BRYAN G HALL

CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

Proposed Residential Development Hemingfield, Barnsley

Transport Assessment

February 2024

PROPOSED RESIDENTIAL DEVELOPMENT
HEMINGFIELD, BARNSLEY

PTARMIGAN LAND NORTH LTD

TRANSPORT ASSESSMENT

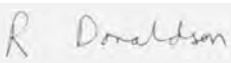
Report by: Robbie Donaldson

Bryan G Hall
Consulting Civil & Transportation Planning Engineers
Suite E15, Joseph's Well, Hanover Walk, Leeds, LS3 1AB

Ref: 23-160-001.03

February 2024

Report Reference No: 23-160-001.03

	Name	Signed	Date
Report prepared by	Robbie Donaldson		06/02/2024
Report checked by	Martin Crabtree		06/02/2024
Overview by	Stuart Wilkins		06/02/2024

CONTENTS

APPENDICES

Appendix BGH1	Site Location Plan
Appendix BGH2	Illustrative Masterplan (drawing number: 2344:01)
Appendix BGH3	Survey Location Plans
Appendix BGH4	2023 Existing Traffic Flows
Appendix BGH5	Junction Model Outputs
Appendix BGH6	Personal Injury Collision Data
Appendix BGH7	Walking TRACC Accessibility Plan (drawing number: 23/160/ACC/001)
Appendix BGH8	Cycling TRACC Accessibility Plan (drawing number: 23/160/ACC/002)
Appendix BGH9	Public Transport TRACC Accessibility Plans (drawing number: 23/160/ACC/003 & 23/160/ACC/004)
Appendix BGH10	Proposed Vehicular and Pedestrian Access from Hemingfield Road (drawing number: 23/160/SKH/007 Rev C)
Appendix BGH11	Swept Path Analysis – Proposed Site Access (drawing number: 23/160/ATR/001)
Appendix BGH12	TRICS Data
Appendix BGH13	Trip Distribution Percentages
Appendix BGH14	Development Generated Traffic Flows
Appendix BGH15	2029 Growthed Traffic Flows
Appendix BGH16	2029 Committed Development Traffic Flows
Appendix BGH17	2029 Base Traffic Flows
Appendix BGH18	2029 Predicted Traffic Flows
Appendix BGH19	Development Generated Traffic Flows (Sensitivity Test)
Appendix BGH20	Predicted Traffic Flows (Sensitivity Test)

1.0 INTRODUCTION

Background

1.1 This Transport Assessment (TA) has been prepared by Bryan G Hall on behalf of Ptarmigan Land North Ltd to support an application for outline planning permission for a proposed residential development, on land between Hemingfield Road and the A6195 Dearne Valley Parkway in Hemingfield, Barnsley.

Site Location and Development Proposals

1.2 The site is located within Hemingfield which forms part the Principal Town of Hoyland as defined in the Barnsley Local Plan Settlement Hierarchy. It is located approximately 6.5 kilometres to the south-east of the centre of Barnsley. At present, the site is mostly undeveloped land which is used for agricultural purposes. At the south-western extents of the site are agricultural buildings associated with Hilltop Farm and the former Billy's Hill Farm Shop. The site is bound to the north by a line of trees and the A6195 Dearne Valley Parkway, to the east by existing undeveloped agricultural land, to the south by Hemingfield Road and Briery Meadows and to the west by Hemingfield Road and a further line of trees.

1.3 A site location plan is provided at Figure 1.1 and is also attached at **Appendix BGH1**.

Figure 1.1 - Site Location

©2024 Google

1.4 The development proposals seek to provide a new residential development on the site, with associated infrastructure and open space. The description of the development for the planning application is as follows:

> *"Application for outline planning permission for the demolition of existing structures and the erection of residential dwellings with associated infrastructure and open space. All matters reserved except for means of access to, but not within, the site."*

1.5 The outline application will be for the erection of residential dwellings and identify the means of access into the site, however, the layout and access arrangements within the site itself will be considered at reserved matters stage.

1.6 Vehicular access to the site will be provided via a new right turn ghost island priority junction from Hemingfield Road at the western site boundary. There will also be a pedestrian access point onto Hemingfield Road at the southern site boundary, together with Briery Meadows and Garden Grove, via existing Public Rights of Way (PRoW) and also a pedestrian access to the underpass beneath Dearne Valley Parkway to the north. A plan showing an illustrative site layout is provided at **Appendix BGH2**.

1.7 The site forms part of a wider area of land which is identified in the Barnsley Local Plan as safeguarded land for future development. The safeguarded land is known as site SL6 'Land North East of Hemingfield', with an area of 18.2 hectares. The proposed development site is located broadly on the western third of the wider safeguarded land.

Pre-Application Discussions

1.8 The applicant submitted a pre-application advice request to Barnsley Metropolitan Borough Council (BMBC) in November 2023. Subsequently, a pre-application meeting was held with Officers of BMBC on 13th December 2023, which was attended by a Highways Officer and a PRoW Officer. The minutes from the meeting were issued to the Highways Officer and a PRoW Officer who attended the meeting. At the time of writing, the response to the pre-application meeting and BMBC's formal written pre-application advice has not yet been received. However, the scoping points discussed during the meeting relating to the proposed site access arrangement, traffic impact and the treatment of the existing PRoW through the site have been taken into account as part of this TA.

Report Structure

1.9 This TA has been prepared with reference to the Government's web-based resource 'Planning Practice Guidance' and consistent with the approach of the NPPF (in particular, section 9). It considers the current usage of the local highway network and assesses its suitability to accommodate traffic that is likely to be generated by the proposed development. The TA considers the historic road safety record of the highway network in the vicinity of the site and shows that the site is in a safe and sustainable location, which will provide access by modes other than the private car, i.e. active travel and public transport. It also provides information on the proposed site access, future servicing arrangements and on site parking provision.

1.10 Following this introduction, the TA is split into the following sections:

Section 2: sets out the relevant transport-related planning policies and guidance;

Section 3: provides a description of the site and the highway network in the vicinity of the proposed development. This section also considers the current traffic use and road safety characteristics of the local highway network;

Section 4: describes the accessibility of the site in terms of sustainable and active modes of transport;

Section 5: describes the development proposals and the means of access;

Section 6: sets out the vehicle trips likely to be generated by the development proposals and distributes these onto the local highway network;

Section 7: provides details of the forecasted background traffic growth applied, taking into account committed development;

Section 8: assesses the impact of the traffic generated by the proposed development on the local highway network in the vicinity of the site; and

Section 9: provides a summary and draws the conclusions of the TA.

1.11 In addition to this TA, a Travel Plan (TP) has been produced to support the application and should be read in conjunction with this TA.

2.0 RELEVANT LOCAL AND NATIONAL POLICY

National Planning Policy Framework (NPPF)

2.1 The National Planning Policy Framework (NPPF) was most recently revised in December 2023. It sets out the Government's planning policies for England and how these should be applied.

2.2 Paragraph 114 of the NPPF states that:

> *"In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:*
>
> *a) Appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
> *b) Safe and suitable access to the site can be achieved for all users;*
> *c) The design of streets, parking areas, other transport elements and the content of associated 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."*

2.3 Paragraph 115 of the NPPF 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."*

2.4 Paragraph 116 of the NPPF goes on to state:

> *"Within this context, applications for development should:*
>
> *a) Give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;*
> *b) Address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*

c) *Create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*
d) *Allow for the efficient delivery of goods, and access by service and emergency vehicles; and*
e) *Be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations."*

2.5 Paragraph 117 also states that developments that will generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment, so that the likely impacts of the proposal can be assessed. The application for this site includes this TA, which is line with this requirement.

Planning Practice Guidance

2.6 In 2014, the Government released a number of updated Planning Practice Guidance (PPG) Notes linked to the NPPF. The aim of the PPG Notes is to help simplify the planning system in England and replace a number of historic guidance notes.

2.7 The updated PPG Notes cover Transport in two sections, the first being 'Transport evidence bases in plan making' and the second being 'Travel plans, transport assessments and statements in decision taking'. The latter refers to Transport Assessments, Transport Statements and Travel Plans as ways of assessing and mitigating negative transport impacts of development, in order to promote sustainable development. This TA has been prepared in line with the key principles set out in the PPG Notes. A TP has also been prepared for submission alongside the planning application.

Manual for Streets

2.8 Although they do not form part of planning policy, Manual for Streets (2007) and Manual for Streets 2 (2010) provide national guidance on the design, construction, adoption and maintenance of urban streets, particularly residential streets. This guidance is referred to within this TA, particularly in relation to visibility provision for the proposed site access arrangements.

Active Travel England

2.9 Active Travel England is the Government's executive agency responsible for improving active travel. It is likely that Active Travel England will be consulted as part of the planning application process and the Active Travel England Standing Advice Note: Active Travel and Sustainable Development has been considered in the production of this report and the supporting Travel Plan.

Local Policy

Barnsley Local Plan 2019-2033

2.10 The Barnsley Local Plan was adopted in January 2019 and sets out how BMBC will manage the physical development of the borough. It is a key part of the statutory development plan and informs decisions on planning applications.

2.11 The following key policies set out within the Barnsley Local Plan are relevant to highways and transport and the proposed development:

- Policy SD1 Presumption in favour of Sustainable Development – this policy reflects the positive approach set out in the NPPF.

- Policy GD1 General Development – sets out, inter alia, that development proposals will be approved if adequate access and internal road layouts are provided and appropriate vehicular and pedestrian links are provided through the site and into adjacent areas.

- Policy T3 New Development and Sustainable Travel – sets out that new development will be expected to be designed to reduce the need to travel, be accessible to public transport and meet the needs of pedestrians and cyclists, including the provision of suitable cycle parking. A Transport Statement or Assessment and Travel Plan should be provided in line with the NPPF.

- Policy T4 New development and Transport Safety – sets out that new development should be designed to provide all transport users within and surrounding the site with safe, secure and convenient access and movement.

- Policy GS2 Green Ways and Public Rights of Way – sets out that where development affects an existing Public Right of Way, it must protect the existing route within the development or include an equally convenient and attractive alternative route.

2.12 It is considered that the proposed development is aligned to the key policies, where appropriate, given it is an application for outline planning permission, and the contents of this document provide the information required at this stage. Given that it is an application for outline planning permission, further information would be provided at the subsequent reserved matters stage.

Barnsley's Transport Strategy

2.13 Barnsley's Transport Strategy outlines BMBC's commitment to improve transport options and reduce the negative impacts of travel on the borough. It identifies key improvements needed for the 10 year period from 2020 to 2030 to help deliver BMBC's vision, many of which relate to improvements which facilitate active travel and reduce motor vehicle dominance.

Active Travel in Barnsley (2019 – 2033)

2.14 Barnsley's Active Travel strategy aims to make active travel modes an attractive and realistic choice for short journeys, involving the development and promotion of accessible, safe and well planned active travel opportunities.

Barnsley's Supplementary Planning Documents

2.15 Following the adoption of the Local Plan in 2019, BMBC produced a number of Supplementary Planning Documents (SPDs). The following SPDs have been considered as part of the preparation of this TA and the accompanying TP:

- Design of Housing Development (adopted July 2023) – sets out the principles that will apply to planning applications for new housing development, including the design of streets, parking and public rights of way. The SPD frequently refers to relevant design guidance the South Yorkshire Residential Design Guide and Manual for Streets.

- Sustainable Travel (adopted July 2022) – supplements the sustainable travel related policies of the Local Plan to ensure that accessibility of new development via public transport, walking and cycling is acceptable.

- Parking (adopted November 2019) – sets out the parking standards applied to new development in Barnsley.

South Yorkshire Residential Design Guide

2.16 Although not forming part of planning policy, the South Yorkshire Residential Design Guide provides guidance on the design of residential development, which is referred to within this TA, as appropriate.

2.17 The illustrative scheme and access arrangements included with the application is consistent with national and local policy and when further information is provided during the reserved matters stage the development will be fully aligned to the local policy requirements .

3.0 THE APPLICATION SITE AND EXISTING HIGHWAY NETWORK

The Application Site

3.1 The site is located within the village of Hemingfield, which is located approximately 6.5 kilometres to the south of Barnsley town centre. At present, the site is mostly undeveloped land which is used for agricultural purposes. At the south-western extents of the site are agricultural buildings associated with Hilltop Farm and the former Billy's Hill Farm Shop.

3.2 The site is bound to the north by a line of trees and the A6195 Dearne Valley Parkway, to the east by existing undeveloped agricultural land, to the south by Hemingfield Road and Briery Meadows and to the west by Hemingfield Road and a further line of trees.

3.3 There is currently one main existing vehicular access to the existing agricultural buildings and former farm shop on the site, which is from Hemingfield Road at the southern site boundary. The access is in the form of a vehicular dropped crossing over the footway on the northern side of Hemingfield Road, which provides access to the site via a 5.9 metre wide gated gap in the existing stone wall, which runs along the site boundary in this location.

3.4 A second existing gated vehicular access to the site is located around 25 metres to the west of the main access. This is also a vehicular dropped crossing over the footway on the northern side of Hemingfield Road, which provides access to the site via a 4.3 metre wide gated gap in the existing stone wall. However, at present the second access is gated shut and obstructed and not currently in use. The location of these accesses is shown in Figure 3.1.

Figure 3.1 – Existing Site Access Arrangements

©2024 Google

The Existing Highway Network

3.5 Hemingfield Road is a two-way, single carriageway road which runs in an east to west alignment along the southern site boundary. In the vicinity of the existing site access points, the carriageway is a minimum of 7.3 metres wide, with footways on both sides of the carriageway which are typically around 2 metres wide. The road has a speed limit of 30mph and street lighting is in place in the vicinity of the site.

3.6 To the west of the main existing site access, Hemingfield Road provides frontage access to residential dwellings on the southern side of the carriageway, as well as access to two small cul-de-sacs. The first cul-de-sac, Mellwood Grove, forms a junction with Hemingfield Road around 25 metres to the west of the existing main site access. The second cul-de-sac is also known as Hemingfield Road and meets the main Hemingfield Road around 50 metres to the west of Mellwood Grove.

3.7 Approximately 80 metres to the west of the main existing access, in the vicinity of the Hemingfield Road cul-de-sac, the main Hemingfield Road curves to the north, continuing on a north to south alignment along the western site boundary. After the bend, Hemingfield Road continues to provide frontage access to dwellings on the western side of the carriageway. On street parking associated with these dwellings takes place on the western side of the carriageway. The footways initially continue around the curve along both sides of the carriageway. The footway on the eastern site side continues for around 80 metres to the north of the Hemingfield Road cul-de-sac, where it terminates and is replaced with a verge containing dense vegetation and trees. An uncontrolled pedestrian crossing point with dropped kerb is provided in this location to allow pedestrians to continue north using the footway on the western side of Hemingfield Road.

3.8 Approximately 115 metres to the north of the point where the footway on the eastern side of the carriageway terminates, Hemingfield Road forms the major arm of a priority T-junction with a further road named Hemingfield Road, on the western side of the carriageway. Following a short east/west link around 25 metres long, the minor arm of Hemingfield Road runs north/south parallel to the major arm. It provides access to further residential properties on the west side of the carriageway, and a footway is provided along this section. Around 55 metres to the south of the east/west link, the carriageway of this section of Hemingfield Road terminates, however the footway continues and merges with the existing footway along the west side of the main Hemingfield Road.

3.9 Around 60 metres to the north of the east/west link, this section of Hemingfield Road terminates for vehicles. To the north of this point, the carriageway narrows significantly and there are bollards in place to prevent vehicle access, but to allow

cycle access alongside the footway beneath the A6195 Dearne Valley Parkway via a lit underpass, adjacent to Hemingfield Road Roundabout.

3.10 Returning to the T-junction with Hemingfield Road, approximately 90 metres to the north of the junction, Hemingfield Road meets the A6195 Dearne Valley Parkway to form the Hemingfield Road Roundabout. A footway continues along the western side of the major arm of Hemingfield Road between the T-junction and the roundabout. Hemingfield Road itself serves as the southern arm of the four arm Hemingfield Road Roundabout. The A6195 Dearne Valley Parkway forms the eastern and western arms and the continuation of Hemingfield Road forms the north-western arm. Uncontrolled pedestrian crossing points with dropped kerbs and splitter islands are provided on all four arms, however there is no footway provision on the A6195 Dearne Valley Parkway to the east and west of Hemingfield Road Roundabout.

3.11 The A6195 Dearne Valley Parkway is a dual carriageway road that runs in an east / west alignment, and serves as a major link between the M1 Junction 36, located approximately 4.7 kilometres to the south-west of the site, and areas to the south-east of Barnsley, including Hemingfield. The A6195 Dearne Valley Parkway consists of several at-grade roundabouts, is subject to the national speed limit, and street lighting is in place in the vicinity of the site and the Hemingfield Road Roundabout.

3.12 Between the Hemingfield Road Roundabout and the M1 Junction 36, the A6195 Dearne Valley Parkway provides direct connectivity to large employment areas such as Shortwood and Ashroyd Business Parks. To the east of Hemingfield Road Roundabout, the A6195 Dearne Valley Parkway provides access to towns and villages such as Brampton and the southern part of Wombwell. It also provides access to Cortonwood Retail Park around 1.5 kilometres to the east of the site.

3.13 Returning to the Hemingfield Road Roundabout, the continuation of Hemingfield Road to the north-west is in the form of a two-way single carriageway, initially subject to the national speed limit but reducing to a 30mph speed limit with street lighting in place. Around 25 metres to the north-west of the roundabout, the previously described footway/cycleway which passes under the A6195 Dearne Valley Parkway to the west of the roundabout, joins the footway on the south-western side of Hemingfield Road (North), with a dropped kerb provided for cycle access to and from the carriageway.

3.14 After a further 15 metres, Hemingfield Road (North) passes over the Hallam and Penistone railway line via a bridge, where the speed limit reduces to 30mph. Immediately after the Hemingfield Road Roundabout, there is a footpath on the

western side of the road. However, approximately 25 metres to the north of the bridge, a footway is also provided on the north-eastern side of Hemingfield Road (North), where a pedestrian crossing point with dropped kerbs and tactile paving is provided. Hemingfield Road (North) provides a connection to the town of Wombwell to the north of the site, including Wombwell railway station, which is located around 500 metres to the north-west of the Hemingfield Road Roundabout.

3.15 Returning to the main existing site access with Hemingfield Road, at the southern site boundary, around 30 metres to the east of this point, Hemingfield Road curves around to the south. On the outside of this curve, Hemingfield Road forms the major arm of a priority T-junction with Briery Meadows, which includes a right-turn lane for traffic turning into Briery Meadows. Briery Meadows is a residential access road that runs along the southern site boundary, broadly in an east to west alignment. It is a cul-de-sac which terminates after around 150 metres.

