

Hunsworth Lane, East Bierley

Transport Assessment

September 2026

Breck

AMA Project Number: 300865

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REPORT QUALITY MANAGEMENT

	First Issue	Revision 1	Revision 2	Revision 3
Remarks	Draft Issue	Planning Issue		
Date	25.09.26	30.09.26		
Prepared	CF	CF		
Checked	AS	AS		
Authorised	AS	AS		

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1 INTRODUCTION

1.1 OVERVIEW

- 1.1.1 Andrew Moseley Associates (AMA) has been commissioned by Breck to prepare a Transport Assessment (TA) and Residential Travel Plan (RTP) to accompany a planning application for a residential development consisting of 67 dwellings on land to the south of Hunsworth Lane, East Bierley. The site layout plan is attached at [Appendix A](#).
- 1.1.2 The Local Planning Authority (LPA) and the Local Highway Authority (LHA) is Kirklees Council (KC).
- 1.1.3 Vehicular, walking and cycling access is proposed via a new access onto the access track which serves the existing East Bierley Community Sports Association and East Bierley Playing Fields.
- 1.1.4 The site is allocated for residential development in KC's adopted Local Plan under site allocation reference HS89. This TA has been prepared with reference to the requirements of the site allocation, as well as guidance set out in the National Planning Policy Framework (NPPF) and Planning Practice Guidance (PPG) as well as KC's wider adopted Local Plan and associated policies and guidance.
- 1.1.5 This TA will demonstrate that the site is well served by existing transport provision and is accessible to a range of key services and facilities. The report will also demonstrate that the traffic generated by the proposals will not result in a detrimental impact on the surrounding road network.
- 1.1.6 A Residential Travel Plan (RTP) has also been prepared which sets out measures to encourage sustainable travel patterns and reduce the reliance on private car use.

1.2 REPORT STRUCTURE

- 1.2.1 The structure of the report is set out as follows:
 - ▶ **Section 2** – outlines the policy background at a national and local level;
 - ▶ **Section 3** – provides a description of the site location, highway network surrounding the site, and examines the accessibility of the site by sustainable modes of travel. This section also considers the accessibility of a range of key services and facilities as well as a review of personal injury collisions;
 - ▶ **Section 4** – describes the development proposals with regards to the proposed quantum of development, the proposed means of access to the site and parking provision;
 - ▶ **Section 5** – summarises the assessment parameters and trips rates that have been adopted within this TA;
 - ▶ **Section 6** – examines the impact of development traffic on the local highway network and presents the results of the future year junction assessments to determine the potential impact of the proposals; and
 - ▶ **Section 7** – provides a summary of the TA.

2 POLICY BACKGROUND

2.1 NATIONAL POLICY

- 2.1.1 The National Planning Policy Framework (NPPF) was updated in August 2026 to set out the government's planning policies for England and how these are expected to be applied.
- 2.1.2 The preparation of this TA is consistent with national transport policy guidance set out in the NPPF which advocates the submission of such documents to support applications for new developments which generate traffic movements.
- 2.1.3 The proposed development has been assessed against the following national decision-making policies within the NPPF:

TR3: Locating development in sustainable locations

1. So that development is located where it can support sustainable patterns of movement, enable good accessibility for different users and make the most of existing and proposed transport infrastructure, development proposals should reflect the following principles, taking into account the vision for the site, the type of development and its location:

a. Development proposals which could generate a significant amount of movement, in the context of the area within which they would be situated, should be in locations that are sustainable (or which can be made so, taking into account planned improvements, including any provided for as part of the development itself). This means the location should limit the need to travel, particularly by private car, and offer a genuine choice of transport modes for residents and users, unless the nature of the development would make this impractical;

b. Opportunities should be taken to utilise existing or proposed transport infrastructure in optimising the amount or density of development which can be accommodated in different locations, especially where this can support more walking, wheeling, cycling and public transport use;

c. Any significant adverse impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, should be mitigated to an acceptable degree using a vision-led approach;

d. The environmental impacts of traffic and transport infrastructure should be identified, assessed and taken into account – including taking opportunities to avoid or mitigate any adverse environmental effects, and to secure net environmental gains such as reductions in air pollution; and

e. In rural areas, opportunities to improve walking, wheeling, cycling and public transport and enhance the connectivity of an area should be taken where they exist and can be supported by the development proposed.

2. The Connectivity Tool (Connectivity Tool - GOV.UK) should be used alongside other relevant quantitative or qualitative evidence in assessing the connectivity of particular locations proposed for development.

TR4: Street design, access and parking

1. To contribute to creating well-designed places, transport considerations should be integral to the design of development, proposals for which should:

a. Give priority first to walking, wheeling and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating easy access to high-quality public transport, with layouts and densities which maximise the catchments for bus or other public transport services;

b. Incorporate or contribute towards appropriate features to support this prioritisation, such as permeable street networks, continuous footways and segregated cycle facilities which are adequately lit, sufficient secure and accessible cycle parking, regularly spaced public seating and good quality waiting facilities for public transport;

c. Ensure that the arrangement of streets and other routes help to create places that are safe, inclusive and attractive for all users (particularly for women and girls, for other groups who may be vulnerable to crime or the fear of crime, and for those with limited mobility). This includes reflecting relevant aspects of policy DP3(2), as well as employing measures to:

i. Minimise the scope for conflict between pedestrians, cyclists and vehicles;

ii. Meet the needs of disabled people, older people and children in relation to all modes of transport, and

iii. Avoid unnecessary street clutter.

d. Allow for the efficient delivery of goods, and ease of access by service and emergency vehicles, in ways which do not compromise key place-making principles (set out in policy DP3(2)); and

e. Provide a suitable number of parking spaces for a range of transport modes where appropriate, reflecting the location and nature of the development (including its connectivity), any locally-set standards in the development plan, and including adequate provision of spaces and infrastructure that allow for the charging of electric vehicles in safe, accessible and convenient locations. A flexible approach to applying parking standards should be taken where the reconfiguration of retail or other sites which attract large numbers of customers would make better use of previously developed land, and there is evidence that a certain number of spaces needs to be retained to meet specific operational and commercial requirements.

2. The principles set out in national design guidance should be used to inform how this policy is applied.

TR6: Assessing transport impacts

1. Development proposals that are likely to generate significant amounts of movement should be supported by:

a. A transport statement or transport assessment (depending on the extent and significance of the transport issues involved), which is proportionate to the nature and scale of the development, so that the likely impacts of the proposal for transport can be assessed and monitored; and

b. A travel plan, which indicates how sustainable transport objectives will be delivered, monitored and managed over time.

2. Transport assessments and statements, and travel plans, should reflect the transport vision for the development and the transport strategy for the area in which it is located, and how these are intended to be achieved (including, in the case of travel plans, identifying fallback options if initial measures do not deliver the expected outcomes).

3. In assessing movement patterns and potential impacts, including whether they are considered to be severe, reasonable future scenarios should be considered, taking into account impacts at relevant times of the day, potential cumulative impacts, multimodal trip generation and the promotion of sustainable modes of travel, and realising the transport vision for the development itself. Development proposals should be considered having regard to these potential impacts and the other policies in this Framework which are relevant (including TR3, TR4 and DP3(2)(d)).

4. Development proposals should be refused if they would have a severe adverse impact on the transport network (in terms of capacity and congestion, including cumulative impacts), or an unacceptable impact on highway safety; taking into account any mitigation measures proposed as well as any wider network improvements, including measures to support sustainable patterns of movement. This applies both during the construction phase and following completion.

- 2.1.4 **Section 3** of this report highlights the existing sustainable travel modes within the vicinity of the site and demonstrates that the development will be well suited to this location.
- 2.1.5 **Section 6** of this report assesses the traffic associated with the development on the surrounding road network and will identify mitigation measures where necessary to ensure that the impact of the development is not severe.

2.2 LOCAL POLICY

West Yorkshire Transport Strategy 2040

- 2.2.1 The West Yorkshire Transport Strategy 2040 was adopted in August 2017 and was produced by the West Yorkshire Combined Authority and the West Yorkshire district councils of Bradford, Calderdale, Kirklees, Leeds and Wakefield.
- 2.2.2 The Transport Strategy 2040 sets out the partners ambitions for the region and, although focused on West Yorkshire, it is recognising the importance and impact of links with the wider Leeds City Region and states the following vision;

“To enhance business success and people’s live by providing modern, world-class, well connected transport that makes travel around West Yorkshire easy and reliable.”

- 2.2.3 To achieve this vision the document states that the following objectives must be achieved;
 - ▶ Economy: Create a more reliable, less congested, better connected transport network;
 - ▶ Environment: Have a positive impact on our built and natural environment; and
 - ▶ People and place: Put people first to create a strong sense of place.
- 2.2.4 With regard to the borough of Kirklees, the specific aim of the Transport Strategy is;
 - ▶ “To achieve a balanced and integrated transport network that makes the most efficient and effective use of the road, rail and public transport.”

