

**Proposed Residential Development
Bankfield Drive, Holmbridge
Transport Statement**

March 2023 (Revision 3)

Prepared on behalf of
Orion Homes Limited

Quality Management

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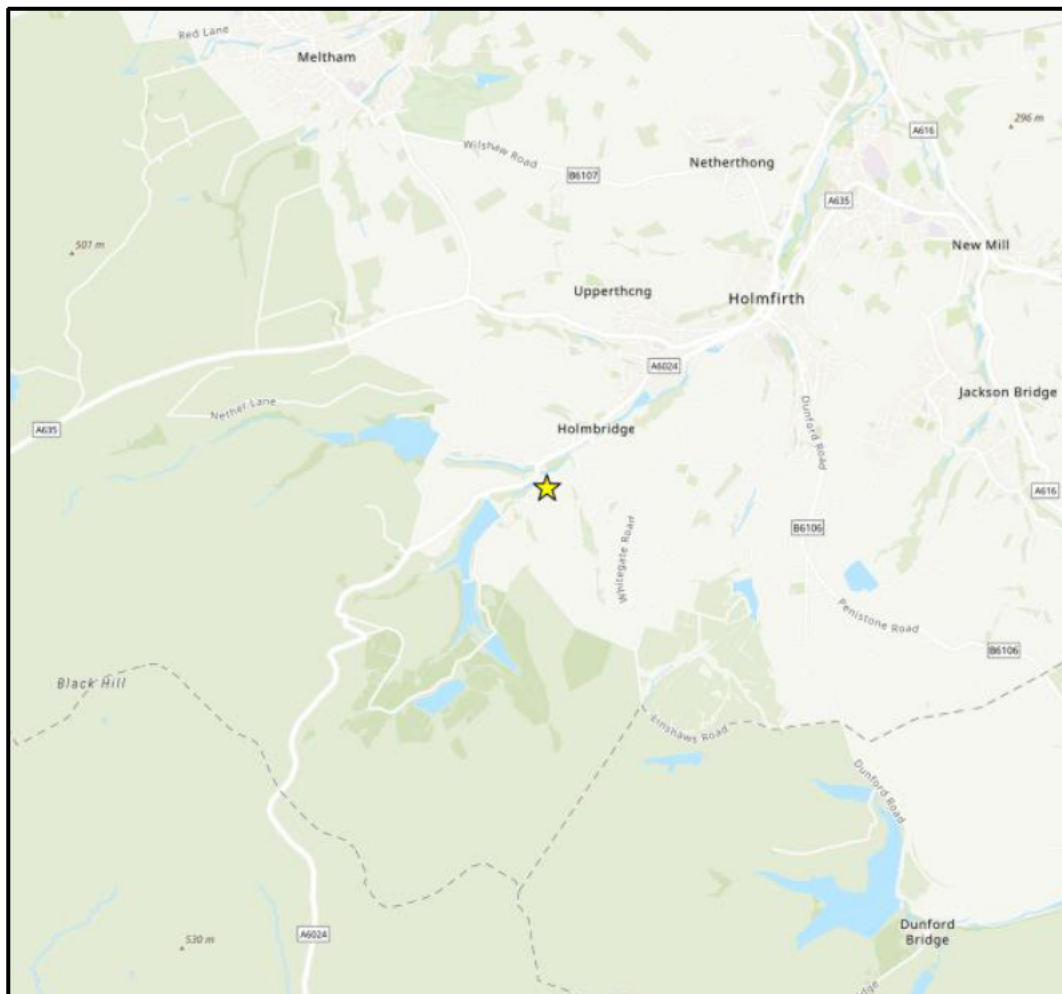
1. Introduction

1.1 INTRODUCTION

1.1.1 Optima Highways and Transportation Consultancy Ltd (Optima) has been appointed by Orion Homes Limited (Orion Homes) to prepare a Transport Statement (TS) that considers the highways and transportation matters associated with a proposed residential development of 16 dwellings on land to the west of Bankfield Drive in Holmbridge, Holmfirth. Holmbridge is a small village to the south-west of Holmfirth and lies within the administrative area of Kirklees Council (KC).

1.1.2 The site location in relation to the local highway network is shown in Figure 1 with an extract of this figure given in Image 1.1.

Image 1.1 Site Location



1.1.3 The development proposals are shown on the Orion Homes Site Layout drawing contained at Appendix A and can be summarised as follows:

- Construction of 16 residential dwellings;
- Access via Laithe Avenue; and
- Associated parking, landscaping and infrastructure.



1.2 TRANSPORT ASSESSMENT SCOPING DISCUSSION

1.2.1 Formal pre-application discussions took place between Orion Homes and Kirklees Council (KC) in 2022 to discuss and seek advice on the proposed residential development. This advice covers topics relating to highways, access, sustainable travel, parking and design.

1.2.2 A copy of the KC pre-application response is contained at Appendix B.

1.3 PLANNING HISTORY AND SITE ALLOCATION

1.3.1 The Site, which is currently an empty field, has no previous planning history, although the Site is allocated for housing in the Kirklees Local Plan (Site HS183). The Kirklees Local Plan is derived from government guidance that requires all local Councils to develop a long-term plan which sets out how and where land can be developed up to 2031, in order to meet the growing needs of local people and businesses.

1.3.2 The Kirklees Local Plan states that the Site access is achievable from Laithe Avenue. The policy description also confirms the requirement for a Transport Statement with the Site having an indicative capacity of around 23 dwellings.

1.3.3 The principle of development of the Site for residential uses is therefore established.

1.4 SCHEME PROPOSAL AND SCOPE OF REPORT

1.4.1 This TS has been prepared to accompany a full planning application for the construction of 16 dwellings including access. It is noted that the proposed 16 dwellings are substantially less than the 23 capacity that the Council identifies in the Local Plan allocation.

1.4.2 The report has been prepared in accordance with the Department for Communities and Local Government (DCLG) 'National Planning Practice Guidance' published in 2014 which supersedes the Department for Transport (DfT) and DCLG's 'Guidance on Transport Assessment' (GTA) document. Cognisance has also been taken of the prevailing National Planning Policy Framework (NPPF) as well as Kirklees Local Plan. Paragraph 111 of NPPF, July 2021, states that:

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

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

- Section 2 – describes the Site, its surroundings and existing transport conditions including access by all modes of transport;
- Section 3 – sets out the development proposals including means of access, parking and servicing;
- Section 4 - describes the accessibility of the Site by non-car modes including accessibility to local facilities / services;
- Section 5 - sets out the trip generation and distribution methodologies associated with the proposed development. The material impact of the development proposals is described and consideration given to the off-site comments raised by the Council in their pre-app response; and
- Section 6 – summarises and concludes the Transport Statement.



1.4.4 A Site visit was undertaken on Tuesday 7th March 2023 and details from this visit, along with information from the design team and third parties, inform this report and its findings.



2. Existing Site and Conditions

2.1 INTRODUCTION

2.1.1 The section describes the location of the Site and considers the existing conditions on the surrounding highway network for a range of transport modes including public transport provision. The section also includes a review of personal injury collision data.

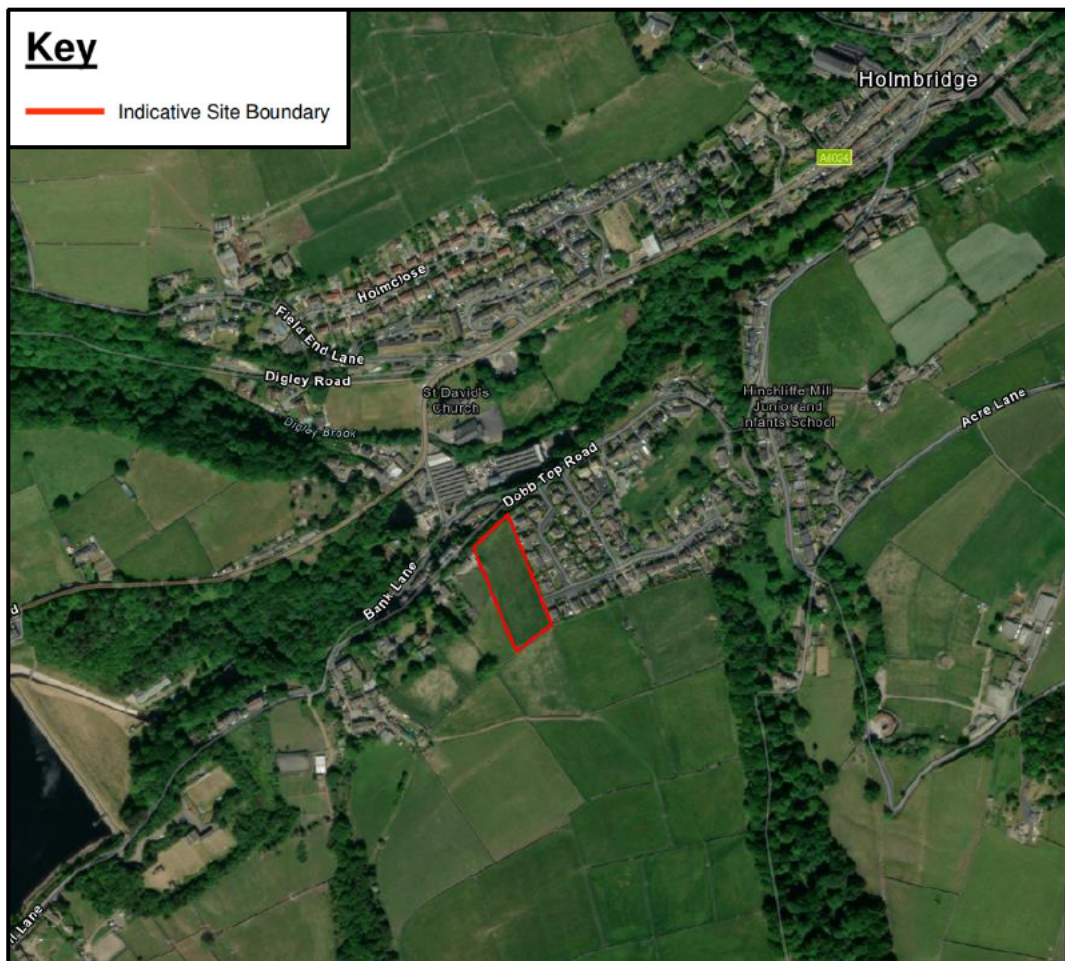
2.2 EXISTING SITE

2.2.1 The Site is generally rectangular in shape and currently is a green field which appears to be put to general agricultural use.

2.2.2 The Site is bound to the north by Dobb Top Road, to the south and west by other fields, and to the east by existing residential properties. There is currently no formal point of access into the Site, but Laithe Avenue adjoins to the eastern boundary of the Site.

2.2.3 In the wider context, the Site is situated to the south of Holmbridge Village Centre and lies some 10km to the south of Huddersfield Town Centre. The Site in relation to the strategic and local transport networks is shown on Figures 1 and 2, respectively. Image 2.1 below illustrates the indicative Site boundary.

Image 2.1 Indicative Site Boundary



2.3 LOCAL HIGHWAY NETWORK

2.3.1 Dobb Top Road, a single carriageway road, to the north of the Site runs in a generally northeast to southwest direction from a simple priority junction in the east with Hollin Brigg Lane and Dobb Lane. Where Dobb Top Road meets Hollin Brigg Lane and Dobb Lane, Dobb Lane forms the northern section, Hollin Brigg Lane forms the southern section and Dobb Top Road joins from a south easterly direction. To the southwest Dobb Top Road forms a priority junction with Bank Lane and Kilnhouse Bank Lane, as seen within Image 2.1.

2.3.2 Smithy Lane is a small steep section of road that joins Bank Lane and Dobb Top Road. A handful of residential dwellings and a car garage are accessible off Smithy Lane. Both Smithy Lane and Dobb Top Road have warning road signs, along their lengths, stating the roads are Rural School Routes and also show a parent/child warning sign. Some of the signs also have the flashing amber lights to alert drivers to the signs.

2.3.3 To the east of the Site, Bankfield Drive runs in a generally southerly direction from a simple priority junction with Dobb Top Lane to the north, with another simple priority junction to the south where it adjoins to Laithe Avenue. Bankfield Drive is circa. 130m in length and serves around 9 no. residential dwellings with private driveways scattered along its length. Bankfield Drive also has footways on both sides of the road.

2.3.4 To the southeast of the Site, Laithe Avenue runs in an east to west direction, with the western end adjoining to the Site. Laithe Avenue is circa. 215m in length and is a generally straight road, both ends of which are cul-de-sacs. Along its length there are two simple priority junctions with Bankfield Drive and Laithe Bank Drive. Private driveways are scattered along its length with footways provided on both sides of the road.

2.3.5 Laithe Bank Drive, similar to Bankfield Drive, runs in a north to south direction with simple priority junctions at Dobb Top Road and Laithe Avenue. Laithe Bank Drive serves a few residential dwellings with private drives prominent along its extents. Footways are provided on both sides of Laithe Bank Drive.

2.3.6 Street lighting is provided on all the local highway routes in the vicinity of the Site and these are all subject to a 30mph speed limit.

2.3.7 A plan illustrating the limit of adopted highway maintained at public expense is contained at Appendix C, an extract of which is provided within Image 2.2.



Image 2.2 Highway Adoption Records



Source – Kirklees Council

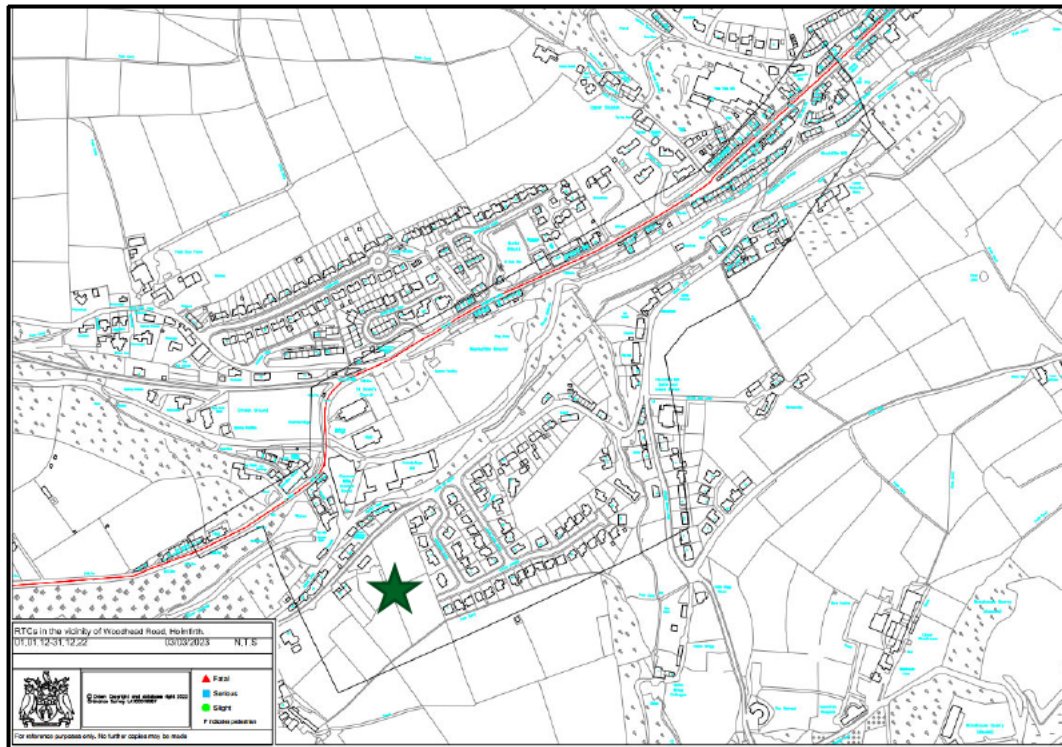
2.3.8 Laithe Avenue is shown in the Kirklees Council records to be an adopted public highway. This road was adopted historically by the former Holmfirth Urban District Council with the green coloured hatching showing the area considered to form part of the adopted highway up to the boundary wall.

2.4 PERSONAL INJURY COLLISION ANALYSIS

2.4.1 Personal injury collision data has been obtained for the highway network in the vicinity of the Site for the most recently available 5-year period between 1st January 2018 and 31st December 2022. The study area includes the full extents of Bankfield Drive, Laithe Avenue, Smithy Lane, Dobb Top Road, Dobb Lane and a small section of Woodhead Road as shown in the extract in Image 2.3. The Site location is denoted by a green star. The full collision records are attached at Appendix D.



Image 2.3 Extract of Collision Location Plan



Source – Leeds City Council

2.4.2 For the five-year period there has been no collisions within the study area. Therefore no road safety concerns have been identified including at the Bankfield Drive/Dobb Top Road junction which will be primarily utilised by development traffic.

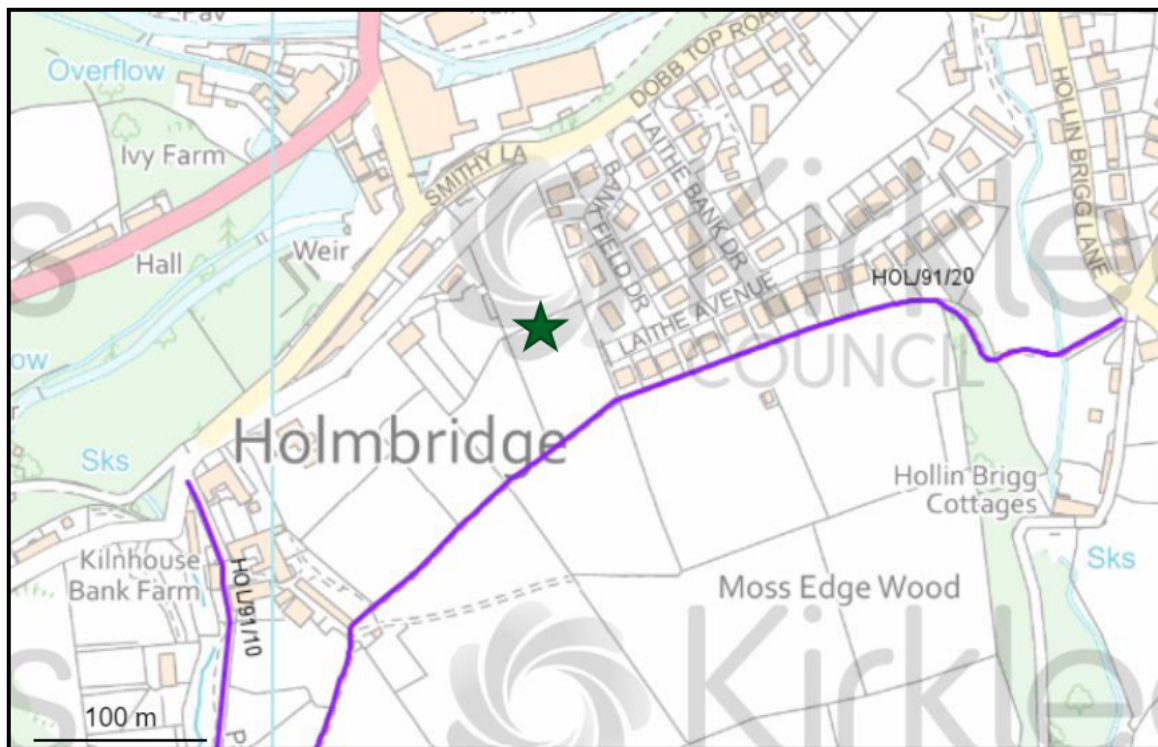
2.5 EXISTING PEDESTRIAN / CYCLE FACILITIES

2.5.1 There are footways on both sides of Bankfield Drive, Laithe Avenue and Laithe Bank Drive.

2.5.2 There is a public right of way (footpath) running along the southern edge of the site. This footpath (reference HOL/91/20) runs in an east to west direction, as shown marked in purple in Image 2.1 which is an extract from Kirklees Council's Public Rights of Way Map. The Site location is denoted by a green star.



Image 2.4 Extract from Kirklees Council's Public Rights of Way Map



Source - www.kirklees.gov.uk

2.5.3 In Holmbridge there are several advisory cycle routes including sections of Dobb Top Road, Dobb Lane, Woodhouse Lane, Field End Lane and Acres Lane with the majority being to the northeast of the Site.

2.5.4 A signed cycle route, National Route 68 of the National Cycle Network, passes to the east of Holmbridge and into Holmfirth.

2.5.5 National Route 68 connects Holmbridge with areas such as Holmfirth, Meltham, Slaithwaite, and Sowerby Bridge to the north, where it merges with National Route 66 and south towards Harden and Dunford Bridge, where it merges with National Route 62.

2.5.6 Further afield there are various rough bridleways/cycle tracks that could be used for leisure purposes.

2.5.7 An extract from the West Yorkshire Interactive Cycle Map is shown in Image 2.5, where advisory cycle routes are shown in yellow, signed traffic routes in blue with rough bridleways/cycle tracks shown in dark orange. The Site is denoted by a green star.



Image 2.5 Extract from the West Yorkshire Interactive Cycle Map



Source – www.fourpointmapping.sustrans.org.uk

2.6 EXISTING PUBLIC TRANSPORT SERVICES / FACILITIES

Bus

2.6.1 Close to the Site the H5 bus, stops and travels on a Holmfirth - Holmbridge Circular route. Many of the stops are informal, with no bus stop flag or pole along the rural roads that surround the area. The H5 bus travels along Dobb Lane, Dobb Top Road, Smithy Lane, Bank Lane, Woodhead Road, Field End Lane all close to the Site. The H5 service starts and ends in Holmfirth Bus Station, completing a loop around Holmbridge.

2.6.2 The H5 service is run by Stots Coach Travel which operates a network of local bus routes in and around Huddersfield on behalf of West Yorkshire Passenger Transport Authority.

2.6.3 There are also a pair of bus stops on Woodhead Road in close proximity to St David's Church and within a 6 minute walk of the Site. The north-eastbound bus stop is provided with a shelter, flag, bench, timetable information and bus layby, whereas the south-westbound has a flagpole and timetable. These bus stops are used by Services 314, 351, H5 and K14. The K14 bus service is a school bus and runs from Holmfirth High School to Woodhead Road.

2.6.4 A summary of the existing bus services is provided in Table 2.1. The table shows the maximum frequencies (i.e. daytime) along with the overall hours of operation.



Table 2.1 Bus Service Summary

Service	Route	Days of Operation	Approximate One-way Frequency
H5	Holmfirth - Holmbridge	Mon-Fri	1 per hour
		Sat	1 per hour
		Sun	No service
314	Huddersfield - Holme	Mon-Fri	1 per hour
		Sat	1 per hour
		Sun	1 per hour
351	Holmfirth- Glossop	Mon-Fri	No service
		Sat	3 per day
		Sun	No service
K14	Holmfirth High School Turning circle - Woodhead Road Terminus	Mon-Fri	Morning and Evening only
		Sat	No service
		Sun	No service

2.6.5 Holmfirth Bus Station is northeast from the Site and easily accessible via the buses mentioned above. The bus station offers numerous additional services to a wider range of destinations.

Rail

2.6.6 The nearest railway station is at Brockholes some 5.5km to the northeast of the Site. Brockholes Station serves the village of Brockholes, near Huddersfield in West Yorkshire. It lies around 7.2km away from Huddersfield on the Penistone Line operated by Northern Trains.

2.6.7 The station is accessible via Ridings Fields Road and has step free access, a ticket machine and is protected by CCTV.

2.6.8 Services run every hour to both Sheffield and Huddersfield, with both stations offering further onward travel to destinations such as Leeds and Manchester.