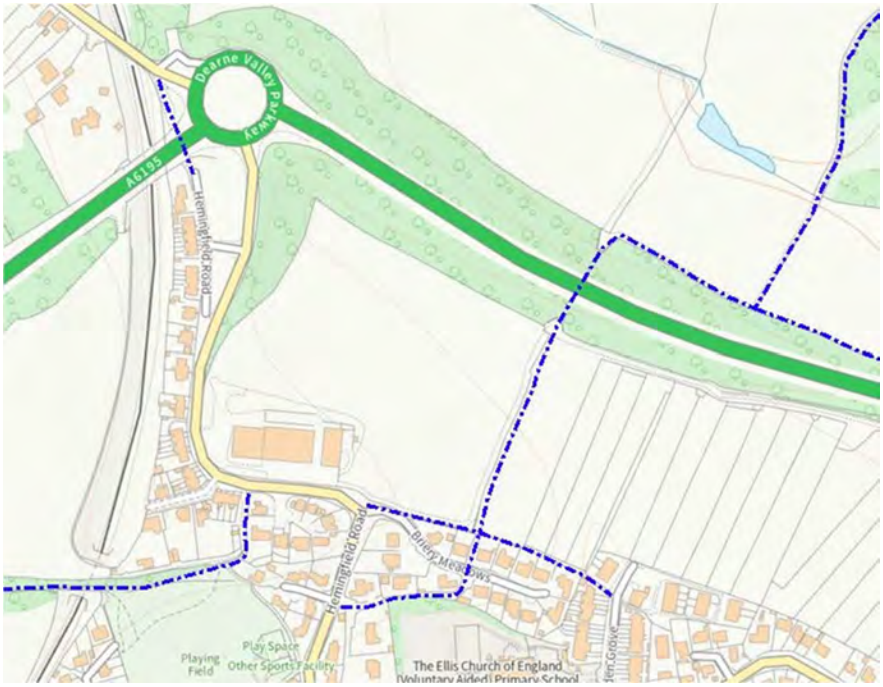
3.16 Approximately 200 metres to the south of the junction with Briery Meadows, Hemingfield Road curves around to the east and meets Cemetery Road by way of a priority T-junction just after the curve, with the junction on the southern side of the carriageway. Hemingfield Road becomes School Street immediately to the east of the Cemetery Road junction, forming a priority T-junction with Tingle Bridge Lane around 230 metres to the east of Cemetery Road and continuing as Beech House Road out of Hemingfield to the east, passing under the A6195 Dearne Valley Parkway and towards the southern extents of Wombwell.

3.17 The speed limit of Hemingfield Road through Hemingfield is 30mph and street lighting is provided. Hemingfield Road, School Street and Cemetery Road have footways to both sides of the carriageway and provide access to properties on both sides, including direct frontage access and further access via cul-de-sacs. Cemetery Road also provides access to various local shops and amenities in Hemingfield, and continues to the south-west, providing access to the neighbouring village of Jump.

Public Rights of Way

3.18 There are two existing PRoWs which pass through the site, as shown by the blue dashed lines in the screenshot of BMBC's online PRoW map at Figure 3.2.

Figure 3.2 – Public Rights of Way in the vicinity of the Site



3.19 The first PRoW (Footpath No. 17) traverses directly through the proposed development site along a north to south alignment. At the northern site boundary, Footpath No. 17 passes under the A6195 Dearne Valley Parkway via an underpass. This provides an alternative pedestrian access route to Wombwell to the north of the site and Cortonwood Retail Park to the east, via other connecting PRoWs. The underpass also provides private vehicular access to the fields on the northern side of the A6195 Dearne Valley Parkway, approximately 700 metres to the south-east of the underpass, which provides a circular walking route for leisure back into Hemingfield via the pedestrian footbridge over the Dearne Valley Parkway located to the east.

3.20 At the southern site boundary, Footpath No. 17 meets Footpath No. 18, a further PRoW which runs along the southern site boundary along an east to west alignment, facilitating pedestrian access between Hemingfield Road/Briery Meadows and Garden Grove to the east. Footpath 17 continues beyond the site boundary onto and across Briery Meadows and then through to Ellis Court to the south of the site.

3.21 Both existing PRoWs through the site are to be retained along their current alignment, with further details on this provided in Section 5.0.

Traffic Surveys

3.22 In order to determine the peak hour usage of the local highway network, traffic surveys were undertaken on Tuesday 27th June 2023 between the hours of 7:00am – 10:00am and 2:00pm - 7:00pm. These time periods, which represented normal conditions, were chosen to ensure that the weekday morning and evening peak hours were fully captured for consideration in this TA. The surveys recorded fully classified turning counts in 15-minute intervals at the following locations, as illustrated on the survey location plans at **Appendix BGH3**:

1. Hemingfield Road Roundabout;
2. Briery Meadows/ Hemingfield Road priority T-junction; and,
3. Cemetery Road/ School Street priority T-junction.

3.23 It has been identified from the raw traffic survey data that the weekday morning peak hour occurred between 8:00am and 9:00am and the weekday evening peak hour occurred between 4:00pm and 5:00pm. Traffic flow diagrams showing the 2023 existing peak hour traffic flows on the local highway network are attached at **Appendix BGH4**.

3.24 Two Automatic Traffic Counters (ATCs) were also put in place to collect traffic and speed data, for 7 days from Tuesday 9th January 2024 to Monday 15th January 2024. The locations of the two ATCs are shown on the survey location plans at **Appendix BGH3**. The ATC data has been used to determine 85th percentile vehicle speeds on Hemingfield Road on which to base the visibility provision at the proposed site access junction, as detailed in Section 5.0 of this TA.

2023 Existing Operational Assessment

3.25 As explained further in Section 7.0, the impact of development traffic on the Hemingfield Road Roundabout has been assessed, as this is the only junction, other than the site access, where the proposed development generated trips are anticipated to exceed 30 additional two-way trips in the peak hours. This is the threshold for assessment which was agreed with BMBC during the pre-application meeting.

Hemingfield Road Roundabout

3.26 The existing operation of the Hemingfield Road Roundabout has been assessed using the ARCADY element of the TRL industry standard modelling software package, Junctions 9. The geometric parameters used to build the traffic model have been measured from Ordnance Survey mapping.

3.27 The results of the modelling are summarised in Table 3.1 below and the full model outputs are attached at **Appendix BGH5**.

3.28 The Ratio of Flow to Capacity (RFC) results are provided for the junction. The RFC is a measure which is commonly used to judge the acceptability of new junction designs and also existing junctions in relation to predicting how they will operate. At existing junctions in urban areas, an RFC value of 1.00 is generally used to identify a junction operating at capacity. An RFC value of less than 0.85 is typically used to indicate that a new junction is predicted to operate at a satisfactory level of performance. For junctions operating with RFC's between 0.85 and 1.0 it is normal practice to give further consideration to the operation of the junction. The maximum queues are presented in Passenger Car Unit (PCU) format, with a PCU length equating to 5.75 metres.

Table 3.1: 2023 Existing Operational Assessment
Hemingfield Road Roundabout

Movement	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	RFC	Queue (PCU)	RFC	Queue (PCU)
A6195 Dearne Valley Parkway (East)	0.43	1	0.62	2
Hemingfield Road (South)	0.21	0	0.19	0
A6195 Dearne Valley Parkway (West)	0.45	1	0.56	1
Hemingfield Road (North)	0.28	0	0.30	0

3.29 It can be seen from Table 3.1 that the junction currently operates with a maximum RFC of 0.62, occurring on the A6195 Dearne Valley Parkway (East) arm during the weekday evening peak hour, with an associated queue of two vehicles. It is therefore clear from the model results that the Hemingfield Road Roundabout is currently operating well within capacity.

Personal Injury Collisions

3.30 The record of personal injury collisions (PICs) that have occurred on the local highway network has been requested from BMBC for the most recent 5 year period available. The data provided is for the 69 month period from 1st January 2018 to 17th September 2023 and is attached at **Appendix BGH6.**

3.31 The data shows that during the 69 month period, there have been a total of 4 PICs within the study area, 3 of which have been classified as slight in severity with 1 fatality.

Cemetery Road

3.32 The PIC data shows that 1 fatal PIC has been recorded on Cemetery Road during the study period, at the junction with Lady Croft Lane. This involved a collision between a motorcycle travelling ahead on Cemetery Road south-westbound and a car turning right into Lady Croft Lane.

3.33 Whilst of course any PIC is regrettable, it appears as though this was an isolated incident and so does not indicate any inherent road safety issues with the operation of the Lady Croft Lane/Cemetery Road junction.

Hemingfield Road Roundabout

3.34 3 PICs have been recorded at the Hemingfield Road Roundabout, all of which have been classed as slight. The first PIC occurred when a driver travelling along the A6195 Dearne Valley Parkway (eastern arm) towards the Hemingfield Road Roundabout suffered a medical episode at the wheel. The car subsequently travelled onto the roundabout and made contact with another vehicle.

3.35 The second slight PIC occurred when a car and motorbike made contact whilst exiting the Hemingfield Road Roundabout onto the A6195 Dearne Valley Parkway (western arm).

3.36 The third slight PIC took place on the A6195 Dearne Valley Parkway (eastern arm) approach to the Hemingfield Road Roundabout, when a goods vehicle changed lanes to overtake a car which had not set off on the approach to the roundabout, resulting in a collision with another car.

Proposed Site Access

3.37 The PIC data shows that no PICs were recorded on Hemingfield Road in the vicinity of the proposed site access junction, which is approximately 210 metres to the south of the Hemingfield Road Roundabout. The proposed site access is detailed further in Section 5.0 of this TA.

Summary

3.38 The above analysis indicates that in the 69 month period considered, 4 recorded PICs have occurred on the road network in the vicinity of the site, equating to less than 1 PIC per year. Whilst the data shows that 3 PICs occurred at Hemingfield Road

Roundabout, these PICs were all different in nature and so do not indicate that there are any inherent road safety issues at the junction.

3.39 Following the review of the PIC data for the highway network in the vicinity of the site, it is concluded that the highway network is operating satisfactorily at present with no recurring causation factors associated with PICs at any single location. The analysis has not revealed any existing road safety issues which would be exacerbated by the proposed development traffic.

4.0 ACCESS BY SUSTAINABLE TRANSPORT

4.1 The national and local transport policies summarised in Section 2.0 seek to reduce the need to travel by private car and to promote travel by other means. A review of the accessibility of the site by walking, cycling and using public transport has been undertaken as follows.

Walking

4.2 With regard to pedestrian provision at new developments, guidance is set out within the Chartered Institution of Highways and Transportation (CIHT) document 'Planning for Walking' (March 2015) and describes how approximately 80% of all journeys, shorter than 1 mile (1.6 kilometres), are made wholly on foot. If destinations are within a convenient walking distance, people are more likely to walk if it is safe, comfortable, and the surrounding environment is attractive. Walking is also regarded as an essential part of public transport travel, as bus stops are usually accessed on foot.

4.3 Further guidance within the earlier CIHT Publication 'Guidelines for Providing for Journeys on Foot' (2000) sets out the suggested acceptable walking distances for pedestrians without any mobility impairment. The recommended desirable, acceptable and preferred maximum walking distances for commuting/school and other journeys, such as retail/shopping, are shown in Table 4.1.

Table 4.1: Recommended Walking Distances

	Trip Purpose	
	Commuting/School	**Other Journeys (Retail/Shopping)**
Desirable	500 metres	400 metres
Acceptable	1,000 metres	800 metres
Preferred Maximum	2,000 metres	1,200 metres

4.4 Table 4.1 show that the preferred maximum walking distance for 'commuting / school' journeys is 2,000 metres (2.0 kilometres) and the preferred maximum walking distance for other journeys is 1,200 metres (1.2 kilometres) . A walking catchment plan which illustrates the destinations accessible within a maximum 2.0 kilometres walking distance from the centre of the site, in 400 metre intervals, has

been prepared using the TRACC accessibility software. The walking catchment plan is attached at **Appendix BGH7.**

4.5 The walking catchment plan reflects the four points of pedestrian access to the site which are proposed. Pedestrian access to the site will be provided from Hemingfield Road via footways along both sides of the vehicular site access and a separate pedestrian only access on the southern boundary. Further pedestrian access to the site will be provided through the retention of the existing PRoW connections into the site from Briery Meadows and Garden Grove. Further details on the pedestrian access proposals are provided in Section 5.0, with further details on the existing PRoW provided in Section 3.0.

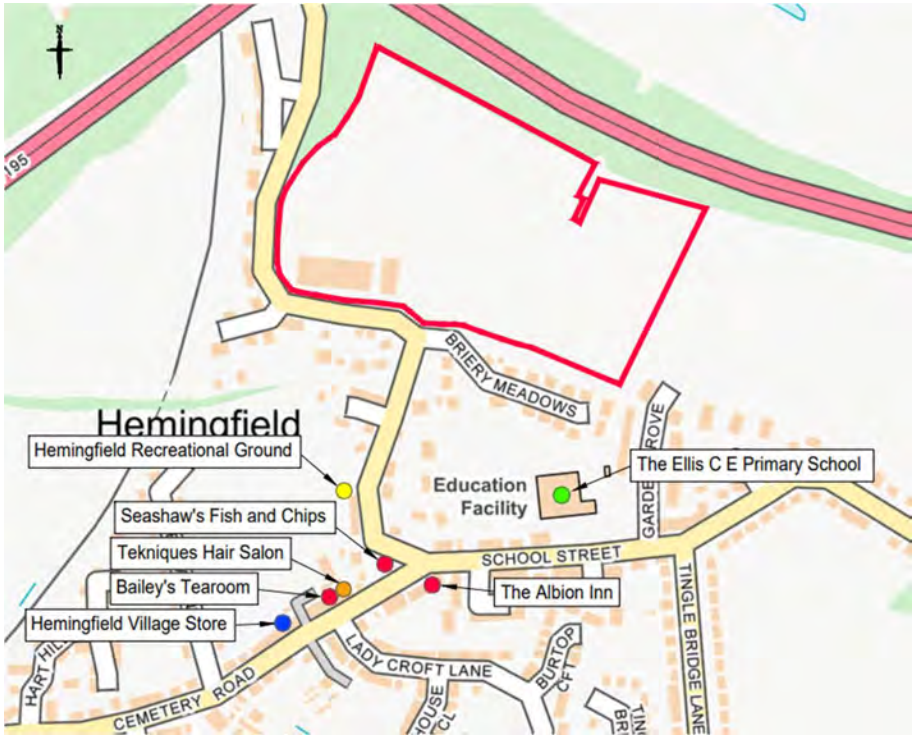
4.6 The walking catchment plan shows that all of Hemingfield is accessible within the preferred maximum 2.0 kilometre walking distance, along with a large area of Wombwell to the north of the site, Jump to the south-east and Cortonwood Retail Park, the latter via a PRoW, to the east of the site.

4.7 Table 4.2 summarises the walking distances from the centre of the site to each of the nearest key amenities in Hemingfield, the location of these relative to the site are shown on Figure 4.2 overleaf.

Table 4.2: Walking Distances to Amenities

Amenity	Trip Purpose	
	Location	Approximate Walking Distance from Centre of Site
The Ellis C E Primary School	School Street/Garden Grove	410 metres
Hemingfield Recreation Ground (Childrens Play Area)	Hemingfield Road	460 metres
Seashaw's Fish and Chips (Hot Food Takeaway)	Cemetery Road	560 metres
The Albion Inn (Public House)	Cemetery Road	570 metres
Tekniques Hair Salon	Cemetery Road	600 metres
Tearoom (Café)	Cemetery Road	610 metres
Hemingfield Village Store	Cemetery Road	620 metres

Figure 4.1 – Local Facilities



Contains Ordnance Survey data © Crown Copyright and database right 2024

4.8 Table 4.2 shows that there are a number of local amenities which are within the preferred maximum walking distance of 1,200 metres. It also shows that The Ellis C E Primary School is within the desirable walking distance for school journeys of 500 metres. Whilst the school address refers to School Street, where there is a pedestrian access to the school, the main entrance for pedestrians and vehicles is from Garden Grove to the south-east of the site. This can be accessed via the existing PRoW which runs through the site onto Garden Grove, which has footways either side of the carriageway and is street lit. The PRoW is to be retained and improved as part of the development proposals, which will provide a direct walking route to the school from the site.

4.9 The nearest Secondary Schools to the site are the Netherwood Academy and the Kirk Balk Academy. The Netherwood Academy is located within around 3.2 kilometres walking distance to the north-east of the site. It can also be accessed by a combined walking and bus journey, via the 67a bus, which stops at the nearest bus stops to the site on Hemingfield Road and around 800 metres walking distance from Netherwood Academy (approximately 35 minutes journey time including walking time).

4.10 The Kirk Balk Academy is located to the south-east of the site within around 3.8 kilometres walking distance. It can also be accessed by a combined walking and bus journey via the number 72 bus service, which stops at the nearest bus stops to the site on Hemingfield Road and directly outside Kirk Balk Academy (approximately 15 minutes journey time including walking time).

4.11 A further secondary school, Wath Academy, is located in Wath-upon-Dearne to the south-east of the site. It is accessible from the site via the 662 bus, which stops at the nearest bus stops to the site on Hemingfield Road and directly outside Wath Academy (approximately 25 minutes journey time including walking time).

4.12 Further information on bus services is provided later in this section of the TA.

Cycling

4.13 Guidance in the Department for Transport's (DfT) 'Cycling and Walking Investment Strategy' (April 2017) and 'Cycle Infrastructure Design' (LTN 1/20 – July 2020) sets out that two out of every three personal trips are within 5 miles (8 kilometres), which is an achievable distance to cycle for most people.

4.14 It is also generally accepted that the bike is an ideal mode of transport for journeys under 8 kilometres and that cycling has clear potential to substitute for short car trips, particularly those under 5 kilometres, and to form part of a longer journey by public transport.

4.15 A 5 and 8 kilometre cycling catchment plan has been prepared using the TRACC accessibility software and is included at **Appendix BGH8**. This shows that Hemingfield, Wombwell, Darfield, Brampton, Jump, Elsecar and Hoyland are accessible within a 5 kilometre cycle distance. Birdwell, Tankersley, Wath upon Dearne, Bolton-upon-Dearne, Worsborough and other areas to the south-east of the centre of Barnsley are accessible within an 8 kilometre cycle distance.

4.16 Key employment areas, such as Cortonwood Retail Park to the east of the site and Shortwood Business Park to the west of the site, are also well within a 5 kilometre cycle.

4.17 The cycle route beneath the A6195 Dearne Valley Parkway, via a lit underpass as described in Section 3.0, provides a high quality cycle link which allows cyclists to travel between the site and Wombell, without needing to travel via the Hemingfield Road Roundabout.

4.18 The Wortley to Brampton Cycle Route (Route Number 67), which is part of the National Cycle Network (NCN), runs in an east to west alignment at the southern

extents of Hemingfield. This NCN route can be accessed from the site via Hemingfield Road, School Street and Tingle Bridge Lane, some 950 metres from the centre of the site to the south-east. It provides access to both Wortley and Brampton, as well as other towns such as Hoyland and Wombwell, with a large proportion of the route being traffic free.