West Yorkshire Local Transport Plan (LTP)

- 2.2.5 The LTP3 replaced the LTP2 at the end of April 2011. LTP3 is a 15-year plan with three-year Implementation Plans produced throughout this period.
- 2.2.6 Entitled “MyJourney”, the LTP for West Yorkshire sets out a strategy for improving local bus, road, rail, walking and cycling networks for the next 15 years up to 2026. MyJourney’s vision is for a people-focused, low-carbon transport system that supports economic activity and growth and enhances people’s quality of life and has been designed to put the needs of all transport users at its heart.
- 2.2.7 The Plan sets out to tackle congestion and a lack of transport investment which are key contributory factors to lower than average economic performance in West Yorkshire. It also aims to prepare for the predicted, post-recession growth in employment, population and housing and their impact on the reliability of the transport network.
- 2.2.8 Four themes run through the Plan to help ensure it achieves its aims:

- ▶ Transport Assets focusing on the existing components of the transport network such as roads, bus stations / stops and traffic lights to ensure we are getting the most value out of them;
- ▶ Travel Choices enabling customers to make the most sustainable choices about when and how they travel;
- ▶ Connectivity ensuring people can make integrated and safe journeys using transport networks on which they can rely; and
- ▶ Enhancements improving the overall network to make it more fit for journeys in the future.

2.2.9 Priorities include schemes suggested by local communities, as well as the provision of bus priority schemes on main roads into town and city centres, major maintenance of roads across West Yorkshire, cycling and walking schemes, and the development larger schemes such as new rail stations and the New Generation Transport (NGT) trolleybus network.

2.2.10 The proposed development will contribute to the LTP objectives given the proximity to existing public transport services. Travel planning will be implemented at the development, ensuring that people can make an informed choice for all their journeys and can travel in a responsible manner. As such, the development proposals will encourage behavioural change to maximise use of more sustainable modes of transport to access the development.

Kirklees Local Plan

2.2.11 The Kirklees Local Plan was adopted in 2019 and is the statutory development plan setting out the policies necessary to achieve the development goals and strategy of the area. The plan covers:

- ▶ A vision and strategic objectives for the development of Kirklees up to 2031;
- ▶ A spatial strategy setting out how development will be accommodated across the district reflecting the distinctiveness of different parts of the district;
- ▶ Objectively assessed development needs particularly for housing and employment specifying the number of new homes and jobs to be provided during the plan period;
- ▶ Clear policies to guide decisions on planning applications;
- ▶ Site allocations showing land to be developed for housing, employment, retail, minerals and waste and other uses, identified on a Policies Map;
- ▶ Designations showing land to be protected from development and land subject to other policies in the plan;
- ▶ Infrastructure provision to support the delivery of the proposed development;
- ▶ An indication of how the policies will be delivered and implemented; and
- ▶ A monitoring framework setting out the performance measures that will show how successfully the plan's objectives and proposals are being delivered over time.

Kirklees Transport Vision

2.2.12 The 2025 Kirklees Transport Vision sets out the importance of sustainable travel and its role in alleviating congestion, poor air quality and environmental damage. The Vision aims to allow sustainable transport systems to flourish to benefit the wellbeing of citizens and build a thriving local economy. The vision provides:

- ▶ A top-class public transport system for everyone providing a first choice for travel for many more new customers and a real alternative to using the car;
- ▶ A sustainable transport system that encourages healthy citizens, promotes social inclusion and preserves and enhances the local environment; and
- ▶ A transport network that promotes a sustainable thriving economy for businesses to invest in.

3 EXISTING CONDITIONS AND SUSTAINABLE TRANSPORT

3.1 SITE LOCATION

- 3.1.1 The site currently consists of undeveloped fields and is bound to the north by East Bierley play area and Hunsworth Lane, to the east by Soureby Cross Way, to the south by East Bierley playing fields and East Bierley community sports association, and to the west by the existing unmade track that accesses the East Bierley playing fields.
- 3.1.2 The site is located in East Bierley, approximately 5km to the southeast of Bradford city centre. The location of the site is illustrated in **Figure 3-1**.

Figure 3-1 Site Location Plan



3.2 LOCAL HIGHWAY NETWORK

- 3.2.1 The site would be accessed from Hunsworth Lane to the north, via a new proposed access onto the existing access track which serves the East Bierley playing fields to the south, and a modified access from the existing access track onto Hunsworth Lane.
- 3.2.2 Hunsworth Lane is a two-way single-lane carriageway which runs in a general northeast-southwest direction and has a carriageway width of c. 7.4m. It is subject to a 20mph speed limit in the vicinity of the site frontage and is street lit. To the southwest, it continues for approximately 2.5km to meet the A58 Whitehall Road at a signalised right-left staggered junction within the centre of Hunsworth, from here, the wider strategic network can be accessed via the M62 Junction 26 (Chain Bar Roundabout) located approximately 550m to the west.
- 3.2.3 To the north of the site access, Hunsworth Lane continues for approximately 300m to meet South View Road at a priority-controlled T-junction within the centre of East Bierley. South View Road then continues northeast for c. 350m to meet the A651 Bradford Road at a priority-controlled crossroad junction.
- 3.2.4 The A651 Bradford Road runs in a general north-south alignment and provides connection to Birkenshaw (c. 800m) and Gomersal (c 3.5km) to the south. To the north, the A651 Bradford Road continues for approximately 550m before meeting the A650 at a signal-controlled junction. From here, the A650 provides connectivity northwest towards Bradford City Centre with a journey distance of approximately 4.5km.
- 3.2.5 The site has therefore been shown to be well located for access to the local and regional highway networks. The site is well located in terms of its proximity to nearby towns and cities such as Birkenshaw, Gomersal and

Bradford, as well as its proximity to the wider strategic road network which can be accessed via the M62 Junction 26.

3.3 WALKING ACCESSIBILITY

- 3.3.1 The Government's objectives set out in the NPPF are to ensure that new developments are provided in sustainable locations, where the need to travel is minimised and the use of sustainable modes can be maximised.
- 3.3.2 The Government's National Design Guide defines "walkable" well-designed places as having local facilities within 800m, and CIHT Planning for Walking (2015) states "walkable neighbourhoods" are typically within a catchment of around 800m or a 10 minutes' walk.
- 3.3.3 In addition, whilst superseded by the NPPF, the transport policies in the former PPG13 set out specific guidance related to walking:

"Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly under 2 kilometres" (Para 74)

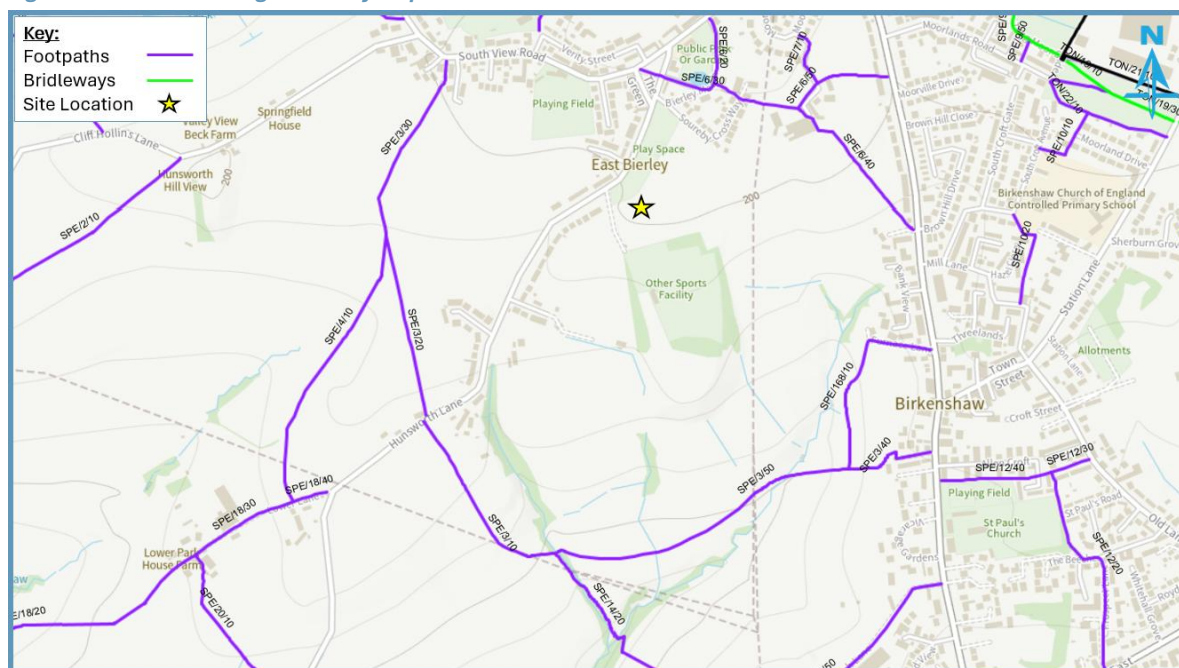
- 3.3.4 **Figure 3-2** shows a 2km walking catchment area from the centre of the site.

