	106	27	503	0.211	106	0.2	0.3	9.317	A
C-AB	24	6	717	0.033	24	0.0	0.1	6.305	A
C-A	249	62			249				
A-B	135	34			135				
A-C	300	75			300				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	130	32	472	0.275	129	0.3	0.4	10.792	B
C-AB	33	8	740	0.044	33	0.1	0.1	6.093	A
C-A	302	75			302				
A-B	165	41			165				
A-C	368	92			368				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	130	32	472	0.275	130	0.4	0.4	10.820	B
C-AB	33	8	740	0.044	33	0.1	0.1	6.058	A
C-A	302	75			302				
A-B	165	41			165				
A-C	368	92			368				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	106	27	503	0.211	107	0.4	0.3	9.349	A
C-AB	24	6	717	0.033	24	0.1	0.1	6.222	A
C-A	249	62			249				
A-B	135	34			135				
A-C	300	75			300				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	89	22	525	0.169	89	0.3	0.2	8.496	A
C-AB	19	5	701	0.027	19	0.1	0.0	6.404	A
C-A	210	53			210				
A-B	113	28			113				
A-C	251	63			251				

2025 BASE, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.91	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	29	Stream B-AC

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	2025 BASE	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B6273 HIGH STREET		ONE HOUR	✓	568	100.000
B - B6411 THURNSCOE LANE		ONE HOUR	✓	190	100.000
C - B6273 ROTHERHAM ROAD		ONE HOUR	✓	426	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	163	405
	B - B6411 THURNSCOE LANE	165	0	25
	C - B6273 ROTHERHAM ROAD	404	22	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	3	3
	B - B6411 THURNSCOE LANE	4	0	39
	C - B6273 ROTHERHAM ROAD	4	22	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.48	16.88	1.0	C	174	262
C-AB	0.07	5.68	0.1	A	40	59
C-A					351	527
A-B					150	224
A-C					372	557

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	143	36	505	0.283	141	0.0	0.4	10.590	B
C-AB	28	7	750	0.037	28	0.0	0.1	5.677	A
C-A	293	73			293				
A-B	123	31			123				
A-C	305	76			305				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	171	43	477	0.358	170	0.4	0.6	12.576	B
C-AB	37	9	778	0.048	37	0.1	0.1	5.511	A
C-A	346	86			346				
A-B	147	37			147				
A-C	364	91			364				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	209	52	438	0.477	208	0.6	0.9	16.678	C
C-AB	53	13	817	0.065	53	0.1	0.1	5.281	A
C-A	416	104			416				
A-B	179	45			179				
A-C	446	111			446				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	209	52	438	0.477	209	0.9	1.0	16.877	C
C-AB	53	13	817	0.065	53	0.1	0.1	5.257	A
C-A	416	104			416				
A-B	179	45			179				
A-C	446	111			446				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	171	43	477	0.358	172	1.0	0.6	12.754	B
C-AB	37	9	778	0.048	37	0.1	0.1	5.449	A
C-A	346	86			346				
A-B	147	37			147				
A-C	364	91			364				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	143	36	505	0.283	144	0.6	0.4	10.735	B
C-AB	28	7	750	0.037	28	0.1	0.1	5.648	A
C-A	293	73			293				
A-B	123	31			123				
A-C	305	76			305				

2025 DESIGN, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.58	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	72	Stream B-AC

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	2025 DESIGN	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B6273 HIGH STREET		ONE HOUR	✓	527	100.000
B - B6411 THURNSCOE LANE		ONE HOUR	✓	119	100.000
C - B6273 ROTHERHAM ROAD		ONE HOUR	✓	313	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	154	373
	B - B6411 THURNSCOE LANE	111	0	8
	C - B6273 ROTHERHAM ROAD	296	17	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	4	4
	B - B6411 THURNSCOE LANE	2	0	0
	C - B6273 ROTHERHAM ROAD	5	31	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.29	11.19	0.4	B	109	164
C-AB	0.05	6.42	0.1	A	26	38
C-A					262	392
A-B					141	212
A-C					342	513

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	90	22	516	0.174	89	0.0	0.2	8.562	A
C-AB	19	5	699	0.027	19	0.0	0.0	6.424	A
C-A	217	54			217				
A-B	116	29			116				
A-C	281	70			281				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	107	27	492	0.217	107	0.2	0.3	9.511	A
C-AB	24	6	715	0.034	24	0.0	0.1	6.283	A
C-A	257	64			257				
A-B	138	35			138				
A-C	335	84			335				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	131	33	459	0.286	131	0.3	0.4	11.156	B
C-AB	34	8	739	0.045	34	0.1	0.1	6.067	A
C-A	311	78			311				
A-B	170	42			170				
A-C	411	103			411				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	131	33	459	0.286	131	0.4	0.4	11.190	B
C-AB	34	8	739	0.046	34	0.1	0.1	6.029	A
C-A	311	78			311				
A-B	170	42			170				
A-C	411	103			411				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	107	27	492	0.217	107	0.4	0.3	9.548	A
C-AB	24	6	715	0.034	25	0.1	0.1	6.193	A
C-A	257	64			257				
A-B	138	35			138				
A-C	335	84			335				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	90	22	516	0.174	90	0.3	0.2	8.611	A
C-AB	19	5	699	0.027	19	0.1	0.0	6.379	A
C-A	217	54			217				
A-B	116	29			116				
A-C	281	70			281				

2025 DESIGN, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.01	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	25	Stream B-AC

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	2025 DESIGN	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B6273 HIGH STREET		ONE HOUR	✓	594	100.000
B - B6411 THURNSCOE LANE		ONE HOUR	✓	193	100.000
C - B6273 ROTHERHAM ROAD		ONE HOUR	✓	446	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	166	428
	B - B6411 THURNSCOE LANE	168	0	25
	C - B6273 ROTHERHAM ROAD	424	22	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	3	3
	B - B6411 THURNSCOE LANE	4	0	39
	C - B6273 ROTHERHAM ROAD	4	22	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.50	17.96	1.0	C	177	266
C-AB	0.07	5.61	0.1	A	41	61
C-A					368	552
A-B					152	228
A-C					393	589

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	145	36	498	0.292	144	0.0	0.4	10.868	B
C-AB	29	7	757	0.038	28	0.0	0.1	5.613	A
C-A	307	77			307				
A-B	125	31			125				
A-C	322	81			322				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	174	43	469	0.370	173	0.4	0.6	13.054	B
C-AB	39	10	786	0.049	38	0.1	0.1	5.441	A
C-A	362	91			362				
A-B	149	37			149				
A-C	385	96			385				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	212	53	428	0.497	211	0.6	1.0	17.712	C
C-AB	56	14	829	0.067	56	0.1	0.1	5.204	A
C-A	435	109			435				
A-B	183	46			183				
A-C	471	118			471				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	212	53	428	0.497	212	1.0	1.0	17.960	C
C-AB	56	14	829	0.067	56	0.1	0.1	5.180	A
C-A	435	109			435				
A-B	183	46			183				
A-C	471	118			471				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	174	43	468	0.370	175	1.0	0.6	13.260	B
C-AB	39	10	787	0.049	39	0.1	0.1	5.376	A
C-A	362	91			362				
A-B	149	37			149				
A-C	385	96			385				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	145	36	498	0.292	146	0.6	0.5	11.027	B
C-AB	29	7	758	0.038	29	0.1	0.1	5.582	A
C-A	307	77			307				
A-B	125	31			125				
A-C	322	81			322				

2030 BASE, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.63	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	68	Stream B-AC

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	2030 BASE	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B6273 HIGH STREET		ONE HOUR	✓	530	100.000
B - B6411 THURNSCOE LANE		ONE HOUR	✓	122	100.000
C - B6273 ROTHERHAM ROAD		ONE HOUR	✓	325	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	156	374
	B - B6411 THURNSCOE LANE	114	0	8
	C - B6273 ROTHERHAM ROAD	307	18	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	4	4
	B - B6411 THURNSCOE LANE	3	0	0
	C - B6273 ROTHERHAM ROAD	6	29	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.29	11.52	0.4	B	112	168
C-AB	0.05	6.33	0.1	A	28	41
C-A					271	406
A-B					143	215
A-C					343	515

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	92	23	514	0.179	91	0.0	0.2	8.732	A
C-AB	20	5	704	0.029	20	0.0	0.0	6.332	A
C-A	225	56			225				
A-B	117	29			117				
A-C	282	70			282				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	110	27	489	0.224	109	0.2	0.3	9.737	A
C-AB	26	7	722	0.036	26	0.0	0.1	6.194	A
C-A	266	66			266				
A-B	140	35			140				
A-C	336	84			336				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	134	34	456	0.295	134	0.3	0.4	11.479	B
C-AB	36	9	747	0.049	36	0.1	0.1	5.984	A
C-A	322	80			322				
A-B	172	43			172				
A-C	412	103			412				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	134	34	456	0.295	134	0.4	0.4	11.516	B
C-AB	36	9	747	0.049	36	0.1	0.1	5.949	A
C-A	321	80			321				
A-B	172	43			172				
A-C	412	103			412				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	110	27	489	0.224	110	0.4	0.3	9.771	A
C-AB	26	7	722	0.036	26	0.1	0.1	6.115	A
C-A	266	66			266				
A-B	140	35			140				
A-C	336	84			336				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	92	23	514	0.179	92	0.3	0.2	8.784	A
C-AB	20	5	705	0.029	20	0.1	0.0	6.293	A
C-A	224	56			224				
A-B	117	29			117				
A-C	282	70			282				

2030 BASE, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.17	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	22	Stream B-AC

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	2030 BASE	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B6273 HIGH STREET		ONE HOUR	✓	599	100.000
B - B6411 THURNSCOE LANE		ONE HOUR	✓	198	100.000
C - B6273 ROTHERHAM ROAD		ONE HOUR	✓	472	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	170	429
	B - B6411 THURNSCOE LANE	172	0	26
	C - B6273 ROTHERHAM ROAD	448	24	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	3	3
	B - B6411 THURNSCOE LANE	4	0	37
	C - B6273 ROTHERHAM ROAD	4	20	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.52	18.89	1.1	C	182	273
C-AB	0.08	5.49	0.1	A	46	70
C-A					387	580
A-B					156	234
A-C					394	590

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	149	37	494	0.301	147	0.0	0.5	11.079	B
C-AB	32	8	769	0.042	32	0.0	0.1	5.486	A
C-A	323	81			323				
A-B	128	32			128				
A-C	323	81			323				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	178	44	464	0.383	177	0.5	0.7	13.430	B
C-AB	44	11	801	0.054	43	0.1	0.1	5.316	A
C-A	381	95			381				
A-B	153	38			153				
A-C	386	96			386				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	218	55	422	0.516	216	0.7	1.1	18.584	C
C-AB	64	16	847	0.075	63	0.1	0.1	5.084	A
C-A	456	114			456				
A-B	187	47			187				
A-C	472	118			472				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	218	55	422	0.516	218	1.1	1.1	18.888	C
C-AB	64	16	847	0.075	64	0.1	0.1	5.061	A
C-A	456	114			456				
A-B	187	47			187				
A-C	472	118			472				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	178	44	464	0.383	180	1.1	0.7	13.675	B
C-AB	44	11	801	0.054	44	0.1	0.1	5.259	A
C-A	381	95			381				
A-B	153	38			153				
A-C	386	96			386				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	149	37	494	0.302	150	0.7	0.5	11.251	B
C-AB	32	8	770	0.042	32	0.1	0.1	5.458	A
C-A	323	81			323				
A-B	128	32			128				
A-C	323	81			323				

2030 DESIGN, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.63	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	61	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2030 DESIGN	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B6273 HIGH STREET		ONE HOUR	✓	572	100.000
B - B6411 THURNSCOE LANE		ONE HOUR	✓	123	100.000
C - B6273 ROTHERHAM ROAD		ONE HOUR	✓	335	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	160	412
	B - B6411 THURNSCOE LANE	115	0	8
	C - B6273 ROTHERHAM ROAD	317	18	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	4	4
	B - B6411 THURNSCOE LANE	3	0	0
	C - B6273 ROTHERHAM ROAD	5	29	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.31	12.05	0.4	B	113	169
C-AB	0.05	6.30	0.1	A	28	42
C-A					279	419
A-B					147	220
A-C					378	567