3. Development Proposals

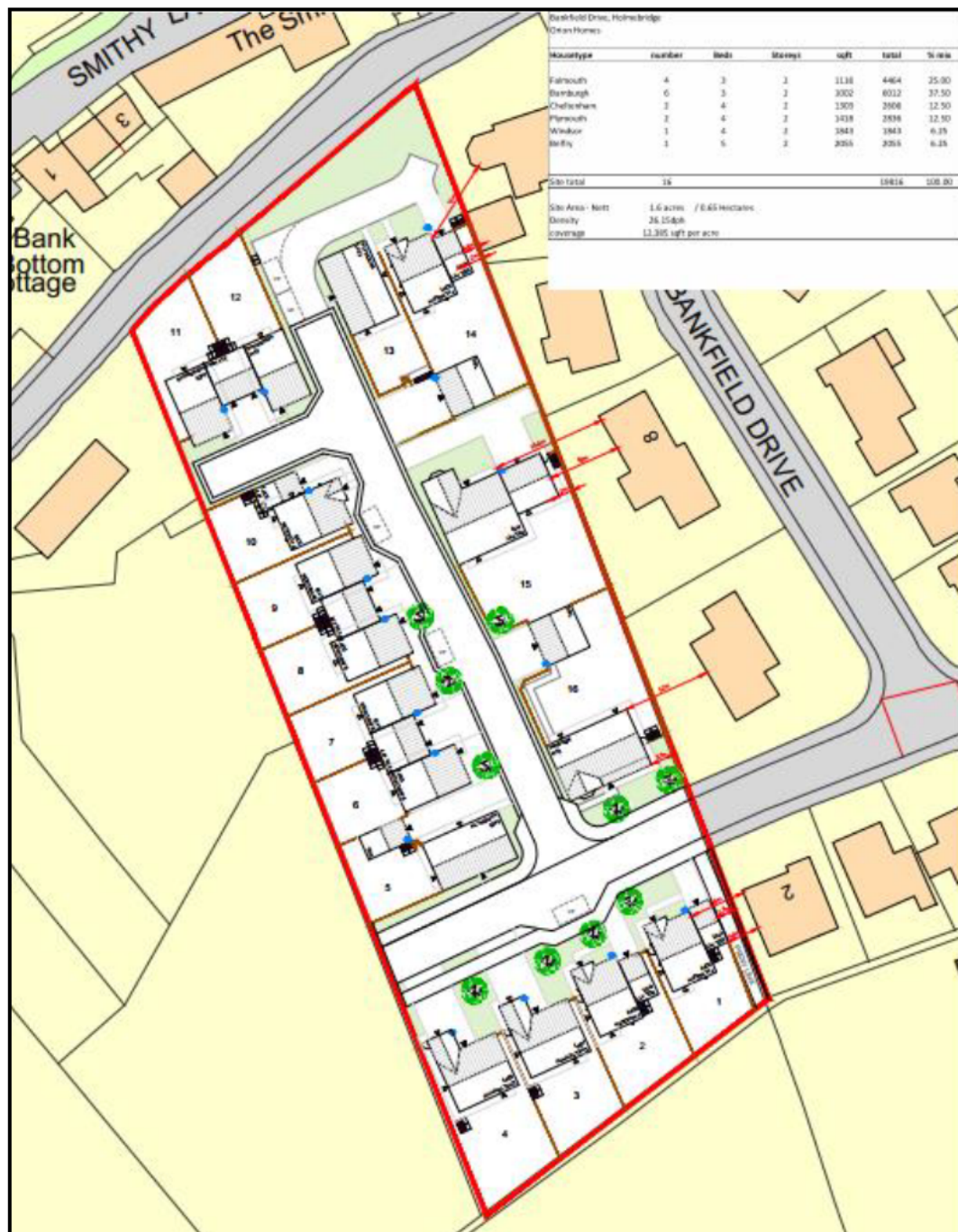
3.1 INTRODUCTION

3.1.1 This section of the Transport Statement sets out the details of the proposed development, including the access arrangements, and consideration is given to parking provision and arrangements for servicing the development.

3.2 PROPOSED DEVELOPMENT

3.2.1 The proposed site layout is shown on Orion Homes Site Layout, a copy of which is attached at Appendix A and an extract given in Image 3.1.

Image 3.1 Proposed Site Layout



3.2.2 The proposals are for some 16 dwellings, a mix of detached and semi-detached properties. The house types proposed are:

- 4 x The Falmouth – three-bedroom, detached house some with an integrated or separate garage;
- 6 x The Bamburgh – three-bedroom, link detached house some with an integrated or separate garage;
- 2 x The Cheltenham – four-bedroom detached house with integral garage and drive;
- 2 x The Plymouth – four bedroom, detached house with separate garage and drive;
- 1x The Windsor – four bed, detached house with separate double garage and drive; and
- 1 x The Belfry – four bed, detached house with separate double garage and drive.

3.3 SITE ACCESS, LAYOUT AND SERVICING

3.3.1 The access into the Site will be from an extension of Laithe Avenue providing a 5.5m wide carriageway leading into the development with 2m wide footways either side. This Local Residential Street type will be extended into the development leading to a Shared Surface Street with a few dwellings being served from private drives.

3.3.2 A turning head will be provided within the development allowing a refuse collection and other service vehicles to turn and leave the Site in forward gear. Optima drawing 22027-ATR01 Rev B, a copy of which is at Appendix E, provides a swept path analysis of a refuse collection vehicle typically used in the Kirklees area and a typical food delivery van. The typical food delivery van is shown accessing the private drive to the north. This analysis demonstrates that both vehicles will be able to satisfactorily turn within the Site to enter and leave in forward gear.

3.3.3 Bin collection points and a bin presentation area (for the private drive) are located at distances no further than 25m away from where a refuse collection vehicle can access.

3.3.4 A turning head for the private drive, to the northeast of the Site, provides a turning area for food delivery vehicles and large cars to turn.

3.3.5 A footpath link is proposed to the southeast of the Site, linking the development to the public right of way (footpath reference HOL/91/20) running along the southern edge of the Site.

3.4 PARKING

3.4.1 The proposed parking provision meets guidance set out within the Kirklees Street Design Guide SPD (November 2018). Table 3.1 summarises the expected and proposed level of parking for the development, based on the parking guideline.

Table 3.1 Parking Provision

Use	Number	Guideline	Expected Level	Proposed
2 – 3 Bedroom	10	2 per dwelling	20	20
4+ Bedroom	6	3 per dwelling	18	20
Visitor	-	1 per 4 dwellings	4	5
Total Car Parking	-	-	42	45
EVCP	-	1 per dwelling	16	16



3.4.2 All properties will have off road parking available to the front or side of the property. All proposed dwellings have garages.

3.4.3 Visitor parking can take place on the internal access road as the carriageway width will be 5.5m, also five dedicated visitor parking laybys/spaces are provided and scattered throughout the Site.



4. Site Accessibility

4.1 ACCESSIBILITY ON FOOT

4.1.1 The residential design guide 'Manual for Streets' (MfS) advises that *“walkable neighbourhoods are typically characterised by having a range of facilities within ten minutes (up to about 800m) walking distance of residential areas...”* (ref para 4.4.1). However, this is not regarded as an upper limit in MfS and reference is also made to walking offering *“the greatest potential to replace short car trips, particularly those under 2km”*.

4.1.2 The acceptability of walking trips up to 2km (an approximate 25 minute walk time) is also supported in the IHT document 'Providing for Journeys on Foot' as shown in Table 4.1.

Table 4.1 Accessibility on Foot

	Town Centres (m)	School/Work (m)	Elsewhere (m)
Desirable	200	500	400
Acceptable	400	1,000	800
Preferred Maximum	800	2,000	1,200

Source – Table 3.2 'Guidelines for Providing for Journey on Foot' published by IHT

4.1.3 Using GIS Network Analyst software typical walk times (up to 25 mins) from the centre of the Site are shown on Figure 3. An extract of Figure 3 is provided within Image 4.1.

Image 4.1 Extract of Pedestrian Accessibility Plan



4.1.4 Figure 3 demonstrates that:

- The nearest bus stops on Dobb Top Road are within a 5 minute walk;
- St David's Church, Holmbridge is within a 5 – 10 minute walk;
- Holmbridge Cricket Club is within a 5 – 10 minute walk;
- The nearest primary school, Hinchcliffe Mill Junior and Infant School, is within a 5 – 10 minute walk;
- The Pickled Pheasant public house, located on Woodhead Road is within a 5 – 10 minute walk; and
- Located on Woodhead Road, to the northeast of the Site, is Londis which is a local grocery store is within a 10-15 minute walk.

4.1.5 The proposed footpath link connecting the Site to the public right of way (footpath reference HOL/91/20) running along the southern edge of the Site allows access to Woodhouse Lane in the east and Ramsden Reservoir to the southwest of the Site.

4.1.6 The Site will therefore be provided with good accessibility on foot to the existing range of local services within the Holmbridge area.

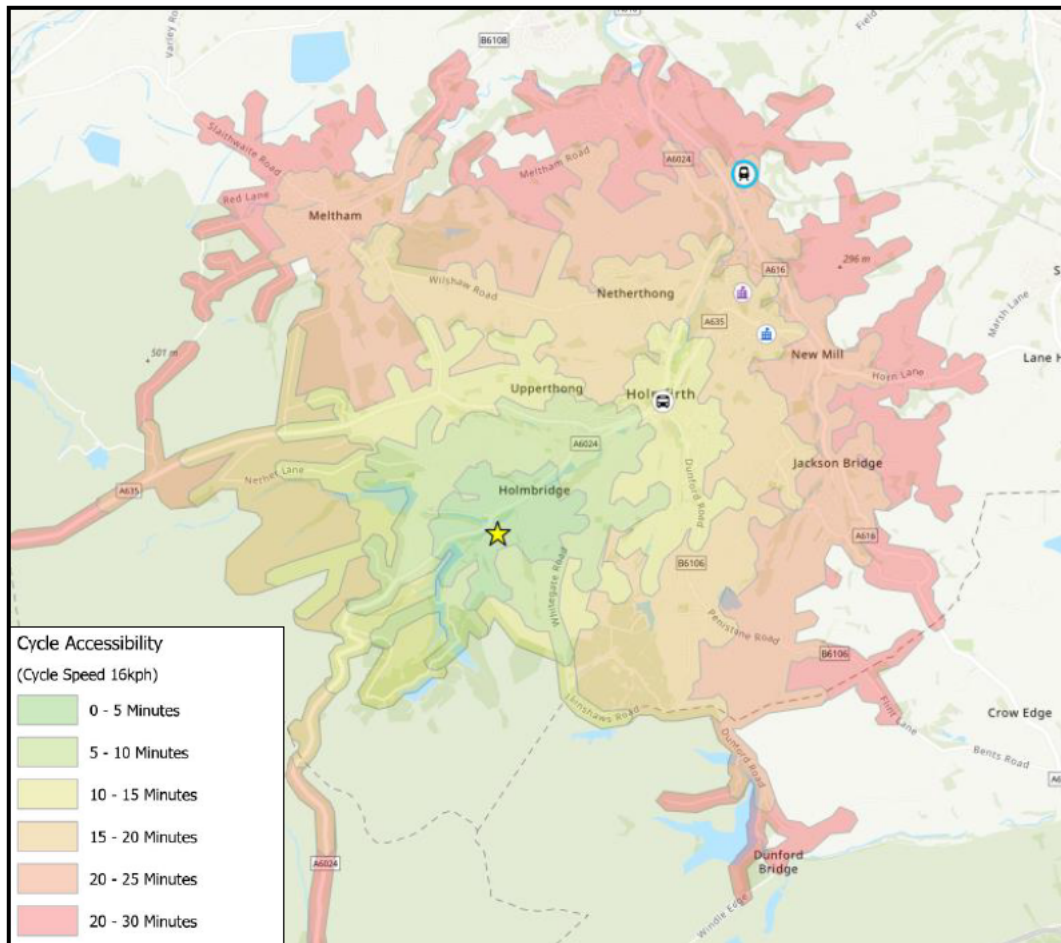
4.2 ACCESSIBILITY BY CYCLE

4.2.1 An acceptable and comfortable distance for general cycling trips is considered to be up to 5 kilometres as referred to in Local Transport Note (LTN) 2/08 (published by the DfT). However, the same guidance also refers to commuting cycle trips of up to 8km.

4.2.2 Whilst LTN 1/20, Cycle Infrastructure Design, July 2020, has replaced LTN 2/08 and has resulted in it being withdrawn, LTN 1/20 does not contain definitive recommended maximum cycling distances and therefore there is no reason to suggest that these distances are not still applicable.

4.2.3 Using GIS Network Analyst software typical cycle times from the Site (with 19 mins approximating to around a 5km distance) are shown on Figure 4 and within Image 4.2.



Image 4.2 Extract of Cycle Accessibility Plan

4.2.4 Figure 4 demonstrates that Holmfirth Bus Station is within a 10 – 15 minute cycle ride and Brockholes Station is around a 25-minute cycle ride. Both stations can be used as a multi modal trip to access destinations further afield.

4.2.5 Holmfirth Town Centre with its wide range of local shops and services is within a 10 – 15 minute cycle ride.

4.2.6 Located further north is the village of Thongsbridge and the village boundary merges with the neighbouring Holmfirth. Thongsbridge can be accessed with a 20 – 25 minute cycle ride providing further leisure, education and employment opportunities accessible to residents by cycle. Holmfirth High School and Holmfirth Sports Centre, both located between Holmbridge and Thongsbridge, are within a 25-minute cycle ride.

4.2.7 The Site will therefore be provided with good accessibility by cycle to a range of local services and facilities within a short cycle journey time.

4.3 ACCESSIBILITY BY PUBLIC TRANSPORT

Bus

4.3.1 The Chartered Institution of Highways and Transportation (CIHT) publication 'Buses in Urban Developments', January 2018, suggests that for less frequent routes the recommended maximum walking distance to bus stops is 300 metres (Table 4 of the document). There is an informal bus



stop, which is serviced by the H5 (Holmfirth to Holmbridge circular) located on Smithy Lane, which is around 260m away from the Site.

4.3.2 A further bus stop, located on Woodhead Road, is around 400m away and is used by several bus services for destinations such as Holmfirth and Holme.

4.3.3 Journey times from these local bus stops with services of a relatively high frequency (taken from timetable information) to the following destinations are as follows:

- Holmfirth Bus Station – 6 minutes;
- Holmfirth High School – 12 minutes; and
- Huddersfield Bus Station – 30 minutes.

Rail

4.3.4 Brockholes Station is the closest to the Site, within 23-minute cycle ride and a similar drive time. The station has step free access and is covered by CCTV.

4.3.5 Heading north the journey time to Huddersfield is around 12 minutes on Northern services, with Leeds been around 45 minutes using both Northern and Transpennine Express services.

4.3.6 Heading south on Northern services, the journey time to Barnsley is around 35 minutes, with Sheffield also accessible in just over an hour.

4.3.7 Longer distance journeys are possible from Leeds and Sheffield, with each of these destinations (as well as others) provides accessibility to significant employment, leisure and retail opportunities beyond the immediate local area.

4.3.8 The Site will therefore be provided with good accessibility by public transport to a range of key destinations which offer significant employment, leisure and retail opportunities and will provide an opportunity for residents to travel by rail as part of a multi-modal journey.



5. Traffic Generation and Distribution

5.1 INTRODUCTION

5.1.1 This chapter sets out the trip generation and distribution methodologies associated with the proposed development.

5.1.2 The material impact of the development proposals is described and consideration given to the off-site highway comments raised by the Council in their pre-app response.

5.2 TRAFFIC GENERATION

5.2.1 In the absence of any locally sourced data for residential development, the TRICS 7.9.4 Online Database has been interrogated for likely trip rates from which the typical weekday peak hour traffic generation can be estimated. The land Use: 03 – Residential, Category: A - Houses Privately Owned has been selected with the following filtering applied:

- Locations: Edge of Town Centre, Suburban Area and Edge of Town;
- Weekdays: Monday to Friday;
- Number of Dwellings: 4-100;
- Regions: Greater London, Welsh, Scottish and Irish sites excluded; and
- Surveys carried out during the Covid-19 pandemic lockdown periods have been manually removed.

5.2.2 The full TRICS data is contained at Appendix F with the peak hour trip rates and resultant traffic generation for 16 dwellings summarised in Table 5.1.

Table 5.1 Peak Hour Trip Rates and Traffic Generation – Proposed Use

Period	Trip Rates per dwelling			Traffic Generation (16 dwellings)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
AM Peak Hour (0800-0900)	0.156	0.350	0.506	2	6	8
PM Peak Hour (1700-1800)	0.328	0.167	0.495	5	3	8

5.2.3 As can be seen from Table 5.1, the development is predicted to generate just 8 two-way vehicle trips during each of the AM and PM peak hours.

5.2.4 The Department for Transport document 'Guidance on Transport Assessment' (now withdrawn) suggested that a development traffic generation of 30 two-way trips represented an appropriate threshold figure above which further assessment may be required but below which the impact could be considered non-material. Whilst the Government's current NPPG does not specifically refer to 30 two-way trips this remains a threshold which is generally applied within the industry including by local authorities and National Highways (formally Highways England).

5.2.5 Given the peak hour traffic generation is well below this accepted threshold in both peak hour periods and there are two routes out of the adjacent residential area onto the wider highway network, the impact at any junction in either of the peak hours will be considerably less than 30 two-way trips and therefore no further assessment is required.

5.2.6 In their pre-application response (copy in Appendix B) Kirklees Council agree that due to the low level of trips generated by the development (substantially below the 30 two-way threshold) then no junction capacity assessments are required.

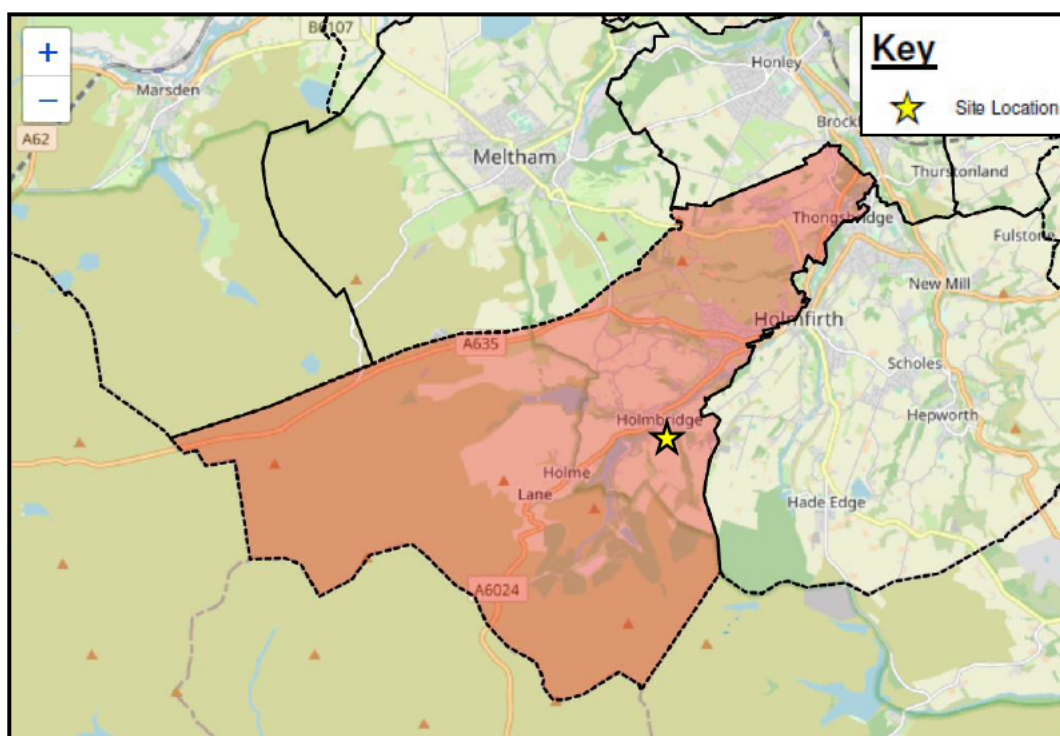


5.3 PROPOSED MULTI MODAL TRAFFIC GENERATION

5.3.1 To establish the trip generation by mode for the development the most up to date Census data (2011) has been obtained from www.nomisweb.co.uk.

5.3.2 The proposed development and key junctions around the Site are located within the boundary of super output area (mid layer) 'Kirklees 058' as illustrated in Image 5.1.

Image 5.1 Kirklees 058 Super Output Area



Source – www.nomisweb.co.uk

5.3.3 The Method of Travel to Work data from the 2011 Census is contained at Appendix G with the mode share for Kirklees 058 MSOAs summarised in Table 5.5.

Table 5.2 Summary of Census Mode Splits – Kirklees 058

Mode	Total Residents	Trips
Work from home	0	0%
Underground, metro, light rail, tram or train	2	0%
Train	79	3
Bus	151	5%
Taxi	6	0%
Motorcycle	20	1%
Driving a car or van	2138	77%
Passenger	153	5%
Cycle	26	1%
Walk	211	8%
Other	7	0%
Total	2793	100%



5.3.4 Having established the proposed vehicular trip generation, it is possible to calculate the number of trips by other modes by factoring the vehicular arrivals and departures by the baseline modal split values shown in Table 5.2. The resulting, predicted numbers of development trips by mode are shown in Table 5.3 for the AM and PM peaks respectively.

Table 5.3 Proposed Multi Modal Trip Generation

Trip Type	AM Peak Hour Trip Generation by Mode			PM Peak Hour Trip Generation by Mode		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Work from home	0	0	0	0	0	0
Train	0	0	0	0	0	0
Bus	0	1	1	1	0	1
Taxi	0	0	0	0	0	0
Motorcycle	0	0	0	0	0	0
Driving a car or van	2	6	8	5	3	8
Passenger	0	0	0	0	0	0
Cycle	0	0	0	0	0	0
Walk	0	0	1	0	0	1
Other	0	0	0	0	0	0
Total	2	7	10	6	3	9

5.4 TRAFFIC DISTRIBUTION

5.4.1 Having calculated the development trip generation, a distribution exercise has been completed (as requested by the Council in their pre-app response) to predict the assignment of these trips onto the key local highway network junctions.

5.4.2 The latest available census data (2011) has been interrogated for the Kirklees 058 MSOA, within which the Site is located, to predict the destination of residents travelling to work.

5.4.3 The census data has been used to establish the journey to work destinations for all car driver trips travelling from the Kirklees 058 MSOA to all other Kirklees, Leeds, Wakefield, Bradford, Calderdale, Barnsley, Sheffield, Selby, Oldham and Doncaster at MSOA level, as well as considering wider trips at a local authority level. The predicted traffic distribution is summarised below, with the full exercise contained within Appendix H.

- Smithy Lane – 89%
- Dobb Top Road – 11%

5.4.4 Further distribution across the local road network is as summarised below:

- Woodhead Road east – 58%
- Woodhead Road west – 1%
- Dobb Lane – 7%
- Field End Lane – 30%
- Hollin Brigg Lane – 4%

5.4.5 These distribution percentages are illustrated on Figure 100. Applying the trip generation values from Table 5.1 to Figure 100 produces the following residential trip generation diagrams:

- Figure 101 Development Trips AM; and
- Figure 102 Development Trips PM.



5.4.6 The distribution exercise shows that a large majority of vehicles turn left from Bankfield Drive, onto Smithy Lane (89% of all associated trips) before then heading east along Woodhead Road East (58%). Fewer vehicle trips are predicted to turn right out of Bankfield Drive and travel along Dobb Top Road (11%). The distribution prediction aligns with on-site traffic movement observations.

5.5 OFF-SITE HIGHWAY IMPACT

5.5.1 In their pre-application response Kirklees Council raised some potential off-site highway matters within the vicinity of the development that they required investigating.

5.5.2 A Site visit was undertaken on Tuesday 7th March 2023 and the following sub-sections consider the matters raised by KC.

Junction Visibility at Bankfield Drive

5.5.3 KC state in their pre-app response that there is restricted junction visibility to the west from Bankfield Drive to Smithy Lane and consideration should be given to improving the junction arrangements, such as encouraging drivers on Bankfield Drive to wait closer to the centre line marking at the give-way.