Figure 3-2 2km Walking Catchment Plan



- 3.3.5 As shown, the site is located within a suitable walking distance of East Bierley, Birkenshaw and Westgate Hill. Within the 2km catchment of the site, there are a number of facilities and amenities, including East Bierley CE Primary School (c. 400m), East Bierley Cricket Club (c. 450m), Birkenshaw Post Office (c. 850m), Little Latham House Nursery and Forest School Birkenshaw (c. 950m), Kids Planet Tong (c. 1.0km), Birkenshaw Family Shopper (c. 1.1km), Tong Leadership Academy (c. 1.2km), Morrisons Daily (c. 1.4km), Birkenshaw CE Primary School (c. 1.8km), Co-op Food (c. 1.8km) and Birkenshaw Health centre (c. 1.8km).
- 3.3.6 There are also a number of Public Rights of Way (PRoW) within the vicinity of the site that provide traffic-free walking facilities, details of which are provided in **Figure 3-3**.

Figure 3-3 Public Rights of Way Map



- 3.3.7 The map shows that there is a network of PRow routes to provide safe pedestrian walking facilities within the vicinity of the site to the neighbouring locations of Tong and Birkenshaw, as well as East Bierley itself.
- 3.3.8 The development is therefore considered to be located within a sustainable location to a range of walkable destinations.

3.4 CYCLING ACCESSIBILITY

- 3.4.1 In respect of cycling, the CIHT Planning for Cycling document (2014) states:

“The majority of cycling trips are for short distances, with 80% being less than five miles and with 40% being less than two miles. However, the majority of trips by all modes are also short distances (67% are less than five miles, and 38% are less than two miles); therefore, the bicycle is a potential mode for many of these trips.”

- 3.4.2 The DfT Cycling and Walking Investment Strategy (2017) also refers to the threshold of 5 miles (or 8km), stating that:

“Two out of every three personal trips are within five miles - an achievable distance to cycle for most people, with many shorter journeys also suitable for walking.” As such, all areas and facilities within a reasonable walking distance can also be considered to be within a reasonable cycling distance.

- 3.4.3 **Figure 3-4** shows an 8km cycling catchment area from the centre of the site. In addition to the areas accessible within the 2km walking catchment, the catchment area includes Bradford, Pudsey, Wibsey, Wyke, Cleckheaton, Birstall, Heckmondwike, Batley and Farnley.

maximum walking distance to bus routes should not exceed 400 metres. Measures to facilitate the use of public transport are therefore an integral part of good land use and transport planning.

- 3.5.2 There are two bus stops located along Hunsworth Lane, as well as two located along South View Road, within the recommended 400m walking distance from the site. They are provided as simple Flag and Pole bus stops equipped with timetabling information. The stops detailed are set out on the attached plan at [Figure 3-6](#).

Figure 3-6 Public Transport Location Plan



- 3.5.3 Details of the services calling at the mentioned bus stops have been obtained from recent timetables produced by various bus operators. [Table 3-1](#) summarises local bus service details and route information.

Table 3-1 Local Bus Services

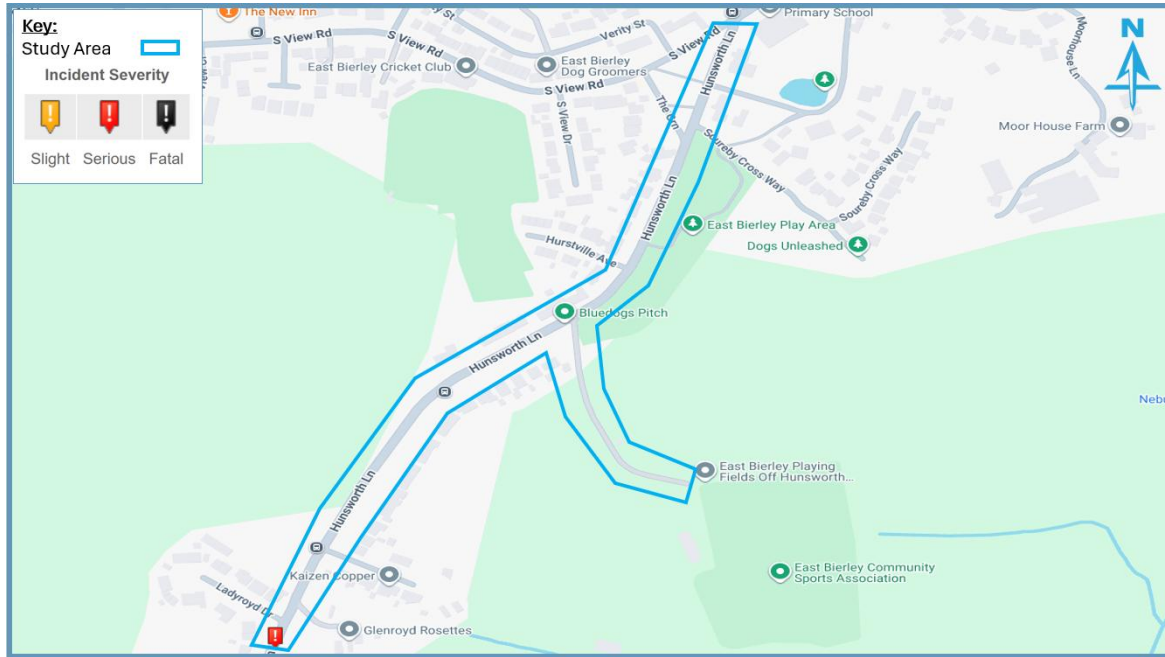
Services	Route	Weekday	Saturday	Sunday
256	Bradford – Brighouse	4 per day	-	-
259	Brighouse – Cleckheaton – East Bierley	4 per day	8 per day	-
283/283A	Bradford – Dewsbury	2 per hour	2 per hour	1 per hour

- 3.5.4 [Table 3-1](#) sets out that the local bus stops along Hunsworth Lane provide access to two bus services that provide a combined frequency of approximately eight buses per day from Monday – Saturday in either direction towards Brighouse, East Bierley and Bradford. The bus stops along South View Road provide access to the 283/283A bus services, which provide a frequency of two buses per hour in either direction towards Bradford or Dewsbury from Monday – Saturday, and one bus per hour in either direction on a Sunday.
- 3.5.5 In addition to this, there is a single school bus service which utilises the bus stops along Hunsworth Lane in the vicinity of the site.

3.6 PERSONAL INJURY COLLISION RECORDS

- 3.6.1 To consider the last five years of Personal Injury Collision (PIC) data within the vicinity of the site, an initial study of the CrashMap database has been conducted. The study area includes Hunsworth Lane approximately 350m either side of the proposed access. The most recent five-year period of available data has been considered ensuring the study is up to date. The collision plot is set out in [Figure 3-7](#).

Figure 3-7 Personal Injury Collision Plot



- 3.6.2 As detailed above, there was a single 'serious' collision recorded within the study period. This occurred in September 2021 along Hunsworth Lane, approximately 350m to the south of the proposed access location. The collision involved two vehicles and resulted in a single 'serious' casualty.
- 3.6.3 Given the low frequency and severity of the collisions recorded over the most recent five-year period, it is considered there is no specific existing safety issue related to the layout of the existing highway network that would be exacerbated by changes in traffic flows or additional pedestrian movements generated by the proposed development.

4 DEVELOPMENT PROPOSALS

4.1 DEVELOPMENT PROPOSALS AND SITE LAYOUT

- 4.1.1 The application is for a residential development consisting of 67 dwellings with associated parking, road layout, landscaping, ancillary infrastructure, and access arrangements. A copy of the proposed site layout is included in [Appendix A](#).
- 4.1.2 The site benefits from allocation within the Kirklees Local Plan, under site HS89.
- 4.1.3 The site layout has been designed to ensure low vehicle speeds are achieved throughout the site whilst maintaining manoeuvrability for vehicles.

4.2 SITE ACCESS DESIGN AND VISIBILITY SPLAYS

- 4.2.1 Vehicular, walking and cycling access is proposed via a new proposed access onto the existing road which allows for means of access onto East Bierley playing fields from Hunsworth Lane to the north. A pedestrian footpath is also proposed to the northeast of the site, connecting to Soureby Cross Way.
- 4.2.2 The access onto the existing access track has been designed in line with KC and Manual for Streets (MFS) standards for a 20mph carriageway, therefore visibility splays are provided at 2.4m x 25m.
- 4.2.3 It is also proposed to improve the junction arrangements of the access road with Hunsworth Lane alongside the proposed access arrangements into the site, with the provision of tactile paving and dropped crossings being provided, as well as a pedestrian footpath on either side of the access road carriageway. In this way, the proposed access arrangements represent a benefit to the existing access to the adjacent East Bierley Community Sports Association playing fields.
- 4.2.4 A 7-day Automated Traffic Count (ATC) survey was undertaken on the week commencing 7th September 2026 along Hunsworth Lane adjacent to the access and found that 85th percentile vehicle speeds were 24.7mph eastbound and 27.2mph westbound, resulting in visibility splay requirements of 2.4m x 40m to the east along Hunsworth Lane and 2.4m x 35m to the west.
- 4.2.5 The proposed site access arrangements are set out in AMA Drawing No. 300865-SK-001 and is attached at [Appendix B](#).