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	93	23	505	0.183	92	0.0	0.2	8.936	A
C-AB	21	5	704	0.029	20	0.0	0.0	6.304	A
C-A	232	58			232				
A-B	120	30			120				
A-C	310	78			310				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	111	28	479	0.231	110	0.2	0.3	10.034	B
C-AB	27	7	721	0.037	27	0.0	0.1	6.164	A
C-A	274	69			274				
A-B	144	36			144				
A-C	370	93			370				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	135	34	443	0.306	135	0.3	0.4	12.002	B
C-AB	37	9	747	0.050	37	0.1	0.1	5.949	A
C-A	332	83			332				
A-B	176	44			176				
A-C	454	113			454				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	135	34	443	0.306	135	0.4	0.4	12.045	B
C-AB	37	9	747	0.050	37	0.1	0.1	5.914	A
C-A	331	83			331				
A-B	176	44			176				
A-C	454	113			454				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	111	28	479	0.231	111	0.4	0.3	10.083	B
C-AB	27	7	721	0.037	27	0.1	0.1	6.076	A
C-A	274	69			274				
A-B	144	36			144				
A-C	370	93			370				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	93	23	505	0.183	93	0.3	0.2	8.990	A
C-AB	21	5	704	0.029	21	0.1	0.0	6.261	A
C-A	232	58			232				
A-B	120	30			120				
A-C	310	78			310				

2030 DESIGN, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.23	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	19	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2030 DESIGN	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B6273 HIGH STREET		ONE HOUR	✓	624	100.000
B - B6411 THURNSCOE LANE		ONE HOUR	✓	200	100.000
C - B6273 ROTHERHAM ROAD		ONE HOUR	✓	492	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	172	452
	B - B6411 THURNSCOE LANE	174	0	26
	C - B6273 ROTHERHAM ROAD	468	24	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	3	3
	B - B6411 THURNSCOE LANE	4	0	20
	C - B6273 ROTHERHAM ROAD	4	20	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.53	19.84	1.2	C	184	275
C-AB	0.08	5.43	0.2	A	48	72
C-A					403	605
A-B					158	237
A-C					415	622

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	151	38	487	0.309	149	0.0	0.5	11.194	B
C-AB	33	8	777	0.043	33	0.0	0.1	5.426	A
C-A	337	84			337				
A-B	129	32			129				
A-C	340	85			340				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	180	45	456	0.395	179	0.5	0.7	13.723	B
C-AB	45	11	810	0.056	45	0.1	0.1	5.248	A
C-A	397	99			397				
A-B	155	39			155				
A-C	406	102			406				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	220	55	412	0.535	218	0.7	1.2	19.471	C
C-AB	66	17	859	0.077	66	0.1	0.2	5.016	A
C-A	475	119			475				
A-B	189	47			189				
A-C	498	124			498				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	220	55	412	0.535	220	1.2	1.2	19.839	C
C-AB	66	17	859	0.077	66	0.2	0.2	4.991	A
C-A	475	119			475				
A-B	189	47			189				
A-C	498	124			498				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	180	45	456	0.395	182	1.2	0.7	14.003	B
C-AB	45	11	810	0.056	45	0.2	0.1	5.192	A
C-A	397	99			397				
A-B	155	39			155				
A-C	406	102			406				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	151	38	487	0.309	151	0.7	0.5	11.380	B
C-AB	33	8	777	0.043	33	0.1	0.1	5.400	A
C-A	337	84			337				
A-B	129	32			129				
A-C	340	85			340				

Junctions 9	
ARCADY 9 - Roundabout Module	
Version: 9.5.2.1013 © Copyright TRL Limited, 2019	
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Filename: RotherhamRd-ParkSpringRdV2.j9

Path: O:\High Street, Great Houghton\ANALYSIS\CAPACITY\Roundabouts\RotherhamRd-ParkSpringRd

Report generation date: 11/05/2022 11:28:39

»2021 COVID FACTORED, AM
»2021 COVID FACTORED, PM
»2025 BASE, AM
»2025 BASE, PM
»2025 DESIGN, AM
»2025 DESIGN, PM
»2030 BASE, AM
»2030 BASE, PM
»2030 DESIGN, AM
»2030 DESIGN, PM

Summary of junction performance

	AM							PM						
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Network Residual Capacity	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Network Residual Capacity
	2021 COVID FACTORED													
1 - A6195 Rotherham Road	D1	1.1	4.45	0.51	A	5.04	59 %	D2	1.7	5.69	0.62	A	6.72	31 %
2 - A6195 Park Spring Road		0.7	4.36	0.37	A		[3 - B6273 Rotherham Road]		1.2	5.99	0.55	A		[3 - B6273 Rotherham Road]
3 - B6273 Rotherham Road		1.0	6.63	0.50	A				1.6	9.37	0.62	A		
	2025 BASE													
1 - A6195 Rotherham Road	D3	1.2	4.61	0.53	A	5.25	53 %	D4	1.9	6.05	0.64	A	7.23	26 %
2 - A6195 Park Spring Road		0.7	4.46	0.39	A		[3 - B6273 Rotherham Road]		1.4	6.38	0.57	A		[3 - B6273 Rotherham Road]
3 - B6273 Rotherham Road		1.1	7.04	0.52	A				1.8	10.26	0.65	B		
	2025 DESIGN													
1 - A6195 Rotherham Road	D5	1.2	4.68	0.53	A	5.46	46 %	D6	2.0	6.24	0.66	A	7.57	23 %
2 - A6195 Park Spring Road		0.7	4.48	0.39	A		[3 - B6273 Rotherham Road]		1.4	6.53	0.58	A		[3 - B6273 Rotherham Road]
3 - B6273 Rotherham Road		1.3	7.49	0.56	A				2.1	11.02	0.67	B		
	2030 BASE													
1 - A6195 Rotherham Road	D7	1.6	5.51	0.60	A	6.02	41 %	D8	2.4	7.19	0.70	A	9.10	16 %
2 - A6195 Park Spring Road		0.8	4.78	0.42	A		[3 - B6273 Rotherham Road]		2.1	8.41	0.67	A		[3 - B6273 Rotherham Road]
3 - B6273 Rotherham Road		1.4	8.05	0.58	A				2.5	13.39	0.71	B		
	2030 DESIGN													
1 - A6195 Rotherham Road	D9	1.6	5.60	0.61	A	6.31	35 %	D10	2.6	7.48	0.71	A	9.64	14 %
2 - A6195 Park Spring Road		0.8	4.81	0.43	A		[3 - B6273 Rotherham Road]		2.1	8.64	0.68	A		[3 - B6273 Rotherham Road]
3 - B6273 Rotherham Road		1.6	8.77	0.62	A				2.8	14.65	0.74	B		

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	24/06/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OPTIMA\Optima
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	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	2021 COVID FACTORED	AM	ONE HOUR	00:00	01:30	15	✓
D2	2021 COVID FACTORED	PM	ONE HOUR	00:00	01:30	15	✓
D3	2025 BASE	AM	ONE HOUR	00:00	01:30	15	✓
D4	2025 BASE	PM	ONE HOUR	00:00	01:30	15	✓
D5	2025 DESIGN	AM	ONE HOUR	00:00	01:30	15	✓
D6	2025 DESIGN	PM	ONE HOUR	00:00	01:30	15	✓
D7	2030 BASE	AM	ONE HOUR	00:00	01:30	15	✓
D8	2030 BASE	PM	ONE HOUR	00:00	01:30	15	✓
D9	2030 DESIGN	AM	ONE HOUR	00:00	01:30	15	✓
D10	2030 DESIGN	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

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

2021 COVID FACTORED, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	5.04	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	59	3 - B6273 Rotherham Road

Arms

Arms

Arm	Name	Description
1	A6195 Rotherham Road	
2	A6195 Park Spring Road	
3	B6273 Rotherham Road	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A6195 Rotherham Road	6.19	6.58	2.9	27.3	57.8	59.8	
2 - A6195 Park Spring Road	5.03	7.34	5.1	27.6	59.4	54.4	
3 - B6273 Rotherham Road	3.50	6.47	10.4	40.3	58.1	68.2	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A6195 Rotherham Road	0.560	1782
2 - A6195 Park Spring Road	0.538	1681
3 - B6273 Rotherham Road	0.479	1365

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	2021 COVID FACTORED	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 Rotherham Road		ONE HOUR	✓	813	100.000
2 - A6195 Park Spring Road		ONE HOUR	✓	494	100.000
3 - B6273 Rotherham Road		ONE HOUR	✓	512	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	0	438	375
	2 - A6195 Park Spring Road	447	1	46
	3 - B6273 Rotherham Road	474	38	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	0	8	5
	2 - A6195 Park Spring Road	12	0	2
	3 - B6273 Rotherham Road	4	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 Rotherham Road	0.51	4.45	1.1	A	746	1119
2 - A6195 Park Spring Road	0.37	4.36	0.7	A	453	680
3 - B6273 Rotherham Road	0.50	6.63	1.0	A	470	705

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	612	153	29	1765	0.347	610	690	0.0	0.6	3.316	A
2 - A6195 Park Spring Road	372	93	281	1530	0.243	370	358	0.0	0.4	3.440	A
3 - B6273 Rotherham Road	385	96	336	1204	0.320	384	316	0.0	0.5	4.548	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	731	183	35	1762	0.415	730	827	0.6	0.8	3.717	A
2 - A6195 Park Spring Road	444	111	337	1500	0.296	444	428	0.4	0.5	3.779	A
3 - B6273 Rotherham Road	460	115	402	1172	0.393	460	378	0.5	0.7	5.247	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	895	224	43	1758	0.509	894	1012	0.8	1.1	4.434	A
2 - A6195 Park Spring Road	544	136	412	1459	0.373	543	524	0.5	0.7	4.356	A
3 - B6273 Rotherham Road	564	141	493	1128	0.500	562	463	0.7	1.0	6.590	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	895	224	43	1758	0.509	895	1014	1.1	1.1	4.448	A
2 - A6195 Park Spring Road	544	136	413	1459	0.373	544	525	0.7	0.7	4.364	A
3 - B6273 Rotherham Road	564	141	493	1128	0.500	564	464	1.0	1.0	6.627	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	731	183	35	1762	0.415	732	830	1.1	0.8	3.733	A
2 - A6195 Park Spring Road	444	111	338	1499	0.296	445	430	0.7	0.5	3.789	A
3 - B6273 Rotherham Road	460	115	403	1171	0.393	462	379	1.0	0.7	5.282	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	612	153	29	1765	0.347	613	694	0.8	0.6	3.333	A
2 - A6195 Park Spring Road	372	93	283	1529	0.243	372	360	0.5	0.4	3.453	A
3 - B6273 Rotherham Road	385	96	338	1203	0.320	386	317	0.7	0.5	4.587	A

2021 COVID FACTORED, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	6.72	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	31	3 - B6273 Rotherham Road

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	2021 COVID FACTORED	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 Rotherham Road		ONE HOUR	✓	989	100.000
2 - A6195 Park Spring Road		ONE HOUR	✓	686	100.000
3 - B6273 Rotherham Road		ONE HOUR	✓	577	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	2	478	509
	2 - A6195 Park Spring Road	630	0	56
	3 - B6273 Rotherham Road	534	43	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	0	8	3
	2 - A6195 Park Spring Road	4	0	0
	3 - B6273 Rotherham Road	3	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 Rotherham Road	0.62	5.69	1.7	A	908	1361
2 - A6195 Park Spring Road	0.55	5.99	1.2	A	629	944
3 - B6273 Rotherham Road	0.62	9.37	1.6	A	529	794

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	745	186	32	1764	0.422	742	873	0.0	0.8	3.700	A
2 - A6195 Park Spring Road	516	129	383	1475	0.350	514	391	0.0	0.6	3.876	A
3 - B6273 Rotherham Road	434	109	474	1137	0.382	432	424	0.0	0.6	5.243	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	889	222	39	1760	0.505	888	1046	0.8	1.1	4.341	A
2 - A6195 Park Spring Road	617	154	459	1434	0.430	616	468	0.6	0.8	4.554	A
3 - B6273 Rotherham Road	519	130	567	1093	0.475	518	507	0.6	0.9	6.443	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1089	272	47	1755	0.620	1086	1280	1.1	1.7	5.648	A
2 - A6195 Park Spring Road	755	189	561	1379	0.548	753	572	0.8	1.2	5.946	A
3 - B6273 Rotherham Road	635	159	694	1032	0.616	633	621	0.9	1.6	9.235	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1089	272	47	1755	0.620	1089	1284	1.7	1.7	5.691	A
2 - A6195 Park Spring Road	755	189	563	1378	0.548	755	574	1.2	1.2	5.987	A
3 - B6273 Rotherham Road	635	159	696	1031	0.616	635	622	1.6	1.6	9.374	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	889	222	39	1760	0.505	892	1052	1.7	1.1	4.379	A
2 - A6195 Park Spring Road	617	154	461	1433	0.430	619	470	1.2	0.8	4.591	A
3 - B6273 Rotherham Road	519	130	570	1091	0.475	521	509	1.6	0.9	6.544	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	745	186	32	1764	0.422	746	880	1.1	0.8	3.730	A
2 - A6195 Park Spring Road	516	129	385	1474	0.350	517	393	0.8	0.6	3.906	A
3 - B6273 Rotherham Road	434	109	477	1136	0.382	436	426	0.9	0.6	5.309	A