5.5.4 It is acknowledged that there is some restriction to visibility to the west due to the presence of the retaining wall, however, it is concluded that no changes to the junction are required for the following key reasons:

- From the site visit, which included driving various routes, vehicle speeds on the Smithy Lane/Dobb Top Road corridor are observed to be fairly low, between circa 15 and 20mph. The low vehicle speeds reflect the geometry, alignment and nature of Smithy Lane and Dobb Top Road. These factors all contribute to influence driver behaviour and lead to a reduction in speed;
- Advice and research in both Manual for Streets and MfS2 confirms that reduced visibility splays result in reduced vehicle speeds and more cautious and careful driving;
- The accident data confirms that no incidents have occurred at the Bankfield Drive/Dobb Top Road junction over the most recent five year period which confirms that there are no highway safety concerns at this junction;
- The development proposals add very few additional trips to this junction and will therefore have no material impact in either capacity or safety terms. Kirklees Council already acknowledge and agree in their pre-application response that due to the low development trips no capacity assessment is required; and
- Kirklees Council commented that the Bankfield Drive/Dobb Top Road junction could potentially be made more compact to encourage drivers to wait closer to the central lane markings. It has been observed during the site visit that vehicles turning left from Bankfield Drive do already tend to sit closer to the road centre line.

5.5.5 In summary, the evidence confirms that there are no existing highway safety concerns at the Bankfield Drive/Dobb Top Road junction and the development proposals do not have a material impact and will not change this. It is therefore concluded that no improvements are required to the existing visibility or layout at the junction.



Steep Downhill Slope from Bankfield Drive and Wall Damage

5.5.6 KC state that the steep downhill slope from Bankfield Drive and Laithe Bank Drive could potentially result in high approach speeds and overshooting of vehicles, particularly in wet and icy conditions. KC requested that consideration be given to potential remedial measures such as ramp type features.

5.5.7 It is acknowledged that there are existing downhill slopes from both Bankfield Drive and Laithe Bank Drive, however, it is concluded that no changes are required for the following key reasons:

- Onsite observations reveal that the few vehicle movements from both roads towards Dobb Top Road are undertaken with care and drivers safely come to a halt at the give way road markings with no issues;
- Bankfield Drive has a bend on its approach to Dobb Top Road which naturally reduces vehicle speeds further. This was also observed on the site visit with vehicles approaching the junction at low speeds;
- There are no visible tyre skid marks on the carriageway and there are no recent signs of damage to the existing stone walls located on Dobb Top Road. This suggests no vehicle overshooting occurs at either approach from Bankfield Drive or Laithe Bank Drive;
- The onsite observations (such as no road skid marks, and no damage to any walls) align with the Council's recorded accident data which shows that no collisions have taken place at this location within the last five years, including during the colder winter months when snow/icy conditions can prevail;
- The development proposals add very few additional trips to this junction and will therefore have no material impact in either capacity or safety terms. Kirklees Council already acknowledge and agree in their pre-application response that due to the low development trips no capacity assessment is required; and
- It is observed that grit salt bins have been provided (and recently filled) in close proximity to Bankfield Drive and Laithe Bank Drive. Use of these will reduce the likelihood of skidding during poor conditions and assist in preventing any potential collisions.

5.5.8 In summary, the evidence confirms that there are no existing highway safety concerns relating to the approaches from both Bankfield Drive and Laithe Bank Drive to Dobb Top Road. The development proposals do not have a material impact and it is therefore concluded that no improvements are required.

5.5.9 Any concerns KC may have regarding the approach gradients during wet/icy conditions is clearly an existing maintenance matter which is the responsibility of the Council. Grit bins are already provided for such occasions.

Footway Surfaces

5.5.10 KC state that the footway surfaces on the steep sections of both Bankfield Drive and Laithe Bank Drive are currently overgrown with moss which is likely to be slippery in wet conditions.

5.5.11 Some moss was observed on the footways on Bankfield Drive and Laithe Bank Drive but this is clearly an existing maintenance issue for KC to resolve. This area of highway is 'maintainable at public expense' and it is the responsibility of the Council to treat the footways and ensure they are kept clean from moss.



Access to Wider Network

5.5.12 KC state that access to the wider highway network is via Dobb Top Road and Bank Lane to the west and Dobb Top Road, Dobb Lane, Ford Gate and Co-op Lane to the east. KC also state that consideration should be given to whether any additional improvements could be provided to mitigate the impact of additional development traffic along these routes.

5.5.13 It is concluded that no improvements on these roads are required for the following key reasons:

- The development proposals add very few additional trips to the local highway network and will therefore have no material impact in either capacity or safety terms. Kirklees Council already acknowledge and agree in their pre-application response that due to the low development trips no capacity assessments of the local highway network is required;
- The distribution exercise undertaken in this chapter highlights that the majority of vehicles turn left from Bankfield Drive, onto Smithy Lane before then heading east along Woodhead Road. Only 11% of trips are predicted to turn right out of Bankfield Drive and travel along Dobb Top Road. In summary the low number of trips generated by the development reduce even further as they dilute across the local highway network and as such they have no material impact on the operation or safety of the local highway network;
- The accident data confirms that no incidents have occurred across the wider local highway network for the most recent five year period which confirms that there are no highway safety concerns; and
- Existing 'Rural School Route' signage is already displayed along both Dobb Top Lane and Smithy Lane which alerts drivers to the potential of pedestrians walking on the carriageway.

5.5.14 In summary, the evidence confirms that there are no existing highway safety concerns in the local area that would justify additional wider network improvements. The development proposals do not have a material impact and it is therefore concluded that no improvements are required.

Road Safety Audit (Off-Site)

5.5.15 It has been concluded that no off-site highway improvements are necessary and therefore no Road Safety Audit (RSA) is required. However, an RSA will be undertaken for the proposed internal Site layout as requested by the Council.



6. Summary and Conclusions

6.1 SUMMARY

6.1.1 Optima has been appointed by Orion Homes to prepare a Transport Statement that considers the highways and transportation matters associated with a proposed residential development of some 16 dwellings on land to the west of Bankfield Drive in Holmbridge.

6.1.2 Satisfactory access into the Site will be from an extension of Laithe Avenue providing a 5.5m wide carriageway leading into the development with 2m wide footways to each side. This Local Residential Street type will be extended into the development leading to a Shared Surface Street with a few dwellings being served from Private Drives. The proposed Site access arrangements align with the Kirklees Local Plan which confirms that access is achievable from Laithe Avenue.

6.1.3 It has been demonstrated that the Site can be adequately serviced, with the refuse collection vehicle being able to enter the site, turn and leave in forward gear.

6.1.4 This report has demonstrated that the Site has good accessibility by other modes of transport to the private car, on foot, by cycle and public transport to a wide range of local facilities and employment opportunities.

6.1.5 A review of personal injury collision data has been undertaken for the local study area and no specific road safety concerns have been identified including at the Bankfield Drive/Dobb Top Road junction which will be primarily utilised by development traffic.

6.1.6 The traffic generation that would be expected from a development of some 16 dwellings has been predicted as just 8 two-way vehicle trips during each of the AM and PM peak hours. It can therefore be concluded that the proposed development will not result in a material impact on the operation or safety of the local highway network (and certainly not a 'severe' impact which is the test applied in the NPPF). In their pre-application response the Council agree that due to the low level of trips generated by the development then no junction capacity assessments are required.

6.1.7 In their pre-application response Kirklees Council raised some potential off-site highway matters within the vicinity of the development. These have been investigated and the evidence confirms that there are no existing highway safety concerns across the local highway network. The development proposals do not have a material impact and it is therefore concluded that no off-site improvements are justified or required.

6.2 CONCLUSIONS

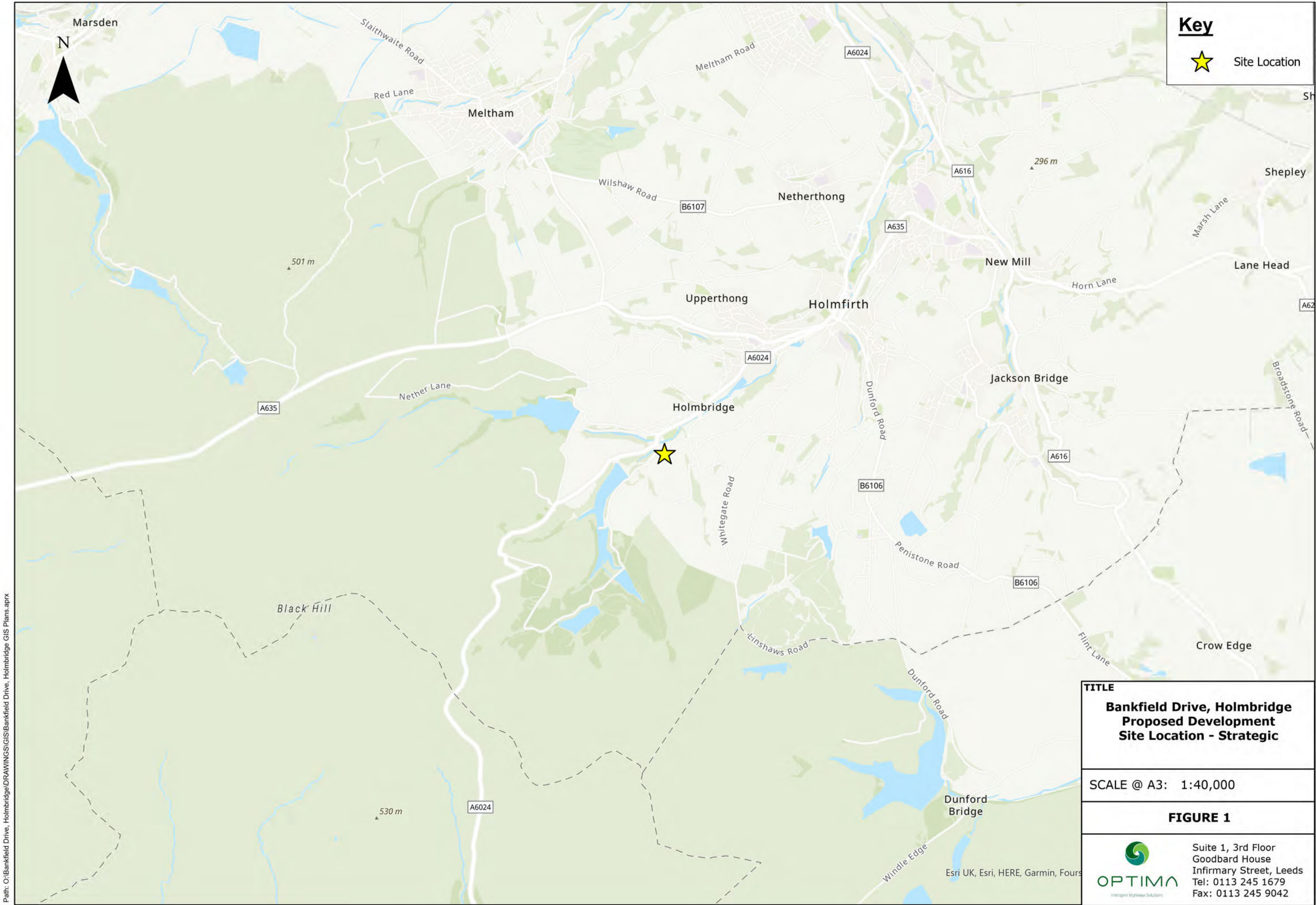
6.2.1 This Transport Statement has demonstrated that the development proposals can be safely and satisfactorily accommodated on the local highway network. The proposal therefore accords with the NPPF which states that *"Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe."*

6.2.2 It is therefore concluded that there are no highway or transport related issues that would prevent the proposed residential development on this Site from being granted planning consent.



Figures





Key



Site Location

TITLE

**Bankfield Drive, Holmbridge
Proposed Development
Site Location - Strategic**

SCALE @ A3: 1:40,000

FIGURE 1



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



Key

— Indicative Site Boundary

TITLE Bankfield Drive, Holmbridge Proposed Development Site Location - Local	
SCALE @ A3: 1:5,000	
FIGURE 2	
 Intelligent Highway Solutions	Suite 1, 3rd Floor Goodbard House Infirmary Street, Leeds Tel: 0113 245 1679 Fax: 0113 245 9042

Facilities

Education

- ① Hinchcliffe Mill Junior & Infant School
- ② Upperthong Junior and Infant School
- ③ Holme Junior and Infant School

Health

- ① Crossfit Iron Foot

Public House

- ① The Pickled Pheasant
- ② Stumble Inn
- ③ The Fleece Inn
- ④ Farmers Arms

Retail

- ① Londis

Recreation

- ① Holmbridge Cricket Club
- ② Kirklees Way

Services

- ① Hinchcliffe Mill Postbox
- ② Holme Postbox
- ③ Flush House Postbox
- ④ St David's Church

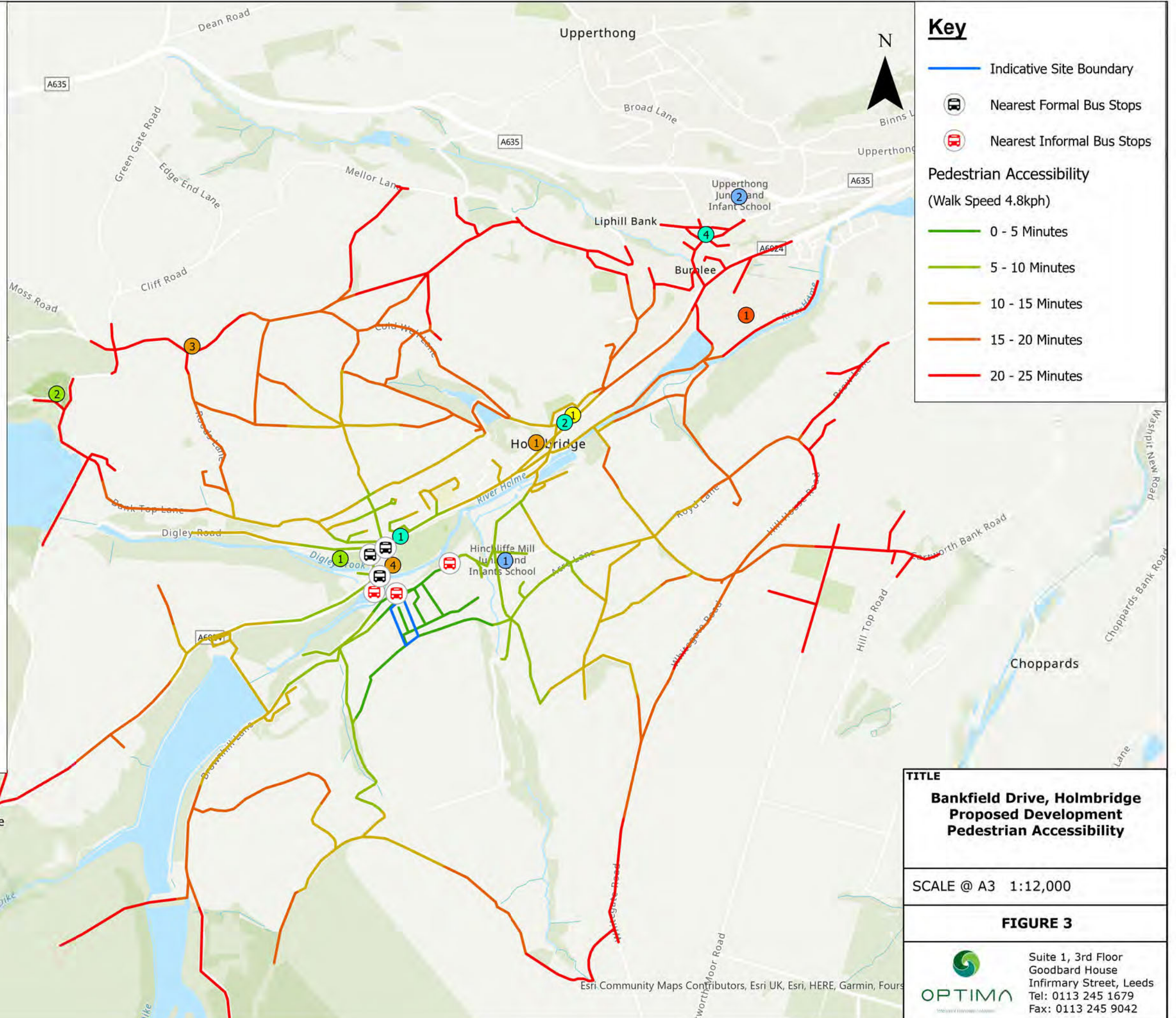
Key

- Indicative Site Boundary
-  Nearest Formal Bus Stops
-  Nearest Informal Bus Stops

Pedestrian Accessibility

(Walk Speed 4.8kph)

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



TITLE

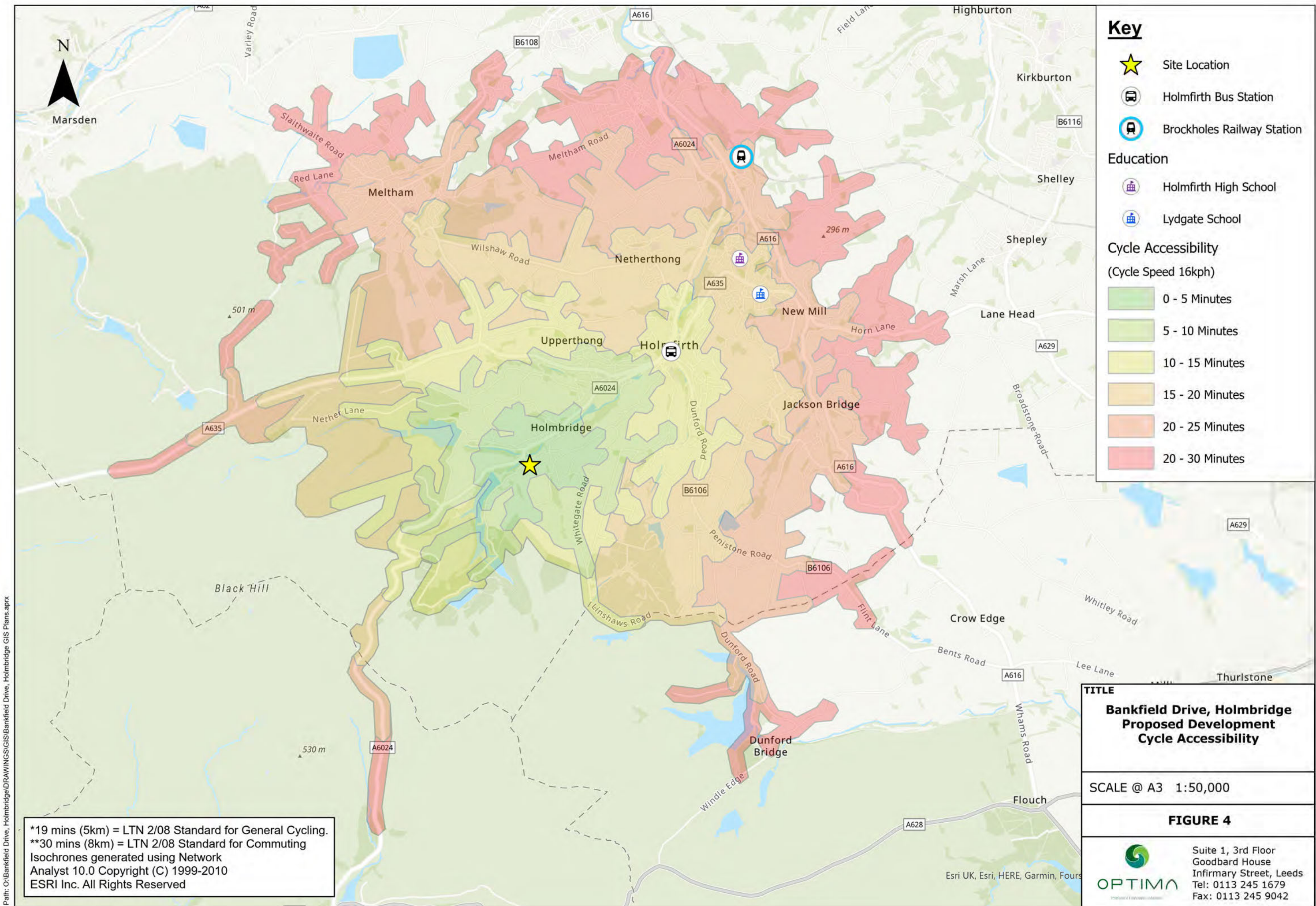
**Bankfield Drive, Holmbridge
Proposed Development
Pedestrian Accessibility**

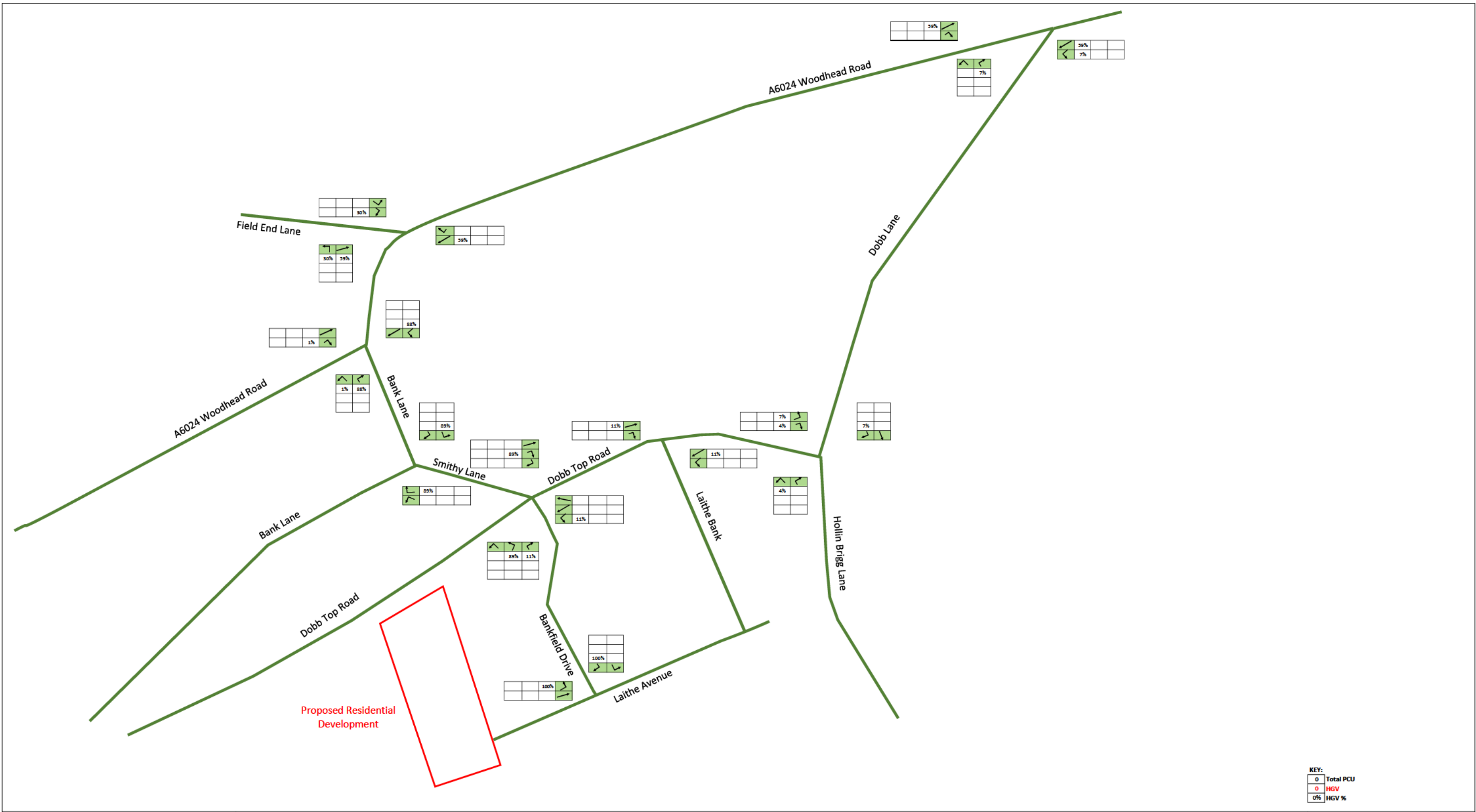
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FIGURE 3