4.3 PARKING

- 4.3.1 While Kirklees Council has not set out local parking standards for residential and non-residential development, the initial point of reference taken from the Kirklees Council Highway Design Guide SPD has been utilised. This sets out the following:
 - ▶ 2-to-3-bedroom dwellings – two parking spaces
 - ▶ 4+ bedroom dwellings – three parking spaces
- 4.3.2 Parking will be provided in the form of driveways across the site, and each dwelling will be provided with the facilities for electric car charging. Cycle parking is to be provided as secure cycle storage facilities for individual dwellings.
- 4.3.3 No specific allowance for visitor parking is to be made as part of the development. Instead, visitors have opportunity to park safely but informally without blocking junctions or driveway on-street within the development, close to the dwelling they are visiting.

5 ASSESSMENT PARAMETERS

5.1 INTRODUCTION

- 5.1.1 This section sets out the methodology and assessment parameters used in assessing the proposed development and its potential impact on the highway network.

5.2 BASE TRAFFIC SURVEYS

- 5.2.1 Local junctions within the vicinity were assessed to understand whether they would experience an increase of more than 30 two-way trips as a result of the development proposals. It was found that outside of the proposed site access, no junctions within the local network would experience an increase of more than 30 two-way trips within the AM or PM peak hours.
- 5.2.2 A 7-day Automated Traffic Count (ATC) survey was undertaken on the week commencing 7th September 2026 along Hunsworth Lane adjacent to the existing road access to the East Bierley playing fields, from which the proposed development will be accessed. The resultant network peak periods were concluded to occur between:
- ▶ AM Peak – 07:45 – 08:45
 - ▶ PM Peak – 16:30 – 17:30
- 5.2.3 For the purposes of the junction capacity modelling, the above surveys have been converted to Passenger Car Units (PCUs). The resultant 2026 surveyed flows are illustrated at [Appendix C](#).

5.3 ASSESSMENT YEARS

- 5.3.1 A base year of 2026 will be assessed as the year of submission. In line with national guidance, a horizon period five years to 2031 has been assessed within this TA.

5.4 TRAFFIC GROWTH

- 5.4.1 The National Traffic Model (NTM) within the TEMPRO software package has been interrogated to provide local growth factors for Middle Super Output Area (MSOA) area 'Kirklees 001'.
- 5.4.2 The resultant growth factors are set out in [Table 5-1](#).

Table 5-1 *TEMPro Growth Factors – Kirklees 001*

Period	MSOA	AM Peak	PM Peak
2026 - 2031	Kirklees 001	1.052	1.052

- 5.4.3 Details of the resultant 2026 and 2031 base traffic flows are set out at [Appendix C](#) which sets out all traffic flow diagrams associated with the proposals.

5.5 COMMITTED DEVELOPMENT TRAFFIC

- 5.5.1 Based on a review of recently approved planning applications, no committed or planned developments that would represent a significant change in traffic flows on the highway network in the immediate vicinity of the site, that would need to be specifically incorporated in this assessment.

5.6 DEVELOPMENT TRAFFIC GENERATION

- 5.6.1 The TRICS database has been interrogated to obtain the vehicle-based trip rates of the proposed development. The full TRICS trip rates are provided in [Appendix D](#). The report contains the following parameters:

- ▶ Land Use: 03 – Residential
- ▶ Category: B – Affordable/Local Authority Houses
- ▶ Parameter and Range: 20 – 120 Dwellings
- ▶ Selected Survey Dates: Monday – Friday
- ▶ Selected Locations: Suburban Area, Edge of Town

5.6.2 The time period of 08:00 to 09:00 has been selected for the AM peak period, whilst the time period of 17:00 to 18:00 has been selected for the PM peak period which are considered the highest traffic-generating time periods from the TRICS data.

5.6.3 The vehicle trip rates derived are summarised in [Table 5-2](#) and have been factored against the proposed number of dwellings.

Table 5-2 Peak Hour Trip Rates and Trip Generation

	AM Peak			PM Peak		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Trip Rate	0.149	0.298	0.447	0.310	0.212	0.522
Trip Generation	10	20	30	21	14	35

5.6.4 On this basis, on average the proposed development can be expected to generate approximately 1 vehicle every 2 minutes at peak times. The impact of these trips at the site access is set out in [Section 6.2](#).

5.7 DEVELOPMENT TRAFFIC DISTRIBUTION AND ASSIGNMENT

5.7.1 Development traffic distribution has been undertaken based upon existing (2011) Nomis 'Journey to Work Data' for the Kirklees 001 MSOA, which best represents the location of the site. This method uses Office of National Statistics data and is considered a robust approach.

5.7.2 The traffic distribution has been applied to the forecast trip generations to estimate the change in traffic flows on the highway network as a result of the development at the site. Consideration of the traffic distribution exercise shows the total change in traffic flows that is forecast on the road network as a result of the development proposals.

5.7.3 The distribution exercise is summarised in [Table 5-3](#). A copy of the 2011 journey to work census data and a plan detailing the location of each MSOA is available upon request.

Table 5-3 Development Traffic Distribution

Route	Distribution
Hunsworth Lane (W)	22.1%
Hunsworth Lane (E)	77.9%

5.7.4 The AM and PM peak traffic distributions have been applied to the total development traffic generation set out in [Table 5-2](#).

5.7.5 The traffic flow diagrams for both the traffic distribution and generation are set out in [Appendix C](#).

5.8 SUMMARY

5.8.1 As detailed in the above section, the following scenarios have been modelled as part of this TA:

- ▶ 2026 Base
- ▶ 2031 Base
- ▶ 2031 Base + Development

5.8.2 The traffic flow diagrams are attached at [Appendix C](#), and the modelling exercise is detailed in [Section 6](#) overleaf.

6 TRAFFIC MODELLING AND DEVELOPMENT IMPACTS

6.1 INTRODUCTION

6.1.1 To determine the impact of the proposed development traffic on the local highway network, the following junction has been assessed:

- ▶ Proposed Site Access / Hunsworth Lane.

6.1.2 TRL Junctions software has been used to prepare the junction model. The TRL Junctions software analyses the traffic movements on each arm of the junction and assesses the junctions Ratio Flow to Capacity (RFC) and queue lengths in PCU's.

6.1.3 The detailed modelling outputs are in [Appendix E](#).

6.2 JUNCTION MODELLING RESULTS

Proposed Site Access / Hunsworth Lane

6.2.1 **Table 6-1** sets out the operational capacity at the proposed site access junction.

Table 6-1 *Proposed Site Access / Hunsworth Lane Modelling Summary*

Arms	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
2031 Base + Development Traffic				
Site Access Road – Hunsworth Lane (E)/Hunsworth Lane (W)	0.04	0.0	0.03	0.0
Hunsworth Lane (W) – Hunsworth Lane (E)/Site Access Road	0.00	0.0	0.01	0.0

6.2.2 **Table 6-1** identifies that all arms at the proposed Site Access / Hunsworth Laned priority-controlled T-junction are predicted to operate well within their theoretical and operational capacity in the 2031 Base + Development Traffic scenario.

6.3 SUMMARY

6.3.1 The impact of the development-generated traffic associated with the development proposals on the surrounding area has been shown to be minimal, with the flows from the development being immaterial outside of the Hunsworth Lane / Site Access Road junction. It is therefore concluded that the development proposals could be accommodated without resulting any significant detrimental impact upon existing road safety or the capacity of the highway network.

7 SUMMARY

- 7.1.1 AMA has prepared this Transport Assessment to accompany a planning application for a proposed residential development of 67 dwellings on land to the south of Hunsworth Lane, East Bierley. The following summarises the key points:
- ▶ The proposed development has been assessed for a residential development. The site is allocated for residential development in Kirklees Council's adopted Local Plan and the proposals accord with national and local transport policy;
 - ▶ Future residents of the development would have the opportunity to travel for all key journey purposes by modes other than the private car, including walking, cycling and public transport;
 - ▶ The site access and internal road layout has been designed in accordance with the relevant Kirklees Council and Manual for Streets standards;
 - ▶ The development proposals are modest; at peak times, the development can be anticipated to generate approximately 1 vehicle every 2 minutes. Operational assessment of the proposed access junction demonstrates that it would operate safely and efficiently with the anticipated traffic associated with proposed development;
 - ▶ Car parking and cycle parking will be provided to meet KC standards; and
 - ▶ A Travel Plan has been prepared which sets out measures to encourage sustainable travel patterns and reduce the reliance on private car use.
- 7.1.2 This TA has demonstrated that the traffic associated with the development proposals can be accommodated on surrounding highway network without having a severe impact in accordance with the NPPF.
- 7.1.3 Therefore, there are no overriding traffic and transportation reasons preventing the local highway authority from recognising that the proposals are acceptable nor why planning permission could not be granted.