2025 BASE, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	5.25	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	53	3 - B6273 Rotherham Road

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	2025 BASE	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 Rotherham Road		ONE HOUR	✓	840	100.000
2 - A6195 Park Spring Road		ONE HOUR	✓	511	100.000
3 - B6273 Rotherham Road		ONE HOUR	✓	530	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	0	453	387
	2 - A6195 Park Spring Road	463	1	47
	3 - B6273 Rotherham Road	490	40	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	0	8	5
	2 - A6195 Park Spring Road	11	0	2
	3 - B6273 Rotherham Road	5	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 Rotherham Road	0.53	4.61	1.2	A	771	1156
2 - A6195 Park Spring Road	0.39	4.46	0.7	A	469	703
3 - B6273 Rotherham Road	0.52	7.04	1.1	A	486	730

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	632	158	31	1765	0.358	630	714	0.0	0.6	3.375	A
2 - A6195 Park Spring Road	385	96	290	1525	0.252	383	370	0.0	0.4	3.466	A
3 - B6273 Rotherham Road	399	100	348	1198	0.333	397	326	0.0	0.5	4.700	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	755	189	37	1761	0.429	754	856	0.6	0.8	3.807	A
2 - A6195 Park Spring Road	459	115	348	1494	0.307	459	444	0.4	0.5	3.825	A
3 - B6273 Rotherham Road	476	119	417	1165	0.409	476	390	0.5	0.7	5.472	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	925	231	45	1757	0.527	923	1047	0.8	1.2	4.597	A
2 - A6195 Park Spring Road	563	141	425	1452	0.387	562	543	0.5	0.7	4.447	A
3 - B6273 Rotherham Road	584	146	510	1120	0.521	582	477	0.7	1.1	6.993	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	925	231	45	1756	0.527	925	1049	1.2	1.2	4.614	A
2 - A6195 Park Spring Road	563	141	426	1452	0.388	563	544	0.7	0.7	4.456	A
3 - B6273 Rotherham Road	584	146	511	1120	0.521	584	478	1.1	1.1	7.038	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	755	189	37	1761	0.429	757	859	1.2	0.8	3.825	A
2 - A6195 Park Spring Road	459	115	349	1494	0.308	460	445	0.7	0.5	3.839	A
3 - B6273 Rotherham Road	476	119	418	1164	0.409	478	391	1.1	0.7	5.514	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	632	158	31	1764	0.358	633	719	0.8	0.6	3.396	A
2 - A6195 Park Spring Road	385	96	292	1524	0.252	385	372	0.5	0.4	3.479	A
3 - B6273 Rotherham Road	399	100	350	1197	0.333	400	327	0.7	0.5	4.739	A

2025 BASE, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	7.23	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	26	3 - B6273 Rotherham Road

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	2025 BASE	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 Rotherham Road		ONE HOUR	✓	1025	100.000
2 - A6195 Park Spring Road		ONE HOUR	✓	711	100.000
3 - B6273 Rotherham Road		ONE HOUR	✓	597	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	2	496	527
	2 - A6195 Park Spring Road	653	0	58
	3 - B6273 Rotherham Road	553	44	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	0	8	3
	2 - A6195 Park Spring Road	4	0	0
	3 - B6273 Rotherham Road	3	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 Rotherham Road	0.64	6.05	1.9	A	941	1411
2 - A6195 Park Spring Road	0.57	6.38	1.4	A	652	979
3 - B6273 Rotherham Road	0.65	10.26	1.8	B	548	822

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	772	193	33	1763	0.438	768	905	0.0	0.8	3.799	A
2 - A6195 Park Spring Road	535	134	397	1468	0.365	533	405	0.0	0.6	3.982	A
3 - B6273 Rotherham Road	449	112	491	1129	0.398	447	439	0.0	0.7	5.424	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	921	230	39	1760	0.524	920	1084	0.8	1.1	4.510	A
2 - A6195 Park Spring Road	639	160	475	1426	0.448	638	485	0.6	0.8	4.733	A
3 - B6273 Rotherham Road	537	134	588	1083	0.496	535	525	0.7	1.0	6.767	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1129	282	48	1755	0.643	1126	1325	1.1	1.9	6.001	A
2 - A6195 Park Spring Road	783	196	581	1369	0.572	781	593	0.8	1.4	6.325	A
3 - B6273 Rotherham Road	657	164	719	1020	0.645	654	642	1.0	1.8	10.062	B

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1129	282	48	1755	0.643	1128	1330	1.9	1.9	6.054	A
2 - A6195 Park Spring Road	783	196	582	1368	0.572	783	595	1.4	1.4	6.378	A
3 - B6273 Rotherham Road	657	164	721	1019	0.645	657	644	1.8	1.8	10.256	B

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	921	230	40	1759	0.524	924	1091	1.9	1.2	4.556	A
2 - A6195 Park Spring Road	639	160	477	1424	0.449	641	487	1.4	0.9	4.778	A
3 - B6273 Rotherham Road	537	134	591	1081	0.496	540	528	1.8	1.0	6.900	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	772	193	33	1763	0.438	773	912	1.2	0.8	3.838	A
2 - A6195 Park Spring Road	535	134	399	1466	0.365	536	407	0.9	0.6	4.015	A
3 - B6273 Rotherham Road	449	112	494	1128	0.399	451	441	1.0	0.7	5.495	A

2025 DESIGN, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	5.46	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	46	3 - B6273 Rotherham Road

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	2025 DESIGN	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 Rotherham Road		ONE HOUR	✓	850	100.000
2 - A6195 Park Spring Road		ONE HOUR	✓	512	100.000
3 - B6273 Rotherham Road		ONE HOUR	✓	568	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	0	453	397
	2 - A6195 Park Spring Road	463	1	48
	3 - B6273 Rotherham Road	526	42	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	0	8	5
	2 - A6195 Park Spring Road	11	2	0
	3 - B6273 Rotherham Road	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 Rotherham Road	0.53	4.68	1.2	A	780	1170
2 - A6195 Park Spring Road	0.39	4.48	0.7	A	470	705
3 - B6273 Rotherham Road	0.56	7.49	1.3	A	521	782

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	640	160	32	1764	0.363	638	741	0.0	0.6	3.400	A
2 - A6195 Park Spring Road	385	96	298	1521	0.253	384	372	0.0	0.4	3.473	A
3 - B6273 Rotherham Road	428	107	348	1198	0.357	425	334	0.0	0.6	4.784	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	764	191	39	1760	0.434	763	888	0.6	0.8	3.845	A
2 - A6195 Park Spring Road	460	115	357	1489	0.309	460	445	0.4	0.5	3.839	A
3 - B6273 Rotherham Road	511	128	417	1165	0.438	510	400	0.6	0.8	5.647	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	936	234	47	1755	0.533	934	1086	0.8	1.2	4.665	A
2 - A6195 Park Spring Road	564	141	436	1446	0.390	563	545	0.5	0.7	4.472	A
3 - B6273 Rotherham Road	625	156	510	1120	0.558	623	489	0.8	1.3	7.430	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	936	234	47	1755	0.533	936	1089	1.2	1.2	4.682	A
2 - A6195 Park Spring Road	564	141	437	1446	0.390	564	546	0.7	0.7	4.481	A
3 - B6273 Rotherham Road	625	156	511	1120	0.559	625	490	1.3	1.3	7.494	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	764	191	39	1760	0.434	766	892	1.2	0.8	3.865	A
2 - A6195 Park Spring Road	460	115	358	1489	0.309	461	447	0.7	0.5	3.852	A
3 - B6273 Rotherham Road	511	128	418	1164	0.439	513	401	1.3	0.8	5.703	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	640	160	32	1764	0.363	641	746	0.8	0.6	3.418	A
2 - A6195 Park Spring Road	385	96	299	1520	0.254	386	374	0.5	0.4	3.487	A
3 - B6273 Rotherham Road	428	107	350	1197	0.357	429	335	0.8	0.6	4.827	A

2025 DESIGN, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	7.57	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	23	3 - B6273 Rotherham Road

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	2025 DESIGN	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 Rotherham Road		ONE HOUR	✓	1044	100.000
2 - A6195 Park Spring Road		ONE HOUR	✓	713	100.000
3 - B6273 Rotherham Road		ONE HOUR	✓	620	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	2	496	546
	2 - A6195 Park Spring Road	653	0	60
	3 - B6273 Rotherham Road	574	46	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	0	8	2
	2 - A6195 Park Spring Road	4	0	0
	3 - B6273 Rotherham Road	3	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 Rotherham Road	0.66	6.24	2.0	A	958	1437
2 - A6195 Park Spring Road	0.58	6.53	1.4	A	654	981
3 - B6273 Rotherham Road	0.67	11.02	2.1	B	569	853

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	786	196	34	1762	0.446	783	920	0.0	0.8	3.836	A
2 - A6195 Park Spring Road	537	134	411	1460	0.368	534	406	0.0	0.6	4.020	A
3 - B6273 Rotherham Road	467	117	491	1129	0.413	464	454	0.0	0.7	5.558	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	939	235	41	1759	0.534	937	1103	0.8	1.2	4.583	A
2 - A6195 Park Spring Road	641	160	492	1416	0.453	640	486	0.6	0.8	4.799	A
3 - B6273 Rotherham Road	557	139	588	1083	0.515	556	544	0.7	1.1	7.027	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1149	287	50	1754	0.656	1146	1348	1.2	2.0	6.179	A
2 - A6195 Park Spring Road	785	196	602	1357	0.578	783	595	0.8	1.4	6.470	A
3 - B6273 Rotherham Road	683	171	719	1020	0.669	679	665	1.1	2.0	10.771	B

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1149	287	51	1753	0.656	1149	1353	2.0	2.0	6.241	A
2 - A6195 Park Spring Road	785	196	603	1357	0.579	785	597	1.4	1.4	6.528	A
3 - B6273 Rotherham Road	683	171	721	1019	0.670	682	667	2.0	2.1	11.024	B

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	939	235	42	1758	0.534	942	1110	2.0	1.2	4.633	A
2 - A6195 Park Spring Road	641	160	494	1415	0.453	643	489	1.4	0.9	4.848	A
3 - B6273 Rotherham Road	557	139	591	1081	0.515	561	547	2.1	1.1	7.189	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	786	196	35	1762	0.446	787	928	1.2	0.8	3.875	A
2 - A6195 Park Spring Road	537	134	413	1459	0.368	538	409	0.9	0.6	4.056	A
3 - B6273 Rotherham Road	467	117	494	1128	0.414	468	457	1.1	0.7	5.642	A

2030 BASE, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	6.02	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	41	3 - B6273 Rotherham Road

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	2030 BASE	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 Rotherham Road		ONE HOUR	✓	959	100.000
2 - A6195 Park Spring Road		ONE HOUR	✓	555	100.000
3 - B6273 Rotherham Road		ONE HOUR	✓	577	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	0	550	409
	2 - A6195 Park Spring Road	502	1	52
	3 - B6273 Rotherham Road	525	52	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	0	7	5
	2 - A6195 Park Spring Road	11	2	0
	3 - B6273 Rotherham Road	4	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 Rotherham Road	0.60	5.51	1.6	A	880	1320
2 - A6195 Park Spring Road	0.42	4.78	0.8	A	509	764
3 - B6273 Rotherham Road	0.58	8.05	1.4	A	529	794