Figure 4.2 – National Cycle Network Route 67

©OpenStreetMap

4.19 The Wortley to Brampton Cycle Route also forms part of the Trans Pennine Trail, which is a combination of local cycle routes that provide mostly traffic free access to various locations. As part of the Trans Pennine Trail, a largely traffic free route is provided to areas further afield, such as Doncaster to the east, and Barnsley to the north.

Public Transport

Bus

4.20 The closest bus stops to the site are located on Hemingfield Road, with the northbound bus stop located around 260 metres walking distance from the centre of the site, at the southern site boundary. The southbound bus stop is currently located at the western site boundary, but it is proposed to relocate the existing stop to facilitate the delivery of the proposed site access arrangement. Further detail on this is provided in Section 5.0.

4.21 It is anticipated that the new bus stop will be located just to the west of Mellwood Grove at the southern site boundary on the north side of Hemingfield Road within a walking distance of around 280 metres from the centre of the site. The exact

location of the bus stop is to be agreed with BMBC and the local public transport operators. Therefore there are bus stops well within the recommended maximum walking distance of 400 metres as they are adjacent to the site boundary.

4.22 The bus stops on Hemingfield Road are served by the 72/72a, 662, and 67/67a/67c number bus services. They are marked by a flag and provide timetable information.

4.23 Further bus stops are located on Cemetery Road, approximately 390 metres walking distance from the centre of the site. These bus stops are also served by the 662 and 67/67a/67c number bus services. Both of the stops benefit from a shelter, seating, and timetable information. Table 4.3 summarises the bus services available from the Hemingfield Road stops.

Table 4.3: Summary of Existing Bus Services

Route Number	Route Description	Frequency		
		Weekdays	Saturday	Evenings & Sunday
67/67a/67c	Barnsley Interchange – Wombwell	Hourly	Hourly	Every two hours
72/72a	Wath Road – Chapeltown	Hourly	Hourly	No Service
662	Elsecar – Wath upon Dearne	1 service to wards Wath-upon-Dearne AM Peak 1 service to wards Elsecar PM Peak	No Service	No Service

**Note – 67 does not stop at Tankersley or Pilley, 67a does not stop at Worsborough Dale and 67c does not stop at Pilley. 72 does not stop at Tankersley Maple Road.*

4.24 Table 4.3 shows that there are regular services from the bus stops on Hemingfield Road, to key destinations including Barnsley, Wombwell and Wath Upon Dearne. Two of the services run approximately every hour, which are timed as such that they provide a service approximately every half an hour and the 662 service is timed such that it facilitates access to the Wath Academy secondary school.

4.25 All variants of the 67 and 72 bus services offer regular journeys to Cortonwood Retail Park, which is located approximately 1.5 kilometres to the east of the site. This provides convenient access to both employment opportunities and the facilities available at the retail park ,which include convenience and comparative shopping, including two supermarkets.

4.26 Based on the above, it is considered that bus travel will be a convenient and very attractive travel mode for future residents of the site.

Rail

4.27 The closest railway station to the proposed development site is Wombwell Railway Station, which is located around 850 metres walking distance to the north-west of the site, via the pedestrian route under the A6195 Dearne Valley Parkway to the west of the Hemingfield Road Roundabout. The station is also accessible within an approximate 4 minute cycle ride and, at the station, there are 12 sheltered cycle parking spaces which are protected by CCTV. The number 67/67a/67c bus, which serves the nearest bus stops to the site on Hemingfield Road, also stops immediately outside Wombwell station, although it does travel via the Cortonwood Retail Park first in both directions. Even so, the bus journey between the site and the station is generally less than 10 minutes.

4.28 The station offers frequent services to nearby destinations including Barnsley, Wakefield, Huddersfield, Leeds, and Sheffield, which also stop at other local stations. Subsequently, from these stations connections can be made to access additional destinations further afield, including Manchester, Liverpool, Newcastle, Edinburgh, and London.

4.29 It is therefore considered that the close proximity to Wombwell station provides an opportunity for many future residents to travel by rail be it when commuting or taking a trip for leisure.

Public Transport Catchment Plans

4.30 Public transport catchment plans which show the areas that are accessible within a 60 minute journey of the site using public transport have been prepared using the TRACC accessibility software. The catchment plans for the morning and evening peak periods are attached at **Appendix BGH9**. The plans show that residents can reach the centre of Barnsley within a 30 minute journey during both peak periods. Hoyland and Wath upon Dearne are accessible within 20 to 30 minutes and Sheffield, Rotherham and Wakefield are accessible within a 40 minute journey. Leeds (during the morning peak), Doncaster (during the evening peak) and the outer areas of Sheffield, Rotherham and Wakefield (during both peak periods) are within a 60 minute journey.

Sustainable Transport Summary

4.31 This section has shown that there are numerous opportunities for sustainable travel to and from the proposed development site, which is compliant with the objectives of local and national transport planning policy.

4.32 It is considered that the site is well located to promote trips on foot to local amenities. The provision of the cycle link under the A6195 Dearne valley Parkway

to the north-west of the site and NCN Route 67 to the south-east will also help to encourage cycling journeys.

4.33 Regular bus services are provided from bus stops within a short walking distance of the centre of the site, providing services to key leisure, employment and transport hubs, such as Barnsley Interchange and Cortonwood Retail Park. Wombwell Railway Station is located within an approximate 4 minute cycle ride or 850 metre walk from the site, which offers a range of local rail services, and an opportunity to connect to national services.

4.34 The evidence provided in this section therefore demonstrates that the site is accessible using sustainable modes of transport, including walking, cycling and the use of public transport.

5.0 DEVELOPMENT PROPOSALS

5.1 The proposal is for a new residential development on land between Hemingfield Road and the A6195 Dearne Valley Parkway in Hemingfield, Barnsley. The illustrative masterplan showing how the site could be developed is provided at **Appendix BGH2.**

5.2 The description of the development for the planning application is as follows:

> *"Application for outline planning permission for the demolition of existing structures and the erection of residential dwellings with associated infrastructure and open space. All matters reserved except for means of access to, but not within, the site."*

5.3 The outline application will be for the erection of residential dwellings and identify the means of access into the site, however, the layout and access arrangements within the site itself will be considered at reserved matters stage.

5.4 The site forms part of a wider area of land which is identified in the Barnsley Local Plan as safeguarded land for future development. The safeguarded land is known as site SL6 'Land North East of Hemingfield', with an area of 18.2 hectares. The proposed development site is located broadly on the western third of the wider safeguarded land.

5.5 The proposals which form part of the application for outline planning permission do not prejudice the future delivery of further development on the remaining area of safeguarded land located to the east of this site. The design of the new junction from Hemingfield Road and the internal roads within the site will be designed in such a way as to ensure that they are sufficient to accommodate further development.

Vehicular Access

Proposed Arrangement

5.6 Vehicular access to the site will be by way of a new ghost island right turn priority T-junction on Hemingfield Road, at the western site boundary. A drawing which shows the proposed site access arrangements is attached at **Appendix BGH10** (drawing number 23/160/SKH/007 Rev C).

5.7 The South Yorkshire Residential Design Guide (2011) paragraphs B.2.1.6 and B.2.1.7 state that conventional residential streets, with a design speed of 20mph or less,

should have a minimum carriageway width of 4.8 metres and that streets with higher design speeds should have a minimum carriageway width of 5.5 metres. The first section of the proposed site access road will be 6.0 metres wide i, which may narrow to 5.5 metres within the site subject to detailed design of the internal site layout at the reserved matters stage. 10.0 metre radius kerbs are proposed to both sides of the proposed site access junction with Hemingfield Road.

5.8 In order to accommodate the proposed right turn ghost island, it is proposed to widen Hemingfield Road into the site in the vicinity of the proposed site access junction. The carriageway will be widened from its current width of 7.0 metres to a total of 10.0 metres, to allow the formation of a 3.0 metre wide right turn ghost island, a 3.0 metre wide through lane for southbound vehicle movements on Hemingfield Road and a 4.0 metre wide through lane for northbound vehicle movements on Hemingfield Road.

5.9 The 4.0 metre wide northbound through lane is proposed to accommodate current on-street parking on Hemingfield Road in the vicinity of the proposed site access junction, which is associated with existing residential properties to the western side of the carriageway. The existing problem of on-street parking was identified and the solution has been developed to address it. The widening of the northbound lane and introduction of a right turn ghost island means that traffic can continue to flow while vehicles are waiting to turn right into the site.

5.10 The geometry of the proposed right turn ghost island junction has been designed in accordance with the Design Manual for Roads and Bridges (DMRB) CD 123.

Visibility

5.11 Manual for Streets advises that for a speed limit of 30mph, in the absence of known speeds of traffic, visibility splays of 2.4 metres x 43 metres should be provided at a junction. In this case, speed data on the approach to the site access has been collected by the ATCs described in Section 3.0, which can be used to calculate the visibility provision based on the surveyed 85th percentile speeds.

5.12 Guidance on speed surveys is provided in the Design Manual for Roads and Bridges (DMRB) CA 185 – Vehicle Speed Measurement. Paragraph 3.1.1 of the document states that where speed measurements have been taken in either partially or entirely wet weather, the speeds recorded on a single carriageway should be increased by 4kph (2.5mph). The weather was monitored during the ATC survey period, from which it is apparent that rain is likely to have occurred on Wednesday 10th January only. Therefore the recorded speeds for this day have been increased by 2.5mph before the 85th percentile speeds have been calculated.

5.13 Based on the ATC data in the vicinity of the proposed site access junction, for the time periods 10am to 12pm and 2pm to 4pm on weekdays only, as per the guidance in CA 185, the 85th percentile vehicle speeds are summarised at Table 5.1.

Table 5.1: Surveyed 85th %ile Speeds – Hemingfield Road

Location	Northbound	Southbound	Eastbound	Westbound
ATC1 – Hemingfield Road Western Site Boundary	35.0mph	34.7mph	-	-
ATC2 – Hemingfield Road Southern Site boundary	-	-	28.3mph	26.5mph

5.14 With reference to the survey location plan at **Appendix BGH3**, for the visibility splay to the north, the southbound (vehicles travelling towards the site access) 85th percentile vehicle speed of 34.7mph from ATC1 is relevant. As the surveyed 85th percentile speed is higher than the 30mph speed limit, this has been used to calculate the required visibility provision to the north of the proposed site access. Based on Manual for Streets, this equates to a visibility provision of 53 metres, which is 10 metres greater than the recommended provision for the speed limit of 30mph.

5.15 For the visibility splay to the south, the westbound (vehicles travelling towards the site access) 85th percentile vehicle speeds recorded by ATC2 show that this is lower than the 30mph speed limit at 26.5mph, which is to be expected as vehicles are travelling around the curve in the road. To be robust, the 2.4 metres x 43 metres visibility splay for the speed limit on Hemingfield Road is to be provided for the visibility to the south of the proposed site access.

5.16 The drawing at **Appendix BGH10** demonstrates that the visibility splays described above are achievable at the site access within the adopted highway or land within the site boundary, with some trimming back of the existing vegetation and trees required to the north of the proposed site access. The area behind the footway within the visibility splay to the south of the proposed site access is within the site boundary and so will be dedicated as public highway and will be kept clear of obstruction, to ensure that the visibility splay is readily maintained.

Bus Stop Relocation

5.17 The proposed site access drawing at **Appendix BGH10** also indicates that the existing southbound bus stop on Hemingfield Road would need to be relocated from its existing position near the proposed site access junction, to a location just

to the west of Mellwood Grove on the north side of Hemingfield Road, to allow adequate spacing between the bus stop and the proposed site access junction. The exact location of the bus stop is to be agreed with BMBC and the local public transport operators, however, it is envisaged that it could be enhanced to incorporate a bus shelter and associated facilities.

Swept Path Analysis

5.18 A swept path analysis of the proposed site access has been undertaken for a refuse vehicle. It is understood that the refuse vehicle used in Barnsley is a 10.3 metre long 3 axle rear steer vehicle. Drawing number 23/160/ATR/001 attached at **Appendix BGH11** shows that a refuse vehicle of this size can comfortably access and egress the site from Hemingfield Road, at the proposed site access junction.

5.19 As the proposals form part of an application for outline planning permission, the details of the proposed site layout are to be agreed as part of any reserved matters application. However, turning heads will be provided within the site to accommodate a refuse vehicle, such that it can enter and exit the site via Hemingfield Road in a forward gear.

Pedestrian Access and Public Rights of Way

5.20 Footways will be provided to both sides of the proposed vehicular site access junction with Hemingfield Road, which will be 2.0 metres wide and will tie in to the existing footway provision on Hemingfield Road. This aligns with the design guidance contained within paragraph B.2.2.2 of the South Yorkshire Residential Design Guide.

5.21 The illustrative masterplan attached at **Appendix BGH2** shows that pedestrian access to the site will also be provided via pedestrian access at the southern site boundary, through the retention of the existing PRoW connections into the site from Briery Meadows and Garden Grove together with access to the underpass beneath Dearne Valley Parkway to the north.

5.22 Both existing PRoW routes through the site, as described in Section 3.0, will be retained along their current alignment, with Footpath No. 17 proposed to run through open space as indicated on the illustrative masterplan at **Appendix BGH2**. Suitable crossing points would be provided at the points where the retained PRoW crosses the vehicular access roads within the site. This approach was agreed with BMBC's PRoW Officer during the pre-application meeting.

5.23 Where the retained PRoWs continue as footpaths, BMBC's PRoW Officer suggested that these would need to be widened to a minimum of 1.8 metres. However, it was

discussed that Footpath No. 17 could be widened further to provide a route for pedestrians and cyclists through the site, to align with BMBCs future aspirations for active travel links in the vicinity of the site.

5.24 It is anticipated that the existing un-made surface treatment of both PRoWs would be upgraded within the site as part of the development. As the proposals form part of an application for outline planning permission, the detail of the retention of the PRoW and any surface treatment for the PRoW within the site is to be agreed at the reserved matters stage.

Parking Provision

5.25 Parking standards for new development in Barnsley are provided within BMBC's Parking SPD, which was adopted in November 2019.

5.26 The parking standards recommend that one space should be provided for dwellings with one or two bedrooms, and that two spaces should be provided for dwellings with three or more bedrooms.

5.27 Parking provision within the site will be provided in accordance with these local standards and will be agreed as part of any application for the approval of reserved matters.

5.28 Cycle parking will also be provided in accordance with the local standards.

6.0 TRIP GENERATION AND DISTRIBUTION

Vehicular Trip Generation

6.1 The Trip Rate Information Computer System (TRICS) has been used to calculate the vehicular trip generation for the proposed residential development. Under the 'Houses Privately Owned' category, all sites excluding Ireland and Greater London have been interrogated to establish vehicular trip rates for the proposed development.

6.2 These trip rates have been applied to 180 dwellings, an estimate of the likely site capacity, to establish the weekday morning and evening peak hour development trips. The trip rates and trip generation are shown in Table 6.1, with the full TRICS output attached at **Appendix BGH12.**

Table 6.1 – TRICS Trip Rates and Trip Generation for 180 Dwellings

	Morning Peak Hour			Evening Peak Hour		
	In	Out	Two-Way	In	Out	Two-Way
TRICS Trip Rates	0.129	0.366	0.495	0.323	0.143	0.466
Trip Generation	23	66	89	58	26	84

6.3 Table 6.1 shows that the proposed development will generate around 89 two-way trips during the morning peak hour and 84 two-way trips during the evening peak hour. This equates to just over one vehicle movement per minute, a relatively low flow.

Vehicular Trip Distribution

6.4 It is noted that data from the 2021 National Census data has been released recently and this can be interrogated to determine the likely travel patterns of residents in the local area. However, it is also noted that the 2021 Census was undertaken at a time when various travel restrictions were in place throughout England due to the Covid-19 pandemic. On the official survey date of 21st March 2021, England was in its third national lockdown with a 'stay at home' order in place for non-essential travel. Obtaining travel pattern data from the 2021 Census data would therefore not be representative.

6.5 Therefore the likely distribution of the traffic predicted to be generated by the proposed development has been determined using origin/destination 2011 Census Data for "Location of usual residence and place of work by method of travel to work (MSOA level)". The location of usual residence was set as "Barnsley 029", the area

in which the site is situated, and the place of work was set to "All". The possible route choices have been determined based on the Google Maps route planning tool.

6.6 The resulting assignment of the generated traffic to and from the proposed development on the surrounding highway network during the morning and evening peak hours is shown at **Appendix BGH13**. The additional traffic movements through the road network in the vicinity of the site using the derived trip generation, is as shown on the diagrams at **Appendix BGH14**.

Multi-Modal Trip Generation

6.7 In order to estimate the number of trips that the proposed development will generate by all modes of travel, the anticipated modal split of movements to and from the site, determined from the Census data used for the trip distribution exercise, has been applied to the vehicle trips presented at Table 6.1.

6.8 The multi-modal trip generation has been estimated using the vehicle trip generation, on the basis that the number of vehicle trips would form 71% of trips during the weekday morning and evening peak hours. The resulting estimate of the multi-modal trip generation is presented in Table 6.2.

Table 6.2: Multi-Modal Trip Generation

Modal Split	% Split	Morning Peak Hour			Evening Peak Hour		
		In	Out	Two-Way	In	Out	Two-Way
Car (single occupancy)	71%	23	66	89	58	26	84
Pedestrian	6%	2	6	8	5	2	7
Cycle	1%	0	1	1	1	0	1
Bus	7%	2	6	8	6	2	8
Rail	6%	2	5	7	5	2	7
Car (multiple occupancy)	8%	2	7	9	6	3	9
Motorcyclist	1%	0	1	1	1	0	1
Total	100%	31	92	123	82	365	117

6.9 The multi-modal trip generation at Table 6.2 shows that based on existing mode share 8 trips either to or from the site are anticipated to be made on foot during the morning peak hour with 7 on foot during the evening peak hour. During both the morning and evening peak hours, 1 trip in or out of the site is anticipated to be made by cycle. It is also anticipated that there will be trips made by public transport, 8 in both peaks, car (multi occupancy trips as passengers), 9 in both peaks, and motorcyclists. It is however considered that it is expected that a greater no of residents would utilise active travel given the active implementation of the site Travel Plan.

6.10 The modal split percentages at Table 6.2 are referenced in the TP, where an initial target for a 10% reduction in single occupancy car journeys has been set. Therefore, the impact of the proposed development generated traffic is likely to be less than assessed in this TA.

7.0 BACKGROUND TRAFFIC GROWTH

Growth Factors

7.1 Historic good practice guidance for TAs is set out within the Department for Transport's (DfT) 'Guidance on Transport Assessment' sets out that traffic flows should be projected to a future year 5 years post submission of the planning application, which would be 2029.