APPENDICES

Appendix A Proposed Site Layout

Appendix B Proposed Site Access Arrangements

Appendix C Traffic Flow Diagrams

Appendix D TRICS Output Data

Appendix E Junctions 11 Modelling Outputs



Appendix A
Proposed Site Layout



HouseType	m²	Ft²	Total No.	Total m²	Total Ft²
Type C - 2B3P House Type (N055 & M021)	74	797	17	1258	13543
Type C5 - 2B3P Corner House Type (N055)	74	797	4	296	3186
Type D - 2B4P Aspect House Type (N055)	81	872	3	243	2616
Type F - 3B4P House Type (N055)	86	926	23	1978	21293
Type J - 4B4P House Type (N055 & M021)	114	1227	2	228	2451
Type P1 - 1b2p Maisonnettes (N055)	50	538	9	450	4844
Type P2 - 1b2p Maisonnettes (N055)	57	614	6	313	3372
TOTAL			67	4966	53454

m²	Site Area		Footage					
	PL	AL	GL/PL	GL/AL	PL/PL	PL/AL	PL/PL	PL/AL
Gross	1.81	4.47	87.02	14.98	2743.05	1110.02	29532.34	11951.83
Net	1.64	4.05	80.98	14.53	2576.07	1025.51	28267.76	11151.19

B	JULY 26	BHW	ENTRANCE AREA UPDATED TO AIA DETAIL. PLOTS 01-07	
A	JULY 26	BHW	RE-CONFIGURED - LOSS OF 0196 UNIT	
			LAYOUT ENDORSED ONTO LATEST TOPO SURVEY ENTRANCE	
			UPDATED. LAYOUT AMENDED TO COMMENTS	
REV	DATE	DRAWN	DESCRIPTION	
TITLE:				
PROPOSED SITE LAYOUT				
 Breck Homes 20 Sceptre Court Bamber Bridge Preston PR10 6AW tel: 01524 587 000 info: www.breck.co.uk/homes hello@breck.co.uk				
PROJECT:				
HUNSWORTH LANE, EAST BIERLEY				
DATE	SCALE	JOB REF	DRAWING NUMBER	REV
FEB. 26	SCALE: 1:500 @ A1	JOB REF -	DRAWING NUMBER: Hunsworth Lane / Proposed Site Layout	REV B

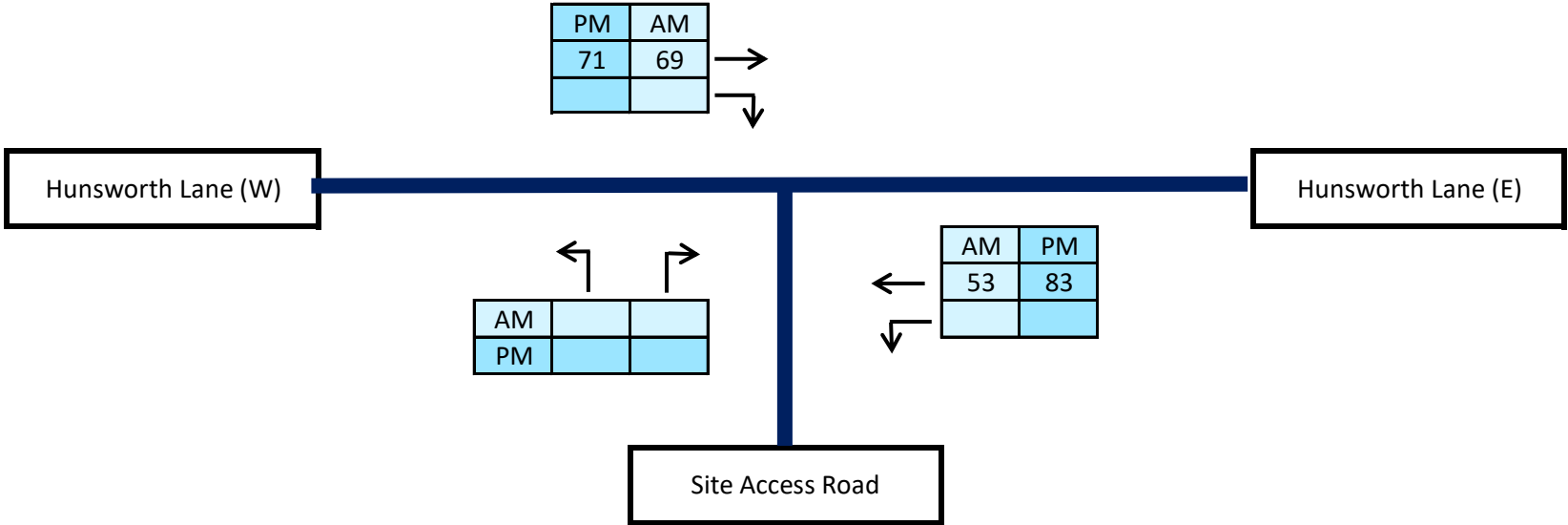
Appendix B
Proposed Site Access Arrangements



- Notes**
1. This drawing is to be read in conjunction with all other relevant drawings and/or documents.
 2. All dimensions are in metres unless stated otherwise.
 3. All work is to be carried out in accordance with the Specification for Highway Works and Local Authority guidance.
 4. Where underground services are present in the area, contractor is to confirm the precise line and depth of any services prior to the commencement of any excavation works.
 5. This drawing is not to be used for any construction works unless stated below as 'A5 - Construction Issue'

P02	Vis Splays updated in line with ATC Speed Survey	CF	23.09.26	AS
P01	Preliminary Issue	AJA	13.07.26	GS
Rev	Description	DR	Date	CK
AMA ANDREW MOSELEY ASSOCIATES Andrew Moseley Associates Ltd Yorkshire: 10 St Pauls Street, Leeds, LS1 2LD North East: Huddersfield, 5 St Thomas Street, Huddersfield, HD1 4LE www.ama.co.uk				
HUNSWORTH LANE EAST BIERLEY				
BRECK				
PROPOSED ACCESS LAYOUT				
S2 - FOR INFORMATION				
Date	Drawn	Scale	Sheet	Page
JULY 2026	AJA	1:250	GS	A3
Drawn By	Checked	Drawn By	Checked	Drawn By
AJA	GS	GS	GS	GS
300865	AMA	XX	00	DR C 0003 S2
				P02