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	722	180	40	1760	0.410	719	770	0.0	0.7	3.661	A
2 - A6195 Park Spring Road	418	104	307	1516	0.276	416	452	0.0	0.4	3.591	A
3 - B6273 Rotherham Road	434	109	377	1184	0.367	432	346	0.0	0.6	4.955	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	862	216	48	1755	0.491	861	922	0.7	1.0	4.268	A
2 - A6195 Park Spring Road	499	125	367	1484	0.336	498	541	0.4	0.6	4.012	A
3 - B6273 Rotherham Road	519	130	452	1148	0.452	518	414	0.6	0.8	5.919	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1056	264	58	1749	0.604	1054	1128	1.0	1.6	5.474	A
2 - A6195 Park Spring Road	611	153	449	1439	0.425	610	662	0.6	0.8	4.762	A
3 - B6273 Rotherham Road	635	159	553	1100	0.578	633	506	0.8	1.4	7.974	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1056	264	58	1749	0.604	1056	1131	1.6	1.6	5.511	A
2 - A6195 Park Spring Road	611	153	450	1439	0.425	611	664	0.8	0.8	4.776	A
3 - B6273 Rotherham Road	635	159	554	1099	0.578	635	508	1.4	1.4	8.054	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	862	216	48	1755	0.491	864	926	1.6	1.0	4.302	A
2 - A6195 Park Spring Road	499	125	369	1483	0.336	500	544	0.8	0.6	4.028	A
3 - B6273 Rotherham Road	519	130	453	1147	0.452	521	415	1.4	0.9	5.987	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	722	180	40	1759	0.410	723	775	1.0	0.7	3.693	A
2 - A6195 Park Spring Road	418	104	308	1515	0.276	418	455	0.6	0.4	3.606	A
3 - B6273 Rotherham Road	434	109	379	1183	0.367	435	348	0.9	0.6	5.009	A

2030 BASE, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	9.10	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	16	3 - B6273 Rotherham Road

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	2030 BASE	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 Rotherham Road		ONE HOUR	✓	1112	100.000
2 - A6195 Park Spring Road		ONE HOUR	✓	819	100.000
3 - B6273 Rotherham Road		ONE HOUR	✓	629	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	2	544	566
	2 - A6195 Park Spring Road	748	0	71
	3 - B6273 Rotherham Road	580	49	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	0	8	3
	2 - A6195 Park Spring Road	4	0	0
	3 - B6273 Rotherham Road	3	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 Rotherham Road	0.70	7.19	2.4	A	1020	1531
2 - A6195 Park Spring Road	0.67	8.41	2.1	A	752	1127
3 - B6273 Rotherham Road	0.71	13.39	2.5	B	577	866

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	837	209	37	1761	0.475	833	996	0.0	0.9	4.073	A
2 - A6195 Park Spring Road	617	154	426	1452	0.425	614	444	0.0	0.8	4.433	A
3 - B6273 Rotherham Road	474	118	562	1095	0.432	470	477	0.0	0.8	5.909	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1000	250	44	1757	0.569	998	1193	0.9	1.4	4.986	A
2 - A6195 Park Spring Road	736	184	510	1407	0.523	735	532	0.8	1.1	5.539	A
3 - B6273 Rotherham Road	565	141	673	1042	0.543	564	572	0.8	1.2	7.731	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1224	306	54	1752	0.699	1220	1456	1.4	2.4	7.085	A
2 - A6195 Park Spring Road	902	225	623	1346	0.670	898	651	1.1	2.0	8.264	A
3 - B6273 Rotherham Road	693	173	822	970	0.714	688	699	1.2	2.4	12.893	B

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1224	306	54	1752	0.699	1224	1464	2.4	2.4	7.189	A
2 - A6195 Park Spring Road	902	225	625	1345	0.671	902	653	2.0	2.1	8.414	A
3 - B6273 Rotherham Road	693	173	826	969	0.715	692	701	2.4	2.5	13.386	B

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1000	250	44	1757	0.569	1004	1204	2.4	1.4	5.065	A
2 - A6195 Park Spring Road	736	184	513	1405	0.524	740	535	2.1	1.2	5.640	A
3 - B6273 Rotherham Road	565	141	678	1040	0.544	571	575	2.5	1.3	7.990	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	837	209	37	1761	0.475	839	1004	1.4	1.0	4.122	A
2 - A6195 Park Spring Road	617	154	429	1451	0.425	618	447	1.2	0.8	4.491	A
3 - B6273 Rotherham Road	474	118	566	1093	0.433	475	481	1.3	0.8	6.024	A

2030 DESIGN, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	6.31	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	35	3 - B6273 Rotherham Road

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2030 DESIGN	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 Rotherham Road		ONE HOUR	✓	968	100.000
2 - A6195 Park Spring Road		ONE HOUR	✓	555	100.000
3 - B6273 Rotherham Road		ONE HOUR	✓	615	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	0	550	418
	2 - A6195 Park Spring Road	502	1	52
	3 - B6273 Rotherham Road	561	54	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	0	7	5
	2 - A6195 Park Spring Road	11	2	0
	3 - B6273 Rotherham Road	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 Rotherham Road	0.61	5.60	1.6	A	888	1332
2 - A6195 Park Spring Road	0.43	4.81	0.8	A	509	764
3 - B6273 Rotherham Road	0.62	8.77	1.6	A	564	847

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	729	182	41	1759	0.414	726	796	0.0	0.7	3.688	A
2 - A6195 Park Spring Road	418	104	313	1513	0.276	416	454	0.0	0.4	3.603	A
3 - B6273 Rotherham Road	463	116	377	1184	0.391	460	352	0.0	0.7	5.103	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	870	218	49	1754	0.496	869	954	0.7	1.0	4.311	A
2 - A6195 Park Spring Road	499	125	375	1479	0.337	498	543	0.4	0.6	4.030	A
3 - B6273 Rotherham Road	553	138	452	1148	0.482	552	422	0.7	0.9	6.199	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1066	266	60	1748	0.610	1063	1167	1.0	1.6	5.563	A
2 - A6195 Park Spring Road	611	153	459	1434	0.426	610	665	0.6	0.8	4.793	A
3 - B6273 Rotherham Road	677	169	553	1100	0.616	674	516	0.9	1.6	8.660	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1066	266	61	1748	0.610	1066	1170	1.6	1.6	5.601	A
2 - A6195 Park Spring Road	611	153	460	1434	0.426	611	666	0.8	0.8	4.807	A
3 - B6273 Rotherham Road	677	169	554	1099	0.616	677	517	1.6	1.6	8.773	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	870	218	50	1754	0.496	873	959	1.6	1.1	4.347	A
2 - A6195 Park Spring Road	499	125	377	1478	0.337	500	545	0.8	0.6	4.045	A
3 - B6273 Rotherham Road	553	138	453	1147	0.482	556	424	1.6	1.0	6.286	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	729	182	42	1758	0.414	730	802	1.1	0.8	3.717	A
2 - A6195 Park Spring Road	418	104	315	1512	0.276	418	456	0.6	0.4	3.621	A
3 - B6273 Rotherham Road	463	116	379	1183	0.391	464	354	1.0	0.7	5.165	A

2030 DESIGN, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	9.64	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	14	3 - B6273 Rotherham Road

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2030 DESIGN	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 Rotherham Road		ONE HOUR	✓	1130	100.000
2 - A6195 Park Spring Road		ONE HOUR	✓	820	100.000
3 - B6273 Rotherham Road		ONE HOUR	✓	651	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	2	544	584
	2 - A6195 Park Spring Road	748	0	72
	3 - B6273 Rotherham Road	601	50	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	0	8	3
	2 - A6195 Park Spring Road	4	0	0
	3 - B6273 Rotherham Road	3	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 Rotherham Road	0.71	7.48	2.6	A	1037	1555
2 - A6195 Park Spring Road	0.68	8.64	2.1	A	752	1129
3 - B6273 Rotherham Road	0.74	14.65	2.8	B	597	896

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	851	213	37	1761	0.483	847	1011	0.0	1.0	4.132	A
2 - A6195 Park Spring Road	617	154	439	1445	0.427	614	445	0.0	0.8	4.476	A
3 - B6273 Rotherham Road	490	123	562	1095	0.447	487	492	0.0	0.8	6.066	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1016	254	45	1757	0.578	1014	1211	1.0	1.4	5.094	A
2 - A6195 Park Spring Road	737	184	526	1398	0.527	736	533	0.8	1.1	5.619	A
3 - B6273 Rotherham Road	585	146	673	1042	0.562	583	589	0.8	1.3	8.056	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1244	311	55	1751	0.710	1240	1479	1.4	2.5	7.353	A
2 - A6195 Park Spring Road	903	226	643	1335	0.676	899	651	1.1	2.1	8.479	A
3 - B6273 Rotherham Road	717	179	822	970	0.739	711	720	1.3	2.8	13.989	B

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1244	311	55	1751	0.711	1244	1487	2.5	2.6	7.476	A
2 - A6195 Park Spring Road	903	226	645	1334	0.677	903	654	2.1	2.1	8.643	A
3 - B6273 Rotherham Road	717	179	826	969	0.740	716	722	2.8	2.8	14.649	B

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1016	254	45	1756	0.578	1020	1224	2.6	1.5	5.183	A
2 - A6195 Park Spring Road	737	184	529	1396	0.528	741	537	2.1	1.2	5.726	A
3 - B6273 Rotherham Road	585	146	678	1040	0.563	591	592	2.8	1.4	8.378	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	851	213	38	1761	0.483	853	1020	1.5	1.0	4.185	A
2 - A6195 Park Spring Road	617	154	442	1443	0.428	619	448	1.2	0.8	4.535	A
3 - B6273 Rotherham Road	490	123	566	1093	0.448	492	495	1.4	0.8	6.193	A

Junctions 9	
ARCADY 9 - Roundabout Module	
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Filename: A635-A6195V2.j9

Path: O:\High Street, Great Houghton\ANALYSIS\CAPACITY\Roundabouts\A635-A6195

Report generation date: 10/05/2022 16:43:21

-
- »2021 COVID FACTORED, AM
 - »2021 COVID FACTORED, PM
 - »2025 BASE, AM
 - »2025 BASE, PM
 - »2025 DESIGN, AM
 - »2025 DESIGN, PM
 - »2030 BASE, AM
 - »2030 BASE, PM
 - »2030 DESIGN, AM
 - »2030 DESIGN, PM

Summary of junction performance

	AM							PM						
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Network Residual Capacity	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Network Residual Capacity
	2021 COVID FACTORED													
1 - A6195 South	D1	0.9	3.43	0.47	A	4.16	41 % [2 - A635 Doncaster Road West]	D2	1.3	4.26	0.56	A	5.61	22 % [2 - A635 Doncaster Road West]
2 - A635 Doncaster Road West		1.7	5.23	0.61	A				2.9	7.68	0.73	A		
3 - A6195 Rotherham Road North		0.6	3.12	0.38	A				0.6	3.16	0.37	A		
4 - A635 East		1.1	4.41	0.51	A				1.9	6.00	0.65	A		
	2025 BASE													
1 - A6195 South	D3	1.0	3.61	0.49	A	4.44	37 % [2 - A635 Doncaster Road West]	D4	1.5	4.57	0.58	A	6.30	18 % [2 - A635 Doncaster Road West]
2 - A635 Doncaster Road West		1.9	5.66	0.64	A				3.4	8.88	0.77	A		
3 - A6195 Rotherham Road North		0.7	3.27	0.40	A				0.7	3.28	0.39	A		
4 - A635 East		1.2	4.73	0.53	A				2.2	6.78	0.68	A		
	2025 DESIGN													
1 - A6195 South	D5	1.1	3.66	0.49	A	4.52	36 % [2 - A635 Doncaster Road West]	D6	1.5	4.68	0.59	A	6.46	17 % [2 - A635 Doncaster Road West]
2 - A635 Doncaster Road West		2.0	5.73	0.64	A				3.6	9.23	0.78	A		
3 - A6195 Rotherham Road North		0.8	3.38	0.42	A				0.7	3.36	0.40	A		
4 - A635 East		1.3	4.87	0.54	A				2.3	6.89	0.69	A		
	2030 BASE													
1 - A6195 South	D7	1.5	4.50	0.58	A	7.55	10 % [2 - A635 Doncaster Road West]	D8	2.2	6.48	0.68	A	12.96	4 % [4 - A635 East]
2 - A635 Doncaster Road West		5.2	12.73	0.83	B				6.3	15.38	0.87	C		
3 - A6195 Rotherham Road North		1.0	4.29	0.49	A				0.9	3.95	0.47	A		
4 - A635 East		1.9	6.12	0.64	A				8.3	20.69	0.90	C		
	2030 DESIGN													
1 - A6195 South	D9	1.5	4.58	0.58	A	7.72	10 % [2 - A635 Doncaster Road West]	D10	2.3	6.67	0.69	A	13.73	3 % [4 - A635 East]
2 - A635 Doncaster Road West		5.3	12.99	0.84	B				6.8	16.39	0.87	C		
3 - A6195 Rotherham Road North		1.1	4.49	0.51	A				1.0	4.05	0.48	A		
4 - A635 East		1.9	6.34	0.65	A				8.9	22.25	0.91	C		