7.2 The traffic flows for the surveyed junctions have been projected by applying growth factors which have been determined using TEMPro (v8.1), for the Barnsley 029 MSOA. The Road Traffic Forecasts (RTF) adjusted growth rates are set out in Table 7.1.

Table 7.1 – TEMPro Adjusted Road Traffic Forecasts Growth Factors

MSOA	RTF Growth Factors	
	AM Peak Period	PM Peak Period
2023 – 2029 Doncaster 033	1.0579	1.0581

7.3 The factors indicate a circa 5.8% growth in local background traffic between 2023 and 2029 and take account of planned increases in households and employment figures. The growth factors have been applied to the 2023 existing peak hour flows at **Appendix BGH4**, resulting in the 2029 growthed traffic flows as shown on the diagrams at **Appendix BGH15**.

Committed Development

7.4 Following a search of the planning portal, a committed development at the former Wombwell School site has been identified and accounted for within this TA. Planning application number 2019/0089 for a residential development of 235 dwellings was approved in April 2020. It is understood that development on the site has commenced.

7.5 AECOM prepared a TA for the planning application, which is dated 11th January 2019. Appendix D (diagram 12) of the AECOM TA includes the total development generated flows for the committed development site, including those passing through the Hemingfield Roundabout, which have been included in this TA as shown on the diagrams at **Appendix BGH16**.

7.6 The 2029 growthed traffic flows at **Appendix BGH15** have been added to the committed development flows at **Appendix BGH16** to provide the 2029 base traffic flows at **Appendix BGH17**.

8.0 TRAFFIC IMPACT OPERATIONAL ASSESSMENTS

Scope of Assessment

8.1 A threshold of 30 vehicles or more in either peak hour was set out within the Department for Transport's 'Guidance on Transport Assessment', to establish the need for operational assessment of a junction. Whilst this guidance has been withdrawn, it is still a valid reference document. It is considered that this 30 two-way trip threshold (i.e. an average of an additional vehicle movement every 2 minutes) provides a helpful starting point for establishing the need for the operational assessment of the impact of development generated trips.

8.2 Table 6.2 provides a summary of the number of additional trips which will be generated on the local highway network in the vicinity of the site, based on the assigned development generated trips at **Appendix BGH14**.

Table 6.2 – Additional Two-Way Trip Generation at Junctions

Junction	Additional Two-Way Trip Generation	
	Morning Peak Hour	Evening Peak Hour
Site Access Junction	89	84
Hemingfield Road Roundabout	71	67
Briery Meadow/Hemingfield Road	17	17
School Street/Cemetery Road	17	16
A6195 West	31	29
A6195 East	19	18
Hemingfield Road (north of Hemingfield Road Roundabout)	22	21

8.3 It is clear from Table 6.2 that the proposed development will generate 30 or more two-way trips at the proposed site access junction with Hemingfield Road and at the Hemingfield Road Roundabout. Therefore, in the future year assessment which follows, operational assessment has been undertaken for these two junctions.

8.4 It is acknowledged that Table 6.2 refers to 31 two-way trips predicted to be generated by the proposed development site to or from the west on the A6195 Dearne Valley Parkway, which is one vehicle over the 30 two-way trip threshold. However, the 30 two-way trips is not necessarily an absolute point above which operational assessment should be undertaken. As set out at paragraph 8.1, it simply provides a helpful starting point for establishing the need for operational assessment.

8.5 The percentage impact on the A6195 Dearne Valley Parkway west, comparing the additional proposed development trips to the 2029 base traffic flows, is only 1.6% during the weekday morning peak hour and 1.2% during the weekday evening peak hour, which is clearly not significant and would not be noticeable to drivers on the road.

8.6 The 31 additional development generated trips that will be generated to the west on the A6195 Dearne Valley Parkway, will disperse at the roundabout junctions to the west of the Hemingfield Road Roundabout. It is clear that traffic would disperse into Hoyland and the nearby employment sites to the west of Hemingfield. The proposed development generated trips would therefore certainly be below 30 two-way trips well before the M1 Junction 36, which is approximately 4.7 kilometres to the south-west of the site therefore no assessment is required of this junction.

Assessment Traffic Flows

8.7 To calculate the traffic flows for the 2029 predicted scenario, the 2029 base traffic flows at **Appendix BGH17** have been added to the proposed development generated traffic flow diagrams at **Appendix BGH14**. The resulting 2029 predicted traffic flows are shown on the diagrams at **Appendix BGH18**.

Operational Assessment

Hemingfield Road Roundabout

8.8 The operation of the Hemingfield Road Roundabout junction has been assessed for the 2029 base and predicted weekday morning and evening peak hours, using the ARCADY element of the Junctions 9 modelling software. The results of the modelling are summarised in Tables 7.2 and 7.3 and the full model outputs are attached at **Appendix BGH5**.

8.9 As described in Section 3.0, the Ratio of Flow to Capacity (RFC) results are provided for the junction. The RFC is a measure which is commonly used to judge the acceptability of new junction designs and also existing junctions in relation to predicting how they will operate. At existing junctions in urban areas, an RFC value of 1.00 is generally used to identify a junction operating at capacity. An RFC value

of less than 0.85 is typically used to indicate that a new junction is predicted to operate at a satisfactory level of performance. If a junction operates between 0.85 and 1.0 it is normal practice to give further consideration to the operation of the junction. The maximum queues are presented in Passenger Car Unit (PCU) format, with a PCU length equating to 5.75 metres.

Table 8.1: 2029 Base Operational Assessment Hemingfield Road Roundabout

Movement	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	RFC	Queue (PCU)	RFC	Queue (PCU)
A6195 Dearne Valley Parkway (East)	0.46	1	0.66	2
Hemingfield Road (South)	0.24	0	0.23	0
A6195 Dearne Valley Parkway (West)	0.49	1	0.60	2
Hemingfield Road (North)	0.31	1	0.34	1

8.10 Table 8.1 shows that the Hemingfield Road Roundabout is predicted to continue operating well within capacity at a future year of 2029, allowing for background traffic growth but without traffic generated by the proposed development. The maximum RFC of 0.66 is predicted to occur on the A6195 Dearne Valley Parkway (East) arm of the roundabout during the weekday evening peak hour, with an associated queue of 2 vehicles.

Table 8.2: 2029 Predicted Operational Assessment Hemingfield Road Roundabout

Movement	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	RFC	Queue (PCU)	RFC	Queue (PCU)
A6195 Dearne Valley Parkway (East)	0.46	1	0.67	2
Hemingfield Road (South)	0.29	0	0.25	0
A6195 Dearne Valley Parkway (West)	0.50	1	0.61	2
Hemingfield Road (North)	0.32	1	0.37	1

8.11 Table 8.2 then shows that the Hemingfield Road Roundabout is predicted to continue operating well within capacity at a future year of 2029, with the addition of traffic generated by the proposed development. The maximum RFC of 0.67 is predicted to occur on the A6195 Dearne Valley Parkway (East) arm of the roundabout during the weekday evening peak hour, with an associated queue of 2 vehicles. This equates to an increase in the maximum RFC of only 0.01, with no increase in queueing.

Proposed Site Access Junction with Hemingfield Road

8.12 The operation of the proposed site access junction with Hemingfield Road has been assessed for the 2029 predicted weekday morning and evening peak hours, using the PICADY element of the Junctions 9 modelling software. The results of the modelling are summarised in Table 8.3 and the full model outputs are attached at **Appendix BGH5**.

Table 8.3: 2029 Predicted Operational Assessment
Proposed Site Access Junction with Hemingfield Road

Movement	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Site Access - (Left & Right Out)	0.15	0	0.07	0
Hemingfield Road - (Ahead & Right In)	0.01	0	0.02	0

8.13 Table 8.3 shows that the proposed site access junction with Hemingfield Road is predicted to operate well within capacity at a future year of 2029, with traffic generated by the proposed development. The maximum RFC of 0.15 is predicted to occur on the site access arm during the morning peak hour, with no associated queuing.

Sensitivity Test – Proposed Site Access Junction

8.14 A sensitivity test has been conducted to analyse the proposed site access junction's operational capacity in the future, if additional dwellings are built on the remaining safeguarded land located to the east of the proposed development site. It is expected that if the land to the east is developed, it would be accessed via Beech House Road. However, to provide a robust assessment, the test has evaluated the Hemingfield Road junction's ability to serve a total of 400 dwellings, which is inclusive of the estimated capacity of 180 dwellings considered achievable on the application site which is the subject of this TA.

8.15 The traffic flow diagrams for the predicted trip generation for 400 dwellings, based on the trip rates at Table 6.1 of this TA, are included at **Appendix BGH19**. These have been added to the 2029 base traffic flows at **Appendix BGH17**, resulting in the 2029 predicted sensitivity test traffic flows shown on the diagrams at **Appendix BGH20**.

8.16 The results of the sensitivity test are shown in Table 8.4.

Table 8.4: 2029 Predicted Operational Assessment – Sensitivity Test Proposed Site Access Junction with Hemingfield Road (400 Dwellings)

Movement	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Site Access - (Left & Right Out)	0.35	1	0.15	0
Hemingfield Road - (Ahead & Right In)	0.02	0	0.05	0

8.17 The results at Table 8.4 indicate that even if the proposed site access junction with Hemingfield Road was to serve a total of 400 dwellings (in the unlikely scenario that access was not provided to the east), it is predicted to remain well within its operational capacity. The maximum RFC of 0.35 is expected to occur on the site access arm during the morning peak hour, resulting in an associated queue of only 1 vehicle.

9.0 SUMMARY AND CONCLUSIONS

9.1 This Transport Assessment (TA) has been prepared by Bryan G Hall to support an application for outline planning permission by Ptarmigan Land North Ltd for a proposed residential development, on land between Hemingfield Road and the A6195 Dearne Valley Parkway in Hemingfield, Barnsley.

9.2 The description of the development for the planning application is as follows:

> *"Application for outline planning permission for the demolition of existing structures and the erection of residential dwellings with associated infrastructure and open space. All matters reserved except for means of access to, but not within, the site."*

9.3 The site forms part of a wider area of land which is identified in the Barnsley Local Plan as safeguarded land for future development. The safeguarded land is known as site SL6 'Land North East of Hemingfield', with an area of 18.2 hectares. The proposed development site is located broadly on the western third of the wider safeguarded land.

9.4 A pre-application advice request was submitted to Barnsley Metropolitan Borough Council in November 2023 and subsequently a pre-application meeting took place on 13th December 2023. The minutes from the meeting were issued to the Highways Officer and a PRoW Officer who attended the meeting. At the time of writing, the response to the pre-application meeting and the BMBC's formal written pre-application advice has not yet been received. However, the scoping points discussed during the meeting relating to the proposed site access arrangement, traffic impact and the treatment of the existing PRoW through the site have been taken into account as part of this TA.

9.5 A description of the site, the existing local highway network in the vicinity of the site and the existing PRoW which pass through the site has been provided. Traffic surveys were undertaken on Tuesday 27th June 2023 at the Hemingfield Road Roundabout and the Briery Meadows/Hemingfield Road and Cemetery Road/School Street priority T-junctions to ascertain current traffic flows. Two 7 day ATCs were also put in place on Hemingfield Road in the vicinity of the proposed site access to collect traffic and speed data.

9.6 The existing weekday morning and evening peak hours have been determined for the surveyed network, and the operation of the Hemingfield Road Roundabout has been assessed, which shows that the junction currently operates within capacity.

9.7 It has been demonstrated that the traffic impact of the development at the other two surveyed junctions is below 30 two-way trips and so operational assessment to assess the impact of development traffic is not required at these junctions.

9.8 A review of personal injury collision data for the most recent 5 year period available indicates that there are no existing road safety issues which would be exacerbated by the proposed development.

9.9 It has been demonstrated that the site is accessible using sustainable modes of transport, such as walking, cycling and public transport. The site is well located to promote trips on foot to local amenities, including a Primary School. There are a number of nearby Secondary Schools which are accessible from the site by bus.

9.10 Bus services are provided from bus stops within a short walking distance of the centre of the site, providing services to key leisure, employment and transport hubs, such as Barnsley Interchange and Cortonwood Retail Park. Wombwell Railway Station is located within an approximate 4 minute cycle ride or 850 metre walk from the site, and the station offers a range of local rail services, and an opportunity to connect to national services.

9.11 Details of the proposed site access arrangements have been provided in this TA. The site will be accessed by way of a new ghost island right turn priority T-junction on Hemingfield Road, at the western site boundary. The existing problem of on-street parking was identified and the solution has been developed to address it. The widening of the northbound lane and introduction of a right turn ghost island means that traffic can continue to flow while vehicles are waiting to turn right into the site. The 4.0 metre wide northbound through lane is proposed to accommodate current on-street parking on Hemingfield Road in the vicinity of the proposed site access junction, which is associated with existing residential properties to the western side of the carriageway. The visibility requirement at the site access junction has been calculated based on 85th percentile vehicle speeds determined from the ATC surveys. It has been demonstrated that suitable visibility splays of 2.4 metres x 53 metres to the north and 2.4 metres x 43 metres to the south are achievable at the proposed site access junction, in accordance with guidance in Manual for Streets.

9.12 The existing southbound bus stop is to be relocated from its existing position near the proposed site access junction, to a location just to the west of Mellwood Grove.

The exact location of the bus stop is to be agreed with BMBC and the local public transport operators.

9.13 Swept path analysis of the proposed site access has been undertaken, which demonstrates that it can be used comfortably by a refuse vehicle.

9.14 Pedestrian access to the site will be provided via 2 metre wide footways to both sides of the proposed vehicular site access junction with Hemingfield Road. Pedestrian access to the site will also be provided via pedestrian access at the southern site boundary, through the retention of the existing PRoW connections into the site from Briery Meadows and Garden Grove together with access to the underpass beneath Dearne Valley Parkway to the north. The PRoW routes which pass through the site will be retained along the current alignment, with suitable crossing points to be provided where the retained north/south PRoW crosses the vehicular access roads within the site. The surface treatment and width of the retained PRoW through the site are to be agreed with BMBC, and will be dependent on whether or not they will cater for just pedestrians or cyclists as well.

9.15 Parking for cars and cycle parking will be provided in line with the standards set out within the 'Parking' SPD adopted by BMBC.

9.16 The TRICS database has been used to establish the trip generation associated with the development proposals. The proposed development is anticipated to generate around 89 two-way trips during the morning peak hour and 84 two-way trips during the evening peak hour. The development generated trips have been distributed onto the local highway network based on 2011 Census data.

9.17 An estimate of the multi-modal trip generation for the site has been provided, based on the modal split percentages determined from the 2011 Census data. These are also referred to in the accompanying Travel Plan, to set initial modal split targets for a reduction in single occupancy car journeys.

9.18 To account for background traffic growth on the network, the relevant growth factors have been obtained using TEMPro. These factors have been applied to the 2023 surveyed traffic flows, to project them to a future year of 2029. Committed development traffic has also been added at the Hemingfield Road Roundabout, for the residential development located at the former Wombwell School site. The proposed development generated flows have then been added to the 2029 base flows, which is considered to be robust given that the proposed development site traffic is likely to be accounted for in the growth factors.

9.19 It is predicted that 31 two-way trips could be generated by the proposed development site to or from the west on the A6195 Dearne Valley Parkway. This is just one vehicle over the 30 two-way trip threshold which is used to determine whether or not operational assessment of a junction should be undertaken. It has been demonstrated that the percentage impact of these development generated trips on the A6195 Dearne Valley Parkway to the west of the Hemingfield Road Roundabout is minimal, and that the additional development generated trips would certainly be way below the 30 two-way trip threshold by the time development traffic reaches the M1 Junction 36 therefore no assessment is required of this junction.

9.20 Operational assessment of the Hemingfield Road Roundabout has been undertaken for the 2029 future year. This shows that the junction is predicted to continue operating within capacity, both with and without the proposed development trip generation. It has also been demonstrated that the proposed site access junction will operate within capacity. Therefore the proposed development generated trips will have no impact on the operation of junctions on the local highway network in the vicinity of the site.

9.21 A sensitivity test has also been undertaken, which demonstrates that the proposed site access junction would have sufficient capacity to accommodate future development on the safeguarded land. This has been tested on an estimated capacity of 400 dwellings, which is inclusive of the estimated 180 dwellings which would be delivered on the application site which is the subject of this TA.

9.22 This Transport Assessment has demonstrated that the proposed development is in accordance with national and local planning policy and guidance. It is therefore concluded that there are no justifiable highways or transport related reasons why the proposed development should not be granted planning permission.

APPENDIX BGH 1

BRYAN G HALL

CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

LEEDS T 0113 246 1555

LONDON T 0203 5532336

Suite E15 | Josephs Well
Hanover Walk | LEEDS | LS3 1AB

E transportleeds@bryanghall.co.uk

W www.bryanghall.co.uk
twitter.com/Bryanghall1
Bryan G Hall

Title: SITE LOCATION PLAN

Status: FOR PLANNING

Scale: N.T.S.
Size: A3 - 420 x 297

Drawn: PP | Chkd: RD | Appvd: MC

Rev:	Date:	Amendment:	DRN	CHK	APR

Client: PTARMIGAN LAND NORTH LTD

Project: HEMINGFIELD ROAD, BARNSLEY

Drawing No: 23/160/LOC/005
Job No: 23-160

Revision: -
Date: 19/01/2024

APPENDIX BGH 2

PTARMIGAN

HEMINGFIELD ROAD ROUNDABOUT

A6195 - DEARNE VALLEY PARKWAY

DRAINAGE BASIN

OPEN SPACE

OPEN SPACE

HEMINGFIELD ROAD

BRIERY MEADOWS

Notes:

All Dimensions are to be verified on site before any work commences. If any discrepancies, errors or emissions are noted, these are to be reported to STEN Architecture immediately.

If any other drawings are referenced within this layout, please refer to the specific detailed drawing for design, materials and specific working practices.

1. PRIMARY VEHICULAR ENTRANCE FROM HEMINGFIELD ROAD
2. RETAINED WALKING ROUTE THROUGH THE CENTRE OF THE SITE AND CONNECTION TO THE NORTH. THIS ROUTE IS SET IN A PLEASANT GREEN CORRIDOR WITH THE POTENTIAL TO INCLUDE NEW NATIVE PLANTING AND TREES
3. RETAINED PUBLIC RIGHTS OF WAY (FOOTPATH 17 AND 18)
4. ATTRACTIVE GREENSPACE AT THE DEVELOPMENT ENTRANCE
5. PROPOSED DRAINAGE BASIN
6. FEATURE SPACES AND GATEWAY BUILDINGS
7. POTENTIAL ACCESS TO ADJACENT LAND
8. RETAINED HEDGEROW ALONG THE EASTERN BOUNDARY
9. DEDICATED WALKING ROUTE
10. PROPOSED EQUIPPED PLAY AREA

- DEVELOPMENT PARCELS
- FRONTAGE AND BUILT FORM
- KEY PEDESTRIAN ROUTES
- VEHICLE ROUTES
- REAR BOUNDARIES
- EXISTING SEWER AND EASEMENT (subject to detailed survey)

NB:-

A) Proposed Landscaping is shown indicatively and subject to detailed design and recommendations from Ecology, Landscape, and Arboriculture consultants.