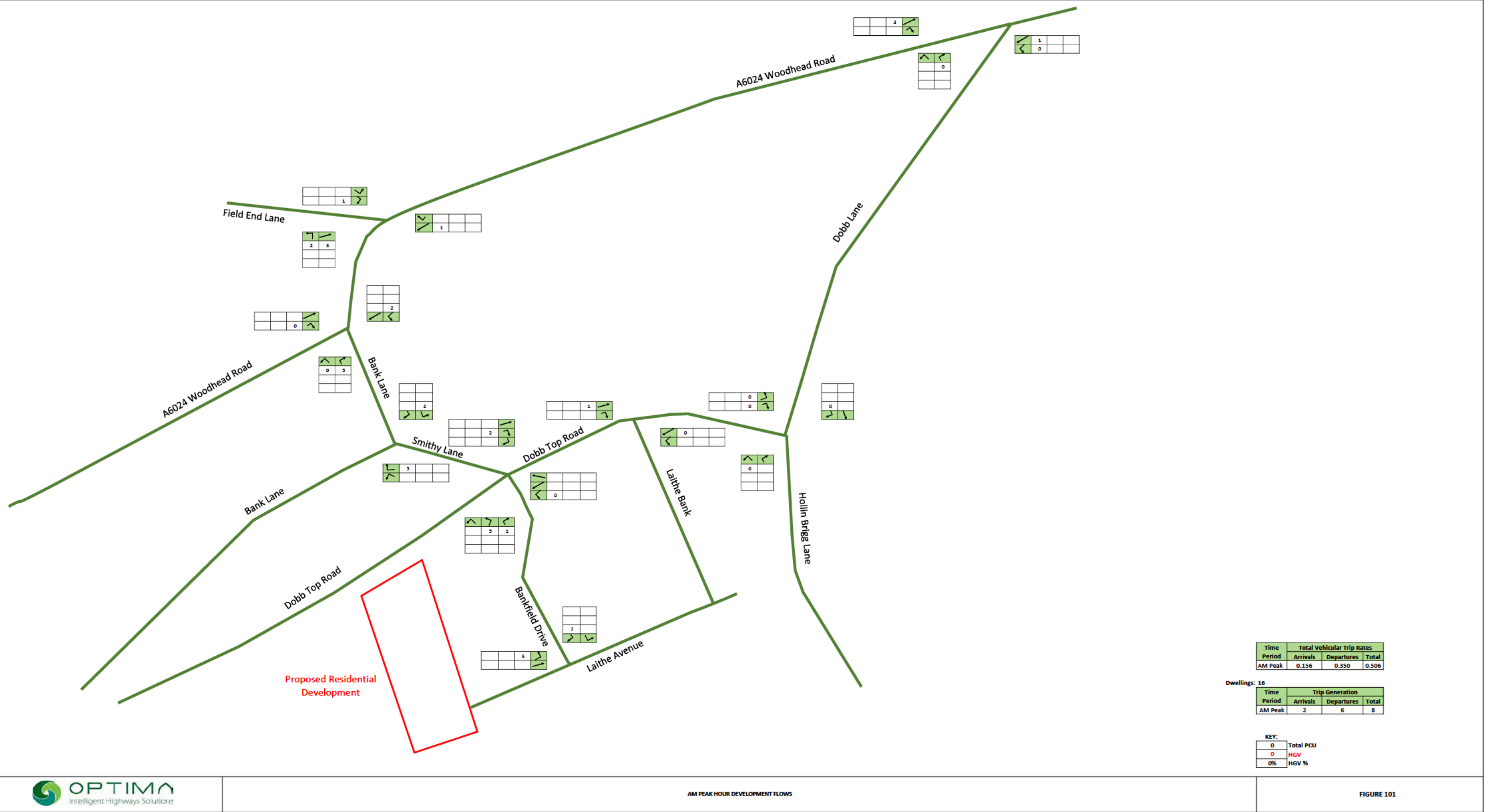


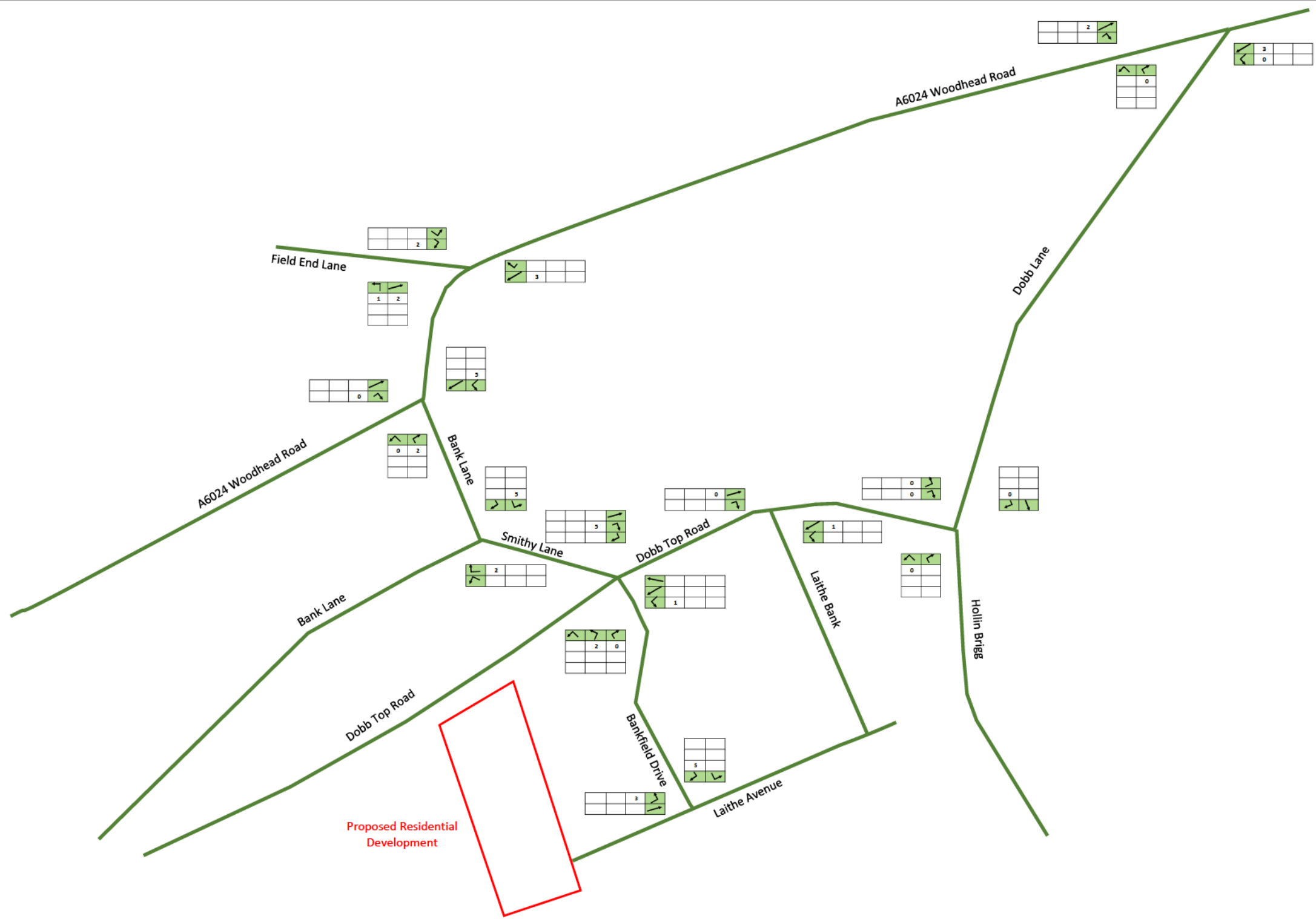
Suite 1, 3rd Floor
Goodbard House
Infirmary Street, Leeds
Tel: 0113 245 1679
Fax: 0113 245 9042





KEY:
 0 Total PCU
 0 HGV
 0% HGV %





Time Period	Total Vehicular Trip Rates		
	Arrivals	Departures	Total
PM Peak	0.328	0.167	0.495

Dwellings: 16

Time Period	Trip Generation		
	Arrivals	Departures	Total
PM Peak	5	3	8

KEY:	
0	Total PCU
0	HGV
0%	HGV %

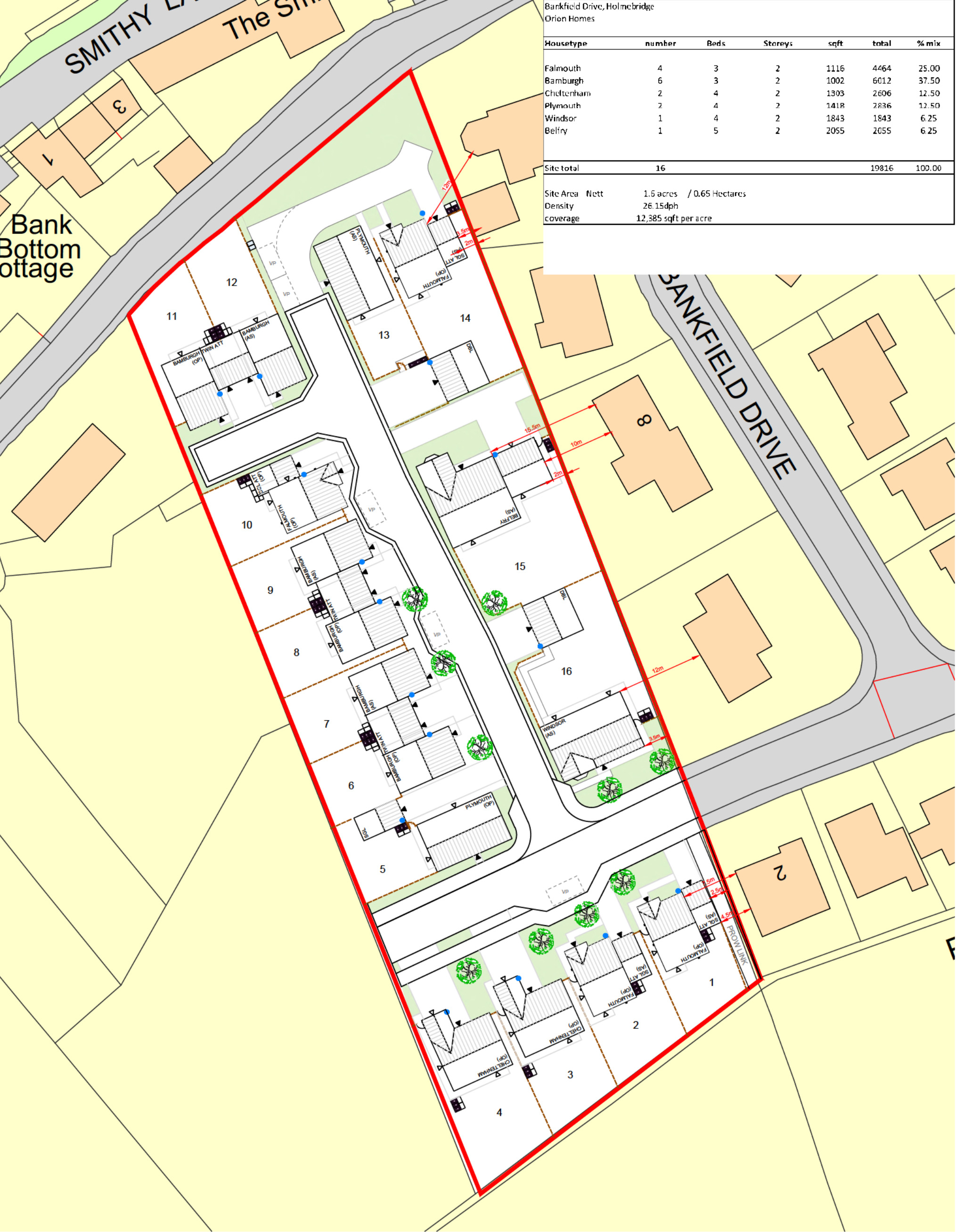
Appendices



Appendix A Orion Homes Site Layout Plan - 2021.01.003 Revision M



Bankfield Drive, Holmebridge



Bankfield Drive, Holmebridge Orion Homes						
Housetype	number	Beds	Storeys	sqft	total	% mix
Falmouth	4	3	2	1116	4464	25.00
Bamburgh	6	3	2	1002	6012	37.50
Chiltenham	2	4	2	1303	2606	12.50
Plymouth	2	4	2	1418	2836	12.50
Windsor	1	4	2	1843	1843	6.25
Belfry	1	5	2	2055	2055	6.25
Site total	16				19816	100.00
Site Area	Nett	1.6 acres / 0.65 Hectares				
Density		26.15dph				
coverage		12,385 sqft per acre				

- Key
- Electric Vehicle Charging Point
 - Bin Storage Point
 - Bin Collection Point

Revision notes:

Rev	Date	Notes
A	28.01.21	Amended to show Con stone on p 12 - CD
B	27.01.21	Amended to show plots 1 & 2 amended to show 2 no Preston and 2 no Bamburgh and plots 10 to 15 new link detached - CD
C	28.01.22	Mix amended (Plymouth removed, Whitstable and Arundel added) - CD
D	01.02.22	Preston removed, Garages added to Bamburghs - CD
E	08.02.22	Dartmouth and Arundel amended to show passageways to m d plots, slight amends to T1 comments - CD

Revision notes:

Rev	Date	Notes
F	11.02.22	Turning head between p 10 to 16 amended to gully following swept path analysis - CD
G	10.04.22	Amended to suit topography and highway comments - CD
H	04.07.22	Amended to suit pre-app comments - CD
I	10.07.22	Amended to suit pre-app comments w to affordab e units - CD
J	10.07.22	Amended to suit pre-app comments private sale on to only - CD
K	02.11.22	Plots 8 to 12 amended - CD

Revision notes:

Rev	Date	Notes
L	18.11.22	Plots 1 to 4 moved to the east to allow for a PROW footpath link on the western edge of the site - CD
M	09.09.23	Amended to suit transport accessories comments, Road amended, bin storage and presentation points added, clear e vehicle e charging points added, PROW link moved to Eastern boundary, plots 1 & 2 are now detached, plot 10 to 16 amended to move away from existing dwe lings and retaining structures/trees to northern boundary - CD

Date: 21.01.21

Scale @ A2: 1:500

Drawn By: CD

Project: Bankfield Drive, Holmebridge

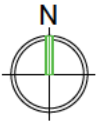
Drawing Number: 2021.01.003

Revision: M

OrionHomes

SO GOOD O COME HOME

Unit 6, Bardon Office Park, Bardon Avenue, Horbury Wakefield WF4 6PA. tel: 01924 831000



Appendix B Kirklees Pre-Application Comments



Enquiries to: Ellie Worth

Candy Day
Land off
Bankfield Drive
Holmebridge
Holmfirth
HD9 2PH

Kirklees Direct
Tel: 01484 414746
Email: Ellie.Worth@kirklees.gov.uk

Date: 05-Jul-2022
Our Ref: 2022/20239

Dear Madam,

Pre-application advice for residential development at land off, Bankfield Drive, Holmebridge, Holmfirth, HD9 2PH

I acknowledge receipt of your recent application for pre-application advice submitted on for the above location. Firstly, I would like to apologise for the delay in this response.

1. Summary of location

This enquiry seeks advice from the Local Planning Authority for the proposed residential development. The enquiry is supported by a location plan, site plan and indicative elevations and floor plans for each house type.

The indicative site layout proposes 25 units on a housing allocation site. The scheme would provide 5 x 2 bed units, 14 x 3 bed units and 6 x 4 bed units. The 2 bed units would all be affordable (a total of 5).

2. Relevant Planning History

Enquiry Site

The site has no planning history within the last ten years. An older application relates to outline permission for residential development (92/04281), which was refused and dismissed at appeal.

Surrounding Area

None relevant to the current enquiry.

3. Land allocation and relevant planning policy

Planning policy

Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires that planning applications are determined in accordance with the Development Plan unless material considerations indicate otherwise. The statutory Development Plan for Kirklees is the Local Plan (adopted 27/02/2019).

The site is a designated housing allocation on the Kirklees Local Plan (site allocation: HS183). The site allocation carries full weight and sets out an indicative housing capacity of 23 dwellings.

Site allocation HS183 identifies the following constraints relevant to the site:

- Public right of way to the south of this site
- Proximity to Special Protection Area / Special Area of Conservation
- Proximity to a Local Wildlife Site

The relevant policies are as follows:

- **LP1** – Presumption in favour of sustainable development
- **LP2** – Place shaping
- **LP3** – Location of new development
- **LP7** – Efficient and effective use of land and buildings
- **LP11** – Housing mix and affordable housing
- **LP20** – Sustainable travel
- **LP21** – Highways and access
- **LP22** – Parking
- **LP24** – Design
- **LP26** – Renewable and low carbon energy
- **LP28** – Drainage
- **LP30** – Biodiversity and geodiversity
- **LP32** – Landscape
- **LP33** – Trees
- **LP34** – Conserving and enhancing the water environment
- **LP35** – Historic environment
- **LP47** – Healthy, active and safe lifestyles
- **LP51** – Protection and improvement of local air quality
- **LP52** – Protection and improvement of environmental quality
- **LP53** – Contaminated and unstable land
- **LP63** – New open space

Local Plan submission documents can be views on the following website:

<http://www.kirklees.gov.uk/beta/planning-policy/local-plan.aspx>

The following are relevant Supplementary Planning Documents or other guidance documents published by, or with, Kirklees Council.

Supplementary Planning Documents

- Housebuilders Design Guide SPD (2021)
- Highway Design Guide SPD (2019)
- Open Space SPD (2021)

Other relevant local and regional guidance and documents include:

- Kirklees Interim Affordable Housing Policy (2020)
- Biodiversity Net Gain Technical Advice Note (2021)
- Planning Applications Climate Change Guidance (2021)
- West Yorkshire Low Emissions Strategy and Air Quality and Emissions Technical Planning Guidance (2016)
- Waste Management Design Guide for New Developments (2020)
- Green Streets® Principles for the West Yorkshire Transport Fund

These documents may be found online.

Holme Valley Neighbourhood Development Plan (2020-2031)

The Holme Valley Neighbourhood Development Plan was adopted on 8th December 2021 and therefore forms part of the Development Plan.

Therefore, the policies most relevant are:

- Policy 1 – Protecting and Enhancing the Landscape Character of Holme Valley
- Policy 2 – Protecting and Enhancing the Built Character of the Holme Valley and Promoting High Quality Design
- Policy 6 – Building Homes for the Future
- Policy 11 – Improving Transport, Accessibility and Local Infrastructure.
- Policy 12 – Promoting Sustainability
- Policy 13 – Protecting Wildlife and Securing Biodiversity Net Gain

The application site is within Landscape Character Area 4 – River Holme Settled Valley Floor as identified with the neighbourhood plan.

Key landscape characteristic of the area are:

- Framed views from the settled valley floor to the upper valley sides and views across to opposing valley slopes and beyond towards the Peak District National Park.
- Boundary treatments comprised largely of millstone grit walling. The stone walling which runs parallel with Upperthong Lane is representative of local vernacular detailing.
- A network of Public Rights of Way (PRoW) including the Holme Valley Riverside Way which follows the River Holme from Holmbridge through Holmfirth and downstream. National Cycle Route no. 68 follows minor roads through Upperthong towards the centre of Holmfirth before climbing the opposing valley slopes.
- Mill ponds reflect industrial heritage and offer recreation facilities

Key built characteristic of the area are:

- Mill buildings, chimneys and ponds, including Ribbleden Mill with its chimney, associated mill worker houses and ashlar fronted villas link the area to its industrial and commercial heritage and are a legacy of the area's former textile industry.
- Terraced cottages and distinctive over and under dwellings feature on the steep hillsides with steep ginnels, often with stone setts and narrow roads.

- Narrow winding streets with stepped passageways, stone troughs and setts characterise the sloping hillsides above Holmfirth town centre.
- Small tight knit settlements on the upper slopes are characterised by their former agricultural and domestic textile heritage.
- There are mixed areas of historic and more recent residential and commercial developments

National Policies and Guidance

National planning policy and guidance is set out in National Policy Statements, primarily the National Planning Policy Framework (NPPF), published 20th July 2021, and the Planning Practice Guidance Suite (PPGS), first launched 6th March 2014, together with Circulars, Ministerial Statements and associated technical guidance.

The NPPF constitutes guidance for local planning authorities and is a material consideration in determining applications.

- **Chapter 2** – Achieving sustainable development
- **Chapter 4** – Decision-making
- **Chapter 5** – Delivering a sufficient supply of homes
- **Chapter 8** – Promoting healthy and safe communities
- **Chapter 11** – Making effective use of land
- **Chapter 12** – Achieving well-designed places
- **Chapter 14** – Meeting the challenge of climate change, flooding and coastal change
- **Chapter 15** – Conserving and enhancing the natural environment
- **Chapter 16** – Conserving and enhancing the historic environment

The National Planning Policy Framework (NPPF) can be viewed at:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

Other

- DCLG: Technical Housing Standards – Nationally Described Space Standard
- MHCLG: National Design Guide (2021)

4. Consultations undertaken

Internal consultees

The below lists the internal groups consulted as part of this pre-application enquiry. Their feedback is contained within the following commentary below.

- KC Waste Strategy
- KC Crime Prevention
- KC Ecology
- KC Education
- KC Environmental Health

- KC Highways Development Management
- KC Landscape
- KC Lead Local Flood Authority
- KC Mineral
- KC Footpaths
- KC Strategic Housing
- KC Trees

External consultees

Kirklees LPA do not consult external groups as part of the pre-application service. Based on the details held at this time, the following bodies would be consulted at full application stage:

- Yorkshire Water

Ward members

Local ward members were notified of the pre-application. The site falls within Holme Valley South Ward where the members are:

- Cllr Donald Firth
- Cllr Paul Davies
- Cllr Moses Crook

Comments have been provided raising concern regarding the overdevelopment of the site and the unsuitability of the highway.

5. Relevant matters for consideration

Principle of Development

Sustainable development and climate change

The planning system establishes a presumption in favour of sustainable development. At application stage you would need to submit supporting information to demonstrate that the proposed development would achieve net gains in respect of all three sustainable development objectives (economic, social and environmental).

Chapters 2, 9, 14 and 15 of the NPPF are particularly relevant to your proposals in relation to climate change, as are Local Plan policies LP1, LP20, LP21, LP24, LP26, LP27 and LP28, and the vision and strategic objectives set out in chapter 4 of the Local Plan. The council approved Climate Emergency measures at its meeting of full Council on 16th of January 2019, and you may also be aware of the West Yorkshire Combined Authority's pledge for the Leeds City Region to reach net zero carbon emissions by 2038.

Measures would be necessary to encourage the use of sustainable modes of transport. A development which was entirely reliant on users travelling by private car is unlikely to be considered sustainable. At application stage, adequate provision for pedestrians and cyclists should be demonstrated. Cycle storage, electric vehicle charging points, and other measures would be required. Drainage and flood risk minimisation measures would need to account for climate change. These points would be elaborated on where relevant within this response.

Your attention is drawn to the Council's Planning Applications Climate Change Guidance (June 2021). Appendix A of the document includes a templated 'climate change statement'. This allows for you to detail how climate change, its causes and impacts, have been considered and mitigated within your proposal. A completed climate change statement should be provided with any future application.

Quantum and density

The Local Plan sets out a minimum housing requirement of 31,140 homes between 2013 and 2031 to meet identified needs. This equates to 1,730 homes per annum.

Site allocation HS183 sets out an indicative capacity for 23 dwellings base on a net site area of 0.66 hectares and the 35 dwelling per hectare density figure referred to in the Local Plan Policy 7.

This is also supported within Principle 4 of the Housebuilders Design Guide SPD which states that *"Net development density is expected to achieve at least 35 dwellings per hectare, though higher densities are supported in areas in or adjacent to town centres which are well served by public transport and to secure more sustainable forms of development. Densities lower than 35 are only permitted in line with Local Plan Policy LP7. The location of the site is important in terms of the requirement for car parking provision, on-site open space provision and the type of housing required in the locality"*.