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. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	24/06/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OPTIMA\Optima
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	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	2021 COVID FACTORED	AM	ONE HOUR	00:00	01:30	15	✓
D2	2021 COVID FACTORED	PM	ONE HOUR	00:00	01:30	15	✓
D3	2025 BASE	AM	ONE HOUR	00:00	01:30	15	✓
D4	2025 BASE	PM	ONE HOUR	00:00	01:30	15	✓
D5	2025 DESIGN	AM	ONE HOUR	00:00	01:30	15	✓
D6	2025 DESIGN	PM	ONE HOUR	00:00	01:30	15	✓
D7	2030 BASE	AM	ONE HOUR	00:00	01:30	15	✓
D8	2030 BASE	PM	ONE HOUR	00:00	01:30	15	✓
D9	2030 DESIGN	AM	ONE HOUR	00:00	01:30	15	✓
D10	2030 DESIGN	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

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

2021 COVID FACTORED, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A6195 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.16	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	41	2 - A635 Doncaster Road West

Arms

Arms

Arm	Name	Description
1	A6195 South	
2	A635 Doncaster Road West	
3	A6195 Rotherham Road North	
4	A635 East	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A6195 South	7.68	10.00	45.0	27.3	76.0	59.8	
2 - A635 Doncaster Road West	6.02	9.20	25.0	27.6	78.4	54.4	
3 - A6195 Rotherham Road North	7.30	10.00	25.0	33.2	79.4	44.3	
4 - A635 East	7.30	10.00	10.0	35.6	74.2	52.8	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A6195 South	0.608	2666
2 - A635 Doncaster Road West	0.554	2330
3 - A6195 Rotherham Road North	0.620	2735
4 - A635 East	0.597	2498

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	2021 COVID FACTORED	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 South		ONE HOUR	✓	906	100.000
2 - A635 Doncaster Road West		ONE HOUR	✓	1078	100.000
3 - A6195 Rotherham Road North		ONE HOUR	✓	679	100.000
4 - A635 East		ONE HOUR	✓	828	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
	1 - A6195 South	1	378	380	147
	2 - A635 Doncaster Road West	464	1	107	506
	3 - A6195 Rotherham Road North	457	148	1	73
	4 - A635 East	178	527	120	3

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
	1 - A6195 South	0	10	5	11
	2 - A635 Doncaster Road West	5	0	7	12
	3 - A6195 Rotherham Road North	6	2	0	14
	4 - A635 East	14	6	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 South	0.47	3.43	0.9	A	831	1247
2 - A635 Doncaster Road West	0.61	5.23	1.7	A	989	1484
3 - A6195 Rotherham Road North	0.38	3.12	0.6	A	623	935
4 - A635 East	0.51	4.41	1.1	A	760	1140

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	682	171	600	2301	0.296	680	826	0.0	0.5	2.396	A
2 - A635 Doncaster Road West	812	203	490	2059	0.394	809	791	0.0	0.7	3.114	A
3 - A6195 Rotherham Road North	511	128	842	2214	0.231	510	456	0.0	0.3	2.236	A
4 - A635 East	623	156	805	2017	0.309	621	547	0.0	0.5	2.779	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	814	204	718	2230	0.365	814	988	0.5	0.6	2.744	A
2 - A635 Doncaster Road West	969	242	586	2006	0.483	968	947	0.7	1.0	3.753	A
3 - A6195 Rotherham Road North	610	153	1007	2111	0.289	610	546	0.3	0.4	2.539	A
4 - A635 East	744	186	963	1923	0.387	744	655	0.5	0.7	3.292	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	998	249	879	2132	0.468	996	1209	0.6	0.9	3.420	A
2 - A635 Doncaster Road West	1187	297	717	1933	0.614	1184	1159	1.0	1.7	5.188	A
3 - A6195 Rotherham Road North	748	187	1233	1971	0.379	747	668	0.4	0.6	3.111	A
4 - A635 East	912	228	1178	1794	0.508	910	801	0.7	1.1	4.385	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	998	249	881	2131	0.468	998	1211	0.9	0.9	3.428	A
2 - A635 Doncaster Road West	1187	297	718	1933	0.614	1187	1160	1.7	1.7	5.230	A
3 - A6195 Rotherham Road North	748	187	1235	1970	0.380	748	669	0.6	0.6	3.118	A
4 - A635 East	912	228	1180	1793	0.508	912	803	1.1	1.1	4.406	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	814	204	721	2228	0.366	816	991	0.9	0.6	2.754	A
2 - A635 Doncaster Road West	969	242	587	2005	0.483	972	949	1.7	1.0	3.788	A
3 - A6195 Rotherham Road North	610	153	1011	2109	0.289	611	548	0.6	0.4	2.548	A
4 - A635 East	744	186	966	1921	0.387	746	657	1.1	0.7	3.309	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	682	171	603	2300	0.297	683	829	0.6	0.5	2.406	A
2 - A635 Doncaster Road West	812	203	491	2058	0.394	813	794	1.0	0.7	3.138	A
3 - A6195 Rotherham Road North	511	128	846	2211	0.231	512	458	0.4	0.3	2.243	A
4 - A635 East	623	156	808	2015	0.309	624	550	0.7	0.5	2.793	A

2021 COVID FACTORED, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A6195 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.61	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	22	2 - A635 Doncaster Road West

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	2021 COVID FACTORED	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 South		ONE HOUR	✓	1024	100.000
2 - A635 Doncaster Road West		ONE HOUR	✓	1240	100.000
3 - A6195 Rotherham Road North		ONE HOUR	✓	645	100.000
4 - A635 East		ONE HOUR	✓	1049	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
	1 - A6195 South	5	444	436	139
	2 - A635 Doncaster Road West	531	0	169	540
	3 - A6195 Rotherham Road North	400	152	2	91
	4 - A635 East	241	617	191	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
	1 - A6195 South	25	7	3	11
	2 - A635 Doncaster Road West	7	0	2	5
	3 - A6195 Rotherham Road North	5	4	0	8
	4 - A635 East	7	4	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 South	0.56	4.26	1.3	A	940	1409
2 - A635 Doncaster Road West	0.73	7.68	2.9	A	1138	1707
3 - A6195 Rotherham Road North	0.37	3.16	0.6	A	592	888
4 - A635 East	0.65	6.00	1.9	A	963	1444

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	771	193	722	2228	0.346	769	883	0.0	0.6	2.609	A
2 - A635 Doncaster Road West	934	233	580	2009	0.465	930	910	0.0	0.9	3.506	A
3 - A6195 Rotherham Road North	486	121	911	2171	0.224	484	599	0.0	0.3	2.244	A
4 - A635 East	790	197	818	2009	0.393	787	578	0.0	0.7	3.071	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	921	230	864	2141	0.430	920	1057	0.6	0.8	3.119	A
2 - A635 Doncaster Road West	1115	279	694	1946	0.573	1113	1089	0.9	1.4	4.544	A
3 - A6195 Rotherham Road North	580	145	1090	2060	0.282	579	716	0.3	0.4	2.557	A
4 - A635 East	943	236	979	1913	0.493	942	691	0.7	1.0	3.865	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1127	282	1056	2024	0.557	1125	1292	0.8	1.3	4.229	A
2 - A635 Doncaster Road West	1365	341	849	1860	0.734	1360	1332	1.4	2.8	7.500	A
3 - A6195 Rotherham Road North	710	178	1333	1910	0.372	709	876	0.4	0.6	3.153	A
4 - A635 East	1155	289	1197	1783	0.648	1151	845	1.0	1.9	5.922	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1127	282	1059	2023	0.557	1127	1296	1.3	1.3	4.255	A
2 - A635 Doncaster Road West	1365	341	851	1859	0.734	1365	1335	2.8	2.9	7.676	A
3 - A6195 Rotherham Road North	710	178	1338	1906	0.373	710	879	0.6	0.6	3.163	A
4 - A635 East	1155	289	1200	1781	0.648	1155	848	1.9	1.9	6.002	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	921	230	868	2139	0.430	923	1062	1.3	0.8	3.137	A
2 - A635 Doncaster Road West	1115	279	697	1944	0.573	1120	1094	2.9	1.4	4.637	A
3 - A6195 Rotherham Road North	580	145	1098	2055	0.282	581	720	0.6	0.4	2.568	A
4 - A635 East	943	236	983	1911	0.494	947	695	1.9	1.0	3.914	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	771	193	725	2225	0.346	772	888	0.8	0.6	2.622	A
2 - A635 Doncaster Road West	934	233	583	2007	0.465	936	915	1.4	0.9	3.546	A
3 - A6195 Rotherham Road North	486	121	917	2167	0.224	486	602	0.4	0.3	2.251	A
4 - A635 East	790	197	822	2007	0.393	791	581	1.0	0.7	3.096	A

2025 BASE, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A6195 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.44	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	37	2 - A635 Doncaster Road West

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	2025 BASE	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 South		ONE HOUR	✓	939	100.000
2 - A635 Doncaster Road West		ONE HOUR	✓	1117	100.000
3 - A6195 Rotherham Road North		ONE HOUR	✓	704	100.000
4 - A635 East		ONE HOUR	✓	859	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
	1 - A6195 South	1	393	393	152
	2 - A635 Doncaster Road West	481	1	110	525
	3 - A6195 Rotherham Road North	473	153	1	77
	4 - A635 East	185	546	125	3

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
	1 - A6195 South	0	10	5	11
	2 - A635 Doncaster Road West	5	0	7	12
	3 - A6195 Rotherham Road North	6	2	0	15
	4 - A635 East	14	6	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 South	0.49	3.61	1.0	A	862	1292
2 - A635 Doncaster Road West	0.64	5.66	1.9	A	1025	1537
3 - A6195 Rotherham Road North	0.40	3.27	0.7	A	646	969
4 - A635 East	0.53	4.73	1.2	A	788	1182

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	707	177	622	2288	0.309	705	856	0.0	0.5	2.452	A
2 - A635 Doncaster Road West	841	210	507	2050	0.410	838	820	0.0	0.7	3.212	A
3 - A6195 Rotherham Road North	530	133	873	2195	0.242	529	472	0.0	0.3	2.288	A
4 - A635 East	647	162	833	2000	0.323	645	568	0.0	0.5	2.866	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	844	211	744	2214	0.381	843	1024	0.5	0.7	2.835	A
2 - A635 Doncaster Road West	1004	251	606	1994	0.503	1003	982	0.7	1.1	3.928	A
3 - A6195 Rotherham Road North	633	158	1044	2088	0.303	632	565	0.3	0.5	2.621	A
4 - A635 East	772	193	997	1903	0.406	771	680	0.5	0.7	3.433	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1034	258	911	2113	0.489	1032	1253	0.7	1.0	3.594	A
2 - A635 Doncaster Road West	1230	307	742	1919	0.641	1227	1201	1.1	1.9	5.615	A
3 - A6195 Rotherham Road North	775	194	1277	1944	0.399	774	691	0.5	0.7	3.259	A
4 - A635 East	946	236	1220	1769	0.535	944	832	0.7	1.2	4.699	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1034	258	913	2112	0.490	1034	1255	1.0	1.0	3.606	A
2 - A635 Doncaster Road West	1230	307	743	1919	0.641	1230	1203	1.9	1.9	5.663	A
3 - A6195 Rotherham Road North	775	194	1280	1942	0.399	775	693	0.7	0.7	3.269	A
4 - A635 East	946	236	1222	1768	0.535	946	833	1.2	1.2	4.729	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	844	211	747	2212	0.382	846	1027	1.0	0.7	2.847	A
2 - A635 Doncaster Road West	1004	251	608	1994	0.504	1007	985	1.9	1.1	3.970	A
3 - A6195 Rotherham Road North	633	158	1049	2085	0.303	634	567	0.7	0.5	2.631	A
4 - A635 East	772	193	1000	1901	0.406	774	682	1.2	0.7	3.458	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	707	177	625	2286	0.309	708	859	0.7	0.5	2.465	A
2 - A635 Doncaster Road West	841	210	509	2048	0.411	842	824	1.1	0.8	3.237	A
3 - A6195 Rotherham Road North	530	133	877	2192	0.242	531	474	0.5	0.3	2.298	A
4 - A635 East	647	162	837	1998	0.324	648	571	0.7	0.5	2.883	A

2025 BASE, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A6195 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.30	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	18	2 - A635 Doncaster Road West

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	2025 BASE	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 South		ONE HOUR	✓	1060	100.000
2 - A635 Doncaster Road West		ONE HOUR	✓	1286	100.000
3 - A6195 Rotherham Road North		ONE HOUR	✓	657	100.000
4 - A635 East		ONE HOUR	✓	1086	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
	1 - A6195 South	5	460	452	143
	2 - A635 Doncaster Road West	551	0	175	560
	3 - A6195 Rotherham Road North	414	157	2	84
	4 - A635 East	249	639	198	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
	1 - A6195 South	25	7	3	11
	2 - A635 Doncaster Road West	7	0	2	5
	3 - A6195 Rotherham Road North	5	4	0	8
	4 - A635 East	4	7	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 South	0.58	4.57	1.5	A	973	1459
2 - A635 Doncaster Road West	0.77	8.88	3.4	A	1180	1770
3 - A6195 Rotherham Road North	0.39	3.28	0.7	A	603	904
4 - A635 East	0.68	6.78	2.2	A	997	1495