B) Proposed highways and footpaths are shown indicatively. All streets and routes will comply with Local Authority Guidance.

- Primary Streets will mainly comprise 5.5m highway, flanked by 2m footpaths.
- Shared Surfaces will be a maximum overall width of 7.2m including appropriate service margins.
- Private Drives will be a maximum of 5.5m.

N

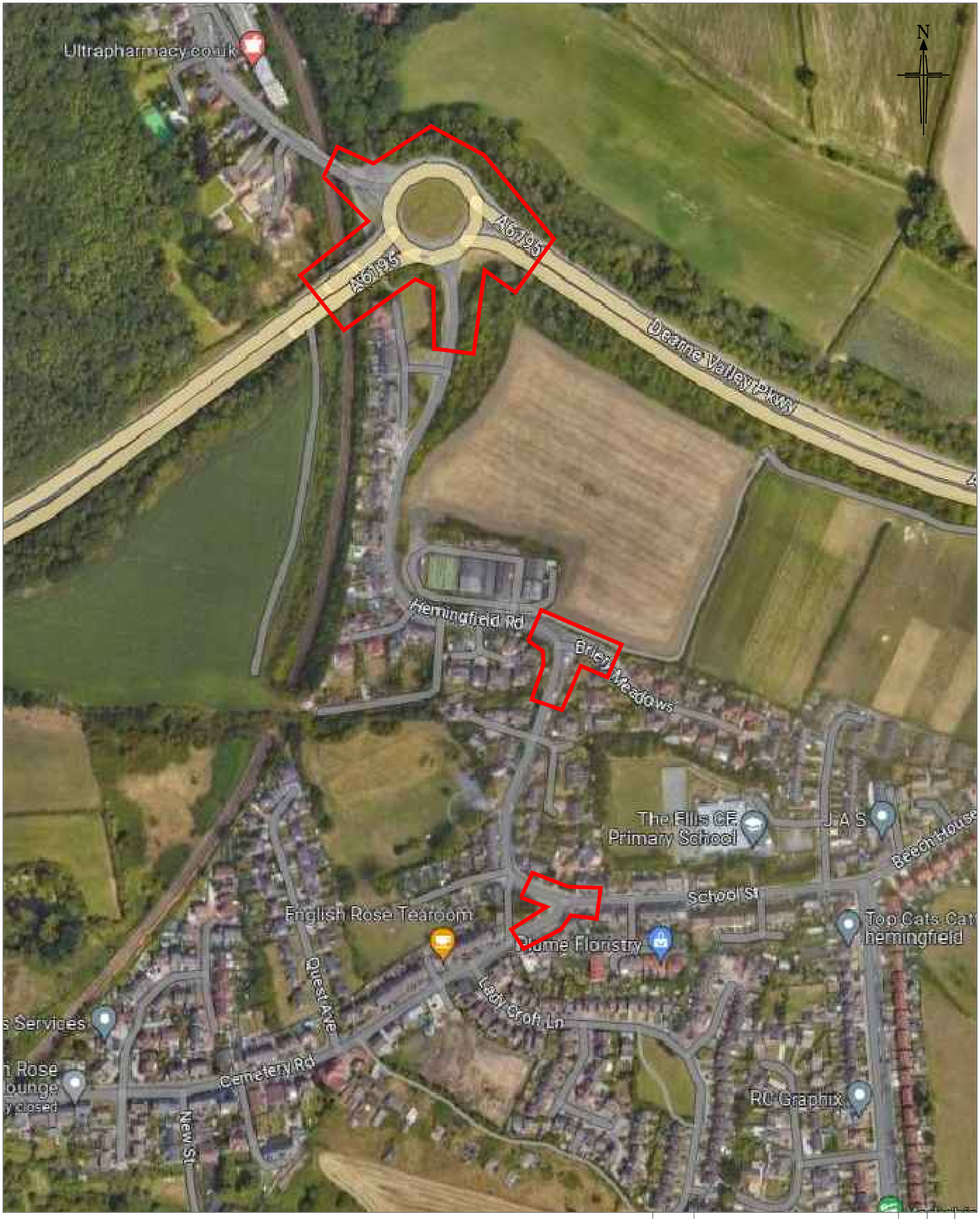
Scaled @ 1:1250

0 25m 50m 100m

STEN ARCHITECTURE

SITE: HEMINGFIELD, BARNSLEY			
TITLE: ILLUSTRATIVE MASTERPLAN			
SCALE AT A2: 1:1250	DATE: DEC 2023	DRAWN: SSH	CHECKED:
PROJECT NO: 2344	DRAWING NO: 2344:01		REVISION: C

APPENDIX BGH 3



BRYAN G HALL
CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS
Copyright Reserved Bryan G Hall Ltd.

LEEDS T 0113 246 1555
LONDON T 0203 5532336

Suite E15 | Josephs Well
Hanover Walk | LEEDS | LS3 1AB

E transportleeds@bryanghall.co.uk
W www.bryanghall.co.uk
twitter.com/Bryanghall1
Bryan G Hall

Rev:	Date:	Amendment:	DRN	CHK	APR

Title: TRAFFIC SURVEY LOCATION PLAN

Client: -

Project: -

Scale: N.T.S. Size: A3 - 297 x 420

Drawn: LD Chkd: MC Appvd: MC

Drawing No: 23/160/LOC/001

Job No: 23-160

Revision: -

Date: 21/06/2023

BRYAN G HALL

CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

LEEDS T 0113 246 1555

LONDON T 0203 5532336

Suite E15 | Josephs Well
Hanover Walk | LEEDS | LS3 1AB

E transportleeds@bryanghall.co.uk

W www.bryanghall.co.uk
twitter.com/Bryanghall1
Bryan G Hall

Title: ATC LOCATION PLAN

Scale: N.T.S. Size: A3 - 297 x 420

Drawn: RD Chkd: MC Appvd: MC

Rev:	Date:	Amendment:	DRN	CHK	APR

Client: -

Project: HEMINGFIELD, BARNSLEY-

Drawing No: 23/160/LOC/003

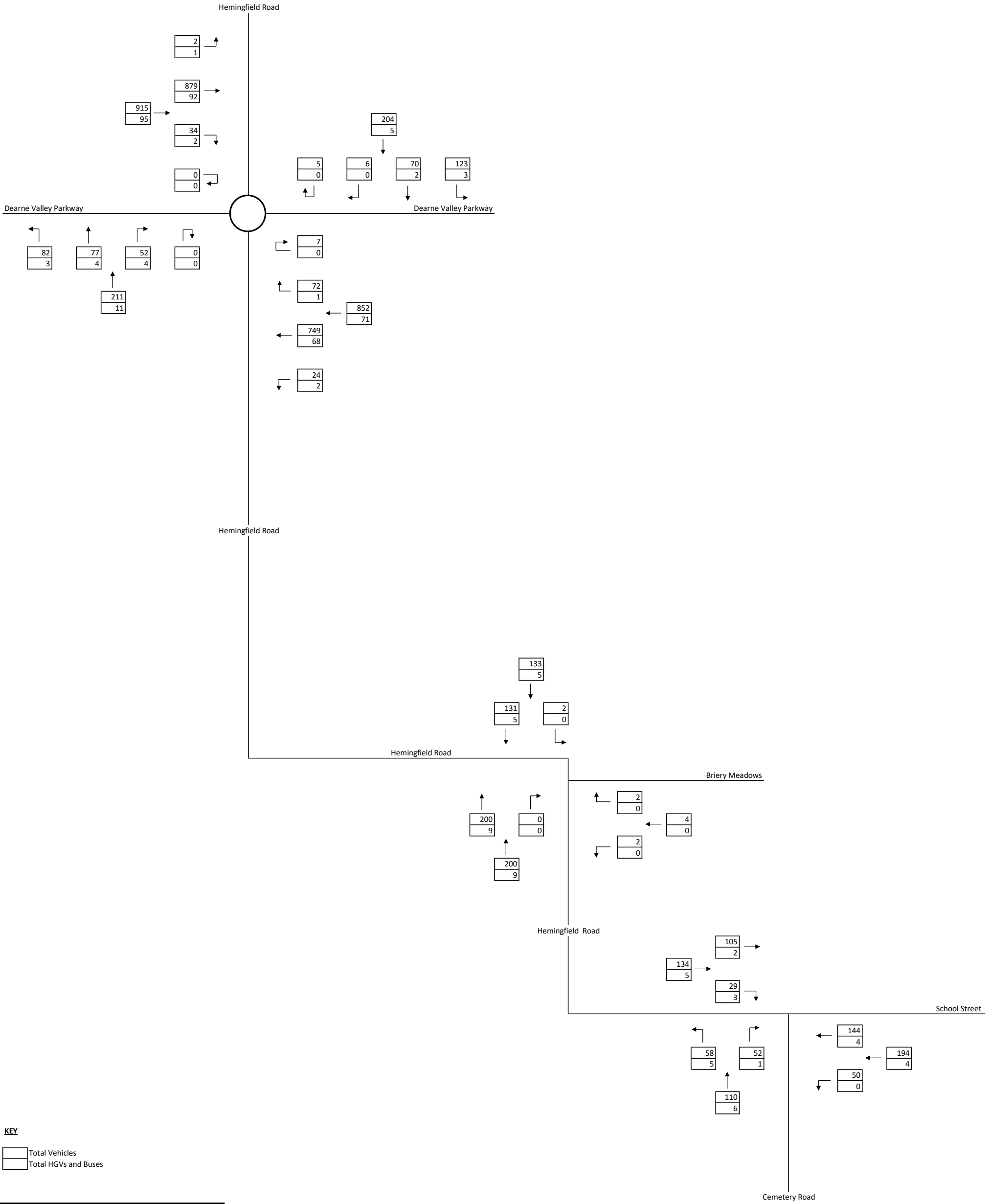
Job No: 23-160

Revision: -

Date: 21/12/2023

APPENDIX BGH 4

2023 EXISTING VEHICULAR FLOWS
PROPOSED RESIDENTIAL DEVELOPMENT, HEMINGFIELD, BARNSLEY
TUESDAY 27TH JUNE 2023
AM PEAK HOUR
8:00am - 9:00am



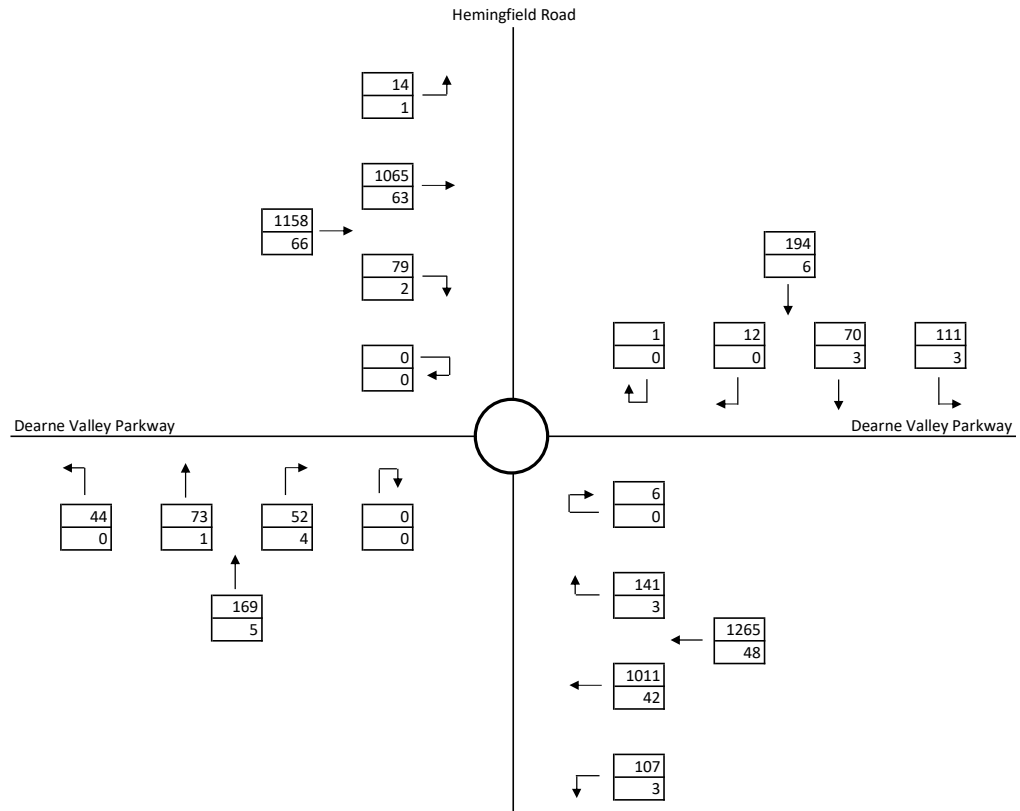
KEY

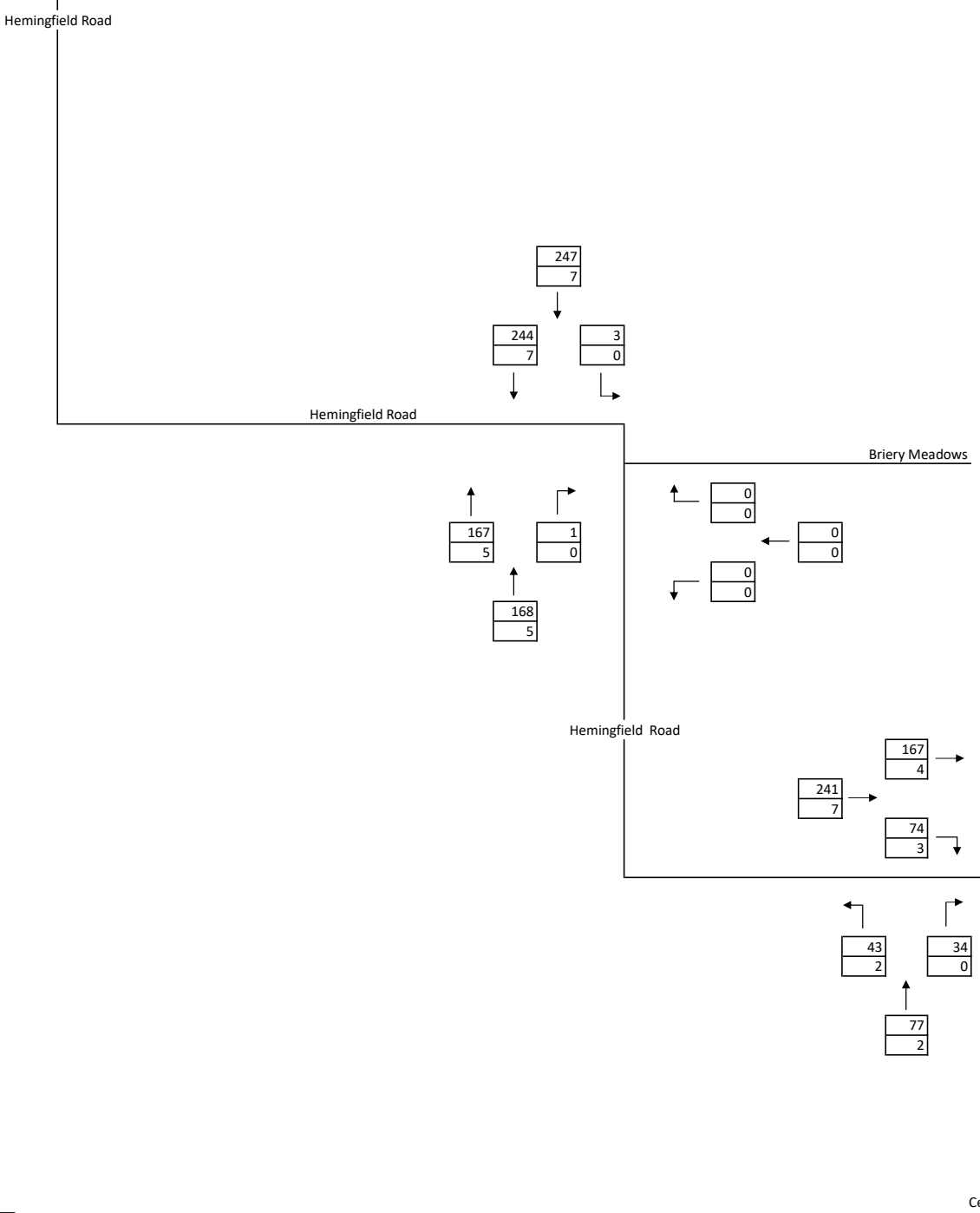
Total Vehicles
Total HGVs and Buses

BRYAN G HALL
CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

Client:	Ptarmigan Land North Ltd
Project:	Hemingfield, Barnsley
Job Number:	23-160
Prepared by:	Phoebe Pitcher
Checked by:	Robbie Donaldson

2023 EXISTING VEHICULAR FLOWS
PROPOSED RESIDENTIAL DEVELOPMENT, HEMINGFIELD, BARNSLEY
TUESDAY 27TH JUNE 2023
PM PEAK HOUR
4:00pm - 5:00pm





KEY

Total Vehicles
Total HGVs and Buses

BRYAN G HALL
CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

Client:	Ptarmigan Land North Ltd
Project:	Hemingfield, Barnsley
Job Number:	23-160
Prepared by:	Phoebe Pitcher
Checked by:	Robbie Donaldson

APPENDIX BGH 5

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462

Filename: 23-160 Hemingfield Road Roundabout Model.j9
Path: Y:\2023\23-151 to 23-175\23-160 Residential Development Hemingfield, Barnsley\Technical\Junction Modelling\Hemingfield Road Roundabout
Report generation date: 18/01/2024 14:51:45

Summary of junction performance

	AM Peak Hour					PM Peak Hour				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	Existing Layout - 2023 Existing									
1 - Dearne Valley Parkway (East)	D1	0.8	2.88	0.43	A	D2	1.7	4.18	0.62	A
2 - Hemingfield Road (South)		0.3	4.05	0.21	A		0.2	4.48	0.19	A
3 - Dearne Valley Parkway (West)		0.9	2.96	0.45	A		1.3	3.59	0.56	A
4 - Hemingfield Road (North)		0.4	6.28	0.28	A		0.4	7.30	0.30	A
	Existing Layout - 2029 Base									
1 - Dearne Valley Parkway (East)	D3	0.9	3.04	0.46	A	D4	2.0	4.69	0.66	A
2 - Hemingfield Road (South)		0.3	4.30	0.24	A		0.3	4.86	0.23	A
3 - Dearne Valley Parkway (West)		1.0	3.16	0.49	A		1.6	3.97	0.60	A
4 - Hemingfield Road (North)		0.5	6.81	0.31	A		0.5	8.14	0.34	A
	Existing Layout - 2029 Predicted									
1 - Dearne Valley Parkway (East)	D5	0.9	3.07	0.46	A	D6	2.1	4.92	0.67	A
2 - Hemingfield Road (South)		0.4	4.57	0.29	A		0.3	4.99	0.25	A
3 - Dearne Valley Parkway (West)		1.1	3.23	0.50	A		1.7	4.10	0.61	A
4 - Hemingfield Road (North)		0.5	7.02	0.32	A		0.6	8.65	0.37	A