In this case, the proposal outlines 25 dwellings to be delivered on the site, which is slightly above the indicative capacity, providing a density of approximately 38 dwellings per hectare.

In this instance it is noted that the site is at the western edge of an existing settlement and adjoins an area that is predominantly rural in character. The site would also abut the Green Belt to the South. Therefore, Part c) of Policy LP7 states that lower densities may be acceptable if it is necessary to ensure the development is compatible with its surroundings.

In this case, the surrounding built form is considerably lower in density than the draft proposal and therefore, a lower capacity than what is proposed as part of this pre application is more desirable. For example, Principle 8 of the Housebuilders Design Guide SPD outlines that the *"the transition from urban to open land should be carefully considered where development is located on the edge of the urban area. Proposals should demonstrate how the new development makes a positive contribution to the character and function of the landscape through sensitive siting and good design. For all sites in elevated*

areas, the appearance in the wider landscape should be considered and with applicants demonstrating how development respects the topography of the site and its surroundings”.

Alongside the above paragraph 4.5.16 (Policy 6) of the Holme Valley Neighbourhood Plan outlines that the “density of housing is a crucial consideration for the valley as this affects the number of dwellings on a site and the amount of land needed. The capacity of sites in the Local Plan was calculated at a standard density of 35 dwellings per hectare throughout the district, unless a scheme for a different density had already received planning permission or has site promoter evidence justifying a different capacity. However, based on the Local Plan’s identified size of the allocated sites and number of proposed houses, it is estimated that the housing density in the Holme Valley will be approximately 30 dwellings per hectare. Lower density housing suggests larger, more expensive houses and it is generally recognised that these generate more profit for builders and higher council taxes for the Council”.

Therefore, given that the southern edge of the site adjoining the green belt is particularly sensitive in this regard, it may be more appropriate if the dwellings along the southern edge are more in line with the dwellings on Laithe Avenue in terms of layout and spacing.

As such, significant concerns are raised regarding the quantum of housing in which is being proposed, and therefore officers feel that a better layout could be sought to seek a less dense, better quality of housing.

Safeguarded land

Local Plan Policy LP6 identifies land to be protected from development in order to ensure its long-term deliverability under a future Local Plan in order to meet housing targets.

The site lies to the east of land allocated as safeguarded land (ref: SLS15, Land to the south of, Dobb Top Road, Holmbridge) which has an indicative capacity of 40 dwellings.

In this instance it is considered, having liaised with colleagues in Highways, that the indicative layout would not provide adequate width road links so as to facilitate the future development of the safeguarded site, should it be put forward. It is unlikely suitable access to this safeguarded land site could be achieved elsewhere and as such this site is likely to rely on access through this site for any future development. As such the applicant should reconsider the layout to ensure adequate access can be achieved in future if required, as the scheme as proposed would fail to meet the aims of Policy 6 of the KLP.

Design matters

The following Principles within the Housebuilders’ Design Guide SPD (HDG) are highlighted as being particularly relevant for the purposes of this indicative development:

Principle 2 - New residential development proposals will be expected to respect and enhance the local character of the area by: Taking cues from the character of the built and natural environment within the locality; Creating a positive and coherent identity,

complementing the surrounding built form in terms of its height, shape, form and architectural details; Illustrating how landscape opportunities have been used and promote a responsive, appropriate approach to the local context.

Principle 5 - Buildings should be aligned and set-back to form a coherent building line and designed to front on to the street, including corner plots, to help create active frontages. The layout of the development should enable important views to be maintained to provide a sense of places and visual connections to surrounding areas and seek to enable interesting townscape and landscape features to be viewed at the end of streets, working with site topography.

Principle 8 – The transition from urban to open land should be carefully considered where development is located on the edge of the urban area. For all sites in elevated areas, the appearance in the wider landscape should be considered and with applicants demonstrating how development respects the topography of the site and its surroundings.

Principle 13 - Applicants should show how different materials which are prevalent in the vicinity of the site have been taken into account in the proposal. Consider the use of locally prevalent materials and finishing of buildings to reflect the character of the area.

Principle 14 -The design of windows and doors is expected to relate well to the street frontage and neighbouring properties and reflect local character in style and materials. Innovation for energy efficiency is encouraged, particularly for maximising solar gain to allow for passive solar construction.

Principle 15 -The design of the roofline should relate well to the site context, including topography, views, heights of buildings and the roof types. Consideration should be given to the pitch of roofs, the inclusion of dormer windows, provision of green/blue roofs, the role of roofs in providing outdoor space and ensuring that the design of roofs does not allow for easy climbing access to upper floor windows.

Alongside the above, policy LP24 (design) states that good design should be at the core of all proposals and should be considered at the outset of the development process. Proposals should promote good design by ensuring high levels of sustainability, to a degree proportionate to the proposal, through design that promotes behavioural change, promoting walkable neighbourhoods and making walking and cycling more attractive. There is a footpath to the southern boundary of the site which is a PROW. Careful consideration should be given to how the development proposal can seamlessly connect to the PROW to encourage and facilitate walking and cycling. In accordance with Policy LP31 (strategic green infrastructure network), development proposals shall seek to integrate into existing and proposed cycling and walking routes by providing connecting links where opportunities exist.

In this case, the site is identified as being within a sensitive location as it borders both the green belt and safeguarded land. As such, it retains its historic character and appearance as part of a collection of large pastoral fields.

The site has landscape sensitivity resulting from its location, surrounding topography, and visibility from nearby locations, including from across the Holme Valley.

The site is not within a conservation area and does not lie within a close proximity of any Listed Buildings. Consequently, the potential impact on the historic environment is considered to be negligible.

Nonetheless, it is considered that the sites development could provide an exemplar housing development, tailored to the topography and circumstances of the particular urban edge location.

The fundamental Planning requirement, defined by the NPPF, is that the proposed development will deliver a well-designed place which complements the quality of the local area. In this instance that means responding to both the site's constraints and the opportunities to define a high quality of design and provision for accessible green-space and biodiversity on site. The currently proposed layout has thus been considered in the context of the above and the requirements of: NPPF paragraphs 130,131,134 and 174, Local Plan policies LP7, LP24, LP30 and LP31, and the Kirklees Housebuilders Design Guidance SPD. The primary objective at this detailed design stage should be to ensure that the residential development functions well and would demonstrably add to the overall quality of this part of Holmebridge and the Holme Valley.

In this case, as highlighted above concern is raised regarding the layout of the site, as officers consider the proposal to overdevelop the site. The layout is broadly read as a logical extension of Bankfield Drive, however, the built form bears no resemblance to those that exists. The introduction of three storey dwellings with steep roof slopes are considered inappropriate within this context, as the sites constraints are topography, countryside edge location and its relationship with the safeguarded land. As such, officers are looking to seek two storey dwellings within this location of a similar height to those adjacent to the site.

Furthermore, the form, scale, layout and details of all development should respect and enhance the local character and townscape, and proposals should provide a high standard of amenity for all future and neighbouring occupiers. The site plan shows many of the units to have parking provision situated to the front of the property, which has the potential to bring detriment to local amenity. In accordance with LP22 (parking) criterion (f), new developments will incorporate flexibly designed minimum parking spaces for private cars, considering a range of solutions, to provide the most efficient arrangement of safe, secure, convenient and visually unobtrusive car parking within the site including a mix of on and off-street parking in accordance with current guidance.

The information set out in the Kirklees Housebuilders Design Guide SPD (2021) should be used to ensure the potential housing development is high quality, socially inclusive and built to high environmental standards. It can be viewed on the Councils website here <https://www.kirklees.gov.uk/beta/planning-policy/pdf/housebuilders-design-guide-spd.pdf>

In terms of materials, it is difficult to tell from the plans submitted to whether the new dwellings would be constructed from a buff brick or natural stone. However, I would recommend the use of natural stone to be appropriate for the development, as it would enhance and protect sites openness. This is also reinforced within the Holme Valley Neighbourhood Plan as the key characteristics of the area are “framed views from the settled valley floor to the upper valley sides and views across to opposing valley slopes”. Therefore, as outlined above the site would be readily visible across the landscape and from various public vantage points including the PROW to the rear of the site.

As such, officers would wish to see more of the following as part of any future planning application:

1. A tree lined avenue of street trees to design the new connection street (see NPPF paragraph 131)
2. Enhancement of the gateway points at Bankfield Drive and to the public footpath
3. The road layout to incorporate parking areas defined by build-outs and street trees to break up the surface parking areas.
4. Areas of green space along pedestrian routes.
5. The frontage landscaping, including railings and fences, should be defined in the materials schedule.

The house designs should demonstrate that units exceed National Space Standards and accommodate the following:

1. Two storey dwellings would be appropriate at this site.
2. The quality of the elevations to be confirmed within the submission of a detailed ‘materials schedule’ to define the:
 - palette of facing and roof materials,
 - rainwater goods,
 - window reveals to all openings (to ensure that the triple glazed windows retain some depth and movement within the façade), and
3. Maximise the potential for meeting zero carbon aspirations by integrating both full energy efficient insulation measures and orientation of the properties/roof-slopes to the south to accommodate integrated PV systems.
- 4.
5. Sufficient space should be defined for refuse storage within enclosed structures at the rear of the properties to avoid open storage of wheelie bins.
6. Accommodation for bird and bat boxes within gables.

In conclusion, concern is raised regarding the general layout and density, and therefore careful thought should be given to this as part of any forthcoming planning application. The site does however, have the potential to provide an appropriate response to the countryside edge and provide a positive response to Policies LP24, LP30 and LP31 of the Kirklees Local Plan and Paragraph 130, 131, 134 and 174 of the NPPF.

Impact on residential amenity

Local Plan policies LP11 and LP24 require all proposals for housing to be of a high quality and design, providing a high standard of amenity for future and neighbouring occupants. Local Plan policy LP52 is also relevant.

The following principles within the Housebuilder Design Guide are also of particular importance:

Principle 6 – Residential layouts must ensure privacy and avoid negative impacts on light. For two storey houses typical minimum separation distances are advised as:

- 21 metres between facing windows of habitable rooms at the backs of dwellings;
- 12 metres between windows of habitable rooms that face onto windows of a non-habitable room;
- 10.5 metres between a habitable room window and the boundary of adjacent undeveloped land; and
- for a new dwelling located in a regular street pattern that is two storeys or above, there should normally be a minimum of a 2 metres distance from the side wall of the new dwelling to a shared boundary.

It is to be noted that these are typically minimum distances and that longer distances between buildings may be necessary to fit in with local character, or to adequately protect the amenities of existing and future occupiers of dwellings.

Principle 17 – All new houses should have adequate access to private outdoor amenity space that is functional and proportionate to the size of the dwelling and the character and context of the site.

In this instance, the site surrounds existing residential properties and therefore appropriate separation distances should be achieved in line with Principle 6 highlighted above, within the site and to surrounding existing properties.

I have measured the internal floor space for each house type, whereby all apart from the Pastow house type, appear to exceed the Nationally Described Space Standards. Therefore, should this house type be put forward at a formal planning stage, the internal floor space for a two storey x 3 bedroom property should be at least 84 sq.m.

There is also concern regarding the outlook from the bedrooms within the ‘attics’ on the three storey dwellings, as they would not provide an adequate outlook. As such, this concern coupled with that raised from a visual perspective, means that such house types are unlikely to be supported, as they would appear incongruous within the street scene.

Noise disturbance

KC Environmental Health have been formally consulted as part of this advice, to consider whether the proposed development may be adversely affected by existing noise sources

and also whether noise from the proposed development may have an adverse impact on nearby noise sensitive receptors.

It is considered that existing noise in the area is unlikely to adversely affect the proposed development and that the proposed development is unlikely to cause noise that will adversely affect nearby noise sensitive receptors. Therefore, it is considered unlikely that noise will be an issue. This is in accord with Policy LP52 of the Kirklees Local Plan.

Notwithstanding the above, officers have also considered the potential impact on amenity of any construction activities that will be necessary for the development.

There is a potential for loss of amenity to the occupiers of nearby properties from noise and vibration from the construction phase of the development. It is therefore likely that Environmental Health would recommend a condition restricting the times when noisy construction activities (including deliveries) will be permitted to 07.30 to 18.30 hours Mondays to Fridays, 08.00 to 13.00 hours, Saturdays and with no noisy activities on Sundays or Public Holidays.

Impact on highway safety

The assessment of this proposal will have regard to the principles set out within the Highway Design Guide, especially:

Key Design Driver 20 – As an initial point of reference, 2- and 3-bedroom houses should have at least 2 parking spaces, 4-plus bedroom houses at least 3 parking spaces

Key Design Driver 27 – Careful consideration be given to the location of bin storage facilities having regard to the need to provide easy level access from the storage area to the collection point.

Alongside this, the following principles of the Housebuilders Design Guide SPD are also relevant:

Principle 12 – Any parking provision should not dominate street frontages... and should be accommodated at the side of buildings or to their rear.

Principle 19 Provision for waste storage and recycling must be incorporated into the design of new developments in such a way that it is convenient for both collection and use whilst having minimal visual impact on the development.

In this case, KC Highways DM have been formally consulted as part of this enquiry and a summary of the key points are as follows. Full comments will be attached to this pre-application advice letter.

Site access

Access to the site is to be gained via Laithe Avenue, which links to Dobb Top Road/Smithy Lane to the north via Bankfield Drive and Laithe Bank Drive, which are both residential estate roads that are c.5.5m wide with c.1.8m wide footways and street lighting.

On the approach to the Dobb Top Road/Smithy Lane junctions, both Bankfield Drive and Laithe Bank Drive have steep downhill gradients. At the Bankfield Drive/Dobb Top Road/Smithy Lane junction, there is also restricted visibility to the west along Smithy Lane, and Dobb Top Road forms a further junction on the west side.

To provide access to the site, it is proposed to extend Laithe Avenue to the west as a Local Residential Street (Type 2), with footways on both sides for the initial section, before transitioning to a shared space street. This arrangement is acceptable in principle. However, links to the safeguarded land have not been accommodated. Therefore, the layout should be amended to ensure that the initial section of Type 2 street extends up to the site boundary to provide this future link. It would also be beneficial if the shared space street also extends to the site boundary to allow for a loop road system to be introduced in future.

Site Layout/Servicing/Waste Collection:

- The initial section of Local Residential Street (Type 2) must be a minimum of 5.5m wide, with 2m wide footways on both sides, before transitioning to the shared space street. As previously stated, a minimum of 1 no. Local Residential Street (Type 2) link must be provided up to the site boundary to allow a future link to the safeguarded land, but two links would be preferred.
- In accordance with the Councils Highway Design Guide SPD, a maximum highway gradient of 1:20 should be provided. However, if it can be clearly demonstrated that this is not feasible, which may be the case given the sites topography, gradients of up to 1:12 could be considered for Local Residential Streets (Type 2). Should the shared space streets have a gradient in excess of 1:20, a separate 2m wide pedestrian route is required.
- A turning head is currently proposed at the end of the shared space street. However, it is not of sufficient size to accommodate the Councils Design Refuse Vehicle and must be enlarged. Swept Path Analysis (SPA) must be provided using the Councils Design Refuse Vehicle (for SPA design parameters – see Highway Design Guide SPD and S38 guidance notes), to confirm that the site layout can adequately accommodate refuse vehicles, taking into account the presence of any on-street parking that may occur.
- The extent of the proposed adopted highway has not been indicated on the plans. Therefore, this must be confirmed on the submission drawings, with all junction and forward visibility requirements incorporated into the adopted highway.

- Where private drives are proposed, turning space is still required for cars and light van deliveries. No such facilities appear to be provided and must be included. Swept Path Analysis (SWA) should be provided to demonstrate that these facilities are adequate. The extent of any shared private drives should be clearly indicated on plan, with details of the future maintenance arrangements provided.
- Bin presentation points are required for all dwellings, which confirm to the Councils latest 'Waste Management Design Guide for New Developments' guidance document, and should be clearly noted on the submission plans. For any roads (e.g. private drives) where a dedicated refuse vehicle turning head is not provided, suitably sized and located communal bin presentation points are required adjacent to the adopted highway. All bin presentation points should conform to the maximum carry distances and gradients set out in Council guidance.
- There are no pedestrian crossing facilities shown on the site plan drawing. These should be shown on plan. Where ramps are placed to demarcate different surfaces or road types, the footways should continue beyond the ramps to provide for level pedestrian access.
- No visitor parking spaces have currently been shown. These should ideally be provided in laybys so that on-street parking does not block access, specifically for the refuse collection vehicle.
- Street trees should be designed into the road layout so that all streets are tree lined, which will require the introduction of min. 2m wide verges. Careful consideration of tree locations is required to ensure that tree canopies do not obstruct movement and visibility within the highway.

Parking

The site plan does not confirm the level of parking proposed. However, it appears the parking provision is below guidance contained within the Councils Highway Design Guide SPD, which recommends that 2 spaces are provided for 2-3 bed dwellings and 3 spaces for 4+ bedroom dwellings. Reference should also be taken from the Councils Housebuilder SPD, which provides recommendations for the location of parking spaces to ensure high quality design (e.g. side parking is preferred to front parking). If integral garages are to be considered as contributing towards parking provision they must provide internal dimensions of 3m x 6m.

All dwellings must include at least 1 no. electric vehicle charging point (more are desirable). Secure cycle parking is required for all dwellings and should allow for electric cycle charging.

As previously stated, visitor parking should ideally be provided within laybys. Where laybys are not provided, additional carriageway widening may be necessary to accommodate refuse vehicle turning. Visitor parking should be provided at a ratio of 1:4 dwellings.

Full details of the parking provision should be confirmed in the Transport Statement required to support any future planning application, with clear justification should there be any shortfall in provision.

Public Right of Way (PROW)

PROW footpath HOL/91/20 runs along the southern boundary of the site. At present, no connection to this footpath has been included. This is considered to be a missed opportunity and should be provided to improve pedestrian connectivity. The layout of any footpath connection should confirm to 'Secured by Design' principles.

It would also be beneficial to provide a pedestrian / cycle link to the north of the site connecting onto Dobb Top Road. Therefore, this should be investigated and provided should levels permit.

Road safety

As previously stated, there is restricted junction visibility looking to the west from the Bankfield Drive junction on to Smithy Lane. Therefore, speed data should be obtained on Smithy Lane on approach to the junction, to confirm the visibility requirements. Consideration should then be given to improving the junction arrangements to maximise junction visibility. This may be possible by making the junction more compact (subject to Swept Path Analysis), encouraging drivers on Bankfield Drive to wait closer to the central lane markings, which will improve the available sight line to the west. Amendments to the boundary wall on the south side of Smithy Lane to the west of the junction should also be investigated to improve visibility.

The steep downhill approaches to Smithy Lane/Dobb Top Road from Bankfield Drive and Laithe Bank Drive are likely to result in high approach speeds and could result in junction overshoot type incidents, particularly in wet/icy conditions. Therefore, measures to reduce approach speeds should be investigated on approach to both junctions, which could include ramp type features (e.g. similar to those provided at the start of shared space type streets).

There is also evidence that the wall on the north side of Dobb Top Lane/Smithy Lane opposite the Bankfield Drive and Laithe Bank Drive junctions may have been struck by vehicles (either passing traffic or from the side roads), resulting in damage to the walls. HDM have consulted with the Councils Highway Structures team about this matter, who have advised that rain water that runs along and through boundary walls of this type (with no kerb or drainage channel), causes maintenance issues as fill material is washed from the wall, reducing it's strength over time. Therefore, whilst no additional vehicle restraint feature appears suitable in this location, measures should be investigated to address the drainage issue adjacent to the wall. This could involve the creation a 450-600mm wide hard margin with full height kerb to direct water to the drainage gully instead of through the wall.

The footway surfaces on the steep sections of both Bankfield Drive and Laithe Bank Drive are currently overgrown by moss, which is likely to be slippery in wet conditions. Therefore,

improvements to the footways surfacing should be investigated specifically in these areas, as well as along the full footway routes to the site.

Access to the wider highway network (e.g. the A6024 Woodhead Road) is via Dobb Top Road and Bank Lane to the west, and Dobb Top Road, Dobb Lane, Ford Gate and Co-op Lane to the east. These lanes are relatively narrow, have no footway provision and are a bus route. 'Rural School Route' signage on yellow backing boards are currently provided on this route to highlight the presence on pedestrians within the shared carriageway. Consideration should be given to whether any additional improvements could be provided to mitigate the impact of additional development traffic along these routes. To consider this matter further, speed and traffic flow data should be obtained along these routes, together with vehicle turning count data at the Bankfield Drive and Laithe Bank Drive junctions to consider the likely traffic distribution to/from the development site.

A package of highway improvement measures should be developed to address all of the above issues, which should be subject to a Stage 1 Road Safety Audit and submitted with the planning application alongside a Designers Response report.

The Transport Statement that is required to support any planning submission should include a review of Personal Injury Accident Data on the local highway network over the latest 5 year period. This should include all roads and junctions linking the site to the A6024 Woodhead Road (inclusive of the A6024 junctions and its approaches).

Accessibility

A review of the sites accessibility by non-car modes should be provided in the Transport Statement. Where necessary, this should include improvements to ensure that the development is accessible to all users, including safe links to nearby public transport facilities and key destinations (e.g. local schools).

Traffic Impact/Network Assessment

As the development would not generate more than 30 two-way vehicle trips during network peak hour periods, junction capacity assessments are not required. However, the supporting Transport Statement must include an assessment of the likely traffic distribution on the local network, up to the junction on to the A6024. The impact of development traffic should then be assessed and be informed by existing vehicle turning count data at the Bankfield Drive and Laithe Bank Drive junctions. The net impact of development traffic on the routes to/from the A6024 should be considered against baseline data (e.g. obtained from automatic traffic count data at a number of locations along the route).

Highway Adoption Issues

The internal road layout shall be built to adoptable standards, as set out in the Kirklees 'Highway Design Guide SPD' and 'Highways Guidance Note – Section 38 Agreements for Highway Adoptions' March 2019 (version 1) and associated documents.

Sufficient detail must be provided with the planning submission to check that the proposed highways are suitable for adoption, and should clearly show the extent of proposed

adoption and any areas that are to remain private (e.g. landscaping areas and PoS). The following information is required as a minimum:

- Long sections, cross-sections and contours;
 - Dimensioned plans, including visibility splays and forward visibility sight-lines;
 - Kerbing details and surface treatments;
 - Extent of proposed adoption and unadopted communal areas to be confirmed.
- Details regarding the maintenance of unadopted communal areas/facilities are also required.

Any retaining features affecting the highway will require formal technical approval by the Council as the Highway Authority. We would recommend providing details of all proposed retaining features and underground storage facilities (including pipes) to my colleague Farhad Khatibi (Team Leader) in the structures section at the earliest opportunity, who will be able to advise of the necessary requirements in more detail.

In relation to highways matters, the following information is required to support the planning submission:

- Proposed highway details;
- Stage 1 Road Safety Audit for both S278 & S38 works;
- Swept Path Analysis (SPA).

Flood risk and Drainage

The whole of the proposed site is located in Flood Zone 1 which means that it has a more than 1 in 1,000 annual likelihood of flooding due to the main river. The closest distance to a Flood Zone 2 area is approx. 55m north of the site. As such, given the above and the fact that the site does not exceed 1 hectare, a sequential test would not be necessary at the application stage.

Flood Incidents

In this instance, the Council's Lead Local Flood Authority have confirmed that there have been no previously reported flood incidents on the proposed site. However, this does not mean that the area hasn't flooded, just that it hasn't been reported. The closest reported incident was approx. 20m to the north of the site and caused flooding to an out-building.

Flood Routing/Site Layout

During intense rainfall events drainage systems can often become blocked or overwhelmed. We expect developers to understand where the flow of water will be in these circumstances and avoid unnecessary risk. Floodwater is expected to be routed along access roads/public open spaces where possible.

Any water which makes its way on site has the potential to flow downhill in a northerly direction towards the river Holme. As it does this the water will pass through gardens and go around houses.

The proposed site layout shows gaps between the houses in which water can escape, reducing the overall risk of ponding onsite.

Kirklees encourage culverted watercourse to be daylighted, as this reduces overall flood risk on site. All culverted watercourses onsite should have a minimum stand-off distance of at least 5m.