Appendix C
Traffic Flow Diagrams

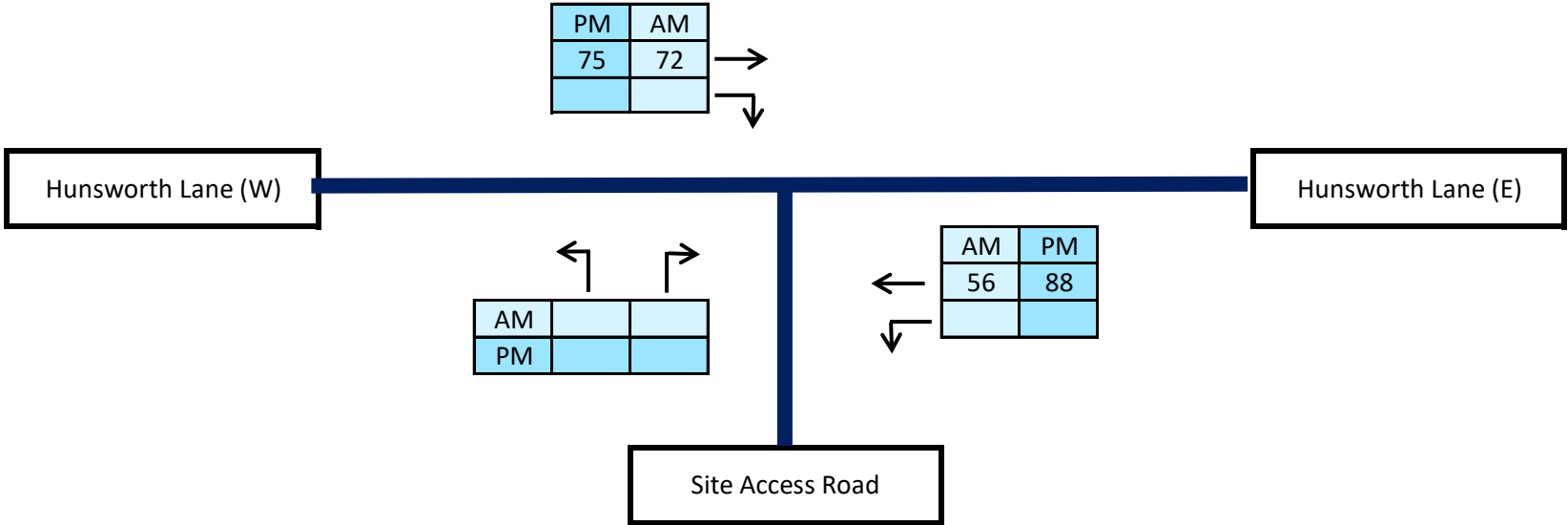


30/09/2026
AMA/300865
Appendix C

Hunsworth Lane, East Bierley
2026 Base Traffic Flows

In PCU's
Drawn by: CF
Checked: AS

AM	07:45 - 08:45
PM	16:30 - 17:30



30/09/2026

AMA/300865

Appendix C

Hunsworth Lane, East Bierley

2031 Base Traffic Flows

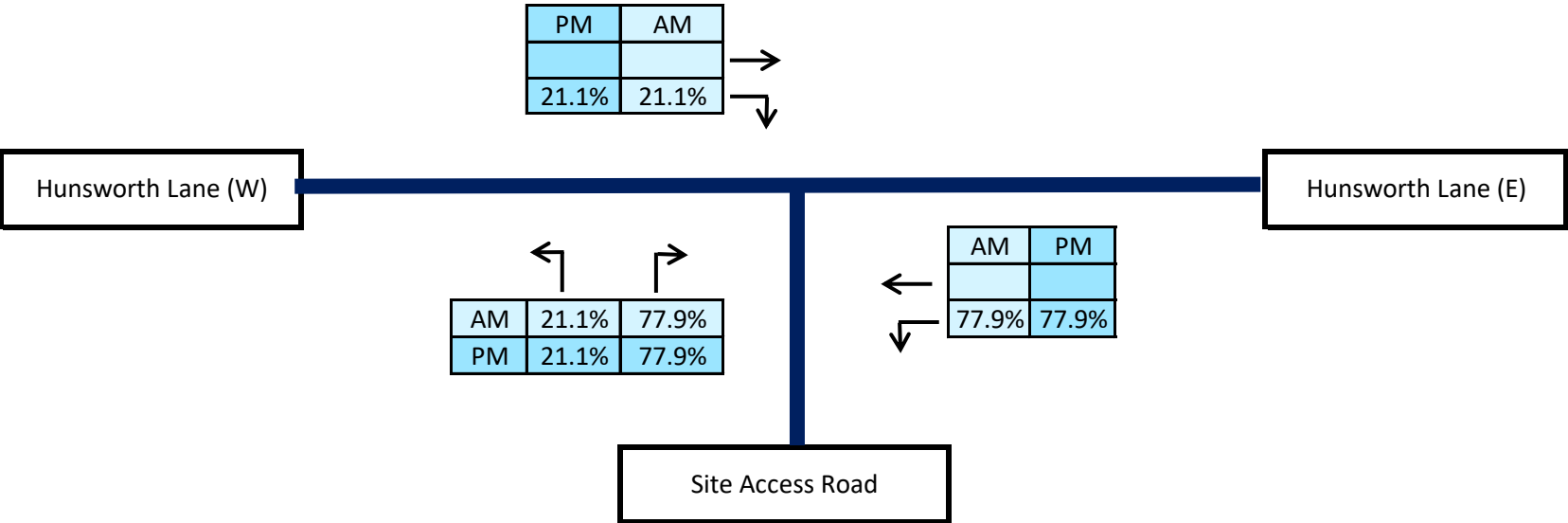
In PCU's

Drawn by:
CF

Checked:
AS

AM 07:45 - 08:45

PM 16:30 - 17:30

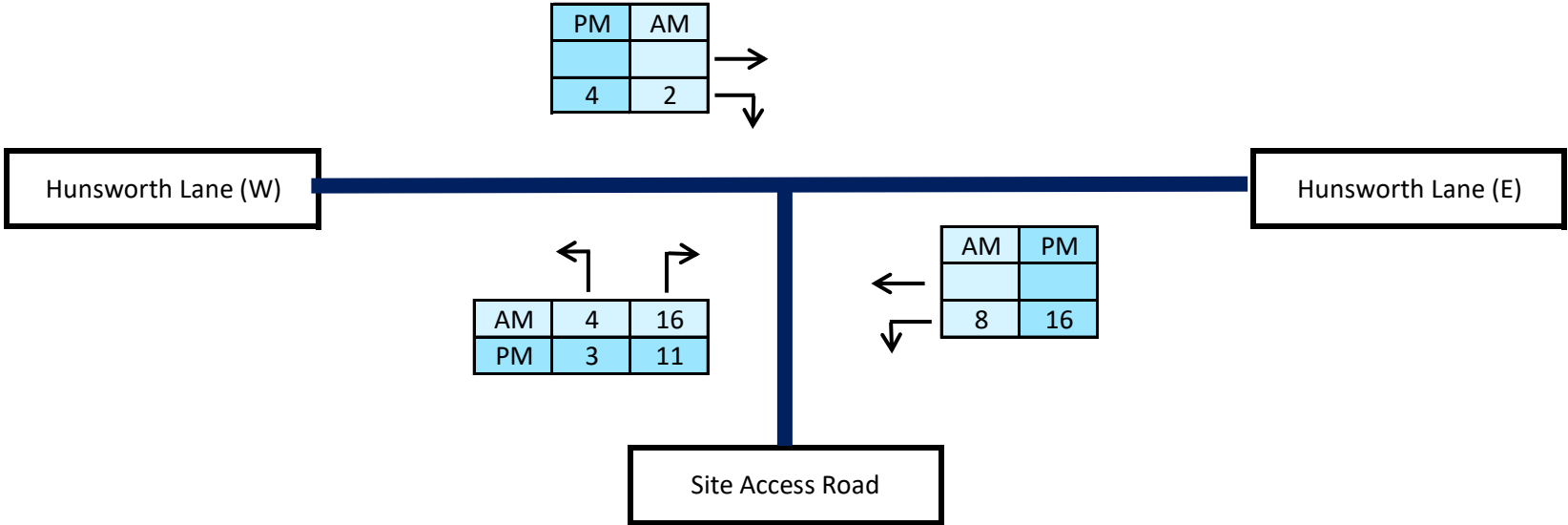


30/09/2026
AMA/300865
Appendix C

Hunsworth Lane, East Bierley
Proposed Development Distribution

In PCU's
Drawn by: CF
Checked: AS

AM	07:45 - 08:45
PM	16:30 - 17:30

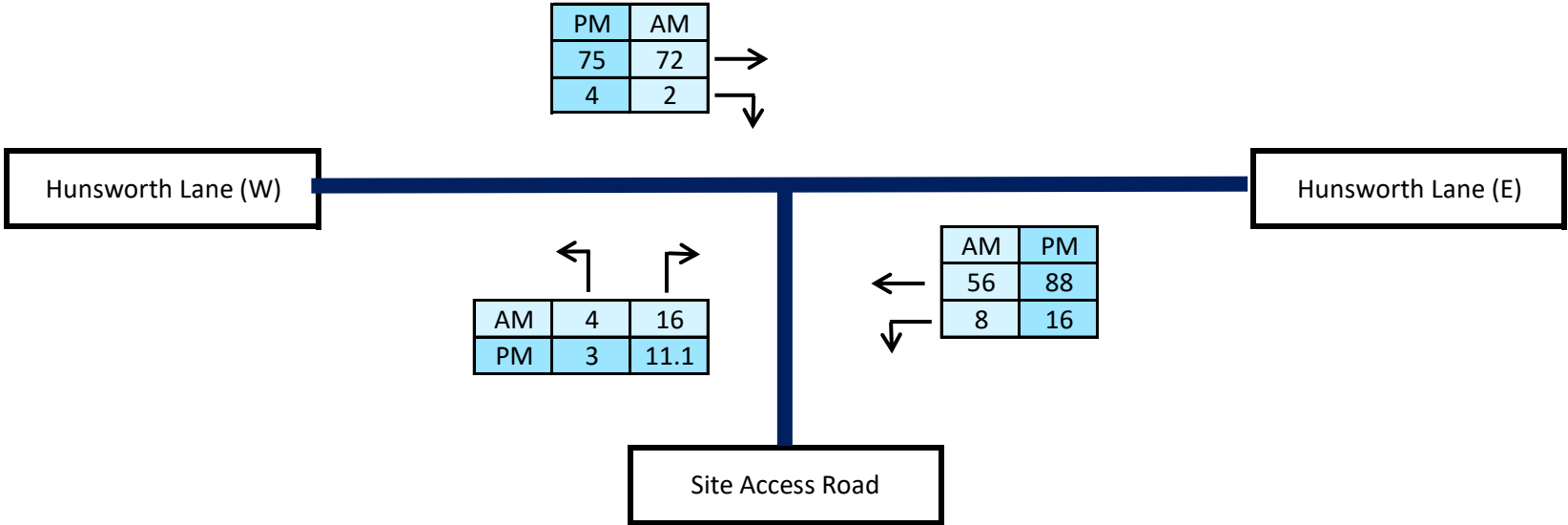


30/09/2026
AMA/300865
Appendix C

Hunsworth Lane, East Bierley
Proposed Development Trips

In PCU's
Drawn by:
CF
Checked:
AS

AM	07:45 - 08:45
PM	16:30 - 17:30



30/09/2026
AMA/300865
Appendix C

Hunsworth Lane, East Bierley
2031 Design Traffic Flows

In PCU's
Drawn by: CF
Checked: AS

AM	07:45 - 08:45
PM	16:30 - 17:30

Appendix D
TRICS Output Data

Audit Code: 499cc423-cb84-467b-9c4d-a8f4937588de

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use: 03 - RESIDENTIAL

Category: B - AFFORDABLE/LOCAL AUTHORITY HOUSES

Selected Vehicle Type: Total Vehicles

**BOLD print indicates peak (busiest) period*

Selected regions and areas:

03	SOUTH WEST	
	DV	DEVON 1 day
	WL	WILTSHIRE 1 day
04	EAST ANGLIA	
	SF	SUFFOLK 2 days
05	EAST MIDLANDS	
	LR	LEICESTER 1 day
	NN	NORTH NORTHAMPTONSHIRE 1 day
06	WEST MIDLANDS	
	WM	WEST MIDLANDS 1 day
	WO	WORCESTERSHIRE 1 day
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	KS	KIRKLEES 1 day
	LS	LEEDS 1 day
08	NORTH WEST	
	AC	CHESHIRE WEST & CHESTER 1 day
	GM	GREATER MANCHESTER 1 day
09	NORTH	
	NB	NORTHUMBERLAND 1 day
10	WALES	
	DB	DENBIGHSHIRE 1 day
11	SCOTLAND	
	DU	DUNDEE CITY 1 day
	HI	HIGHLAND 1 day
13	MUNSTER	
	TI	TIPPERARY 1 day
15	GREATER DUBLIN	
	DL	DUBLIN 2 days
17	ULSTER (NORTHERN IRELAND)	
	AN	ANTRIM 1 day

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

Audit Code: 499cc423-cb84-467b-9c4d-a8f4937588de

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:	DWELLS
Actual Range:	76 to 104 (units:DWELLS)
Range Selected by User:	20 to 120 (units:DWELLS)
Parking Spaces Range:	0 - 220

Public Transport Provision:	
Selection by:	All Surveys Included
Date Range:	22/03/90 to 30/04/25

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	4 days
Tuesday	5 days
Wednesday	4 days
Thursday	2 days
Friday	5 days

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

Selected survey types:	
Manual count	19
Direction ATC Count	1

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	13 days
Edge of Town	7 days

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:	
Built-Up Zone	1 days
No Sub Category	3 days
Residential Zone	16 days

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.

Inclusion of Servicing Vehicle Counts:	
Servicing vehicles Unknown	20 days

Audit Code: 499cc423-cb84-467b-9c4d-a8f4937588de

Secondary Filtering Selection:

Use Class:

C3	20 surveys
----	------------

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

255 - 5500

Population within 1 mile:

1,001 to 5,000	1 surveys
5,001 to 10,000	3 surveys
10,001 to 15,000	2 surveys
15,001 to 20,000	7 surveys
20,001 to 25,000	1 surveys
25,001 to 50,000	3 surveys
50,001 to 100,000	2 surveys
Not Known	1 surveys

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

Population within 5 miles:

5,001 to 25,000	1 surveys
25,001 to 50,000	1 surveys
50,001 to 75,000	2 surveys
75,001 to 100,000	4 surveys
125,001 to 250,000	5 surveys
250,001 to 500,000	5 surveys
500,001 or More	1 surveys
Not Known	1 surveys

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	12 surveys
1.1 to 1.5	5 surveys
1.6 to 2.0	1 surveys
Not Known	1 surveys
Unknown	1 surveys

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.

Audit Code: 499cc423-cb84-467b-9c4d-a8f4937588de

Petrol filling station:

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

No 20 surveys

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 20 surveys

This data displays the number of surveys within the selected set by PTAL rating category.

COVID-19 Restrictions:

No

Audit Code: 499cc423-cb84-467b-9c4d-a8f4937588de

1	AC-03-B-01	HOUSES & FLATS	CHESHIRE WEST & CHESTER
WORDSWORTH CRES. CHESTER BLACON Edge of Town Residential Zone Number of dwellings: 80.00 DWELLS Survey date: Monday 17/11/2014			
			Survey Type: Manual
2	AN-03-B-01	SEMI DETACHED	ANTRIM
RATHMORE DRIVE BELFAST NEWTONABBEY Suburban Area Residential Zone Number of dwellings: 70.00 DWELLS Survey date: Thursday 27/11/2008			
			Survey Type: Manual
3	DB-03-B-01	SEMI DETACHED	DENBIGHSHIRE
PEN-Y-MAES AVENUE RHYL Edge of Town Residential Zone Number of dwellings: 43.00 DWELLS Survey date: Tuesday 30/11/1999			
			Survey Type: Manual
4	DL-03-B-01	TERRACED	DUBLIN
ROCK ROAD DUBLIN BOOTERSTOWN Suburban Area Residential Zone Number of dwellings: 45.00 DWELLS Survey date: Wednesday 20/11/2002			
			Survey Type: Manual
5	DL-03-B-03	SEMI-DETACHED & TERRACED	DUBLIN
HOME PARK ROAD DUBLIN DRUMCONDRA Suburban Area Residential Zone Number of dwellings: 48.00 DWELLS Survey date: Tuesday 22/11/2016			
			Survey Type: Manual
6	DU-03-B-01	TERRACED BUNGALOWS	DUNDEE CITY
307-441 BALUNIE DRIVE DUNDEE DOUGLAS & ANGUS Suburban Area Residential Zone Number of dwellings: 68.00 DWELLS Survey date: Friday 21/04/2017			
			Survey Type: Manual
7	DV-03-B-01	TERRACED	DEVON
HAM DRIVE PLYMOUTH Suburban Area Residential Zone Number of dwellings: 35.00 DWELLS Survey date: Wednesday 06/07/2005			
			Survey Type: Manual

Audit Code: 499cc423-cb84-467b-9c4d-a8f4937588de

8 NEWBOLD ROCHDALE Suburban Area No Sub Category Number of dwellings: 43.00 DWELLS Survey date: Wednesday 21/10/2015	GM-03-B-01	TERRACED HOUSES	GREATER MANCHESTER	Survey Type: Manual
9 INVERNESS KINMYLIES Suburban Area No Sub Category Number of dwellings: 104.00 DWELLS Survey date: Monday 08/07/1991	HI-03-B-03	HOUSING	HIGHLAND	Survey Type: Manual
10 WHITEACRE STREET HUDDERSFIELD DEIGHTON Edge of Town Residential Zone Number of dwellings: 54.00 DWELLS Survey date: Tuesday 17/09/2013	KS-03-B-01	MIXED HOUSES	KIRKLEES	Survey Type: Manual
11 COLEMAN ROAD LEICESTER Suburban Area Residential Zone Number of dwellings: 38.00 DWELLS Survey date: Friday 22/10/2021	LR-03-B-01	SEMI-DETACHED & TERRACED	LEICESTER	Survey Type: Manual
12 LINCOLN GREEN ROAD LEEDS Suburban Area Built-Up Zone Number of dwellings: 29.00 DWELLS Survey date: Thursday 19/09/2013	LS-03-B-02	TERRACED HOUSES	LEEDS	Survey Type: Manual
13 WESTLEA BEDLINGTON Edge of Town Residential Zone Number of dwellings: 97.00 DWELLS Survey date: Monday 19/11/2012	NB-03-B-01	SEMI DET. & TERRACED	NORTHUMBERLAND	Survey Type: Manual
14 OCCUPATION ROAD CORBY Suburban Area Residential Zone Number of dwellings: 21.00 DWELLS Survey date: Wednesday 13/10/2021	NN-03-B-01	SEMI-DETACHED HOUSES	NORTH NORTHAMPTONSHIRE	Survey Type: Manual

Audit Code: 499cc423-cb84-467b-9c4d-a8f4937588de

15	SF-03-B-01	SEMI D./TERRACED	SUFFOLK
A1144 ST PETERS STREET LOWESTOFT Suburban Area No Sub Category Number of dwellings: 46.00 DWELLS Survey date: Tuesday 20/09/2005			
			Survey Type: Manual
16	SF-03-B-02	MIXED HOUSES & FLATS	SUFFOLK
OLD NORWICH ROAD IPSWICH WHITTON Edge of Town Residential Zone Number of dwellings: 60.00 DWELLS Survey date: Friday 08/11/2024			
			Survey Type: Manual
17	TI-03-B-01	MIXED HOUSES	TIPPERARY
LIMERICK ROAD NENAGH Suburban Area Residential Zone Number of dwellings: 43.00 DWELLS Survey date: Friday 27/05/2016			
			Survey Type: Manual
18	WL-03-B-01	TERRACED HOUSES	WILTSHIRE
BUTTERFIELD DRIVE AMESBURY Suburban Area Residential Zone Number of dwellings: 54.00 DWELLS Survey date: Tuesday 18/09/2018			
			Survey Type: Manual
19	WM-03-B-01	SEMI DET./TERRACED	WEST MIDLANDS
YORKMINSTER DRIVE BIRMINGHAM CHELMSLEY WOOD Edge of Town Residential Zone Number of dwellings: 97.00 DWELLS Survey date: Monday 17/10/2011			
			Survey Type: Manual
20	WO-03-B-01	TERRACED	WORCESTERSHIRE
KNOTTS AVENUE WORCESTER LYPPARD HANFORD Edge of Town Residential Zone Number of dwellings: 76.00 DWELLS Survey date: Friday 15/03/2002			
			Survey Type: Manual