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

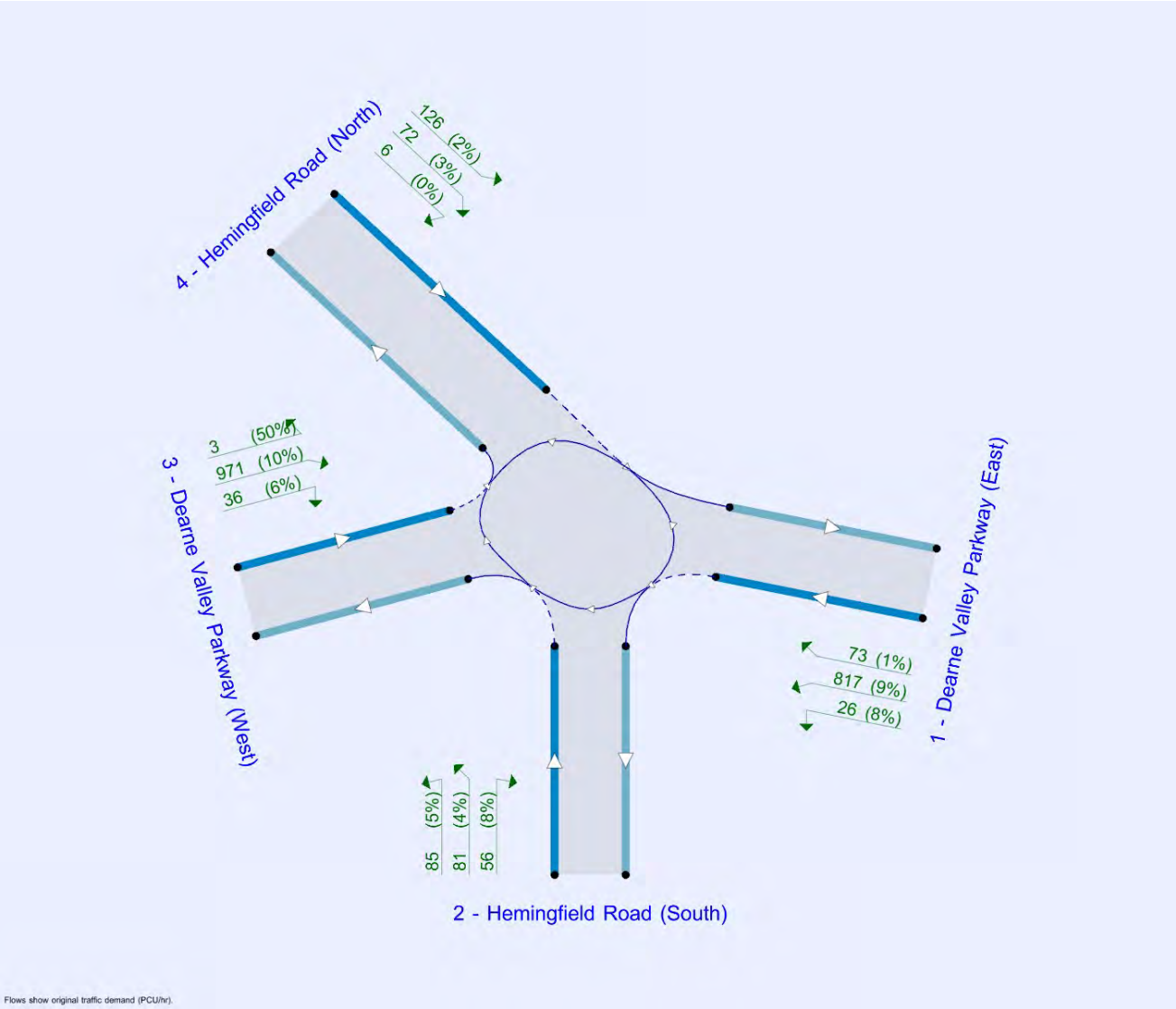
File summary

File Description

Title	Hemingfield Road Roundabout Model
Location	Hemingfield, Barnsley
Site number	
Date	11/01/2024
Version	
Status	(new file)
Identifier	
Client	Ptarmigan Land North Ltd
Jobnumber	23-160
Enumerator	BRYANGHALL\design
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



The junction diagram reflects the last run of Junctions.

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Existing	AM Peak Hour	ONE HOUR	07:45	09:15	15
D2	2023 Existing	PM Peak Hour	ONE HOUR	15:45	17:15	15
D3	2029 Base	AM Peak Hour	ONE HOUR	07:45	09:15	15
D4	2029 Base	PM Peak Hour	ONE HOUR	15:45	17:15	15
D5	2029 Predicted	AM Peak Hour	ONE HOUR	07:45	09:15	15
D6	2029 Predicted	PM Peak Hour	ONE HOUR	15:45	17:15	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Existing Layout	100.000

Existing Layout - 2023 Existing, AM Peak Hour

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	Hemingfield Road Roundabout	Standard Roundabout		1, 2, 3, 4	3.32	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Dearne Valley Parkway (East)	
2	Hemingfield Road (South)	
3	Dearne Valley Parkway (West)	
4	Hemingfield Road (North)	

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 - Dearne Valley Parkway (East)	7.50	8.10	19.4	18.0	79.0	27.5	
2 - Hemingfield Road (South)	3.90	7.00	7.7	28.0	79.0	22.0	
3 - Dearne Valley Parkway (West)	7.50	9.00	8.9	18.0	79.0	25.0	
4 - Hemingfield Road (North)	2.90	5.70	13.4	16.0	79.0	48.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Dearne Valley Parkway (East)	0.585	2446
2 - Hemingfield Road (South)	0.478	1659
3 - Dearne Valley Parkway (West)	0.610	2598
4 - Hemingfield Road (North)	0.396	1284

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Existing	AM Peak Hour	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Dearne Valley Parkway (East)		✓	923	100.000
2 - Hemingfield Road (South)		✓	222	100.000
3 - Dearne Valley Parkway (West)		✓	1010	100.000
4 - Hemingfield Road (North)		✓	209	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Dearne Valley Parkway (East)	2 - Hemingfield Road (South)	3 - Dearne Valley Parkway (West)	4 - Hemingfield Road (North)
From	1 - Dearne Valley Parkway (East)	7	26	817	73
	2 - Hemingfield Road (South)	56	0	85	81
	3 - Dearne Valley Parkway (West)	971	36	0	3
	4 - Hemingfield Road (North)	126	72	6	5

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Dearne Valley Parkway (East)	2 - Hemingfield Road (South)	3 - Dearne Valley Parkway (West)	4 - Hemingfield Road (North)
From	1 - Dearne Valley Parkway (East)	0	8	9	1
	2 - Hemingfield Road (South)	8	0	5	4
	3 - Dearne Valley Parkway (West)	10	6	0	50
	4 - Hemingfield Road (North)	2	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Dearne Valley Parkway (East)	0.43	2.88	0.8	A
2 - Hemingfield Road (South)	0.21	4.05	0.3	A
3 - Dearne Valley Parkway (West)	0.45	2.96	0.9	A
4 - Hemingfield Road (North)	0.28	6.28	0.4	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	695	89	2394	0.290	693	0.4	2.289	A
2 - Hemingfield Road (South)	167	682	1333	0.125	167	0.2	3.250	A
3 - Dearne Valley Parkway (West)	760	167	2497	0.305	758	0.5	2.275	A
4 - Hemingfield Road (North)	157	803	965	0.163	157	0.2	4.549	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	830	107	2383	0.348	829	0.6	2.507	A
2 - Hemingfield Road (South)	200	816	1269	0.157	199	0.2	3.546	A
3 - Dearne Valley Parkway (West)	908	199	2477	0.367	907	0.6	2.520	A
4 - Hemingfield Road (North)	188	961	902	0.208	188	0.3	5.149	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1016	131	2369	0.429	1015	0.8	2.876	A
2 - Hemingfield Road (South)	244	999	1181	0.207	244	0.3	4.046	A
3 - Dearne Valley Parkway (West)	1112	244	2449	0.454	1111	0.9	2.954	A
4 - Hemingfield Road (North)	230	1177	817	0.282	230	0.4	6.261	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1016	131	2369	0.429	1016	0.8	2.879	A
2 - Hemingfield Road (South)	244	1000	1181	0.207	244	0.3	4.050	A
3 - Dearne Valley Parkway (West)	1112	244	2449	0.454	1112	0.9	2.959	A
4 - Hemingfield Road (North)	230	1178	816	0.282	230	0.4	6.275	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	830	107	2383	0.348	831	0.6	2.512	A
2 - Hemingfield Road (South)	200	817	1268	0.157	200	0.2	3.553	A
3 - Dearne Valley Parkway (West)	908	200	2476	0.367	909	0.6	2.528	A
4 - Hemingfield Road (North)	188	963	902	0.208	188	0.3	5.164	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	695	90	2393	0.290	695	0.4	2.296	A
2 - Hemingfield Road (South)	167	684	1332	0.126	167	0.2	3.257	A
3 - Dearne Valley Parkway (West)	760	167	2496	0.305	761	0.5	2.282	A
4 - Hemingfield Road (North)	157	806	964	0.163	158	0.2	4.567	A

Existing Layout - 2023 Existing, PM Peak Hour

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	Hemingfield Road Roundabout	Standard Roundabout		1, 2, 3, 4	4.16	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2023 Existing	PM Peak Hour	ONE HOUR	15:45	17:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Dearne Valley Parkway (East)		✓	1313	100.000
2 - Hemingfield Road (South)		✓	174	100.000
3 - Dearne Valley Parkway (West)		✓	1224	100.000
4 - Hemingfield Road (North)		✓	200	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Dearne Valley Parkway (East)	2 - Hemingfield Road (South)	3 - Dearne Valley Parkway (West)	4 - Hemingfield Road (North)
From	1 - Dearne Valley Parkway (East)	6	110	1053	144
	2 - Hemingfield Road (South)	56	0	44	74
	3 - Dearne Valley Parkway (West)	1128	81	0	15
	4 - Hemingfield Road (North)	114	73	12	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Dearne Valley Parkway (East)	2 - Hemingfield Road (South)	3 - Dearne Valley Parkway (West)	4 - Hemingfield Road (North)
From	1 - Dearne Valley Parkway (East)	0	3	4	2
	2 - Hemingfield Road (South)	8	0	0	1
	3 - Dearne Valley Parkway (West)	6	3	0	7
	4 - Hemingfield Road (North)	3	4	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Dearne Valley Parkway (East)	0.62	4.18	1.7	A
2 - Hemingfield Road (South)	0.19	4.48	0.2	A
3 - Dearne Valley Parkway (West)	0.56	3.59	1.3	A
4 - Hemingfield Road (North)	0.30	7.30	0.4	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	988	125	2373	0.417	986	0.7	2.685	A
2 - Hemingfield Road (South)	131	913	1222	0.107	131	0.1	3.390	A
3 - Dearne Valley Parkway (West)	921	211	2470	0.373	919	0.6	2.452	A
4 - Hemingfield Road (North)	151	954	905	0.166	150	0.2	4.911	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1180	150	2358	0.501	1179	1.0	3.163	A
2 - Hemingfield Road (South)	156	1092	1137	0.138	156	0.2	3.777	A
3 - Dearne Valley Parkway (West)	1100	252	2444	0.450	1099	0.9	2.831	A
4 - Hemingfield Road (North)	180	1142	831	0.216	179	0.3	5.698	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1446	183	2338	0.618	1443	1.7	4.157	A
2 - Hemingfield Road (South)	192	1337	1020	0.188	191	0.2	4.469	A
3 - Dearne Valley Parkway (West)	1348	309	2410	0.559	1346	1.3	3.573	A
4 - Hemingfield Road (North)	220	1397	730	0.302	220	0.4	7.273	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1446	184	2338	0.618	1446	1.7	4.181	A
2 - Hemingfield Road (South)	192	1339	1019	0.188	192	0.2	4.476	A
3 - Dearne Valley Parkway (West)	1348	309	2410	0.559	1348	1.3	3.585	A
4 - Hemingfield Road (North)	220	1399	729	0.302	220	0.4	7.301	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1180	151	2358	0.501	1183	1.0	3.182	A
2 - Hemingfield Road (South)	156	1095	1135	0.138	157	0.2	3.788	A
3 - Dearne Valley Parkway (West)	1100	253	2444	0.450	1102	0.9	2.842	A
4 - Hemingfield Road (North)	180	1145	830	0.217	180	0.3	5.724	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	988	126	2372	0.417	990	0.7	2.701	A
2 - Hemingfield Road (South)	131	917	1221	0.107	131	0.1	3.399	A
3 - Dearne Valley Parkway (West)	921	212	2469	0.373	922	0.6	2.463	A
4 - Hemingfield Road (North)	151	958	904	0.167	151	0.2	4.936	A

Existing Layout - 2029 Base, AM Peak Hour

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	Hemingfield Road Roundabout	Standard Roundabout		1, 2, 3, 4	3.55	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2029 Base	AM Peak Hour	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Dearne Valley Parkway (East)		✓	976	100.000
2 - Hemingfield Road (South)		✓	251	100.000
3 - Dearne Valley Parkway (West)		✓	1080	100.000
4 - Hemingfield Road (North)		✓	222	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Dearne Valley Parkway (East)	2 - Hemingfield Road (South)	3 - Dearne Valley Parkway (West)	4 - Hemingfield Road (North)
From	1 - Dearne Valley Parkway (East)	7	28	864	77
	2 - Hemingfield Road (South)	59	0	103	89
	3 - Dearne Valley Parkway (West)	1027	50	0	3
	4 - Hemingfield Road (North)	133	78	6	5

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Dearne Valley Parkway (East)	2 - Hemingfield Road (South)	3 - Dearne Valley Parkway (West)	4 - Hemingfield Road (North)
From	1 - Dearne Valley Parkway (East)	0	8	9	1
	2 - Hemingfield Road (South)	8	0	3	5
	3 - Dearne Valley Parkway (West)	10	4	0	50
	4 - Hemingfield Road (North)	2	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Dearne Valley Parkway (East)	0.46	3.04	0.9	A
2 - Hemingfield Road (South)	0.24	4.30	0.3	A
3 - Dearne Valley Parkway (West)	0.49	3.16	1.0	A
4 - Hemingfield Road (North)	0.31	6.81	0.5	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	735	104	2385	0.308	733	0.5	2.357	A
2 - Hemingfield Road (South)	189	720	1315	0.144	188	0.2	3.350	A
3 - Dearne Valley Parkway (West)	813	178	2490	0.327	811	0.5	2.351	A
4 - Hemingfield Road (North)	167	858	943	0.177	166	0.2	4.732	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	877	125	2373	0.370	877	0.6	2.602	A
2 - Hemingfield Road (South)	226	862	1247	0.181	225	0.2	3.694	A
3 - Dearne Valley Parkway (West)	971	213	2469	0.393	970	0.7	2.636	A
4 - Hemingfield Road (North)	200	1027	876	0.228	199	0.3	5.433	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1075	153	2356	0.456	1074	0.9	3.034	A
2 - Hemingfield Road (South)	276	1055	1155	0.239	276	0.3	4.294	A
3 - Dearne Valley Parkway (West)	1189	261	2439	0.487	1188	1.0	3.155	A
4 - Hemingfield Road (North)	244	1257	785	0.311	244	0.5	6.788	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1075	153	2356	0.456	1075	0.9	3.039	A
2 - Hemingfield Road (South)	276	1056	1154	0.239	276	0.3	4.300	A
3 - Dearne Valley Parkway (West)	1189	261	2439	0.488	1189	1.0	3.160	A
4 - Hemingfield Road (North)	244	1258	785	0.312	244	0.5	6.813	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	877	125	2372	0.370	878	0.6	2.609	A
2 - Hemingfield Road (South)	226	863	1246	0.181	226	0.2	3.700	A
3 - Dearne Valley Parkway (West)	971	213	2468	0.393	972	0.7	2.645	A
4 - Hemingfield Road (North)	200	1029	876	0.228	200	0.3	5.454	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	735	105	2384	0.308	735	0.5	2.363	A
2 - Hemingfield Road (South)	189	723	1313	0.144	189	0.2	3.357	A
3 - Dearne Valley Parkway (West)	813	179	2489	0.327	814	0.5	2.359	A
4 - Hemingfield Road (North)	167	861	942	0.177	167	0.2	4.753	A

Existing Layout - 2029 Base, PM Peak Hour

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	Hemingfield Road Roundabout	Standard Roundabout		1, 2, 3, 4	4.64	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2029 Base	PM Peak Hour	ONE HOUR	15:45	17:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Dearne Valley Parkway (East)		✓	1388	100.000
2 - Hemingfield Road (South)		✓	201	100.000
3 - Dearne Valley Parkway (West)		✓	1307	100.000
4 - Hemingfield Road (North)		✓	214	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Dearne Valley Parkway (East)	2 - Hemingfield Road (South)	3 - Dearne Valley Parkway (West)	4 - Hemingfield Road (North)
From	1 - Dearne Valley Parkway (East)	6	116	1114	152
	2 - Hemingfield Road (South)	59	0	61	81
	3 - Dearne Valley Parkway (West)	1194	97	0	16
	4 - Hemingfield Road (North)	121	79	13	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Dearne Valley Parkway (East)	2 - Hemingfield Road (South)	3 - Dearne Valley Parkway (West)	4 - Hemingfield Road (North)
From	1 - Dearne Valley Parkway (East)	0	3	4	2
	2 - Hemingfield Road (South)	8	0	0	1
	3 - Dearne Valley Parkway (West)	6	2	0	7
	4 - Hemingfield Road (North)	3	4	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Dearne Valley Parkway (East)	0.66	4.69	2.0	A
2 - Hemingfield Road (South)	0.23	4.86	0.3	A
3 - Dearne Valley Parkway (West)	0.60	3.97	1.6	A
4 - Hemingfield Road (North)	0.34	8.14	0.5	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1045	142	2362	0.442	1042	0.8	2.819	A
2 - Hemingfield Road (South)	151	965	1197	0.126	151	0.1	3.528	A
3 - Dearne Valley Parkway (West)	984	224	2462	0.400	981	0.7	2.566	A
4 - Hemingfield Road (North)	161	1018	880	0.183	160	0.2	5.153	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1248	171	2346	0.532	1246	1.2	3.389	A
2 - Hemingfield Road (South)	181	1155	1107	0.163	180	0.2	3.988	A
3 - Dearne Valley Parkway (West)	1175	268	2435	0.483	1174	1.0	3.015	A
4 - Hemingfield Road (North)	192	1218	801	0.240	192	0.3	6.097	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1528	209	2324	0.658	1525	2.0	4.655	A
2 - Hemingfield Road (South)	221	1413	983	0.225	221	0.3	4.844	A
3 - Dearne Valley Parkway (West)	1439	329	2398	0.600	1437	1.6	3.949	A
4 - Hemingfield Road (North)	236	1491	693	0.340	235	0.5	8.097	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1528	209	2323	0.658	1528	2.0	4.693	A
2 - Hemingfield Road (South)	221	1416	982	0.225	221	0.3	4.856	A
3 - Dearne Valley Parkway (West)	1439	329	2398	0.600	1439	1.6	3.969	A
4 - Hemingfield Road (North)	236	1493	692	0.341	236	0.5	8.143	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1248	171	2346	0.532	1251	1.2	3.418	A
2 - Hemingfield Road (South)	181	1159	1105	0.164	181	0.2	4.001	A
3 - Dearne Valley Parkway (West)	1175	269	2434	0.483	1177	1.0	3.035	A
4 - Hemingfield Road (North)	192	1221	799	0.241	193	0.3	6.137	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1045	143	2362	0.442	1046	0.8	2.839	A
2 - Hemingfield Road (South)	151	970	1195	0.127	152	0.1	3.539	A
3 - Dearne Valley Parkway (West)	984	225	2461	0.400	985	0.7	2.582	A
4 - Hemingfield Road (North)	161	1022	878	0.183	161	0.2	5.183	A