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	798	200	747	2212	0.361	796	915	0.0	0.6	2.685	A
2 - A635 Doncaster Road West	968	242	600	1998	0.485	964	943	0.0	1.0	3.659	A
3 - A6195 Rotherham Road North	495	124	944	2150	0.230	493	621	0.0	0.3	2.283	A
4 - A635 East	818	204	847	1992	0.410	815	590	0.0	0.7	3.219	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	953	238	894	2123	0.449	952	1094	0.6	0.9	3.250	A
2 - A635 Doncaster Road West	1156	289	718	1932	0.598	1154	1128	1.0	1.5	4.861	A
3 - A6195 Rotherham Road North	591	148	1130	2035	0.290	590	742	0.3	0.4	2.618	A
4 - A635 East	976	244	1014	1893	0.516	975	706	0.7	1.1	4.133	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1167	292	1093	2002	0.583	1165	1337	0.9	1.5	4.537	A
2 - A635 Doncaster Road West	1416	354	879	1844	0.768	1409	1379	1.5	3.4	8.584	A
3 - A6195 Rotherham Road North	723	181	1380	1880	0.385	722	908	0.4	0.7	3.263	A
4 - A635 East	1196	299	1239	1758	0.680	1191	863	1.1	2.2	6.657	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1167	292	1097	2000	0.584	1167	1342	1.5	1.5	4.574	A
2 - A635 Doncaster Road West	1416	354	881	1842	0.768	1416	1383	3.4	3.4	8.875	A
3 - A6195 Rotherham Road North	723	181	1386	1876	0.385	723	910	0.7	0.7	3.280	A
4 - A635 East	1196	299	1243	1756	0.681	1196	866	2.2	2.2	6.779	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	953	238	899	2120	0.449	955	1101	1.5	0.9	3.279	A
2 - A635 Doncaster Road West	1156	289	721	1931	0.599	1163	1133	3.4	1.6	4.993	A
3 - A6195 Rotherham Road North	591	148	1138	2030	0.291	592	746	0.7	0.4	2.632	A
4 - A635 East	976	244	1019	1889	0.517	981	711	2.2	1.1	4.200	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	798	200	751	2210	0.361	799	919	0.9	0.6	2.704	A
2 - A635 Doncaster Road West	968	242	603	1996	0.485	971	947	1.6	1.0	3.708	A
3 - A6195 Rotherham Road North	495	124	950	2147	0.230	495	624	0.4	0.3	2.291	A
4 - A635 East	818	204	851	1989	0.411	819	594	1.1	0.7	3.253	A

2025 DESIGN, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A6195 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.52	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	36	2 - A635 Doncaster Road West

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	2025 DESIGN	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 South		ONE HOUR	✓	943	100.000
2 - A635 Doncaster Road West		ONE HOUR	✓	1122	100.000
3 - A6195 Rotherham Road North		ONE HOUR	✓	739	100.000
4 - A635 East		ONE HOUR	✓	860	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
	1 - A6195 South	1	393	397	152
	2 - A635 Doncaster Road West	481	1	115	525
	3 - A6195 Rotherham Road North	490	170	1	78
	4 - A635 East	185	546	126	3

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
	1 - A6195 South	0	10	5	11
	2 - A635 Doncaster Road West	5	0	7	12
	3 - A6195 Rotherham Road North	6	2	0	15
	4 - A635 East	14	6	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 South	0.49	3.66	1.1	A	865	1298
2 - A635 Doncaster Road West	0.64	5.73	2.0	A	1030	1544
3 - A6195 Rotherham Road North	0.42	3.38	0.8	A	678	1017
4 - A635 East	0.54	4.87	1.3	A	789	1184

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	710	177	636	2280	0.311	708	868	0.0	0.5	2.469	A
2 - A635 Doncaster Road West	845	211	510	2047	0.413	842	833	0.0	0.8	3.227	A
3 - A6195 Rotherham Road North	556	139	873	2195	0.254	555	480	0.0	0.4	2.323	A
4 - A635 East	647	162	859	1985	0.326	645	569	0.0	0.5	2.900	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	848	212	761	2204	0.385	847	1039	0.5	0.7	2.863	A
2 - A635 Doncaster Road West	1009	252	611	1992	0.506	1007	997	0.8	1.1	3.956	A
3 - A6195 Rotherham Road North	664	166	1044	2088	0.318	664	574	0.4	0.5	2.677	A
4 - A635 East	773	193	1027	1884	0.410	772	681	0.5	0.7	3.493	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1038	260	931	2101	0.494	1037	1271	0.7	1.0	3.649	A
2 - A635 Doncaster Road West	1235	309	748	1916	0.645	1232	1220	1.1	1.9	5.675	A
3 - A6195 Rotherham Road North	814	203	1277	1944	0.419	813	702	0.5	0.8	3.367	A
4 - A635 East	947	237	1257	1747	0.542	945	833	0.7	1.3	4.835	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1038	260	933	2100	0.495	1038	1274	1.0	1.1	3.661	A
2 - A635 Doncaster Road West	1235	309	749	1916	0.645	1235	1222	1.9	2.0	5.732	A
3 - A6195 Rotherham Road North	814	203	1280	1942	0.419	814	704	0.8	0.8	3.378	A
4 - A635 East	947	237	1260	1746	0.542	947	835	1.3	1.3	4.868	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	848	212	763	2202	0.385	849	1043	1.1	0.7	2.877	A
2 - A635 Doncaster Road West	1009	252	612	1991	0.507	1012	1000	2.0	1.1	3.999	A
3 - A6195 Rotherham Road North	664	166	1049	2085	0.319	665	576	0.8	0.5	2.686	A
4 - A635 East	773	193	1031	1882	0.411	775	683	1.3	0.8	3.521	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	710	177	639	2278	0.312	711	872	0.7	0.5	2.480	A
2 - A635 Doncaster Road West	845	211	513	2046	0.413	846	837	1.1	0.8	3.253	A
3 - A6195 Rotherham Road North	556	139	877	2192	0.254	557	482	0.5	0.4	2.332	A
4 - A635 East	647	162	862	1983	0.327	648	572	0.8	0.5	2.918	A

2025 DESIGN, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A6195 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.46	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	17	2 - A635 Doncaster Road West

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	2025 DESIGN	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 South		ONE HOUR	✓	1070	100.000
2 - A635 Doncaster Road West		ONE HOUR	✓	1295	100.000
3 - A6195 Rotherham Road North		ONE HOUR	✓	688	100.000
4 - A635 East		ONE HOUR	✓	1087	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
	1 - A6195 South	5	460	461	144
	2 - A635 Doncaster Road West	551	0	184	560
	3 - A6195 Rotherham Road North	424	167	2	95
	4 - A635 East	249	639	199	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
	1 - A6195 South	25	7	3	11
	2 - A635 Doncaster Road West	7	0	2	5
	3 - A6195 Rotherham Road North	4	4	0	8
	4 - A635 East	7	4	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 South	0.59	4.68	1.5	A	982	1473
2 - A635 Doncaster Road West	0.78	9.23	3.6	A	1188	1782
3 - A6195 Rotherham Road North	0.40	3.36	0.7	A	631	947
4 - A635 East	0.69	6.89	2.3	A	997	1496

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	806	201	756	2207	0.365	803	922	0.0	0.6	2.708	A
2 - A635 Doncaster Road West	975	244	609	1993	0.489	971	950	0.0	1.0	3.699	A
3 - A6195 Rotherham Road North	518	129	945	2150	0.241	517	635	0.0	0.3	2.301	A
4 - A635 East	818	205	862	1983	0.413	815	599	0.0	0.7	3.213	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	962	240	904	2117	0.454	961	1103	0.6	0.9	3.292	A
2 - A635 Doncaster Road West	1164	291	728	1927	0.604	1162	1137	1.0	1.6	4.944	A
3 - A6195 Rotherham Road North	618	155	1131	2035	0.304	618	759	0.3	0.5	2.656	A
4 - A635 East	977	244	1031	1882	0.519	976	717	0.7	1.1	4.144	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1178	295	1105	1995	0.591	1176	1348	0.9	1.5	4.636	A
2 - A635 Doncaster Road West	1426	356	891	1837	0.776	1418	1390	1.6	3.5	8.899	A
3 - A6195 Rotherham Road North	758	189	1380	1880	0.403	757	928	0.5	0.7	3.346	A
4 - A635 East	1197	299	1261	1745	0.686	1192	876	1.1	2.2	6.754	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1178	295	1109	1993	0.591	1178	1353	1.5	1.5	4.676	A
2 - A635 Doncaster Road West	1426	356	893	1836	0.777	1426	1394	3.5	3.6	9.229	A
3 - A6195 Rotherham Road North	758	189	1387	1876	0.404	757	931	0.7	0.7	3.363	A
4 - A635 East	1197	299	1265	1743	0.687	1197	880	2.2	2.3	6.886	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	962	240	909	2114	0.455	964	1110	1.5	0.9	3.322	A
2 - A635 Doncaster Road West	1164	291	731	1925	0.605	1172	1142	3.6	1.6	5.087	A
3 - A6195 Rotherham Road North	618	155	1140	2029	0.305	619	764	0.7	0.5	2.670	A
4 - A635 East	977	244	1037	1879	0.520	982	722	2.3	1.1	4.215	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	806	201	759	2205	0.365	807	927	0.9	0.6	2.726	A
2 - A635 Doncaster Road West	975	244	611	1992	0.490	977	955	1.6	1.0	3.752	A
3 - A6195 Rotherham Road North	518	129	951	2146	0.241	518	638	0.5	0.3	2.312	A
4 - A635 East	818	205	867	1980	0.413	820	603	1.1	0.7	3.245	A

2030 BASE, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A6195 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	7.55	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	10	2 - A635 Doncaster Road West

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	2030 BASE	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 South		ONE HOUR	✓	1061	100.000
2 - A635 Doncaster Road West		ONE HOUR	✓	1386	100.000
3 - A6195 Rotherham Road North		ONE HOUR	✓	766	100.000
4 - A635 East		ONE HOUR	✓	1007	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
	1 - A6195 South	1	407	435	218
	2 - A635 Doncaster Road West	500	1	135	750
	3 - A6195 Rotherham Road North	493	161	1	111
	4 - A635 East	211	627	164	5

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
	1 - A6195 South	0	10	4	8
	2 - A635 Doncaster Road West	5	0	6	10
	3 - A6195 Rotherham Road North	6	2	0	10
	4 - A635 East	13	5	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 South	0.58	4.50	1.5	A	974	1460
2 - A635 Doncaster Road West	0.83	12.73	5.2	B	1272	1908
3 - A6195 Rotherham Road North	0.49	4.29	1.0	A	703	1054
4 - A635 East	0.64	6.12	1.9	A	924	1386

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	799	200	720	2229	0.358	796	904	0.0	0.6	2.685	A
2 - A635 Doncaster Road West	1043	261	618	1988	0.525	1039	898	0.0	1.2	4.067	A
3 - A6195 Rotherham Road North	577	144	1106	2050	0.281	575	551	0.0	0.4	2.577	A
4 - A635 East	758	190	868	1980	0.383	755	813	0.0	0.7	3.137	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	954	238	861	2143	0.445	953	1081	0.6	0.9	3.234	A
2 - A635 Doncaster Road West	1246	311	740	1920	0.649	1243	1074	1.2	2.0	5.698	A
3 - A6195 Rotherham Road North	689	172	1323	1915	0.360	688	660	0.4	0.6	3.097	A
4 - A635 East	905	226	1038	1878	0.482	904	972	0.7	1.0	3.947	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1168	292	1053	2026	0.576	1166	1321	0.9	1.4	4.464	A
2 - A635 Doncaster Road West	1526	382	905	1829	0.834	1514	1313	2.0	5.0	11.865	B
3 - A6195 Rotherham Road North	843	211	1612	1736	0.486	842	807	0.6	1.0	4.245	A
4 - A635 East	1109	277	1268	1741	0.637	1105	1186	1.0	1.8	6.023	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1168	292	1056	2025	0.577	1168	1326	1.4	1.5	4.499	A
2 - A635 Doncaster Road West	1526	382	907	1828	0.835	1525	1317	5.0	5.2	12.731	B
3 - A6195 Rotherham Road North	843	211	1623	1729	0.488	843	809	1.0	1.0	4.293	A
4 - A635 East	1109	277	1274	1737	0.638	1109	1193	1.8	1.9	6.117	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	954	238	865	2141	0.446	956	1090	1.5	0.9	3.259	A
2 - A635 Doncaster Road West	1246	311	743	1919	0.649	1259	1079	5.2	2.0	5.985	A
3 - A6195 Rotherham Road North	689	172	1338	1906	0.361	690	664	1.0	0.6	3.132	A
4 - A635 East	905	226	1046	1873	0.483	909	982	1.9	1.0	4.004	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	799	200	723	2227	0.359	800	909	0.9	0.6	2.704	A
2 - A635 Doncaster Road West	1043	261	621	1986	0.525	1047	902	2.0	1.2	4.144	A
3 - A6195 Rotherham Road North	577	144	1114	2045	0.282	577	554	0.6	0.4	2.592	A
4 - A635 East	758	190	873	1977	0.384	759	818	1.0	0.7	3.166	A