Surface Water Drainage Strategy

At Kirklees Council we aim to promote sustainable drainage throughout the district. In this case, the gradient of the site would preclude the use of soakaways due to the risk of groundwater re-emergence further down the hill or destabilising existing retaining walls.

Connecting to a Yorkshire Water surface sewer is a viable option. There is a 225mm dia surface water sewer located in Smithy Lane which outfalls to the river Holme. However, Yorkshire Water will not allow connection to their sewer network unless it can be proven all other drainage strategies are either not viable or not feasible.

Attenuation facilities should store the critical 1 in 30 year storm. Volumes generated by storms up to and including the critical 1 in 100 + climate change storm must also be stored on site. Opportunities to store the additional volume in safe areas on the surface can be explored however as the site is steeply sloping, this volume may need to be stored below ground.

If the attenuation structure's span is greater than 1500mm and positioned under highway, it is likely to preclude adoption by Kirklees Council. Please speak to our Structures department for more information. Storage in landscaped areas or non-adoptable highway is unaffected.

Please note the need for a Section 106 agreement at application stage to secure management and maintenance of drainage features prior to, or instead of, adoption by Yorkshire Water.

Other matters

Electricity substation

If an electricity substation would need to be provided as part of the proposed development, early thought should be given to its location. Too often this matter is overlooked at design and application stage, resulting in clumsy later provision in prominent locations, as the access and maintenance requirements of service providers has not been considered early enough.

Air Quality

KC Environmental Health Officers have considered whether the development will have a significant detrimental impact on local air quality and also whether it will introduce sensitive receptors into an area of existing poor air quality.

The site of the proposed development is not within or adjacent to an Air Quality Management Area or near to any roads of concern, and it would therefore not be introducing new receptors into an area of poor air quality. The development itself is unlikely to impact on local air quality. Therefore, we would have no comments to make regarding air quality.

Contamination

In accordance with LP53 any future application would require ground contamination investigation. A Phase I Desk Study would be required. Depending on the outcome of the Phase I study it may be necessary for a Phase II Report, including a full Remediation Strategy and Validation Report. This could be secured via a pre-commencement condition or submitted as part of an application to avoid a pre-commencement condition.

Please see the attached commentary from K.C. Environmental Health for more details.

External Artificial Lighting

KC Environmental Health have considered whether it is likely that external artificial lighting (other than for highways) will be required at the development such as at car parks, outdoor work areas / service yards and whether this needs to be controlled to minimise stray light and glare.

In this case, it appears unlikely that there will be any significant areas that will be lit by artificial lighting therefore this need not be considered in any future application.

Odours

KC Environmental Health have considered whether the development is likely to generate odours that may have an adverse impact or is likely to be adversely affected by possible odours in the vicinity such as from agricultural, industrial or cooking.

It is considered that the proposed development will not create any significant odours and also that there are no significant odours in the vicinity that will affect the development. Therefore, it is considered that odours do not need to be considered.

Foul Drainage

KC Environmental Health have considered whether or not the development requires a foul drainage system and if it does whether it is likely to have access to a mains sewer or whether a private treatment works is feasible.

It appears that the proposed development will be able to make a connection to the main foul sewer system therefore foul drainage would not need to be an issue.

Private Water Supply

KC Environmental Team have considered whether or not the development requires a drinking water supply and has access to a mains water supply and what would be required

if only a private water supply was available. We have also considered the potential impact of the development on existing private water supplies.

It appears that a mains water supply would be available to the proposed development therefore the supply of drinking water would not be an issue.

Crime prevention

K.C. Crime Prevention's recommendations, along with standing advice, can be found in the attached document. Please note that their advice focuses chiefly on mitigation and preventing crime and should be considered in the context of the wider pre-application response.

Trees and ecology

As can be expected with pre application, there has been little arboricultural information provided. However, the officers main concern with the initial design is that it does not include any new tree planting, this would be expected with any future application even if the number and position of houses are redesigned to allow space for trees.

The proposed site is an open field which is almost clear of trees except for an established thorn hedge and an oak tree growing along the north boundary with Dobb Top Road.

It is unclear at this point if the hedge/ tree is to be retained, although it would be straight forward do so and its retention would not only provide continued wildlife habitat but also keep the green screen from the lane and properties to the north. The only concern being the area marked as drainage easement will require further detail if level changes/excavation are to impact the root protection areas.

Any future application would need to be supported by a tree survey, arboricultural impact assessment and method statement in accordance with BS5837.

In terms of ecology, in the absence of baseline ecological information, the officer is unable to provide definitive comments on the proposals in relation to national and local policies. However, based on the information available, we would like to highlight below potential issues that are likely to influence the nature of an acceptable scheme. To assist the prospective applicant, further information on key elements of biodiversity policy is referenced below. An explanation of the standards for ecological assessment is also provided.

The following list is intended to draw your attention to likely ecological issues that are specific to the site, and which may affect assessment of an application against biodiversity policies. This list is not based on a comprehensive understanding of ecological constraints particular to the site, therefore it is essential that the prospective applicant engages a suitably qualified ecologist to advise on ecological issues.

- Semi-natural habitats are present on the site and there is a land-take associated with the proposals. The habitats on site will need to be accounted for in a

biodiversity metric calculation and a 10% net gain achieved post-development (see below)

- The site is located within the bat layer and the development proposals are likely to result in the loss of suitable foraging habitat. It is likely that bat activity surveys will be required as part of the impact assessment.

Therefore, as part of any future planning application we would wish to see a Preliminary Ecological Appraisal (PEA) in accordance with national guidelines, an Ecological Impact Assessment and a 10% biodiversity net gain on site using the DEFRA Biodiversity Metric 3.0. If 10% net gain cannot be demonstrated on site a financial contribution may be considered to offset the loss, to be spent on enhancing local ecology. This is to accord with Policy LP30 and Chapter 15 of the NPPF.

Public Health

Chapter 8 of the NPPF, Local Plan policy LP47 and the council's Joint Health and Wellbeing Strategy are of relevance to public health.

Development at this site would be required to assist in promoting healthy, active and safer lifestyles in accordance with the above planning policies. This can be achieved in many ways – inclusive design, cycle parking provision, careful construction management (including dust control) and other measures can be proposed by your team. Active travel is of particular relevance to sites where major residential development is proposed.

Pre-application Public Engagement

You are encouraged to carry out public consultation and engagement prior to submitting your planning application, in accordance with paragraph 40 of the NPPF. This should include the adjacent residential properties and school.

The results of your pre-application consultation would need to be included in a Statement of Community Involvement to be submitted with your forthcoming planning application.

Planning obligations / Heads of terms

Based upon the pre-application submission, the following would likely be necessary to be secured by means of S106 Agreement as part of any application should it be supported:

Affordable housing

LP11 requires proposals to include 20% of units as affordable housing. For 25 dwellings, this would equate to 5 units.

There's significant need for affordable 1 and 2 bedroom homes in Kirklees Rural West, along with 1/2 bed dwellings for older people specifically. Kirklees Rural- West has a large number of detached properties, compared to other areas in Kirklees and a high level of home ownership, with 75% of properties being owner-occupied. Around 15% of homes are private rented and around 10% are affordable housing.

Type

At the time in which Strategic Housing's comments were sought the development only featured 3 and 4 bedroom homes. As 1 and 2 beds are in need in particular in the area, the 5 affordable units now identified as being 2 beds are likely to be greatly welcomed.

Affordable homes should be indistinguishable from the market housing in a development, in terms of the quality of materials and finishing, design, space standards, landscaping and any other such features. The affordable dwellings should be dispersed throughout a site in smaller clusters, avoiding large groupings of affordable dwellings. Affordable dwellings should be well integrated within the site layout and not located at specific areas at the edges of sites.

The affordable units have been grouped in smaller clusters of 2 and 3 units together, but it's advised one of these clusters be moved further into the interior of the development, as currently all the affordable units are situated in one area, near to the entrance of the site.

Tenure

In terms of affordable tenure split, across the district Kirklees works on a split of 55% social or affordable rent to 45% intermediate housing (type of affordable housing including forms of affordable home ownership). In line with latest government guidance a minimum of 25% of the affordable homes must be First Homes – forming part of the intermediate allocation. The rest of the affordable homes should be delivered as affordable tenure advised in local policy, 55% of the affordable homes being social/affordable rent with any remainder as intermediate. For this development the following affordable tenure mix would be suitable:

- First homes = 2 homes
- Social Rent or Affordable Rent Homes = 3 homes

Ecological net gain

If on-site ecological enhancements are unable to achieve a 10% net gain based on the DEFRA Biodiversity Metric 3.0, dependant on the level of the deficit, an off-site contribution may be considered. This will be dependent upon your calculations and cannot be calculated at this time.

Education

The threshold for education contributions on residential schemes is 25 or more 2+-bed units. The proposal shows 25 2, 3 and 4 bed units and therefore meets this threshold.

Nonetheless, at the time in which the Council's Education department were consulted there is no need for a contribution to be required, as the indicative spaces can be achieved within the nearby schools.

However, please be aware that this is reviewed annually and therefore may change due to the cohort intake and the number of units provided at the application stage.

Public Open Space (POS)

In accordance with LP63 all residential schemes over 10 units (including those for 100% affordable dwellings) are required to contribute towards the provision of open space in their area. In this case, officers have consulted with KC Landscape, whereby the following comments have been sought.

Greenspace on site is welcome, however, there is none indicated on the initial layout, nor is there a landscape buffer for the greenbelt edge and along the existing PROW. The rear gardens of dwellings 1-7 provide opportunities for strengthening the landscape edge.

There are no street trees indicated on the layout. Please be reminded of the council's advice regarding Green Streets principles, as well as paragraph 131 of the recently-amended NPPF, which requires new streets to be tree-lined. In particular, the initial 4 properties have frontline parking. Some tree planting to front gardens would help visually break up and avoid dominance of hard surfaces/car parking to frontages on entering the new estate.

Tree planting and other landscaping and screen planting could additionally help the proposed development comply with policies and guidance regarding design, biodiversity, health and wellbeing and other relevant planning considerations.

In this case, based on the plans submitted, due to the limited POS proposed, an off-site contribution of £56,006 is likely to be required. Full comments regarding this can be found with the officers consultation response, attached alongside this pre application advice.

Management and maintenance

A S106 would be required to secure management and maintenance arrangements, for drainage attenuation features.

Plans and Validation checklist

A full set of detailed drawings, including plans and elevations, site sections, existing and proposed land levels, and street scene drawings, would be required to support any application.

Based on the details held at this time the following necessary supporting documents have been identified:

- Design and Access Statement
- Planning Statement, to include:
 - Statement of Community Involvement
 - Climate change statement
- Proposed highway details;
- Stage 1 Road Safety Audit for both S278 & S38 works;
- Swept Path Analysis (SPA).
- Drainage Strategy
 - To include a future management plan for the maintenance of the water area

- To include surface water flooding
- A landscape management plan
- Measured areas of any on site Public Open Space
- Contaminated Land reports
- Tree survey, Arboricultural impact assessment and Method Statement
- A Preliminary Ecological Appraisal (PEA), an Ecological Impact Assessment and a 10% biodiversity net gain
- Crime prevention plan

Conclusion

I trust this information is of use to you in formulating a scheme for the site. In summary, there are concerns regarding the proposed development. The overarching concern includes the number of units provided and the layout of the site, related to the need to ensure that the land is developed within a sympathetic and sensitive manner.

Advice set out in this letter is provided in good faith, without prejudice to the formal consideration of any planning application, which would be subject to public consultation and would ultimately be decided by the Council. It should also be noted that subsequent alterations to legislation or local, regional, and national policies might affect the advice given. Therefore, caution should be exercised in respect of pre-application advice which is not submitted within a short time of the Council's advice letter.

Yours faithfully

Mathias Franklin
Head of Planning and Development

Disclaimer

Any views or opinions expressed are in good faith, without prejudice to the formal consideration of any planning application, which will be subject to public consultation (which will include the relevant Town or Parish Council) and ultimately be decided by the Council.

It should be noted that subsequent alterations to legislation or local, regional and national policies might affect the advice given. You should be aware of the Council's Local Development Scheme which sets out the programme for developing its local plan. You are advised to seek further advice once any consultation drafts are published.

Caution should be exercised in respect of pre-application advice which is not submitted within a short time of the Council's advice letter.

Appendix C Highway Adoption Records





Kompass
Kirklees Mapping Service

Scale = 1:500

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Ordnance Survey
100019241

maps@kirklees.gov.uk



Appendix D Personal Injury Collision Data



Title:

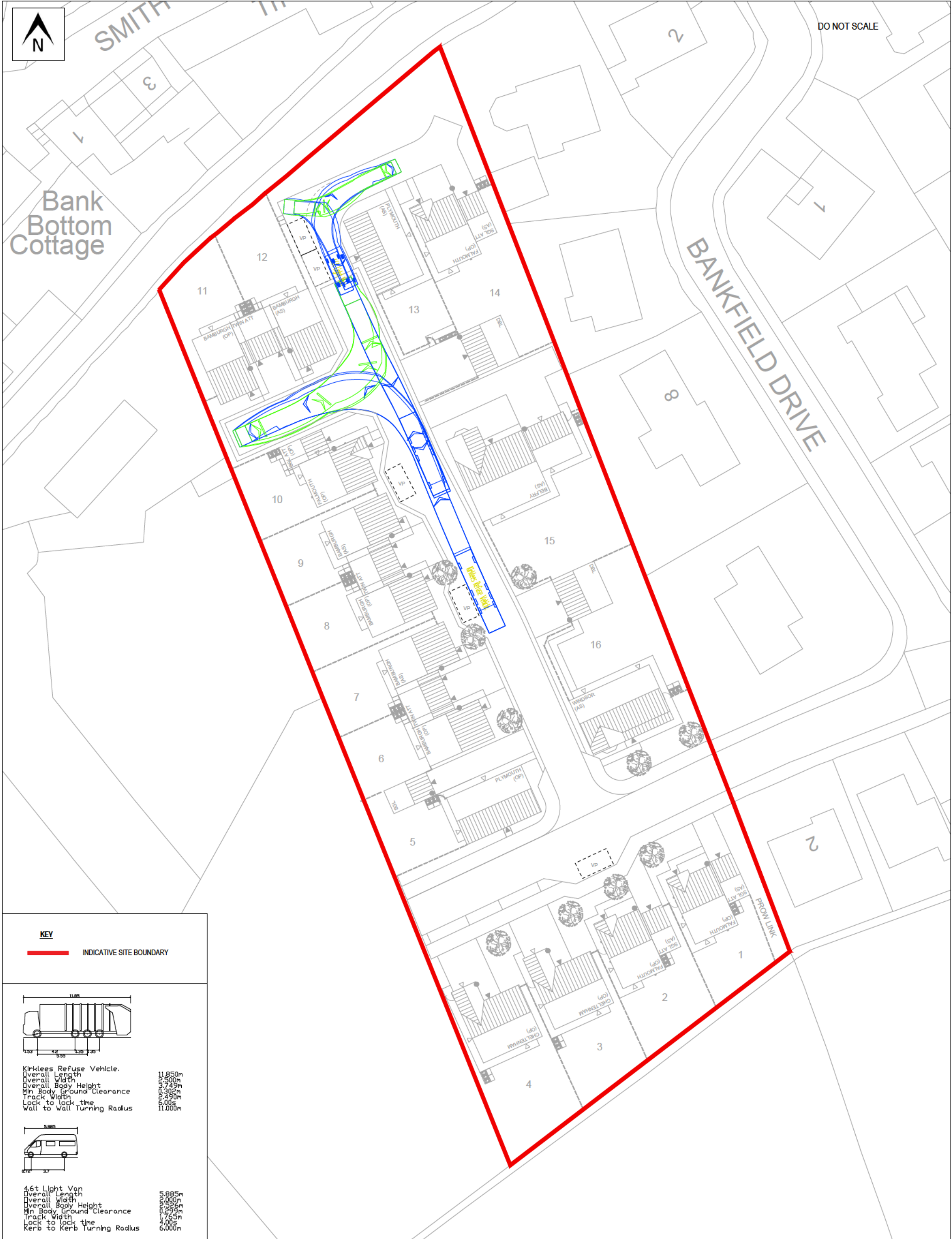
Query:

Accident Date BETWEEN '01-Jan-2018' AND '31-Dec-2022'

No accident records found for this search

Appendix E Swept Path Analysis of Site Layout Plan (Optima Highways drawing 22027/ATR01 Revision B)





KEY

INDICATIVE SITE BOUNDARY

Kirklees Refuse Vehicle.

Overall Length11.850m

Overall Width2.500m

Overall Body Height3.749m

Min Body Ground Clearance0.302m

Track Width2.490m

Lock to lock time6.00s

Wall to Wall Turning Radius11.000m

4.6t Light Van

Overall Length5.885m

Overall Width2.000m

Overall Body Height2.250m

Min Body Ground Clearance0.255m

Track Width1.765m

Lock to lock time4.00s

Kerb to Kerb Turning Radius6.000m

						PROJECT		CLIENT			
B	20/03/23	SG	UPDATED LAYOUT	PO	PO	BANKSFIELD DRIVE, HOLMFIRTH		ORION HOMES			
A	21/04/22	SG	UPDATED LAYOUT	EAG	EAG						
-	21/03/22	SG	INITIAL ISSUE	EAG	EAG	DRAWING TITLE		CHECKED	APPROVED	DRG No.	
REV	DATE	BY	DESCRIPTION	CHK	APP			PO	PO	22027/ATR01	
STATUS						SWEPT PATH ANALYSIS		DRAWN BY:	SCALE @ A3	DATE	REV.
PRELIMINARY								SG	1:500	MARCH 2023	B

Intelligent Highway Solutions

Suite 1, 3rd Floor, Goodbard House, Infirmary Street

Leeds LS1 2JP

optimahighways.com T 0113 245 1679

Appendix F TRICS Data



Calculation Reference: AUDIT-750701-230221-0257

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST	
	CT CENTRAL BEDFORDSHIRE	1 days
	ES EAST SUSSEX	2 days
	EX ESSEX	1 days
	HC HAMPSHIRE	6 days
	KC KENT	1 days
	MW MEDWAY	1 days
	SC SURREY	2 days
	WS WEST SUSSEX	1 days
03	SOUTH WEST	
	BC BOURNEMOUTH CHRISTCHURCH & POOLE	1 days
	DC DORSET	1 days
	DV DEVON	1 days
	SD SWINDON	1 days
	SM SOMERSET	1 days
	TB TORBAY	1 days
04	EAST ANGLIA	
	NF NORFOLK	8 days
	PB PETERBOROUGH	1 days
	SF SUFFOLK	2 days
05	EAST MIDLANDS	
	LN LINCOLNSHIRE	1 days
	NT NOTTINGHAMSHIRE	1 days
06	WEST MIDLANDS	
	SH SHROPSHIRE	1 days
	ST STAFFORDSHIRE	2 days
	WK WARWICKSHIRE	2 days
	WM WEST MIDLANDS	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	3 days
08	NORTH WEST	
	AC CHESHIRE WEST & CHESTER	1 days
	EC CHESHIRE EAST	1 days
	LC LANCASHIRE	1 days
09	NORTH	
	CB CUMBRIA	1 days
	DH DURHAM	2 days

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

Optima Highways and Transportation Infirmary Street Leeds

Licence No: 750701

Primary Filtering selection:

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

Parameter: No of Dwellings
 Actual Range: 8 to 99 (units:)
 Range Selected by User: 6 to 100 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 14/10/22

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

Selected survey days:

Monday	9 days
Tuesday	9 days
Wednesday	14 days
Thursday	9 days
Friday	8 days

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

Selected survey types:

Manual count	46 days
Directional ATC Count	3 days

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

Selected Locations:

Edge of Town Centre	6
Suburban Area (PPS6 Out of Centre)	11
Edge of Town	32

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

Selected Location Sub Categories:

Residential Zone	45
Out of Town	1
No Sub Category	3

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	14 days - Selected
Servicing vehicles Excluded	44 days - Selected

Secondary Filtering selection:

Use Class:

C3	49 days
----	---------

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

Population within 500m Range:

All Surveys Included

Optima Highways and Transportation Infirmary Street Leeds

Licence No: 750701

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,001 to 5,000	3 days
5,001 to 10,000	12 days
10,001 to 15,000	16 days
15,001 to 20,000	6 days
20,001 to 25,000	5 days
25,001 to 50,000	7 days

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

Population within 5 miles:

5,001 to 25,000	8 days
25,001 to 50,000	5 days
50,001 to 75,000	7 days
75,001 to 100,000	7 days
100,001 to 125,000	2 days
125,001 to 250,000	13 days
250,001 to 500,000	7 days

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

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	13 days
1.1 to 1.5	34 days
1.6 to 2.0	1 days

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

Travel Plan:

Yes	19 days
No	30 days

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

PTAL Rating:

No PTAL Present	48 days
2 Poor	1 days

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

LIST OF SITES relevant to selection parameters

1	AC-03-A-04	TOWN HOUSES		CHESHIRE WEST & CHESTER
	LONDON ROAD			
	NORTHWICH			
	LEFTWICH			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total No of Dwellings:	24		
	Survey date: THURSDAY	06/06/19	Survey Type: MANUAL	
2	BC-03-A-02	BUNGALOWS		BOURNEMOUTH CHRISTCHURCH & POOLE
	HURSTDENE ROAD			
	BOURNEMOUTH			
	CASTLE LANE WEST			
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:	28		
	Survey date: MONDAY	24/03/14	Survey Type: MANUAL	
3	CB-03-A-05	DETACHED / TERRACED HOUSING		CUMBRIA
	MACADAM WAY			
	PENRITH			
	Edge of Town Centre			
	Residential Zone			
	Total No of Dwellings:	50		
	Survey date: TUESDAY	21/06/16	Survey Type: MANUAL	
4	CT-03-A-01	MIXED HOUSES		CENTRAL BEDFORDSHIRE
	ARLESEY ROAD			
	STOTFOLD			
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:	46		
	Survey date: WEDNESDAY	22/06/22	Survey Type: MANUAL	
5	DC-03-A-09	MIXED HOUSES		DORSET
	A350			
	SHAFTESBURY			
	Edge of Town			
	No Sub Category			
	Total No of Dwellings:	50		
	Survey date: FRIDAY	19/11/21	Survey Type: MANUAL	
6	DH-03-A-01	SEMI DETACHED		DURHAM
	GREENFIELDS ROAD			
	BISHOP AUCKLAND			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total No of Dwellings:	50		
	Survey date: TUESDAY	28/03/17	Survey Type: MANUAL	
7	DH-03-A-03	SEMI-DETACHED & TERRACED		DURHAM
	PILGRIMS WAY			
	DURHAM			
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:	57		
	Survey date: FRIDAY	19/10/18	Survey Type: MANUAL	

LIST OF SITES relevant to selection parameters (Cont.)