Existing Layout - 2029 Predicted, AM Peak Hour

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	Hemingfield Road Roundabout	Standard Roundabout		1, 2, 3, 4	3.66	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2029 Predicted	AM Peak Hour	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Dearne Valley Parkway (East)		✓	980	100.000
2 - Hemingfield Road (South)		✓	304	100.000
3 - Dearne Valley Parkway (West)		✓	1088	100.000
4 - Hemingfield Road (North)		✓	228	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Dearne Valley Parkway (East)	2 - Hemingfield Road (South)	3 - Dearne Valley Parkway (West)	4 - Hemingfield Road (North)
From	1 - Dearne Valley Parkway (East)	7	32	864	77
	2 - Hemingfield Road (South)	73	0	126	105
	3 - Dearne Valley Parkway (West)	1027	58	0	3
	4 - Hemingfield Road (North)	133	84	6	5

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Dearne Valley Parkway (East)	2 - Hemingfield Road (South)	3 - Dearne Valley Parkway (West)	4 - Hemingfield Road (North)
From	1 - Dearne Valley Parkway (East)	0	7	9	1
	2 - Hemingfield Road (South)	6	0	3	4
	3 - Dearne Valley Parkway (West)	10	4	0	50
	4 - Hemingfield Road (North)	2	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Dearne Valley Parkway (East)	0.46	3.07	0.9	A
2 - Hemingfield Road (South)	0.29	4.57	0.4	A
3 - Dearne Valley Parkway (West)	0.50	3.23	1.1	A
4 - Hemingfield Road (North)	0.32	7.02	0.5	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	738	115	2379	0.310	736	0.5	2.367	A
2 - Hemingfield Road (South)	229	720	1315	0.174	228	0.2	3.444	A
3 - Dearne Valley Parkway (West)	819	200	2476	0.331	817	0.5	2.378	A
4 - Hemingfield Road (North)	172	875	937	0.183	171	0.2	4.800	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	881	137	2365	0.372	880	0.6	2.621	A
2 - Hemingfield Road (South)	273	862	1247	0.219	273	0.3	3.845	A
3 - Dearne Valley Parkway (West)	978	240	2452	0.399	977	0.7	2.677	A
4 - Hemingfield Road (North)	205	1047	869	0.236	205	0.3	5.542	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1079	168	2347	0.460	1078	0.9	3.065	A
2 - Hemingfield Road (South)	335	1055	1155	0.290	334	0.4	4.563	A
3 - Dearne Valley Parkway (West)	1198	294	2419	0.495	1197	1.1	3.228	A
4 - Hemingfield Road (North)	251	1281	776	0.324	250	0.5	7.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1079	168	2347	0.460	1079	0.9	3.070	A
2 - Hemingfield Road (South)	335	1056	1154	0.290	335	0.4	4.571	A
3 - Dearne Valley Parkway (West)	1198	294	2419	0.495	1198	1.1	3.234	A
4 - Hemingfield Road (North)	251	1283	775	0.324	251	0.5	7.025	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	881	138	2365	0.373	882	0.6	2.629	A
2 - Hemingfield Road (South)	273	863	1246	0.219	274	0.3	3.854	A
3 - Dearne Valley Parkway (West)	978	240	2452	0.399	979	0.7	2.685	A
4 - Hemingfield Road (North)	205	1049	868	0.236	206	0.3	5.567	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	738	115	2378	0.310	738	0.5	2.377	A
2 - Hemingfield Road (South)	229	723	1313	0.174	229	0.2	3.457	A
3 - Dearne Valley Parkway (West)	819	201	2476	0.331	820	0.5	2.386	A
4 - Hemingfield Road (North)	172	878	935	0.183	172	0.2	4.823	A

Existing Layout - 2029 Predicted, PM Peak Hour

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	Hemingfield Road Roundabout	Standard Roundabout		1, 2, 3, 4	4.85	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2029 Predicted	PM Peak Hour	ONE HOUR	15:45	17:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Dearne Valley Parkway (East)		✓	1401	100.000
2 - Hemingfield Road (South)		✓	222	100.000
3 - Dearne Valley Parkway (West)		✓	1327	100.000
4 - Hemingfield Road (North)		✓	228	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Dearne Valley Parkway (East)	2 - Hemingfield Road (South)	3 - Dearne Valley Parkway (West)	4 - Hemingfield Road (North)
From	1 - Dearne Valley Parkway (East)	6	129	1114	152
	2 - Hemingfield Road (South)	65	0	69	88
	3 - Dearne Valley Parkway (West)	1194	117	0	16
	4 - Hemingfield Road (North)	121	93	13	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Dearne Valley Parkway (East)	2 - Hemingfield Road (South)	3 - Dearne Valley Parkway (West)	4 - Hemingfield Road (North)
From	1 - Dearne Valley Parkway (East)	0	3	4	2
	2 - Hemingfield Road (South)	7	0	0	1
	3 - Dearne Valley Parkway (West)	6	2	0	7
	4 - Hemingfield Road (North)	3	4	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Dearne Valley Parkway (East)	0.67	4.92	2.1	A
2 - Hemingfield Road (South)	0.25	4.99	0.3	A
3 - Dearne Valley Parkway (West)	0.61	4.10	1.7	A
4 - Hemingfield Road (North)	0.37	8.65	0.6	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1055	168	2348	0.449	1051	0.8	2.872	A
2 - Hemingfield Road (South)	167	965	1197	0.140	166	0.2	3.572	A
3 - Dearne Valley Parkway (West)	999	234	2456	0.407	996	0.7	2.600	A
4 - Hemingfield Road (North)	172	1037	872	0.197	171	0.3	5.288	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1259	201	2328	0.541	1258	1.2	3.483	A
2 - Hemingfield Road (South)	200	1155	1107	0.180	199	0.2	4.059	A
3 - Dearne Valley Parkway (West)	1193	280	2427	0.491	1192	1.0	3.075	A
4 - Hemingfield Road (North)	205	1241	791	0.259	205	0.4	6.327	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1543	246	2302	0.670	1539	2.1	4.870	A
2 - Hemingfield Road (South)	244	1413	984	0.249	244	0.3	4.979	A
3 - Dearne Valley Parkway (West)	1461	343	2389	0.612	1459	1.6	4.076	A
4 - Hemingfield Road (North)	251	1519	681	0.368	250	0.6	8.597	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1543	247	2301	0.670	1542	2.1	4.917	A
2 - Hemingfield Road (South)	244	1416	982	0.249	244	0.3	4.995	A
3 - Dearne Valley Parkway (West)	1461	344	2389	0.612	1461	1.7	4.098	A
4 - Hemingfield Road (North)	251	1522	680	0.369	251	0.6	8.655	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1259	202	2328	0.541	1263	1.2	3.515	A
2 - Hemingfield Road (South)	200	1159	1105	0.181	200	0.2	4.076	A
3 - Dearne Valley Parkway (West)	1193	281	2427	0.492	1195	1.0	3.096	A
4 - Hemingfield Road (North)	205	1245	790	0.259	206	0.4	6.371	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1055	169	2347	0.449	1056	0.9	2.894	A
2 - Hemingfield Road (South)	167	970	1195	0.140	167	0.2	3.584	A
3 - Dearne Valley Parkway (West)	999	235	2455	0.407	1000	0.7	2.616	A
4 - Hemingfield Road (North)	172	1042	871	0.197	172	0.3	5.322	A

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462

Filename: 23-160 Proposed Site Access Juction Model - updated.j9
Path: Y:\2023\23-151 to 23-175\23-160 Residential Development Hemingfield, Barnsley\Technical\Junction Modelling\Site Access
Report generation date: 30/01/2024 14:21:43

Summary of junction performance

	AM Peak Hour					PM Peak Hour				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	Proposed Layout - 2029 Predicted 180									
Stream B-AC	D1	0.2	9.07	0.15	A	D2	0.1	8.90	0.07	A
Stream C-AB		0.0	5.92	0.01	A		0.0	6.51	0.02	A
	Proposed Layout - 2029 Predicted 400									
Stream B-AC	D3	0.5	11.83	0.35	B	D4	0.2	9.99	0.15	A
Stream C-AB		0.0	6.05	0.02	A		0.1	6.90	0.05	A

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

File summary

File Description

Title	Proposed Site Access Junction Model
Location	Hemingfield, Barnsley
Site number	
Date	04/12/2023
Version	
Status	(new file)
Identifier	
Client	Ptarmigan Land
Jobnumber	23-160
Enumerator	BRYANGHALL\Design
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2029 Predicted 180	AM Peak Hour	ONE HOUR	07:45	09:15	15
D2	2029 Predicted 180	PM Peak Hour	ONE HOUR	15:45	17:15	15
D3	2029 Predicted 400	AM Peak Hour	ONE HOUR	07:45	09:15	15
D4	2029 Predicted 400	PM Peak Hour	ONE HOUR	15:45	17:15	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Proposed Layout	100.000

Proposed Layout - 2029 Predicted 180, AM Peak Hour

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	Proposed Site Access	T-Junction	Two-way		1.26	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Hemingfield Road (North)		Major
B	Proposed Site Access		Minor
C	Hemingfield Road (South)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Hemingfield Road (South)	6.00		✓	3.00	60.0	✓	5.00

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 - Proposed Site Access	One lane	3.66	26	21

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	529	0.096	0.244	0.153	0.348
B-C	679	0.104	0.263	-	-
C-B	662	0.256	0.256	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2029 Predicted 180	AM Peak Hour	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Hemingfield Road (North)		✓	174	100.000
B - Proposed Site Access		✓	66	100.000
C - Hemingfield Road (South)		✓	255	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Hemingfield Road (North)	B - Proposed Site Access	C - Hemingfield Road (South)
From	A - Hemingfield Road (North)	0	19	155
	B - Proposed Site Access	53	0	13
	C - Hemingfield Road (South)	251	4	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Hemingfield Road (North)	B - Proposed Site Access	C - Hemingfield Road (South)
From	A - Hemingfield Road (North)	0	0	4
	B - Proposed Site Access	0	0	0
	C - Hemingfield Road (South)	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.15	9.07	0.2	A
C-AB	0.01	5.92	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	50	496	0.100	49	0.1	8.049	A
C-AB	3	628	0.005	3	0.0	5.758	A
C-A	189			189			
A-B	14			14			
A-C	117			117			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	59	485	0.122	59	0.1	8.453	A
C-AB	4	622	0.006	4	0.0	5.824	A
C-A	226			226			
A-B	17			17			
A-C	139			139			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	73	470	0.155	72	0.2	9.063	A
C-AB	4	613	0.007	4	0.0	5.918	A
C-A	276			276			
A-B	21			21			
A-C	171			171			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	73	470	0.155	73	0.2	9.070	A
C-AB	4	613	0.007	4	0.0	5.918	A
C-A	276			276			
A-B	21			21			
A-C	171			171			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	59	485	0.122	59	0.1	8.465	A
C-AB	4	622	0.006	4	0.0	5.826	A
C-A	226			226			
A-B	17			17			
A-C	139			139			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	50	496	0.100	50	0.1	8.067	A
C-AB	3	628	0.005	3	0.0	5.758	A
C-A	189			189			
A-B	14			14			
A-C	117			117			

Proposed Layout - 2029 Predicted 180, PM Peak Hour

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	Proposed Site Access	T-Junction	Two-way		0.54	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2029 Predicted 180	PM Peak Hour	ONE HOUR	15:45	17:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Hemingfield Road (North)		✓	338	100.000
B - Proposed Site Access		✓	26	100.000
C - Hemingfield Road (South)		✓	213	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Hemingfield Road (North)	B - Proposed Site Access	C - Hemingfield Road (South)
From	A - Hemingfield Road (North)	0	46	292
	B - Proposed Site Access	21	0	5
	C - Hemingfield Road (South)	201	12	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Hemingfield Road (North)	B - Proposed Site Access	C - Hemingfield Road (South)
From	A - Hemingfield Road (North)	0	0	3
	B - Proposed Site Access	0	0	0
	C - Hemingfield Road (South)	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.07	8.90	0.1	A
C-AB	0.02	6.51	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	471	0.042	19	0.0	7.967	A
C-AB	9	596	0.015	9	0.0	6.127	A
C-A	151			151			
A-B	35			35			
A-C	220			220			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	455	0.051	23	0.1	8.334	A
C-AB	11	584	0.018	11	0.0	6.281	A
C-A	181			181			
A-B	41			41			
A-C	263			263			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	433	0.066	29	0.1	8.897	A
C-AB	13	566	0.023	13	0.0	6.508	A
C-A	221			221			
A-B	51			51			
A-C	321			321			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	433	0.066	29	0.1	8.899	A
C-AB	13	566	0.023	13	0.0	6.508	A
C-A	221			221			
A-B	51			51			
A-C	321			321			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	455	0.051	23	0.1	8.339	A
C-AB	11	584	0.018	11	0.0	6.282	A
C-A	181			181			
A-B	41			41			
A-C	263			263			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	471	0.042	20	0.0	7.975	A
C-AB	9	596	0.015	9	0.0	6.127	A
C-A	151			151			
A-B	35			35			
A-C	220			220			

Proposed Layout - 2029 Predicted 400, AM Peak Hour

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	Proposed Site Access	T-Junction	Two-way		2.98	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2029 Predicted 400	AM Peak Hour	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Hemingfield Road (North)		✓	196	100.000
B - Proposed Site Access		✓	147	100.000
C - Hemingfield Road (South)		✓	261	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Hemingfield Road (North)	B - Proposed Site Access	C - Hemingfield Road (South)
From	A - Hemingfield Road (North)	0	41	155
	B - Proposed Site Access	117	0	30
	C - Hemingfield Road (South)	251	10	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Hemingfield Road (North)	B - Proposed Site Access	C - Hemingfield Road (South)
From	A - Hemingfield Road (North)	0	0	4
	B - Proposed Site Access	0	0	0
	C - Hemingfield Road (South)	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.35	11.83	0.5	B
C-AB	0.02	6.05	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	111	494	0.224	110	0.3	9.333	A
C-AB	8	624	0.012	7	0.0	5.840	A
C-A	189			189			
A-B	31			31			
A-C	117			117			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	132	482	0.274	132	0.4	10.257	B
C-AB	9	617	0.015	9	0.0	5.924	A
C-A	226			226			
A-B	37			37			
A-C	139			139			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	162	466	0.347	161	0.5	11.784	B
C-AB	11	606	0.018	11	0.0	6.045	A
C-A	276			276			
A-B	45			45			
A-C	171			171			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	162	466	0.347	162	0.5	11.829	B
C-AB	11	606	0.018	11	0.0	6.045	A
C-A	276			276			
A-B	45			45			
A-C	171			171			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	132	482	0.274	133	0.4	10.312	B
C-AB	9	617	0.015	9	0.0	5.925	A
C-A	226			226			
A-B	37			37			
A-C	139			139			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	111	494	0.224	111	0.3	9.405	A
C-AB	8	624	0.012	8	0.0	5.840	A
C-A	189			189			
A-B	31			31			
A-C	117			117			

Proposed Layout - 2029 Predicted 400, PM Peak Hour

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	Proposed Site Access	T-Junction	Two-way		1.12	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2029 Predicted 400	PM Peak Hour	ONE HOUR	15:45	17:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Hemingfield Road (North)		✓	395	100.000
B - Proposed Site Access		✓	58	100.000
C - Hemingfield Road (South)		✓	227	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Hemingfield Road (North)	B - Proposed Site Access	C - Hemingfield Road (South)
From	A - Hemingfield Road (North)	0	103	292
	B - Proposed Site Access	46	0	12
	C - Hemingfield Road (South)	201	26	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Hemingfield Road (North)	B - Proposed Site Access	C - Hemingfield Road (South)
From	A - Hemingfield Road (North)	0	0	3
	B - Proposed Site Access	0	0	0
	C - Hemingfield Road (South)	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.15	9.99	0.2	A
C-AB	0.05	6.90	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	44	466	0.094	43	0.1	8.516	A
C-AB	20	585	0.033	19	0.0	6.358	A
C-A	151			151			
A-B	78			78			
A-C	220			220			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	52	448	0.116	52	0.1	9.085	A
C-AB	23	571	0.041	23	0.0	6.577	A
C-A	181			181			
A-B	93			93			
A-C	263			263			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	64	424	0.151	64	0.2	9.983	A
C-AB	29	550	0.052	29	0.1	6.901	A
C-A	221			221			
A-B	113			113			
A-C	321			321			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	64	424	0.151	64	0.2	9.993	A
C-AB	29	550	0.052	29	0.1	6.901	A
C-A	221			221			
A-B	113			113			
A-C	321			321			