2030 BASE, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A6195 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	12.96	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	4	4 - A635 East

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	2030 BASE	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 South		ONE HOUR	✓	1124	100.000
2 - A635 Doncaster Road West		ONE HOUR	✓	1403	100.000
3 - A6195 Rotherham Road North		ONE HOUR	✓	761	100.000
4 - A635 East		ONE HOUR	✓	1388	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
	1 - A6195 South	5	478	473	168
	2 - A635 Doncaster Road West	573	0	184	646
	3 - A6195 Rotherham Road North	453	181	2	125
	4 - A635 East	311	831	245	1

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
	1 - A6195 South	25	7	3	10
	2 - A635 Doncaster Road West	7	0	2	4
	3 - A6195 Rotherham Road North	4	3	0	6
	4 - A635 East	6	4	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 South	0.68	6.48	2.2	A	1031	1547
2 - A635 Doncaster Road West	0.87	15.38	6.3	C	1287	1931
3 - A6195 Rotherham Road North	0.47	3.95	0.9	A	698	1047
4 - A635 East	0.90	20.69	8.3	C	1274	1910

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	846	212	945	2092	0.404	843	1006	0.0	0.7	3.043	A
2 - A635 Doncaster Road West	1056	264	671	1959	0.539	1051	1117	0.0	1.2	4.140	A
3 - A6195 Rotherham Road North	573	143	1044	2088	0.274	571	678	0.0	0.4	2.468	A
4 - A635 East	1045	261	911	1954	0.535	1040	705	0.0	1.2	4.079	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1010	253	1130	1980	0.510	1009	1204	0.7	1.1	3.915	A
2 - A635 Doncaster Road West	1261	315	802	1886	0.669	1258	1336	1.2	2.1	5.979	A
3 - A6195 Rotherham Road North	684	171	1249	1961	0.349	683	811	0.4	0.6	2.930	A
4 - A635 East	1248	312	1089	1847	0.675	1244	843	1.2	2.1	6.172	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1238	309	1370	1834	0.675	1233	1465	1.1	2.1	6.298	A
2 - A635 Doncaster Road West	1545	386	978	1789	0.864	1529	1625	2.1	6.0	13.799	B
3 - A6195 Rotherham Road North	838	209	1520	1794	0.467	836	988	0.6	0.9	3.908	A
4 - A635 East	1528	382	1329	1704	0.897	1506	1027	2.1	7.6	17.319	C

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1238	309	1385	1825	0.678	1237	1476	2.1	2.2	6.479	A
2 - A635 Doncaster Road West	1545	386	984	1786	0.865	1543	1639	6.0	6.3	15.380	C
3 - A6195 Rotherham Road North	838	209	1532	1786	0.469	838	995	0.9	0.9	3.952	A
4 - A635 East	1528	382	1336	1700	0.899	1525	1034	7.6	8.3	20.691	C

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1010	253	1152	1966	0.514	1015	1220	2.2	1.1	4.020	A
2 - A635 Doncaster Road West	1261	315	810	1881	0.670	1278	1356	6.3	2.2	6.423	A
3 - A6195 Rotherham Road North	684	171	1267	1950	0.351	686	821	0.9	0.6	2.968	A
4 - A635 East	1248	312	1099	1841	0.678	1272	854	8.3	2.2	6.850	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	846	212	952	2088	0.405	848	1013	1.1	0.7	3.076	A
2 - A635 Doncaster Road West	1056	264	675	1957	0.540	1060	1125	2.2	1.2	4.230	A
3 - A6195 Rotherham Road North	573	143	1052	2083	0.275	574	682	0.6	0.4	2.484	A
4 - A635 East	1045	261	916	1951	0.536	1049	710	2.2	1.2	4.174	A

2030 DESIGN, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A6195 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	7.72	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	10	2 - A635 Doncaster Road West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2030 DESIGN	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 South		ONE HOUR	✓	1065	100.000
2 - A635 Doncaster Road West		ONE HOUR	✓	1391	100.000
3 - A6195 Rotherham Road North		ONE HOUR	✓	801	100.000
4 - A635 East		ONE HOUR	✓	1007	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
	1 - A6195 South	1	407	439	218
	2 - A635 Doncaster Road West	500	1	140	750
	3 - A6195 Rotherham Road North	510	178	1	112
	4 - A635 East	211	627	164	5

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
	1 - A6195 South	0	10	4	8
	2 - A635 Doncaster Road West	5	0	5	9
	3 - A6195 Rotherham Road North	6	2	0	10
	4 - A635 East	13	5	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 South	0.58	4.58	1.5	A	977	1466
2 - A635 Doncaster Road West	0.84	12.99	5.3	B	1276	1915
3 - A6195 Rotherham Road North	0.51	4.49	1.1	A	735	1103
4 - A635 East	0.65	6.34	1.9	A	924	1386

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	802	200	732	2221	0.361	799	917	0.0	0.6	2.705	A
2 - A635 Doncaster Road West	1047	262	621	1986	0.527	1042	910	0.0	1.2	4.066	A
3 - A6195 Rotherham Road North	603	151	1106	2050	0.294	601	558	0.0	0.4	2.620	A
4 - A635 East	758	190	893	1964	0.386	755	814	0.0	0.7	3.176	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	957	239	876	2134	0.449	956	1097	0.6	0.9	3.269	A
2 - A635 Doncaster Road West	1250	313	743	1918	0.652	1247	1089	1.2	2.0	5.717	A
3 - A6195 Rotherham Road North	720	180	1323	1916	0.376	719	668	0.4	0.6	3.177	A
4 - A635 East	905	226	1069	1860	0.487	904	973	0.7	1.0	4.020	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1173	293	1071	2015	0.582	1170	1339	0.9	1.5	4.547	A
2 - A635 Doncaster Road West	1532	383	910	1827	0.838	1519	1332	2.0	5.1	12.063	B
3 - A6195 Rotherham Road North	882	220	1612	1736	0.508	880	816	0.6	1.1	4.431	A
4 - A635 East	1109	277	1305	1719	0.645	1105	1187	1.0	1.9	6.238	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1173	293	1075	2013	0.582	1173	1345	1.5	1.5	4.582	A
2 - A635 Doncaster Road West	1532	383	912	1825	0.839	1531	1335	5.1	5.3	12.992	B
3 - A6195 Rotherham Road North	882	220	1623	1729	0.510	882	819	1.1	1.1	4.485	A
4 - A635 East	1109	277	1311	1715	0.646	1109	1194	1.9	1.9	6.342	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	957	239	881	2131	0.449	960	1105	1.5	0.9	3.295	A
2 - A635 Doncaster Road West	1250	313	746	1917	0.652	1264	1094	5.3	2.0	6.020	A
3 - A6195 Rotherham Road North	720	180	1338	1906	0.378	722	672	1.1	0.6	3.214	A
4 - A635 East	905	226	1077	1855	0.488	909	983	1.9	1.0	4.084	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	802	200	736	2219	0.361	803	922	0.9	0.6	2.724	A
2 - A635 Doncaster Road West	1047	262	624	1984	0.528	1051	915	2.0	1.2	4.143	A
3 - A6195 Rotherham Road North	603	151	1114	2045	0.295	604	561	0.6	0.4	2.640	A
4 - A635 East	758	190	899	1961	0.387	760	819	1.0	0.7	3.207	A

2030 DESIGN, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A6195 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	13.73	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	3	4 - A635 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2030 DESIGN	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 South		ONE HOUR	✓	1133	100.000
2 - A635 Doncaster Road West		ONE HOUR	✓	1412	100.000
3 - A6195 Rotherham Road North		ONE HOUR	✓	782	100.000
4 - A635 East		ONE HOUR	✓	1389	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
	1 - A6195 South	5	478	482	168
	2 - A635 Doncaster Road West	573	0	193	646
	3 - A6195 Rotherham Road North	463	191	2	126
	4 - A635 East	311	831	246	1

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
	1 - A6195 South	25	7	3	10
	2 - A635 Doncaster Road West	7	0	2	4
	3 - A6195 Rotherham Road North	4	3	0	6
	4 - A635 East	6	4	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 South	0.69	6.67	2.3	A	1040	1559
2 - A635 Doncaster Road West	0.87	16.39	6.8	C	1296	1944
3 - A6195 Rotherham Road North	0.48	4.05	1.0	A	718	1076
4 - A635 East	0.91	22.25	8.9	C	1275	1912

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	853	213	953	2087	0.409	850	1014	0.0	0.7	3.071	A
2 - A635 Doncaster Road West	1063	266	678	1955	0.544	1058	1125	0.0	1.2	4.190	A
3 - A6195 Rotherham Road North	589	147	1044	2088	0.282	587	692	0.0	0.4	2.493	A
4 - A635 East	1046	261	926	1945	0.538	1041	705	0.0	1.2	4.123	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1019	255	1139	1974	0.516	1017	1213	0.7	1.1	3.972	A
2 - A635 Doncaster Road West	1269	317	811	1881	0.675	1266	1345	1.2	2.1	6.103	A
3 - A6195 Rotherham Road North	703	176	1249	1961	0.358	702	828	0.4	0.6	2.974	A
4 - A635 East	1249	312	1107	1837	0.680	1245	844	1.2	2.2	6.289	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1247	312	1381	1827	0.683	1243	1476	1.1	2.2	6.467	A
2 - A635 Doncaster Road West	1555	389	989	1783	0.872	1538	1635	2.1	6.3	14.515	B
3 - A6195 Rotherham Road North	861	215	1518	1794	0.480	860	1008	0.6	1.0	4.000	A
4 - A635 East	1529	382	1351	1691	0.904	1506	1027	2.2	8.1	18.264	C

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1247	312	1397	1818	0.686	1247	1487	2.2	2.3	6.668	A
2 - A635 Doncaster Road West	1555	389	995	1779	0.874	1553	1649	6.3	6.8	16.387	C
3 - A6195 Rotherham Road North	861	215	1532	1786	0.482	861	1015	1.0	1.0	4.050	A
4 - A635 East	1529	382	1358	1687	0.907	1526	1035	8.1	8.9	22.250	C

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1019	255	1164	1959	0.520	1023	1230	2.3	1.2	4.086	A
2 - A635 Doncaster Road West	1269	317	820	1876	0.677	1287	1367	6.8	2.2	6.604	A
3 - A6195 Rotherham Road North	703	176	1269	1949	0.361	704	839	1.0	0.6	3.012	A
4 - A635 East	1249	312	1118	1830	0.682	1275	855	8.9	2.3	7.061	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	853	213	960	2083	0.410	855	1021	1.2	0.7	3.105	A
2 - A635 Doncaster Road West	1063	266	682	1952	0.544	1067	1133	2.2	1.3	4.285	A
3 - A6195 Rotherham Road North	589	147	1052	2083	0.283	589	697	0.6	0.4	2.508	A
4 - A635 East	1046	261	931	1942	0.539	1050	711	2.3	1.2	4.220	A

Junctions 9										
PICADY 9 - Priority Intersection Module										
Version: 9.5.2.1013										
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Filename: Site Access-High Street.j9

Path: O:\High Street, Great Houghton\ANALYSIS\CAPACITY\Priority Junctions\Site Access

Report generation date: 10/05/2022 11:54:27

»2030 Design, AM

»2030 Design, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	Network Residual Capacity	Set ID	Queue (PCU)	Delay (s)	RFC	Network Residual Capacity
2030 Design										
Stream B-AC	D1	0.1	7.70	0.11	183 %	D2	0.1	7.40	0.06	201 %
Stream C-AB		0.0	4.55	0.03	[Stream B-AC]		0.1	4.71	0.05	[Stream B-AC]