DESELECTED SURVEYS

Site Ref	Survey Date	Reason for Deselection
HI-03-B-03	02-07-1991	Removed: Most Recent HI-03-B-03 08-07-1991
HI-03-B-03	03-07-1991	Removed: Most Recent HI-03-B-03 08-07-1991
HI-03-B-03	04-07-1991	Removed: Most Recent HI-03-B-03 08-07-1991
HI-03-B-03	05-07-1991	Removed: Most Recent HI-03-B-03 08-07-1991
LS-03-B-01	18-09-2007	Removed: Site re-surveyed by LS-03-B-02

Audit Code: 499cc423-cb84-467b-9c4d-a8f4937588de

TRIP RATE for Land Use 03 - RESIDENTIAL/B - AFFORDABLE/LOCAL AUTHORITY HOUSES

Total Vehicles

Calculation factor: 1 DWELLS

*BOLD print indicates peak (busiest) period

Time Range	No. Days	Ave. DWELLS	Arrivals	Departures	Totals
00:00-01:00	1	104	0.048	0.029	0.077
01:00-02:00	1	104	0.019	0.010	0.029
02:00-03:00	1	104	0.010	0.010	0.020
03:00-04:00	1	104	0.000	0.010	0.010
04:00-05:00	1	104	0.019	0.019	0.038
05:00-06:00	1	104	0.029	0.038	0.067
06:00-07:00	1	104	0.029	0.058	0.087
07:00-08:00	20	58	0.070	0.185	0.255
08:00-09:00	20	58	0.149	0.298	0.447
09:00-10:00	20	58	0.180	0.206	0.386
10:00-11:00	20	58	0.163	0.166	0.329
11:00-12:00	20	58	0.159	0.158	0.317
12:00-13:00	20	58	0.186	0.162	0.348
13:00-14:00	20	58	0.176	0.167	0.343
14:00-15:00	20	58	0.206	0.210	0.416
15:00-16:00	20	58	0.271	0.199	0.470
16:00-17:00	20	58	0.296	0.170	0.466
17:00-18:00	20	58	0.310	0.212	0.522
18:00-19:00	20	58	0.192	0.162	0.354
19:00-20:00	2	74	0.238	0.143	0.381
20:00-21:00	2	74	0.150	0.129	0.279
21:00-22:00	1	104	0.221	0.183	0.404
22:00-23:00	1	104	0.115	0.087	0.202
23:00-00:00	1	104	0.087	0.058	0.145
Total Rates:			3.323	3.069	6.392

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

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

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Audit Code: 499cc423-cb84-467b-9c4d-a8f4937588de

Parameter Summary:

Trip rate parameter range selected:	20 - 120 (units: DWELLS)
Survey date date range:	08/07/1991 - 08/11/2024
Number of weekdays (Monday-Friday):	20
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	5
Surveys manually removed from selection:	0

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

Appendix E
Junctions 11 Modelling Outputs

Junctions 11					
PICADY 11 - Priority Intersection Module					
Version: 11.1.1.2424					
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+44 (0)1344 379777 software@trl.co.uk trlsoftware.com					
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Filename: Hunsworth Lane Site Access.j11
Path: C:\Users\ConnorFish\Documents
Report generation date: 23/09/2026 16:13:47

»D1 - 2031 | Design | AM
 »D2 - 2031 | Design | PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2031 - Design										
Stream B-AC	D1	0.0	7.50	0.04	A	D2	0.0	7.52	0.03	A
Stream C-AB		0.0	5.71	0.00	A		0.0	5.78	0.01	A

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

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

File summary

File Description

Title	
Location	
Site number	
Date	17/09/2026
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	AzureAD\ConnorFish
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

PICADY short flare model	Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 11.1			0.85	36.00	20.00

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2031	Design	AM	ONE HOUR	00:00	01:30	15
D2	2031	Design	PM	ONE HOUR	00:00	01:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

D1 - 2031 | Design | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	1 - untitled	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way	1.03	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.03	A

Arms

Arms

Arm	Name	Description	Arm type
A	Hunsworth Lane (E)		Major
B	Access Road		Minor
C	Hunsworth Lane (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Hunsworth Lane (W)	7.37			55.1	✓	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 - Access Road	One lane	3.21	22	16

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	503	0.087	0.219	0.138	0.313
B-C	648	0.093	0.235	-	-
C-B	606	0.221	0.221	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2031	Design	AM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Hunsworth Lane (E)		✓	64	100.000
B - Access Road		✓	20	100.000
C - Hunsworth Lane (W)		✓	74	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Hunsworth Lane (E)	B - Access Road	C - Hunsworth Lane (W)
From	A - Hunsworth Lane (E)	0	8	56
	B - Access Road	16	0	4
	C - Hunsworth Lane (W)	72	2	0

Vehicle Mix

Heavy Vehicle %

	To			
		A - Hunsworth Lane (E)	B - Access Road	C - Hunsworth Lane (W)
From	A - Hunsworth Lane (E)	0	0	0
	B - Access Road	0	0	0
	C - Hunsworth Lane (W)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.04	7.50	0.0	A
C-AB	0.00	5.71	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	0.00	510	0.030	15	0.0	7.273	A
C-AB	2	0.00	632	0.003	2	0.0	5.714	A
C-A	54	0.00			54			
A-B	6	0.00			6			
A-C	42	0.00			42			

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	0.00	506	0.036	18	0.0	7.368	A
C-AB	2	0.00	637	0.003	2	0.0	5.672	A
C-A	65	0.00			65			
A-B	7	0.00			7			
A-C	50	0.00			50			

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	0.00	502	0.044	22	0.0	7.500	A
C-AB	3	0.00	644	0.004	3	0.0	5.614	A
C-A	79	0.00			79			
A-B	9	0.00			9			
A-C	62	0.00			62			

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	0.00	502	0.044	22	0.0	7.500	A
C-AB	3	0.00	644	0.004	3	0.0	5.614	A
C-A	79	0.00			79			
A-B	9	0.00			9			
A-C	62	0.00			62			

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	0.00	506	0.036	18	0.0	7.369	A
C-AB	2	0.00	637	0.003	2	0.0	5.674	A
C-A	65	0.00			65			
A-B	7	0.00			7			
A-C	50	0.00			50			

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	0.00	510	0.030	15	0.0	7.280	A
C-AB	2	0.00	632	0.003	2	0.0	5.714	A
C-A	54	0.00			54			
A-B	6	0.00			6			
A-C	42	0.00			42			

D2 - 2031 | Design | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	1 - untitled	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way	0.67	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.67	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2031	Design	PM	ONE HOUR	00:00	01:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Hunsworth Lane (E)		✓	104	100.000
B - Access Road		✓	14	100.000
C - Hunsworth Lane (W)		✓	79	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A - Hunsworth Lane (E)	B - Access Road	C - Hunsworth Lane (W)
	A - Hunsworth Lane (E)	0	16	88
	B - Access Road	11	0	3
	C - Hunsworth Lane (W)	75	4	0

Vehicle Mix

Heavy Vehicle %

	To			
From		A - Hunsworth Lane (E)	B - Access Road	C - Hunsworth Lane (W)
	A - Hunsworth Lane (E)	0	0	0
	B - Access Road	0	0	0
	C - Hunsworth Lane (W)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.03	7.52	0.0	A
C-AB	0.01	5.78	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	11	0.00	505	0.021	10	0.0	7.280	A
C-AB	3	0.00	627	0.005	3	0.0	5.775	A
C-A	56	0.00			56			
A-B	12	0.00			12			
A-C	66	0.00			66			

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	13	0.00	500	0.025	13	0.0	7.378	A
C-AB	4	0.00	631	0.006	4	0.0	5.743	A
C-A	67	0.00			67			
A-B	14	0.00			14			
A-C	79	0.00			79			

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	0.00	494	0.031	15	0.0	7.519	A
C-AB	5	0.00	637	0.008	5	0.0	5.700	A
C-A	82	0.00			82			
A-B	18	0.00			18			
A-C	97	0.00			97			

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	0.00	494	0.031	15	0.0	7.519	A
C-AB	5	0.00	637	0.008	5	0.0	5.702	A
C-A	82	0.00			82			
A-B	18	0.00			18			
A-C	97	0.00			97			

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	13	0.00	500	0.025	13	0.0	7.382	A
C-AB	4	0.00	631	0.006	4	0.0	5.746	A
C-A	67	0.00			67			
A-B	14	0.00			14			
A-C	79	0.00			79			

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	11	0.00	505	0.021	11	0.0	7.283	A
C-AB	3	0.00	627	0.005	3	0.0	5.777	A
C-A	56	0.00			56			
A-B	12	0.00			12			
A-C	66	0.00			66			



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