8	DV-03-A-03 LOWER BRAND LANE HONITON	TERRACED & SEMI DETACHED	DEVON
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 70 Survey date: MONDAY 28/09/15		Survey Type: MANUAL
9	EC-03-A-06 GREYSTOKE ROAD MACCLESFIELD HURDSFIELD	TERRACED HOUSES	CHESHIRE EAST
	Edge of Town Residential Zone Total No of Dwellings: 24 Survey date: MONDAY 24/11/14		Survey Type: MANUAL
10	ES-03-A-05 RATTLE ROAD NEAR EASTBOURNE STONE CROSS	MIXED HOUSES & FLATS	EAST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings: 99 Survey date: WEDNESDAY 05/06/19		Survey Type: MANUAL
11	ES-03-A-07 NEW ROAD HAILSHAM HELLINGLY	MIXED HOUSES & FLATS	EAST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings: 91 Survey date: THURSDAY 07/11/19		Survey Type: MANUAL
12	EX-03-A-02 MANOR ROAD CHIGWELL GRANGE HILL	DETACHED & SEMI-DETACHED	ESSEX
	Edge of Town Residential Zone Total No of Dwellings: 97 Survey date: MONDAY 27/11/17		Survey Type: MANUAL
13	HC-03-A-21 PRIESTLEY ROAD BASINGSTOKE HOUNDMILLS	TERRACED & SEMI-DETACHED	HAMPSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 39 Survey date: TUESDAY 13/11/18		Survey Type: MANUAL
14	HC-03-A-22 BOW LAKE GARDENS NEAR EASTLEIGH BISHOPSTOKE	MIXED HOUSES	HAMPSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 40 Survey date: WEDNESDAY 31/10/18		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

15	HC-03-A-23 CANADA WAY LIPHOOK	HOUSES & FLATS		HAMPSHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 62 Survey date: TUESDAY 19/11/19 Survey Type: MANUAL			
16	HC-03-A-27 DAIRY ROAD ANDOVER	MIXED HOUSES		HAMPSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 73 Survey date: TUESDAY 16/11/21 Survey Type: MANUAL			
17	HC-03-A-30 MEUDON AVENUE FARNBOROUGH	TERRACED HOUSES		HAMPSHIRE
	Edge of Town Centre Residential Zone Total No of Dwellings: 31 Survey date: FRIDAY 14/10/22 Survey Type: MANUAL			
18	HC-03-A-31 KILN ROAD LIPHOOK	MIXED HOUSES & FLATS		HAMPSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 44 Survey date: FRIDAY 07/10/22 Survey Type: MANUAL			
19	KC-03-A-03 HYTHE ROAD ASHFORD WILLESBOROUGH	MIXED HOUSES & FLATS		KENT
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 51 Survey date: THURSDAY 14/07/16 Survey Type: MANUAL			
20	LC-03-A-31 GREENSIDE PRESTON COTTAM	DETACHED HOUSES		LANCASHIRE
	Edge of Town Residential Zone Total No of Dwellings: 32 Survey date: FRIDAY 17/11/17 Survey Type: MANUAL			
21	LN-03-A-04 EGERTON ROAD LINCOLN	DETACHED & SEMI-DETACHED		LINCOLNSHIRE
	Edge of Town Centre Residential Zone Total No of Dwellings: 30 Survey date: MONDAY 29/06/15 Survey Type: MANUAL			

LIST OF SITES relevant to selection parameters (Cont.)

22	MW-03-A-02	MIXED HOUSES		MEDWAY
	OTTERHAM QUAY LANE			
	RAINHAM			
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:	19		
	Survey date: MONDAY	06/06/22	Survey Type: MANUAL	
23	NF-03-A-03	DETACHED HOUSES		NORFOLK
	HALING WAY			
	THETFORD			
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:	10		
	Survey date: WEDNESDAY	16/09/15	Survey Type: MANUAL	
24	NF-03-A-10	MIXED HOUSES & FLATS		NORFOLK
	HUNSTANTON ROAD			
	HUNSTANTON			
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:	17		
	Survey date: WEDNESDAY	12/09/18	Survey Type: DIRECTIONAL ATC COUNT	
25	NF-03-A-25	MIXED HOUSES & FLATS		NORFOLK
	WOODFARM LANE			
	GORLESTON-ON-SEA			
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:	55		
	Survey date: TUESDAY	21/09/21	Survey Type: MANUAL	
26	NF-03-A-26	MIXED HOUSES		NORFOLK
	HEATH DRIVE			
	HOLT			
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:	91		
	Survey date: WEDNESDAY	22/09/21	Survey Type: DIRECTIONAL ATC COUNT	
27	NF-03-A-34	MIXED HOUSES		NORFOLK
	NORWICH ROAD			
	SWAFFHAM			
	Edge of Town			
	Out of Town			
	Total No of Dwellings:	80		
	Survey date: TUESDAY	27/09/22	Survey Type: MANUAL	
28	NF-03-A-36	MIXED HOUSES		NORFOLK
	LONDON ROAD			
	WYMONDHAM			
	Edge of Town			
	No Sub Category			
	Total No of Dwellings:	75		
	Survey date: THURSDAY	29/09/22	Survey Type: MANUAL	
29	NF-03-A-37	MIXED HOUSES		NORFOLK
	GREENFIELDS ROAD			
	DEREHAM			
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:	44		
	Survey date: TUESDAY	27/09/22	Survey Type: MANUAL	
30	NF-03-A-50	MIXED HOUSES		NORFOLK
	BRANDON ROAD			
	SWAFFHAM			
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:	75		
	Survey date: FRIDAY	14/10/16	Survey Type: DIRECTIONAL ATC COUNT	

LIST OF SITES relevant to selection parameters (Cont.)

31	NT-03-A-08 WIGHAY ROAD HUCKNALL	DETACHED HOUSES		NOTTINGHAMSHIRE
	Edge of Town Residential Zone Total No of Dwellings:		36	
	Survey date: MONDAY		18/10/21	Survey Type: MANUAL
32	NY-03-A-12 RACECOURSE LANE NORTHALLERTON	TOWN HOUSES		NORTH YORKSHIRE
	Edge of Town Centre Residential Zone Total No of Dwellings:		47	
	Survey date: TUESDAY		27/09/16	Survey Type: MANUAL
33	NY-03-A-13 CATTERICK ROAD CATTERICK GARRISON OLD HOSPITAL COMPOUND Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:	TERRACED HOUSES	10	NORTH YORKSHIRE
	Survey date: WEDNESDAY		10/05/17	Survey Type: MANUAL
34	NY-03-A-14 PALACE ROAD RIPON	DETACHED & BUNGALOWS		NORTH YORKSHIRE
	Edge of Town Residential Zone Total No of Dwellings:		45	
	Survey date: WEDNESDAY		18/05/22	Survey Type: MANUAL
35	PB-03-A-04 EASTFIELD ROAD PETERBOROUGH	DETACHED HOUSES		PETERBOROUGH
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:		28	
	Survey date: MONDAY		17/10/16	Survey Type: MANUAL
36	SC-03-A-04 HIGH ROAD BYFLEET	DETACHED & TERRACED		SURREY
	Edge of Town Residential Zone Total No of Dwellings:		71	
	Survey date: THURSDAY		23/01/14	Survey Type: MANUAL
37	SC-03-A-07 FOLLY HILL FARNHAM	MIXED HOUSES		SURREY
	Edge of Town Residential Zone Total No of Dwellings:		41	
	Survey date: WEDNESDAY		11/05/22	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

38	SD-03-A-01 HEADLANDS GROVE SWINDON	SEMI DETACHED		SWINDON
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:		27	
	Survey date: THURSDAY		22/09/16	Survey Type: MANUAL
39	SF-03-A-05 VALE LANE BURY ST EDMUNDS	DETACHED HOUSES		SUFFOLK
	Edge of Town Residential Zone Total No of Dwellings:		18	
	Survey date: WEDNESDAY		09/09/15	Survey Type: MANUAL
40	SF-03-A-07 FOXHALL ROAD IPSWICH	MIXED HOUSES		SUFFOLK
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:		73	
	Survey date: THURSDAY		09/05/19	Survey Type: MANUAL
41	SH-03-A-06 ELLESMERE ROAD SHREWSBURY	BUNGALOWS		SHROPSHIRE
	Edge of Town Residential Zone Total No of Dwellings:		16	
	Survey date: THURSDAY		22/05/14	Survey Type: MANUAL
42	SM-03-A-01 WEMBDON ROAD BRIDGWATER NORTHFIELD	DETACHED & SEMI		SOMERSET
	Edge of Town Residential Zone Total No of Dwellings:		33	
	Survey date: THURSDAY		24/09/15	Survey Type: MANUAL
43	ST-03-A-06 STANFORD ROAD WOLVERHAMPTON BLAKENHALL	SEMI-DET. & TERRACED		STAFFORDSHIRE
	Edge of Town Centre No Sub Category Total No of Dwellings:		17	
	Survey date: FRIDAY		09/05/14	Survey Type: MANUAL
44	ST-03-A-08 SILKMORE CRESCENT STAFFORD MEADOWCROFT PARK	DETACHED HOUSES		STAFFORDSHIRE
	Edge of Town Residential Zone Total No of Dwellings:		26	
	Survey date: WEDNESDAY		22/11/17	Survey Type: MANUAL
45	TB-03-A-01 BRONSHILL ROAD TORQUAY	TERRACED HOUSES		TORBAY
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:		37	
	Survey date: WEDNESDAY		30/09/15	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

46	WK-03-A-03 BRESE AVENUE WARWICK GUYS CLIFFE Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 23 Survey date: WEDNESDAY 25/09/19	DETACHED HOUSES	WARWICKSHIRE	Survey Type: MANUAL
47	WK-03-A-04 DALEHOUSE LANE KENILWORTH Edge of Town Residential Zone Total No of Dwellings: 49 Survey date: FRIDAY 27/09/19	DETACHED HOUSES	WARWICKSHIRE	Survey Type: MANUAL
48	WM-03-A-05 COUNDON ROAD COVENTRY Edge of Town Centre Residential Zone Total No of Dwellings: 89 Survey date: MONDAY 21/11/16	TERRACED & DETACHED	WEST MIDLANDS	Survey Type: MANUAL
49	WS-03-A-10 TODDINGTON LANE LITTLEHAMPTON WICK Edge of Town Residential Zone Total No of Dwellings: 79 Survey date: WEDNESDAY 07/11/18	MIXED HOUSES	WEST SUSSEX	Survey Type: MANUAL

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

MANUALLY DESELECTED SURVEYS

Site Ref	Survey Date	Reason for Deselection
BO-03-A-01	15/10/20	Covid-19 pandemic lockdown period
HF-03-A-04	08/06/21	Covid-19 pandemic lockdown period
KC-03-A-09	09/06/21	Covid-19 pandemic lockdown period
WO-03-A-07	01/10/20	Covid-19 pandemic lockdown period

Optima Highways and Transportation Infirmary Street Leeds

Licence No: 750701

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	49	47	0.091	49	47	0.299	49	47	0.390
08:00 - 09:00	49	47	0.156	49	47	0.350	49	47	0.506
09:00 - 10:00	49	47	0.150	49	47	0.187	49	47	0.337
10:00 - 11:00	49	47	0.147	49	47	0.180	49	47	0.327
11:00 - 12:00	49	47	0.151	49	47	0.154	49	47	0.305
12:00 - 13:00	49	47	0.177	49	47	0.179	49	47	0.356
13:00 - 14:00	49	47	0.184	49	47	0.174	49	47	0.358
14:00 - 15:00	49	47	0.171	49	47	0.192	49	47	0.363
15:00 - 16:00	49	47	0.275	49	47	0.188	49	47	0.463
16:00 - 17:00	49	47	0.284	49	47	0.178	49	47	0.462
17:00 - 18:00	49	47	0.328	49	47	0.167	49	47	0.495
18:00 - 19:00	49	47	0.246	49	47	0.146	49	47	0.392
19:00 - 20:00	1	97	0.062	1	97	0.052	1	97	0.114
20:00 - 21:00	1	97	0.031	1	97	0.021	1	97	0.052
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.453			2.467			4.920

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

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

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Parameter summary

Trip rate parameter range selected: 8 - 99 (units:)
 Survey date range: 01/01/14 - 14/10/22
 Number of weekdays (Monday-Friday): 53
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 9
 Surveys manually removed from selection: 0

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

Appendix G Method of Travel to Work



WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

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Population All usual residents aged 16 and over in employment the week before the census
Units Persons

Date 2011

usual residence E02002328 Kirklees 058 (2011 super output area - middle layer)

place of work	2011 super output area - middle layer	All categories											Other method of travel to work
		Method of travel to work (2001 specification)	Work mainly at or from home	Underground, metro, light rail or tram	Train	Bus, minibus or coach	Taxi	Motorcycle, scooter or moped	Driving a car or van	Passenger in a car or van	Bicycle	On foot	
County Durham 016		1	0	0	0	0	0	0	1	0	0	0	0
Middlesbrough 001		1	0	0	0	0	0	0	1	0	0	0	0
Newcastle upon Tyne 002		1	0	0	0	0	0	0	1	0	0	0	0
Blackburn with Darwen 003		1	0	0	0	0	0	0	1	0	0	0	0
Blackburn with Darwen 011		1	0	0	0	0	0	0	1	0	0	0	0
Cheshire East 004		1	0	0	1	0	0	0	0	0	0	0	0
Cheshire East 013		1	0	0	0	0	0	0	1	0	0	0	0
Cheshire East 018		2	0	0	0	0	0	0	2	0	0	0	0
Cheshire East 021		1	0	0	0	0	0	0	1	0	0	0	0
Cheshire West and Chester 017		1	0	0	0	0	0	0	1	0	0	0	0
Warrington 004		1	0	0	0	0	0	0	1	0	0	0	0
South Lakeland 008		1	0	0	0	0	0	0	1	0	0	0	0
Bolton 007		1	0	0	0	0	0	0	1	0	0	0	0
Bolton 016		1	0	0	0	0	0	0	1	0	0	0	0
Bolton 021		1	0	0	0	0	0	0	1	0	0	0	0
Bolton 031		1	0	0	0	0	0	0	1	0	0	0	0
Bury 005		1	0	0	0	0	0	0	1	0	0	0	0
Bury 008		2	0	0	0	0	0	0	2	0	0	0	0
Bury 011		1	0	0	0	0	0	0	1	0	0	0	0
Bury 013		2	0	0	0	0	0	0	1	1	0	0	0
Bury 026		1	0	0	0	0	0	0	1	0	0	0	0
Manchester 007		1	0	0	0	0	0	0	1	0	0	0	0
Manchester 009		1	0	0	0	0	0	0	1	0	0	0	0
Manchester 015		1	0	0	0	0	0	1	0	0	0	0	0
Manchester 018		1	0	0	0	0	0	0	1	0	0	0	0
Manchester 019		2	0	0	0	0	0	0	2	0	0	0	0
Manchester 020		1	0	0	0	0	0	0	1	0	0	0	0
Manchester 022		1	0	0	0	0	0	0	1	0	0	0	0
Manchester 026		1	0	0	0	0	0	0	1	0	0	0	0
Manchester 034		1	0	0	0	0	0	0	1	0	0	0	0
Manchester 038		1	0	0	0	0	0	0	1	0	0	0	0
Manchester 039		2	0	0	0	0	0	0	2	0	0	0	0
Manchester 050		1	0	0	0	0	0	0	1	0	0	0	0
Manchester 051		2	0	0	0	0	0	0	2	0	0	0	0
Manchester 053		4	0	0	0	0	0	0	4	0	0	0	0
Manchester 054		10	0	0	1	0	0	0	8	1	0	0	0
Manchester 055		6	0	0	2	0	0	0	4	0	0	0	0
Manchester 056		1	0	0	0	0	0	0	1	0	0	0	0
Manchester 057		4	0	0	2	0	0	0	2	0	0	0	0
Manchester 060		8	0	0	6	0	0	0	2	0	0	0	0
Oldham 002		1	0	0	0	0	0	0	1	0	0	0	0
Oldham 009		1	0	0	0	0	0	0	1	0	0	0	0
Oldham 011		3	0	0	0	0	0	0	3	0	0	0	0
Oldham 012		1	0	0	0	0	0	0	1	0	0	0	0
Oldham 014		6	0	0	0	0	0	0	6	0	0	0	0
Oldham 015		1	0	0	0	0	0	0	1	0	0	0	0
Oldham 017		3	0	0	0	0	0	0	3	0	0	0	0
Oldham 019		1	0	0	0	0	0	0	1	0	0	0	0
Oldham 020		5	0	0	0	0	0	0	4	1	0	0	0
Oldham 021		1	0	0	0	0	0	1	0	0	0	0	0
Oldham 022		3	0	0	0	0	0	0	3	0	0	0	0
Oldham 024		2	0	0	0	0	0	0	2	0	0	0	0
Oldham 028		1	0	0	0	0	0	0	1	0	0	0	0
Oldham 029		3	0	0	0	1	0	0	2	0	0	0	0
Oldham 032		1	0	0	0	0	0	0	1	0	0	0	0
Oldham 035		1	0	0	0	0	0	0	1	0	0	0	0
Rochdale 001		2	0	0	0	0	0	0	2	0	0	0	0
Rochdale 003		1	0	0	0	0	0	0	1	0	0	0	0
Rochdale 005		2	0	0	0	0	0	0	2	0	0	0	0
Rochdale 010		4	0	0	0	0	0	0	4	0	0	0	0
Rochdale 012		1	0	0	0	0	0	0	1	0	0	0	0
Rochdale 015		3	0	0	0	1	0	0	2	0	0	0	0
Rochdale 019		2	0	0	0	0	0	0	2	0	0	0	0
Rochdale 020		1	0	0	0	0	0	0	1	0	0	0	0
Rochdale 024		2	0	0	0	0	0	0	2	0	0	0	0
Salford 005		1	0	0	0	0	0	0	1	0	0	0	0
Salford 020		1	0	0	0	0	0	0	1	0	0	0	0
Salford 022		1	0	0	1	0	0	0	0	0	0	0	0
Salford 026		1	0	0	0	0	0	0	1	0	0	0	0
Salford 027		1	0	0	0	0	0	0	1	0	0	0	0
Salford 028		3	0	0	0	0	0	0	2	0	0	1	0
Salford 030		3	0	0	0	0	0	0	3	0	0	0	0
Stockport 007		1	0	0	0	0	0	0	1	0	0	0	0
Stockport 010		1	0	0	0	0	0	0	1	0	0	0	0
Stockport 017		1	0	0	0	0	0	0	1	0	0	0	0
Stockport 026		1	0	0	0	0	0	0	1	0	0	0	0
Stockport 028		1	0	0	0	0	0	0	1	0	0	0	0
Stockport 039		1	0	0	0	0	0	0	1	0	0	0	0
Stockport 040		1	0	0	0	0	0	0	1	0	0	0	0
Tameside 001		2	0	0	0	0	0	0	1	1	0	0	0
Tameside 002		1	0	0	0	0	0	0	1	0	0	0	0
Tameside 007		3	0	0	0	0	0	0	3	0	0	0	0
Tameside 009		2	0	0	0	0	0	0	2	0	0	0	0
Tameside 013		5	0	0	0	0	0	0	4	0	0	0	1
Tameside 014		1	0	0	0	0	0	0	1	0	0	0	0
Tameside 015		1	0	0	0	0	0	0	1	0	0	0	0
Tameside 019		2	0	0	0	0	0	0	2	0	0	0	0
Tameside 025		1	0	0	0	0	0	0	1	0	0	0	0
Tameside 027		1	0	0	0	1	0	0	0	0	0	0	0
Trafford 001		2	0	0	1	0	0	0	1	0	0	0	0
Trafford 002		2	0	0	0	0	0	0	2	0	0	0	0
Trafford 004		1	0	0	0	0	0	0	1	0	0	0	0
Trafford 006		4	0	0	0	0	0	0	3	0	1	0	0

Trafford 025	1	0	0	0	0	0	0	1	0	0	0	0
Wigan 008	1	0	0	1	0	0	0	0	0	0	0	0
Wigan 010	1	0	0	0	0	0	0	1	0	0	0	0
Wigan 015	1	0	0	0	0	0	0	1	0	0	0	0
Wigan 019	1	0	0	0	0	0	0	1	0	0	0	0
Burnley 014	1	0	0	0	0	0	0	1	0	0	0	0
Chorley 010	1	0	0	0	0	0	0	1	0	0	0	0
Fylde 004	2	0	0	0	0	0	0	2	0	0	0	0
Hyndburn 002	1	0	0	0	0	0	0	1	0	0	0	0
Hyndburn 004	1	0	0	0	0	0	0	1	0	0	0	0
Preston 004	6	0	0	1	0	0	0	5	0	0	0	0
Preston 006	1	0	0	0	0	0	0	1	0	0	0	0
Rossendale 009	1	0	0	0	0	0	0	1	0	0	0	0
Wyre 007	1	0	0	0	0	0	0	1	0	0	0	0
Liverpool 001	1	0	0	0	0	0	0	0	0	0	1	0
Liverpool 060	1	0	0	1	0	0	0	0	0	0	0	0
Sefton 025	1	0	0	0	0	0	0	1	0	0	0	0
Sefton 037	1	0	0	0	0	0	0	1	0	0	0	0
St. Helens 016	1	0	0	0	0	0	0	1	0	0	0	0
Wirral 038	1	0	0	0	0	0	0	0	1	0	0	0
York 013	4	0	0	1	0	0	0	2	0	0	1	0
York 019	2	0	0	0	0	0	0	2	0	0	0	0
Craven 008	1	0	0	0	0	0	0	1	0	0	0	0
Hambleton 007	1	0	0	0	0	0	0	1	0	0	0	0
Hambleton 009	1	0	0	0	0	0	0	1	0	0	0	0
Harrogate 004	2	0	0	0	0	0	0	2	0	0	0	0
Harrogate 017	1	0	0	0	0	0	0	1	0	0	0	0
Selby 001	1	0	0	0	0	0	0	1	0	0	0	0
Selby 002	1	0	0	0	0	0	0	1	0	0	0	0
Selby 004	1	0	0	0	0	0	0	1	0	0	0	0
Selby 005	1	0	0	0	0	0	0	1	0	0	0	0
Barnsley 003	2	0	0	0	0	0	0	2	0	0	0	0
Barnsley 004	3	0	0	0	0	0	0	3	0	0	0	0
Barnsley 007	1	0	0	0	0	0	0	1	0	0	0	0
Barnsley 008	2	0	0	0	0	0	0	2	0	0	0	0
Barnsley 012	8	0	0	0	0	0	0	8	0	0	0	0
Barnsley 013	16	0	0	1	0	0	0	15	0	0	0	0
Barnsley 015	1	0	0	0	0	0	0	1	0	0	0	0
Barnsley 016	6	0	0	0	0	0	0	6	0	0	0	0
Barnsley 017	1	0	0	0	0	0	0	1	0	0	0	0
Barnsley 019	3	0	0	0	0	0	0	3	0	0	0	0
Barnsley 020	1	0	0	0	0	0	0	1	0	0	0	0
Barnsley 022	2	0	0	0	0	0	0	2	0	0	0	0
Barnsley 024	3	0	0	0	0	0	0	3	0	0	0	0
Barnsley 026	1	0	0	0	0	0	0	1	0	0	0	0
Barnsley 027	21	0	0	0	1	0	0	14	5	1	0	0
Barnsley 028	3	0	0	0	0	0	0	2	1	0	0	0
Barnsley 029	1	0	0	0	0	0	0	1	0	0	0	0
Doncaster 022	1	0	0	0	0	0	0	1	0	0	0	0
Doncaster 027	1	0	0	0	0	0	0	1	0	0	0	0
Doncaster 039	1	0	0	0	0	0	0	1	0	0	0	0
Rotherham 002	6	0	0	0	0	0	0	6	0	0	0	0
Rotherham 006	1	0	0	0	0	0	0	1	0	0	0	0
Rotherham 007	1	0	0	0	0	0	0	1	0	0	0	0
Rotherham 008	2	0	0	0	0	0	0	2	0	0	0	0
Rotherham 017	2	0	0	0	0	0	0	2	0	0	0	0
Rotherham 018	1	0	0	0	0	0	0	1	0	0	0	0
Rotherham 025	2	0	0	0	0	0	0	2	0	0	0	0
Rotherham 031	1	0	0	0	0	0	0	1	0	0	0	0
Sheffield 002	4	0	0	0	0	0	0	4	0	0	0	0
Sheffield 004	2	0	0	0	0	0	0	2	0	0	0	0
Sheffield 005	1	0	0	0	0	0	0	1	0	0	0	0
Sheffield 008	1	0	0	0	0	0	0	1	0	0	0	0
Sheffield 014	2	0	0	0	0	0	0	2	0	0	0	0
Sheffield 017	3	0	0	0	0	0	0	3	0	0	0	0
Sheffield 018	4	0	0	0	0	0	0	4	0	0	0	0
Sheffield 020	1	0	0	0	0	0	0	1	0	0	0	0
Sheffield 022	5	0	0	0	0	0	0	5	0	0	0	0
Sheffield 026	1	0	0	0	0	0	1	0	0	0	0	0
Sheffield 028	1	0	0	0	0	0	0	1	0	0	0	0
Sheffield 030	5	0	0	0	0	0	0	5	0	0	0	0
Sheffield 032	1	0	0	0	0	0	0	1	0	0	0	0
Sheffield 040	1	0	0	0	0	0	0	1	0	0	0	0
Sheffield 041	1	0	0	0	0	0	0	1	0	0	0	0
Sheffield 043	1	0	0	0	0	0	0	1	0	0	0	0
Sheffield 073	6	0	0	0	0	0	0	5	1	0	0	0
Sheffield 074	5	0	0	0	0	0	0	4	1	0	0	0
Sheffield 075	5	0	0	2	0	0	0	3	0	0	0	0
Sheffield 076	1	0	0	0	0	0	0	1	0	0	0	0
Bradford 002	1	0	0	0	0	0	0	1	0	0	0	0
Bradford 011	1	0	0	0	0	0	0	1	0	0	0	0
Bradford 017	1	0	0	0	0	0	0	1	0	0	0	0
Bradford 019	1	0	0	0	0	0	0	1	0	0	0	0
Bradford 020	1	0	0	0	0	0	0	1	0	0	0	0
Bradford 022	2	0	0	0	0	0	0	1	1	0	0	0
Bradford 028	1	0	0	0	0	0	0	1	0	0	0	0
Bradford 030	2	0	0	0	0	0	0	2	0	0	0	0
Bradford 033	1	0	0	0	0	0	0	1	0	0	0	0
Bradford 037	1	0	0	0	0	0	0	1	0	0	0	0
Bradford 038	8	0	0	0	0	0	0	8	0	0	0	0
Bradford 039	13	0	0	0	1	0	0	12	0	0	0	0
Bradford 041	2	0	0	0	0	0	0	1	1	0	0	0
Bradford 044	3	0	0	0	0	0	0	3	0	0	0	0
Bradford 045	4	0	0	0	0	0	0	4	0	0	0	0
Bradford 046	7	0	0	0	0	0	0	7	0	0	0	0
Bradford 048	4	0	0	0	0	0	0	4	0	0	0	0
Bradford 057	2	0	0	0	0	0	0	2	0	0	0	0
Bradford 059	3	0	0	0	0	0	0	3	0	0	0	0
Bradford 060	3	0	0	0	0	0	0	3	0	0	0	0
Bradford 061	2	0	0	0	0	0	1	0	0	1	0	0
Calderdale 003	4	0	0	0	0	0	0	4	0	0	0	0
Calderdale 005	1	0	0	0	0	0	0	1	0	0	0	0
Calderdale 006	2	0	0	0	0	0	0	2	0	0	0	0
Calderdale 007	5	0	0	0	0	0	0	5	0	0	0	0
Calderdale 008	26	0	0	0	3	1	0	21	1	0	0	0