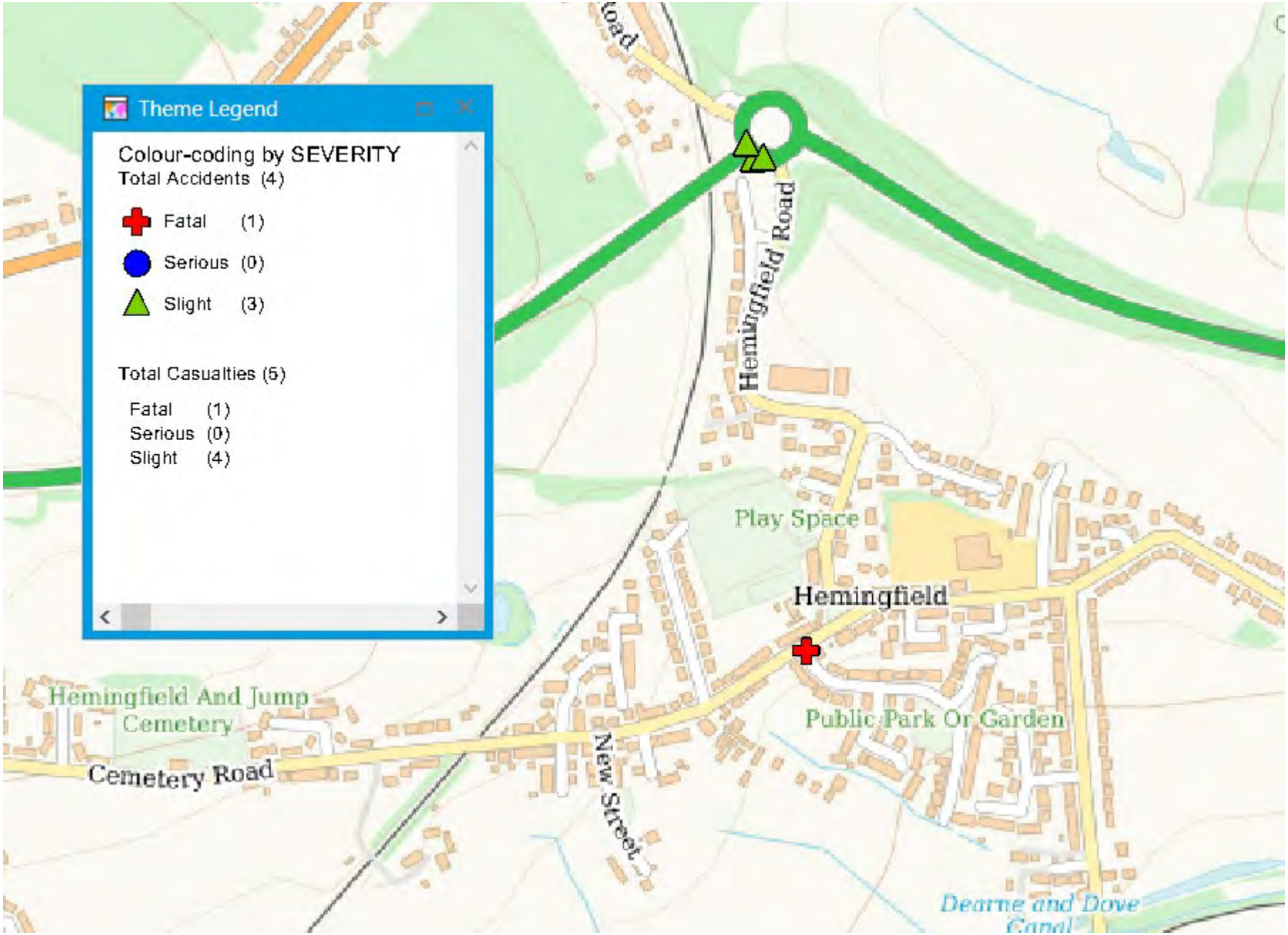
16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	52	448	0.116	52	0.1	9.099	A
C-AB	23	571	0.041	23	0.0	6.580	A
C-A	181			181			
A-B	93			93			
A-C	263			263			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	44	466	0.094	44	0.1	8.538	A
C-AB	20	585	0.033	20	0.0	6.361	A
C-A	151			151			
A-B	78			78			
A-C	220			220			

APPENDIX BGH 6


Theme Legend
Colour-coding by SEVERITY
Total Accidents (4)
Fatal (1)
Serious (0)
Slight (3)
Total Casualties (5)
Fatal (1)
Serious (0)
Slight (4)
Hemingfield Road
Play Space
Hemingfield
Hemingfield And Jump Cemetery
Cemetery Road
New Street
Public Park Or Garden
Dearne and Dove Canal

Accidents between dates **01/01/2018** **and** **17/09/2023** (69) months

Selection:

Selected using Manual Selection

Notes:

Police Ref.	Date	Cas.	Sev.	P2W	Cycs	Peds	Ch	60+	Vis.	Manv.	Road Cond.	Time	Location
221244476	20/11/2022	1	Slight	0	0	0	0	0	Light	No turn	Dry	1335	
19818240	24/02/2019	1	Slight	1	0	0	0	0	Light	No turn	Dry	1227	DEARNE VALLEY PARKWAY (A6195) BARNSLEY AT OR NR JN WITH I
20987486	05/10/2020	2	Slight	0	0	0	0	1	Light	Left	Dry	0952	HEMINGFIELD ROAD ROUNDABOUT (A6195) BARNSLEY AT OR NR J
20941957	22/03/2020	1	Fatal	1	0	0	0	0	Light	Right	Dry	1648	CEMETERY ROAD BARNSLEY AT OR NR JN WITH LADY CROFT LAN
Column Totals		5		2	0	0	0	1					
No. of Accidents				2	0	0	0	1					

Total number of accidents listed: 4

Details of Personal Injury Accidents for Period - **01/01/2018** **to** **17/09/2023** (69) months

Selection: **Notes:**

Selected using Manual Selection

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

221244476	Sunday		Veh 1	Car	Going ahead	SW	to	E	Dri	M	46 Slight
	20/11/2022		Veh 2	Car	Going ahead RH bend	E	to	NW			
R1: A 6195	1335hrs										
R2: U	Daylight:street lights present										
E 439,099	Dry										
N 402,033	Fine without high winds										
	70 mph										

Causation Factor:		**Participant:**	**Confidence:**
1st:	Illness or disability, mental or physical	Vehicle 1	Very Likely

V1 TRAVELLING FROM CORTON WOOD ON DVP A6195 TOWARDS HEMMINFIELD ROUNDABOUT. HE HAS HAD AN EPILEPTIC FIT AND TRAVELLED OVER THE ROUNDABOUT INTO ONCOMING TRAFFIC STRIKING V2 AND THEN THE BARRIER. SEEN BY AMBULANCE. CONFIRMED NO DRINK OR DRUGS AND TAKEN
TO HOSPITAL

19818240	Sunday	DEARNE VALLEY PARKWAY (A6195)	Veh 1	M/C < 125 cc	Going ahead	E	to	SW	Dri	M	49 Slight
	24/02/2019	BARNSLEY AT OR NR JN WITH	Veh 2	Car	Going ahead	E	to	SW			
R1: A 6195	1227hrs	HEMINGFIELD ROAD ROUNDABOUT									
R2: A 6195	Daylight:street lights present										
E 439,108	Dry										
N 402,014	Fine without high winds										
	70 mph										

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

BOTH VEHICLES ONE AND TWO HAVE BEEN TRAVELLING UPHILL ON THE DEARNE VALLEY PARKWAY. AS EXITING THE ROUNDABOUT, THERE HAS BEEN A MINOR COLLISION WHEN VEHICLE ONE, THE MOTORCYCLE, HAS CONNECTED WITH THE FRONT CORNER OF VEHICLE TWO. THIS HAS CAUSED THE RIDE
R TO FALL FROM THE BIKE. AFTER GETTING UP FROM THE ROAD, INITIALLY HE DIDN'T THINK THAT HE HAD BEEN INJURED. HE SPOKE WITH THE DRIVER OF VEHICLE TWO, PASSED HIM HIS DETAILS AND MOBILE NUMBER AND ASKED THE DRIVER TO CONTACT HIM LATER AS HE DIDN'T HAVE ANY
THING TO WRITE THE DETAILS DOWN WITH. VEHICLE TWO HAD LEFT THE SCENE PRIOR TO OFFICER ARRIVAL. THEY LOCATED THE RIDER SAT AT THE ROADSIDE WITH HIS BIKE. HE THEN REALISED THAT HE WAS SUFFERING PAIN TO HIS RIGHT SHOULDER AND THAT HE HAD SUSTAINED A SHOULDE
R INJURY. HE HAS TRAVELLED TO BDGH WITH A FRIEND FOR ASSESSMENT.

Details of Personal Injury Accidents for Period - **01/01/2018** **to** **17/09/2023** (69) months

Selection: **Notes:**

Selected using Manual Selection

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

20987486	Monday	HEMINGFIELD ROAD ROUNDABOUT (A6195) BARNSLEY AT OR NR JN WITH HEMMINGFIELD ROAD	Veh 1	Goods < 3.5t	Change lane to right	SE to SW			
	05/10/2020		Veh 2	Car	Turning left	SE to SW FSP	M	19	Slight
R1: A 6195	0952hrs		Veh 2	Car	Turning left	SE to SW Dri	M	71	Slight
R2: U	Daylight:street lights present								
E 439,119	Dry								
N 402,016	Fine without high winds								
	60 mph								

Causation Factor:		**Participant:**	**Confidence:**
1st:	Careless/Reckless/In a hurry	Vehicle 1	Very Likely

IT WOULD APPEAR THAT THE DRIVER OF V1 HAS INCORRECTLY NEGOTIATED THE ROUNDABOUT PULLING OUT TO THE RIGHT TO GET AROUND A CAR WHICH DIDN'T SET OFF THAT WAS IN THE LANE IN FRONT OF IT, COLLIDING WITH V2 WHICH WAS IN THE LEFT LANE PROCEEDING ONTO THE ROUNDA
BOUT AND GOING IN THE SAME DIRECTION

20941957	Sunday	CEMETERY ROAD BARNSLEY AT OR NR JN WITH LADY CROFT LANE	Veh 1	Car	Turning right	SW to SE			
	22/03/2020		Veh 2	M/C > 125 cc	Going ahead	NE to SW Dri	M	25	Fatal
R1: U	1648hrs		Veh 3	Car	Parked	0 to 0			
R2: U	Daylight:street lights present		Veh 4	Car	Parked	0 to 0			
E 439,168	Dry								
N 401,448	Fine without high winds								
	30 mph								

Causation Factor:		**Participant:**	**Confidence:**
1st:	Aggressive driving	Vehicle 2	Very Likely

V1 TRAVELS ALONG CEMETRY ROAD AND AS IT TURNS RIGHT INTO LADY CROFT LANE, V2 OFF ROAD MOTORCYCLE COLLIDES WITH NEAR SIDE FRONT OF V1, RIDER IS THROWN ONTO THE ROAD SURFACE AND LIFE IS PRONOUNCED EXTINCT AT SCENE

Accidents between dates **01/01/2018** **and** **17/09/2023** **(69) months**
Selection: **Notes:**
Selected using Manual Selection

221244476 20/11/2022 Sunday Time: 1335 Vehicles 2 Casualties 1 Slight
Easting: 439,099 Northing: 402,033
Fine without high winds Road Surface: Dry Daylight
Road Type: Roundabout Speed Limit: 70

Location:
Description: V1 TRAVELLING FROM CORTON WOOD ON DVP A6195 TOWARDS HEMMINFIELD ROUNDABOUT. HE HAS HAD AN EPILEPTIC FIT AND TRAVELLED OVER THE ROUNDABOUT INTO ONCOMING TRAFFIC STRIKING V2 AND THEN THE BARRIER. SEEN BY AMBULANCE. CONFIRMED NO DRINK OR DRUGS AND TAKEN TO HOSPITAL

Vehicle Reference: 1 Car Going ahead
First point of impact: Front
Vehicle direction: SW to E Journey: Other
Age of Driver : 46 Breath test: Negative

Contributory Factors : 505

Casualty Reference: 1 Age: 46 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Car Going ahead right hand bend
First point of impact: Front
Vehicle direction: E to NW Journey: Other
Age of Driver : 80 Breath test: Not requested

Contributory Factors : 505

Accidents between dates **01/01/2018** **and** **17/09/2023** **(69) months**
Selection: **Notes:**
Selected using Manual Selection

19818240 24/02/2019 Sunday Time: 1227 Vehicles 2 Casualties 1 Slight
Easting: 439,108 Northing: 402,014
Fine without high winds Road Surface: Dry Daylight
Road Type: Dual carriageway Speed Limit: 70

Location: DEARNE VALLEY PARKWAY (A6195) BARNSLEY AT OR NR JN WITH HEMINGFIELD ROAD ROUNDABOUT (A6195)
Description: BOTH VEHICLES ONE AND TWO HAVE BEEN TRAVELLING UPHILL ON THE DEARNE VALLEY PARKWAY. AS EXITING THE ROUNDABOUT, THERE HAS BEEN A MINOR COLLISION WHEN VEHICLE ONE, THE MOTORCYCLE, HAS CONNECTED WITH THE FRONT CORNER OF VEHICLE TWO. THIS HAS CAUSED THE RIDE R TO FALL FROM THE BIKE. AFTER GETTING UP FROM THE ROAD, INITIALLY HE DIDN'T THINK THAT HE HAD BEEN INJURED. HE SPOKE WITH THE DRIVER OF VEHICLE TWO, PASSED HIM HIS DETAILS AND MOBILE NUMBER AND ASKED THE DRIVER TO CONTACT HIM LATER AS HE DIDN'T HAVE ANY THING TO WRITE THE DETAILS DOWN WITH. VEHICLE TWO HAD LEFT THE SCENE PRIOR TO OFFICER ARRIVAL. THEY LOCATED THE RIDER SAT AT THE ROADSIDE WITH HIS BIKE. HE THEN REALISED THAT HE WAS SUFFERING PAIN TO HIS RIGHT SHOULDER AND THAT HE HAD SUSTAINED A SHOULDE R INJURY. HE HAS TRAVELLED TO BDGH WITH A FRIEND FOR ASSESSMENT.

Vehicle Reference: 1 Motorcycle over 50cc and up Going ahead
First point of impact: Offside
Vehicle direction: E to SW Journey: Other
Age of Driver : 49 Breath test: Negative

Contributory Factors : 406 405

Casualty Reference: 1 Age: 49 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Car Going ahead
First point of impact: Nearside
Vehicle direction: E to SW Journey: Not known
Age of Driver : 82 Breath test: Driver not contacted

Contributory Factors : 406 405

Accidents between dates **01/01/2018** **and** **17/09/2023** **(69) months**
Selection: **Notes:**
Selected using Manual Selection

20987486 05/10/2020 Monday Time: 0952 Vehicles 2 Casualties 2 Slight
Easting: 439,119 Northing: 402,016
Fine without high winds Road Surface: Dry Daylight
Road Type: Roundabout Speed Limit: 60

Location: HEMINGFIELD ROAD ROUNDABOUT (A6195) BARNSLEY AT OR NR JN WITH HEMMINGFIELD ROAD
Description: IT WOULD APPEAR THAT THE DRIVER OF V1 HAS INCORRECTLY NEGOTIATED THE ROUNDABOUT PULLING OUT TO THE RIGHT TO GET AROUND A CAR WHICH DIDN'T SET OFF THAT WAS IN THE LANE IN FRONT OF IT, COLLIDING WITH V2 WHICH WAS IN THE LEFT LANE PROCEEDING ONTO THE ROUNDA BOUT AND GOING IN THE SAME DIRECTION

Vehicle Reference: 1 Van or Goods <= 3.5 tonnes Changing lane to right
First point of impact: Offside
Vehicle direction: SE to SW Journey: Journey as part of work
Age of Driver : 38 Breath test: Negative

Contributory Factors : 602

Vehicle Reference: 2 Car Turning left
First point of impact: Nearside
Vehicle direction: SE to SW Journey: Not known
Age of Driver : 71 Breath test: Negative

Contributory Factors : 602

Casualty Reference: 1 Age: 71 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Casualty Reference: 2 Age: 19 Male Passenger Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Accidents between dates **01/01/2018** **and** **17/09/2023** **(69) months**
Selection: **Notes:**
Selected using Manual Selection

20941957 22/03/2020 Sunday Time: 1648 Vehicles 4 Casualties 1 Fatal
Easting: 439,168 Northing: 401,448
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 30

Location: CEMETERY ROAD BARNSLEY AT OR NR JN WITH LADY CROFT LANE
Description: V1 TRAVELS ALONG CEMETRY ROAD AND AS IT TURNS RIGHT INTO LADY CROFT LANE, V2 OFF ROAD MOTORCYCLE COLLIDES WITH NEAR SIDE FRONT OF V1, RIDER IS THROWN ONTO THE ROAD SURFACE AND LIFE IS PRONOUNCED EXTINCT AT SCENE

Vehicle Reference: 1 Car Turning right
First point of impact: Nearside
Vehicle direction: SW to SE Journey: Other
Age of Driver : 27 Breath test: Negative

Contributory Factors : 601

Vehicle Reference: 2 Motorcycle over 125cc and up Going ahead
First point of impact: Front
Vehicle direction: NE to SW Journey: Not known
Age of Driver : 25 Breath test: Not provided (medical)

Contributory Factors : 601

Casualty Reference: 1 Age: 25 Male Driver/rider Severity: Fatal
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 3 Car Parked
First point of impact: Back
Vehicle direction: Parked to Parked Journey: Not known
Age of Driver : Breath test: Driver not contacted

Contributory Factors : 601

Accidents between dates **01/01/2018** **and** **17/09/2023** **(69) months**
Selection: **Notes:**
Selected using Manual Selection

Vehicle Reference: 4 Car Parked
First point of impact: Back
Vehicle direction: Parked to Parked Journey: Not known
Age of Driver : Breath test: Driver not contacted

Contributory Factors : 601

Accidents involving:

	Fatal	Serious	Slight	Total
Motor vehicles only excluding 2-wheels	0	0	2	2
2-wheeled motor vehicles	1	0	1	2
Pedal cycles	0	0	0	0
Horses & other	0	0	0	0
Total	1	0	3	4

Casualties:

	Fatal	Serious	Slight	Total
Vehicle driver	0	0	2	2
Passenger	0	0	1	1
Motorcycle rider	1	0	1	2
Cyclist	0	0	0	0
Pedestrian	0	0	0	0
Other	0	0	0	0
Total	1	0	4	5

Accidents between dates **01/01/2018** **and** **17/09/2023** (69) months

Selection:

Selected using Manual Selection

Notes:

Police Ref.	Acc Class	Date	Day	Time	Grid References	Casualties Ftl	Ser	Slt	Causation Factors/ Prob	Ped L M D	Light	Weather	Road Surface	Vehicle Types
221244476	Slight	20/11/2022	Sun	1335	439099 402033	0	0	1	505V1A	0 0 0	Light	Fine without high winds	Dry	9 9
19818240	Slight	24/02/2019	Sun	1227	439108 402014	0	0	1	406V1B 405V1B	0 0 0	Light	Fine without high winds	Dry	3 9
20987486	Slight	05/10/2020	Mon	0952	439119 402016	0	0	2	602V1A	0 0 0	Light	Fine without high winds	Dry	19 9
20941957	Fatal	22/03/2020	Sun	1648	439168 401448	1	0	0	601V2A	0 0 0	Light	Fine without high winds	Dry	9 4 9 9

Column Totals

Slight : 3
Serious : 0
Fatal : 1

1 0 0

Light : 4
Dark : 0

Dry : 4
Wet : 0

Total number of accidents listed: 4