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	09/05/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OPTIMA\Optima
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	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	2030 Design	AM	ONE HOUR	00:00	01:30	15	✓
D2	2030 Design	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

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

2030 Design, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.60	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	183	Stream B-AC

Arms

Arms

Arm	Name	Description	Arm type
A	High Street N		Major
B	Site Access		Minor
C	High Street S		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - High Street S	7.21			230.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Site Access	One lane	3.46	19	18

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	515	0.089	0.225	0.141	0.321
B-C	665	0.096	0.244	-	-
C-B	707	0.260	0.260	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2030 Design	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - High Street N		ONE HOUR	✓	356	100.000
B - Site Access		ONE HOUR	✓	51	100.000
C - High Street S		ONE HOUR	✓	384	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - High Street N	B - Site Access	C - High Street S
From	A - High Street N	0	2	354
	B - Site Access	8	0	43
	C - High Street S	373	11	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - High Street N	B - Site Access	C - High Street S
From	A - High Street N	0	0	6
	B - Site Access	0	0	0
	C - High Street S	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.11	7.70	0.1	A	47	70
C-AB	0.03	4.55	0.0	A	17	26
C-A					335	503
A-B					2	3
A-C					325	487

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	38	10	560	0.069	38	0.0	0.1	6.899	A
C-AB	13	3	819	0.015	13	0.0	0.0	4.538	A
C-A	276	69			276				
A-B	2	0.38			2				
A-C	267	67			267				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	46	11	545	0.084	46	0.1	0.1	7.216	A
C-AB	16	4	843	0.020	16	0.0	0.0	4.433	A
C-A	329	82			329				
A-B	2	0.45			2				
A-C	318	80			318				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	56	14	523	0.107	56	0.1	0.1	7.700	A
C-AB	23	6	878	0.026	23	0.0	0.0	4.299	A
C-A	400	100			400				
A-B	2	0.55			2				
A-C	390	97			390				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	56	14	523	0.107	56	0.1	0.1	7.703	A
C-AB	23	6	878	0.026	23	0.0	0.0	4.305	A
C-A	400	100			400				
A-B	2	0.55			2				
A-C	390	97			390				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	46	11	545	0.084	46	0.1	0.1	7.222	A
C-AB	16	4	843	0.020	17	0.0	0.0	4.448	A
C-A	329	82			329				
A-B	2	0.45			2				
A-C	318	80			318				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	38	10	560	0.069	38	0.1	0.1	6.909	A
C-AB	13	3	819	0.015	13	0.0	0.0	4.547	A
C-A	276	69			276				
A-B	2	0.38			2				
A-C	267	67			267				

2030 Design, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.52	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	201	Stream B-AC

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	2030 Design	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - High Street N		ONE HOUR	✓	364	100.000
B - Site Access		ONE HOUR	✓	30	100.000
C - High Street S		ONE HOUR	✓	364	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - High Street N	B - Site Access	C - High Street S
From	A - High Street N	0	4	360
	B - Site Access	5	0	25
	C - High Street S	342	22	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - High Street N	B - Site Access	C - High Street S
From	A - High Street N	0	0	6
	B - Site Access	0	0	0
	C - High Street S	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.06	7.40	0.1	A	28	41
C-AB	0.05	4.71	0.1	A	33	50
C-A					301	451
A-B					4	6
A-C					330	496

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	6	556	0.041	22	0.0	0.0	6.740	A
C-AB	24	6	803	0.030	24	0.0	0.0	4.697	A
C-A	250	62			250				
A-B	3	0.75			3				
A-C	271	68			271				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	7	541	0.050	27	0.0	0.1	7.003	A
C-AB	32	8	823	0.038	32	0.0	0.1	4.623	A
C-A	296	74			296				
A-B	4	0.90			4				
A-C	324	81			324				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	33	8	519	0.064	33	0.1	0.1	7.401	A
C-AB	43	11	854	0.051	43	0.1	0.1	4.532	A
C-A	357	89			357				
A-B	4	1			4				
A-C	396	99			396				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	33	8	519	0.064	33	0.1	0.1	7.401	A
C-AB	43	11	854	0.051	43	0.1	0.1	4.541	A
C-A	357	89			357				
A-B	4	1			4				
A-C	396	99			396				

01:00 - 01:15

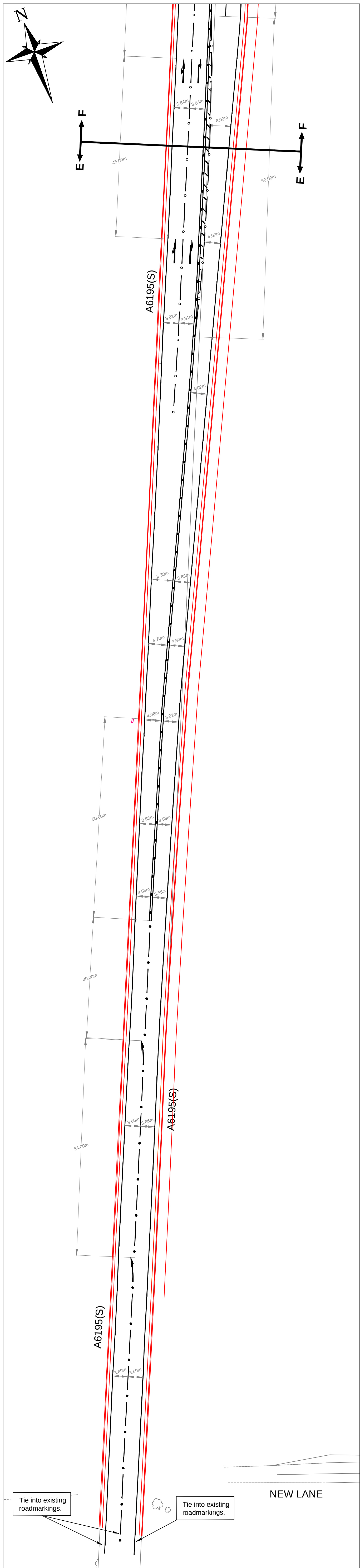
Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	7	541	0.050	27	0.1	0.1	7.008	A
C-AB	32	8	823	0.038	32	0.1	0.1	4.639	A
C-A	296	74			296				
A-B	4	0.90			4				
A-C	324	81			324				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	6	556	0.041	23	0.1	0.0	6.747	A
C-AB	24	6	803	0.030	25	0.1	0.0	4.708	A
C-A	250	62			250				
A-B	3	0.75			3				
A-C	271	68			271				

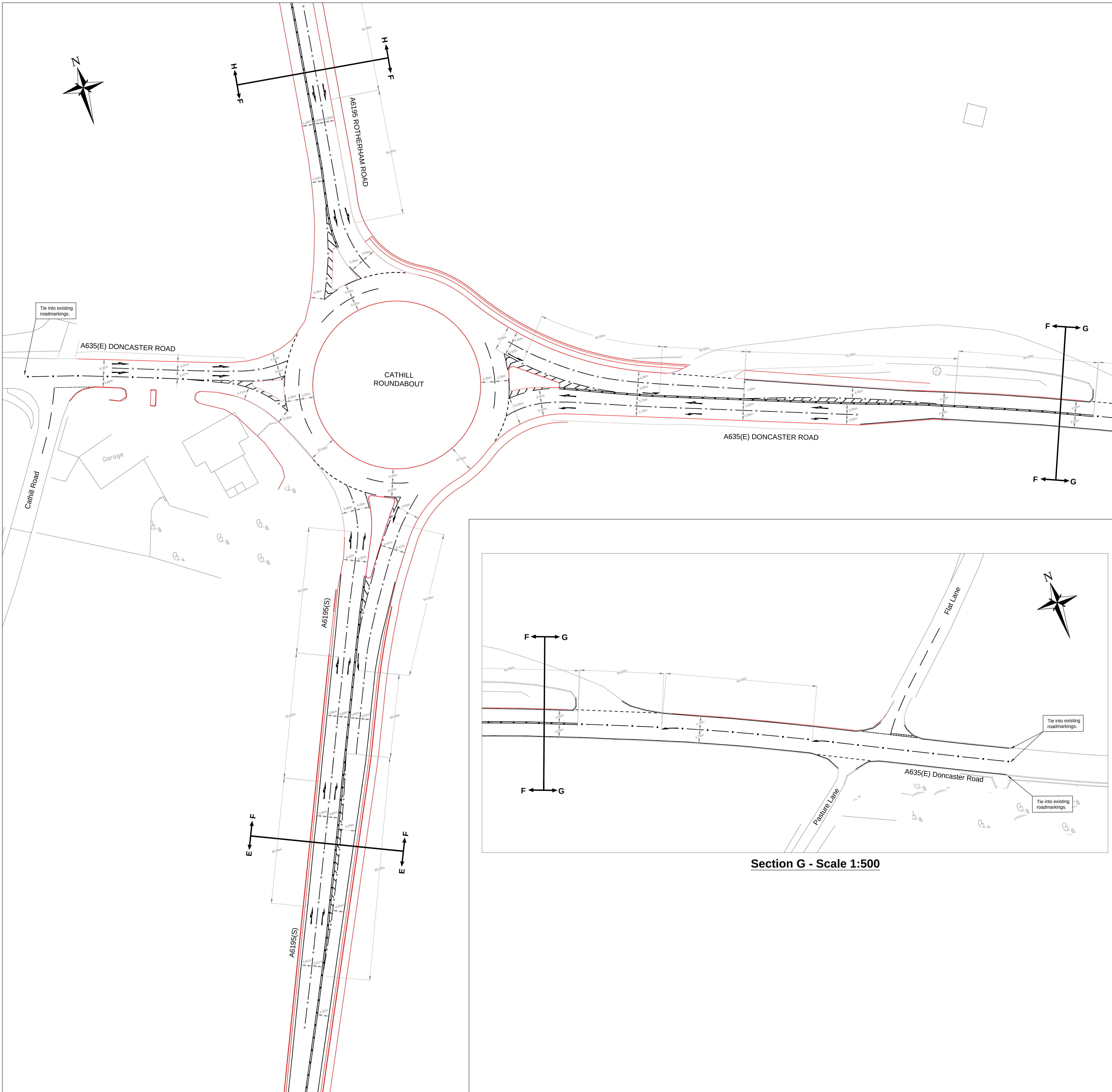
Appendix J BMBC Drg no HD/A6195.69.1/1200/03





Section E - Scale 1:500

COMPUTER FILE



Section F - Scale 1:500



Section G - Scale 1:500

Key (N.T.S.)

- WL/1003A/200mm
- WL/1003.1/200mm
- WL/1004.1/150mm (De-restricted speed limit)
- WL/1009A/150mm
- WL/1010/150mm
- WL/1012.3/150mm (ribbed)
- WL/1013.1/150mm
- White bi-directional road studs (see description below)
- Spaced at 4.5m intervals
- WL/1014/6000mm
- WA/1038/6000mm
- WA/1039/16000mm (De-restricted speed limit)
- WL/1040/150mm (De-restricted)
- Hatching 200mm width
- Spaced at 3m centres
- WL/1041/100mm
- Hatching 150mm width,
- Spaced at 300mm centres
- Bi-directional reflecting road studs (white)
- with 3M Series 290 inserts placed
- in Fleming & Co. 301 shoe
- (Or similar approved placed at 4.5m (diag 1013.1) / 9m (diag1004.1) intervals at locations shown).
- Uni-directional reflecting road studs (white)
- with 3M Series 290 inserts placed
- in Fleming & Co. 301 shoe
- (Or similar approved placed at 9m intervals in location shown).

Notes

- All Lining must comply with Traffic Signs Regulations and General Directions 2016 and BMBC Appendix 12/3 Specifications. Further details can be obtained from the working drawings available on the DfT website.
- All roadmarkings to be thermoplastic screed.
- All white thermoplastic roadmarkings to have integral and surface hot applied solid glass beads.
- Approximate positions of speed limits shown.
- For sections A & B refer to drawing: HD/A6195.69.1/1200/01.
- For sections C & D refer to drawing: HD/A6195.69.1/1200/02.
- For section H refer to drawing: HD/A6195.69.1/1200/04.

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Rev.	By	Amendments	Date
A	R.W.	Deflection arrows and dimensions added	07/2019



Project	A6195 Goldthorpe Interventions		
Drawing title	Roadmarkings Layout (Sheet 3 of 4)		
Scale	Drawn	Checked	Date
1:500 @ A0	R.W.	A.D.	03/2019
Drawing No.	Revision	File	
HD/A6195.69.1/1200/03	A	A6195.69.1	
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