Calderdale 009	1	0	0	0	0	0	0	1	0	0	0	0
Calderdale 011	1	0	0	0	0	0	0	1	0	0	0	0
Calderdale 012	10	0	0	0	0	0	0	8	2	0	0	0
Calderdale 013	1	0	0	0	0	0	0	1	0	0	0	0
Calderdale 014	2	0	0	0	0	0	0	2	0	0	0	0
Calderdale 015	6	0	0	0	0	0	0	5	1	0	0	0
Calderdale 016	4	0	0	0	1	0	0	3	0	0	0	0
Calderdale 017	3	0	0	0	0	0	0	3	0	0	0	0
Calderdale 018	1	0	0	0	0	0	0	1	0	0	0	0
Calderdale 019	12	0	0	0	1	0	0	11	0	0	0	0
Calderdale 020	2	0	0	1	0	0	0	1	0	0	0	0
Calderdale 021	12	0	0	0	0	0	0	12	0	0	0	0
Calderdale 024	2	0	0	0	0	0	0	2	0	0	0	0
Calderdale 025	25	0	0	0	1	0	0	23	1	0	0	0
Calderdale 026	2	0	0	0	0	0	0	2	0	0	0	0
Kirklees 001	7	0	0	0	0	0	0	7	0	0	0	0
Kirklees 002	9	0	0	0	2	0	0	7	0	0	0	0
Kirklees 003	6	0	0	0	0	0	0	5	0	0	1	0
Kirklees 005	5	0	0	0	0	0	0	5	0	0	0	0
Kirklees 006	4	0	0	0	0	0	0	3	1	0	0	0
Kirklees 008	1	0	0	0	0	0	0	1	0	0	0	0
Kirklees 010	5	0	0	1	0	0	0	3	0	0	1	0
Kirklees 011	5	0	0	0	0	1	1	2	1	0	0	0
Kirklees 012	2	0	0	0	0	0	0	2	0	0	0	0
Kirklees 013	4	0	0	0	0	0	0	4	0	0	0	0
Kirklees 014	2	0	0	0	0	0	0	2	0	0	0	0
Kirklees 015	5	0	0	0	1	0	0	4	0	0	0	0
Kirklees 016	2	0	0	0	0	0	0	2	0	0	0	0
Kirklees 017	11	0	0	0	1	0	0	10	0	0	0	0
Kirklees 018	2	0	0	0	0	0	1	0	1	0	0	0
Kirklees 019	1	0	0	0	0	0	0	0	1	0	0	0
Kirklees 020	2	0	0	0	1	0	0	1	0	0	0	0
Kirklees 021	6	0	0	0	0	0	0	6	0	0	0	0
Kirklees 022	13	0	0	0	2	0	0	11	0	0	0	0
Kirklees 023	9	0	0	0	0	0	0	8	1	0	0	0
Kirklees 024	6	0	0	0	0	0	0	5	1	0	0	0
Kirklees 025	33	0	0	0	2	0	0	30	1	0	0	0
Kirklees 026	12	0	0	0	1	0	0	10	1	0	0	0
Kirklees 027	18	0	0	0	3	0	1	11	2	0	1	0
Kirklees 028	1	0	0	0	0	0	0	1	0	0	0	0
Kirklees 029	243	0	0	2	29	0	1	181	26	1	3	0
Kirklees 030	8	0	0	0	0	0	0	7	1	0	0	0
Kirklees 031	21	0	0	0	2	0	0	17	1	0	1	0
Kirklees 032	13	0	0	0	2	0	1	9	0	0	1	0
Kirklees 033	54	0	0	0	3	0	0	48	1	0	2	0
Kirklees 034	60	0	0	1	7	0	2	46	1	1	1	1
Kirklees 035	10	0	0	0	0	0	0	9	0	1	0	0
Kirklees 036	10	0	0	0	0	0	0	10	0	0	0	0
Kirklees 037	12	0	0	0	1	0	0	10	1	0	0	0
Kirklees 038	13	0	0	0	1	0	0	12	0	0	0	0
Kirklees 039	26	0	0	0	0	0	0	23	1	2	0	0
Kirklees 040	5	0	0	0	0	0	0	5	0	0	0	0
Kirklees 041	7	0	0	0	0	0	0	7	0	0	0	0
Kirklees 042	134	0	0	1	19	0	0	92	14	3	5	0
Kirklees 043	31	0	0	1	4	0	0	25	0	1	0	0
Kirklees 044	12	0	0	0	2	0	0	10	0	0	0	0
Kirklees 045	32	0	0	0	4	0	0	25	1	0	2	0
Kirklees 046	17	0	0	0	1	0	0	12	3	0	1	0
Kirklees 047	13	0	0	0	0	0	0	13	0	0	0	0
Kirklees 048	21	0	0	0	4	0	0	16	0	0	1	0
Kirklees 049	39	0	0	0	1	0	1	36	1	0	0	0
Kirklees 050	18	0	0	0	0	0	0	17	0	0	1	0
Kirklees 051	30	0	0	0	0	0	0	29	0	1	0	0
Kirklees 052	17	0	0	0	0	0	0	15	1	0	1	0
Kirklees 053	125	0	0	1	17	0	3	91	4	2	7	0
Kirklees 054	22	0	0	1	1	0	0	20	0	0	0	0
Kirklees 055	78	0	0	0	1	0	1	58	11	2	5	0
Kirklees 056	32	0	0	0	3	0	0	26	3	0	0	0
Kirklees 057	36	0	0	0	1	0	0	29	5	0	1	0
Kirklees 058	249	0	0	5	7	0	1	141	12	4	77	2
Kirklees 059	337	0	0	1	15	3	1	191	31	5	89	1
Leeds 002	3	0	0	0	0	0	0	3	0	0	0	0
Leeds 007	5	0	0	0	1	0	0	4	0	0	0	0
Leeds 009	1	0	0	0	0	0	0	1	0	0	0	0
Leeds 014	1	0	0	0	0	0	0	1	0	0	0	0
Leeds 019	1	0	0	0	0	0	0	1	0	0	0	0
Leeds 020	1	0	0	0	0	0	0	1	0	0	0	0
Leeds 028	2	0	0	0	0	0	0	2	0	0	0	0
Leeds 029	3	0	0	0	0	0	0	3	0	0	0	0
Leeds 034	2	0	0	0	0	0	0	2	0	0	0	0
Leeds 044	1	0	0	0	0	0	0	1	0	0	0	0
Leeds 048	1	0	0	0	0	0	0	1	0	0	0	0
Leeds 055	3	0	0	0	0	0	0	2	0	0	0	1
Leeds 056	1	0	0	1	0	0	0	0	0	0	0	0
Leeds 058	1	0	0	0	0	0	0	1	0	0	0	0
Leeds 061	1	0	0	1	0	0	0	0	0	0	0	0
Leeds 062	3	0	0	0	0	0	0	3	0	0	0	0
Leeds 063	14	0	0	3	0	1	0	10	0	0	0	0
Leeds 066	2	0	0	0	0	0	0	2	0	0	0	0
Leeds 069	1	0	0	0	0	0	0	1	0	0	0	0
Leeds 070	3	0	0	0	0	0	0	3	0	0	0	0
Leeds 071	5	0	0	1	0	0	1	3	0	0	0	0
Leeds 073	6	0	0	0	0	0	0	6	0	0	0	0
Leeds 074	1	0	0	0	0	0	0	1	0	0	0	0
Leeds 075	1	0	0	0	0	0	0	1	0	0	0	0
Leeds 077	2	0	0	0	0	0	0	1	1	0	0	0
Leeds 079	1	0	0	0	0	0	0	1	0	0	0	0
Leeds 081	1	0	0	0	0	0	0	1	0	0	0	0
Leeds 082	8	0	0	0	0	0	0	8	0	0	0	0
Leeds 085	1	0	0	0	0	0	0	1	0	0	0	0
Leeds 086	2	0	0	0	0	0	0	2	0	0	0	0
Leeds 087	2	0	0	0	0	0	0	2	0	0	0	0
Leeds 089	1	0	0	0	0	0	0	1	0	0	0	0
Leeds 090	10	0	0	2	0	0	0	8	0	0	0	0
Leeds 091	2	0	0	0	0	0	0	2	0	0	0	0

Leeds 093	3	0	0	0	0	0	0	3	0	0	0	0
Leeds 095	1	0	0	0	0	0	0	1	0	0	0	0
Leeds 096	1	0	0	0	0	0	0	1	0	0	0	0
Leeds 102	2	0	0	0	0	0	0	2	0	0	0	0
Leeds 104	3	0	0	0	0	0	1	2	0	0	0	0
Leeds 106	3	0	0	0	0	0	0	3	0	0	0	0
Leeds 109	1	0	0	0	0	0	0	1	0	0	0	0
Leeds 111	65	0	0	26	1	0	0	37	0	0	1	0
Leeds 112	9	0	0	1	0	0	0	8	0	0	0	0
Wakefield 002	2	0	0	0	0	0	0	2	0	0	0	0
Wakefield 004	1	0	0	0	0	0	0	0	1	0	0	0
Wakefield 006	7	0	0	0	0	0	0	7	0	0	0	0
Wakefield 009	2	0	0	0	0	0	0	2	0	0	0	0
Wakefield 012	1	0	0	0	0	0	0	1	0	0	0	0
Wakefield 013	2	0	0	0	0	0	0	2	0	0	0	0
Wakefield 014	6	0	0	0	0	0	0	6	0	0	0	0
Wakefield 015	1	0	0	0	0	0	0	1	0	0	0	0
Wakefield 017	14	0	0	0	0	0	0	14	0	0	0	0
Wakefield 019	10	0	0	0	0	0	0	10	0	0	0	0
Wakefield 020	1	0	0	0	0	0	0	1	0	0	0	0
Wakefield 021	5	0	0	0	0	0	0	4	1	0	0	0
Wakefield 022	2	0	0	0	0	0	0	2	0	0	0	0
Wakefield 024	2	0	0	0	0	0	0	2	0	0	0	0
Wakefield 025	6	0	0	0	0	0	0	5	1	0	0	0
Wakefield 026	2	0	0	0	0	0	0	2	0	0	0	0
Wakefield 028	3	0	0	0	0	0	0	2	1	0	0	0
Wakefield 029	5	0	0	0	0	0	0	3	0	0	2	0
Wakefield 030	2	0	0	0	0	0	0	2	0	0	0	0
Wakefield 032	2	0	0	0	0	0	0	2	0	0	0	0
Wakefield 033	1	0	0	0	0	0	0	1	0	0	0	0
Wakefield 035	4	0	0	0	0	0	0	4	0	0	0	0
Wakefield 036	6	0	0	0	0	0	0	6	0	0	0	0
Wakefield 037	3	0	0	0	0	0	0	3	0	0	0	0
Wakefield 038	4	0	0	0	0	0	0	4	0	0	0	0
Wakefield 041	1	0	0	0	0	0	0	1	0	0	0	0
Wakefield 044	2	0	0	0	0	0	0	2	0	0	0	0
Wakefield 045	1	0	0	0	0	0	0	1	0	0	0	0
Nottingham 002	1	0	0	0	0	0	0	1	0	0	0	0
Nottingham 020	1	0	0	0	0	0	0	1	0	0	0	0
Nottingham 039	1	0	0	0	0	0	0	1	0	0	0	0
Bolsover 007	1	0	0	0	0	0	0	1	0	0	0	0
Bolsover 008	1	0	0	0	0	0	0	1	0	0	0	0
Chesterfield 012	1	0	0	0	0	0	0	1	0	0	0	0
High Peak 001	1	0	0	0	0	0	0	1	0	0	0	0
High Peak 003	1	0	0	0	0	0	0	1	0	0	0	0
High Peak 010	1	0	0	0	0	0	0	1	0	0	0	0
High Peak 012	1	0	0	0	0	0	0	1	0	0	0	0
High Peak 013	1	0	0	0	0	0	0	1	0	0	0	0
North East Derbyshire 014	1	0	0	0	0	0	0	1	0	0	0	0
Harborough 006	1	0	0	0	0	0	0	1	0	0	0	0
East Lindsey 016	1	0	0	0	0	0	0	0	0	0	1	0
Northampton 021	1	0	0	0	0	0	0	1	0	0	0	0
Ashfield 010	1	0	0	0	0	0	0	1	0	0	0	0
Bassetlaw 014	1	0	0	0	0	0	0	1	0	0	0	0
Herefordshire 005	1	0	0	1	0	0	0	0	0	0	0	0
Stoke-on-Trent 032	1	0	0	0	0	0	0	1	0	0	0	0
Newcastle-under-Lyme 004	1	0	0	0	0	0	0	1	0	0	0	0
North Warwickshire 006	1	0	0	0	0	0	0	1	0	0	0	0
Coventry 042	1	0	0	1	0	0	0	0	0	0	0	0
Sandwell 023	1	0	0	0	0	0	0	1	0	0	0	0
Solihull 029	1	0	0	0	0	0	0	1	0	0	0	0
Wolverhampton 013	1	0	0	0	0	0	0	1	0	0	0	0
Wyre Forest 013	1	0	0	0	0	0	0	1	0	0	0	0
Central Bedfordshire 016	1	0	0	0	0	0	0	1	0	0	0	0
South Cambridgeshire 011	8	0	0	0	0	0	0	8	0	0	0	0
Colchester 013	1	0	0	0	0	0	0	1	0	0	0	0
Uttlesford 006	1	0	0	0	0	0	0	1	0	0	0	0
Welwyn Hatfield 010	1	0	0	0	0	0	0	1	0	0	0	0
King's Lynn and West Norfolk 014	1	0	0	0	0	0	0	1	0	0	0	0
Ipswich 010	1	0	0	0	0	0	0	1	0	0	0	0
City of London 001	5	0	0	2	0	0	0	3	0	0	0	0
Kensington and Chelsea 013	1	0	1	0	0	0	0	0	0	0	0	0
Newham 012	1	0	0	0	0	0	0	1	0	0	0	0
Southwark 002	1	0	0	0	0	0	0	1	0	0	0	0
Westminster 013	2	0	0	1	0	0	0	1	0	0	0	0
Westminster 018	2	0	0	0	0	0	0	1	0	0	1	0
Westminster 020	4	0	1	1	0	0	0	1	0	0	1	0
Croydon 022	1	0	0	1	0	0	0	0	0	0	0	0
Merton 008	1	0	0	0	0	0	0	1	0	0	0	0
Redbridge 036	1	0	0	0	0	0	0	1	0	0	0	0
Bracknell Forest 004	1	0	0	0	0	0	0	1	0	0	0	0
Bracknell Forest 015	1	0	0	1	0	0	0	0	0	0	0	0
Aylesbury Vale 022	1	0	0	0	0	0	0	1	0	0	0	0
Test Valley 011	1	0	0	0	0	0	0	1	0	0	0	0
Maidstone 012	1	0	0	0	0	0	0	1	0	0	0	0
Tonbridge and Malling 005	1	0	0	0	0	0	0	1	0	0	0	0
Tunbridge Wells 012	1	0	0	0	0	0	0	1	0	0	0	0
Reigate and Banstead 013	1	0	0	0	0	0	0	1	0	0	0	0
Bath and North East Somerset 012	2	0	0	0	0	0	0	2	0	0	0	0
Bristol 056	1	0	0	0	0	0	0	1	0	0	0	0
Cornwall 058	1	0	0	0	0	0	0	1	0	0	0	0
East Devon 014	1	0	0	0	0	0	0	0	0	0	1	0
South Hams 001	1	0	0	0	0	0	0	0	0	0	0	1
Wrexham 008	1	0	0	0	0	0	0	1	0	0	0	0
Cardiff 011	1	0	0	0	0	0	0	1	0	0	0	0
Total	2793	0	2	79	151	6	20	2138	153	26	211	7
Percentage	100%	0%	0%	3%	5%	0%	1%	77%	5%	1%	8%	0%

In order to protect against disclosure of personal information, records have been swapped between different geographic areas. Some counts will be affected, particularly small counts at the lowest geographies

Appendix H Traffic Distribution



Destination	Number	Percentage									Split Woodhead Rd East	
			Acres Lane	Green Gate Road	Woodhead Road West	Brownhill Lane	Woodhouse Lane	Royd Lane	Woodhead Road East	Smithy Lane	Dobb Top	
Oldham 011	3	0.2%			0.2%							
Oldham 017	3	0.2%			0.2%							
Oldham 022	3	0.2%			0.2%							
Salford 030	3	0.2%				0.2%						
Tameside 007	3	0.2%			0.2%							
Trafford 006	3	0.2%				0.2%						
Barnsley 004	3	0.2%							0.2%		0.2%	
Barnsley 019	3	0.2%							0.2%		0.2%	
Barnsley 024	3	0.2%						0.2%				
Sheffield 017	3	0.2%						0.2%				
Sheffield 075	3	0.2%						0.2%				
Bradford 044	3	0.2%						0.2%				
Bradford 059	3	0.2%							0.2%		0.2%	
Bradford 060	3	0.2%									0.2%	
Calderdale 016	3	0.2%									0.1%	
Calderdale 017	3	0.2%									0.1%	
Kirklees 006	3	0.2%									0.1%	
Kirklees 010	3	0.2%									0.2%	
Leeds 002	3	0.2%									0.2%	
Leeds 029	3	0.2%									0.2%	
Leeds 062	3	0.2%									0.2%	
Leeds 070	3	0.2%									0.2%	
Leeds 071	3	0.2%									0.2%	
Leeds 093	3	0.2%									0.2%	
Leeds 106	3	0.2%									0.2%	
Wakefield 029	3	0.2%									0.2%	
Wakefield 037	3	0.2%									0.2%	
City of London 001	3	0.2%									0.2%	
Manchester 053	4	0.2%										
Manchester 055	4	0.2%										
Oldham 020	4	0.2%										
Rochdale 010	4	0.2%										
Tameside 013	4	0.2%										
Sheffield 002	4	0.2%										
Sheffield 018	4	0.2%										
Sheffield 074	4	0.2%										
Bradford 045	4	0.2%										
Bradford 048	4	0.2%										
Calderdale 003	4	0.2%										
Kirklees 013	4	0.2%										
Kirklees 015	4	0.2%										
Leeds 007	4	0.2%										
Wakefield 021	4	0.2%										
Wakefield 035	4	0.2%										
Wakefield 038	4	0.2%										
Preston 004	5	0.3%										
Sheffield 022	5	0.3%										
Sheffield 030	5	0.3%										
Sheffield 073	5	0.3%										
Calderdale 007	5	0.3%										
Calderdale 015	5	0.3%										
Kirklees 003	5	0.3%										
Kirklees 005	5	0.3%										
Kirklees 024	5	0.3%										
Kirklees 040	5	0.3%										
Wakefield 025	5	0.3%										
Oldham 014	6	0.3%										
Barnsley 016	6	0.3%										
Rotherham 002	6	0.3%										
Kirklees 021	6	0.3%										
Leeds 073	6	0.3%										
Wakefield 014	6	0.3%										
Wakefield 036	6	0.3%										
Bradford 046	7	0.4%										
Kirklees 001	7	0.4%										
Kirklees 002	7	0.4%										
Kirklees 030	7	0.4%										
Kirklees 041	7	0.4%										
Wakefield 006	7	0.4%										
Manchester 054	8	0.4%										
Barnsley 012	8	0.4%										
Bradford 038	8	0.4%										
Calderdale 012	8	0.4%										
Kirklees 023	8	0.4%										
Leeds 082	8	0.4%										
Leeds 090	8	0.4%										
Leeds 112	8	0.4%										
South Cambridgeshire 011	8	0.4%										
Kirklees 032	9	0.5%										
Kirklees 035	9	0.5%										
Kirklees 017	10	0.5%										
Kirklees 026	10	0.5%										
Kirklees 036	10	0.5%										
Kirklees 037	10	0.5%										
Kirklees 044	10	0.5%										
Leeds 063	10	0.5%										
Wakefield 019	10	0.5%										
Calderdale 019	11	0.6%										
Kirklees 022	11	0.6%										
Kirklees 027	11	0.6%										
Bradford 039	12	0.7%										
Calderdale 021	12	0.7%										
Kirklees 038	12	0.7%										
Kirklees 046	12	0.7%										
Kirklees 047	13	0.7%										
Barnsley 027	14	0.8%										
Wakefield 017	14	0.8%										
Barnsley 013	15	0.8%										
Kirklees 052	15	0.8%										
Kirklees 048	16	0.9%										
Kirklees 031	17	0.9%										
Kirklees 050	17	0.9%										
Kirklees 054	20	1.1%										
Calderdale 008	21	1.2%										
Calderdale 025	23	1.3%										
Kirklees 039	23	1.3%										
Kirklees 043	25	1.4%										
Kirklees 045	25	1.4%										
Kirklees 056	26	1.4%										
Kirklees 051	29	1.6%										
Kirklees 057	29	1.6%										
Kirklees 025	30	1.6%										
Kirklees 049	36	2.0%										
Leeds 111	37	2.0%										
Kirklees 034	46	2.5%										
Kirklees 033	48	2.6%										
Kirklees 055	58	3.2%										
Kirklees 053	91	5.0%										
Kirklees 042	92	5.0%										
Kirklees 058	141	7.7%										
Kirklees 029	181	9.9%										
Kirklees 059	191	10.5%										
	1825	100.0%	0.0%	1.9%	27.6%	1.0%	0.0%	4.1%	0.2%	65.2%	61.3%	3.9%