



Bloor Homes

Land South of Banbury Rise, Banbury

Transport Assessment

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Project Code: 06104

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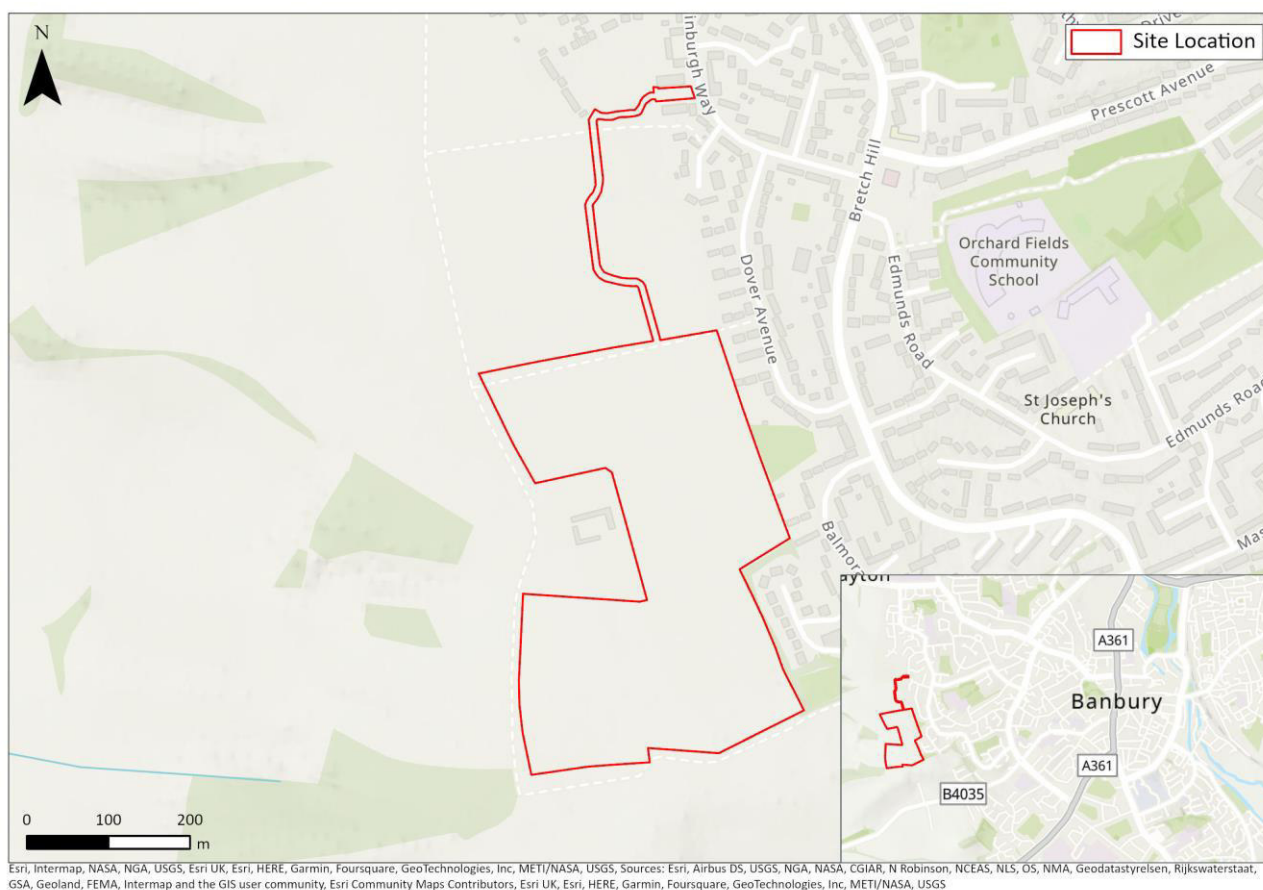


I Introduction

I.1 Overview

- 1.1.1 PJA has been appointed to prepare a Transport Assessment (TA) to accompany an “*outline planning application for a residential development comprising up to 250 dwellings (with up to 30% affordable housing), public open space, landscaping and associated supporting infrastructure. Means of vehicular access to be determined via Edinburgh Way, with additional pedestrian and cycle connections via Dover Avenue and Balmoral Avenue. Emergency access provision also via Balmoral Avenue. All other matters reserved*”
- 1.1.2 The site location is shown in Figure 1-1. An indicative masterplan is provided in Appendix A.

Figure 1-1: Site Location



I.2 Background

- 1.2.1 The consented Banbury Rise development to the north of the site is allocated within the Cherwell District Council Local Plan under Policy Banbury 3 (West of Bretch Hill) and is currently under phased



construction. The site to the north has consent (through outline and Reserved Matters, and full planning permission) for 480 dwellings and a small parcel of employment land.

- 1.2.2 The development for which this TA relates will border the consented development and Figure 1-2 presents the northern parcel allocation in relation to the application site boundary.

Figure 1-2: Site Context Plan



1.3 Report Purpose

- 1.3.1 This Transport Assessment (TA) identifies the travel patterns for the development and examines the likely transport implications of this on the surrounding area. It has been prepared in accordance with *'Travel Plan, Transport Assessments and Statements in decision making'* (PPG, 2014).
- 1.3.2 A separate Travel Plan (TP) has been prepared to accompany the application. The submitted TP will form the basis of a detailed TP, and its primary purpose is to identify opportunities for effective promotion and delivery of sustainable transport initiatives, reducing the number of single occupancy car trips to the site. The principles of this TP will follow those agreed for the Banbury Rise development which has an operational TP.



I.4 Scoping

1.4.1 Pre-application scoping discussions have been undertaken with the local highway authority, Oxfordshire County Council (OCC). A scoping note was prepared and submitted to OCC. This was followed by a meeting and further email correspondence to agree the scope of assessment and the provision of a formal pre-application response from OCC, including the following details:

- Access strategy.
- Trip generation, distribution and assignment.
- Geographic study area.
- Method of data collection.
- Modelling of traffic impacts.

1.4.2 This TA has been prepared on the basis of the discussions had.

I.5 Report Structure

1.5.1 The remainder of this report is structured as follows:

- **Chapter 2** provides a summary of local, regional, and national policy and guidance documents relevant to this proposal;
- **Chapter 3** describes the existing situation in terms of the highway network, collision data and multi-modal accessibility;
- **Chapter 4** provides details of the proposed development, including access arrangements and parking provision;
- **Chapter 5** summarises the trip generation, distribution, and assignment for the site;
- **Chapter 6** presents the methodology for the traffic impact assessment; and
- **Chapter 7** summarises the findings and draws conclusions.



2 Policy Context

2.1 Introduction

- 2.1.1 This section summarises relevant transport policy documents against which the development proposals will be considered at the national, regional, and local level.

2.2 National Policy

National Planning Policy Framework (NPPF)

- 2.2.1 The National Planning Policy Framework (NPPF) was updated in July 2021 and sets out the Government's wider planning policies. The presumption in favour of sustainable development remains at its core.

- 2.2.2 Policies aimed at promoting sustainable development are covered within section 9, paragraphs 104 to 113 of the NPPF. Paragraph 104 states that:-

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

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

- 2.2.3 Paragraph 105 states:

"The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making."

- 2.2.4 Paragraph 111 states:

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

2.2.5 Paragraph 113 states:

"All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed."

Planning Practice Guidance (PPG) 2014

2.2.6 PPG 2014 stipulates that the scope and level of detail in a Transport Assessment or Statement will vary from site to site, but the following should be considered when setting the scope of the proposed assessment:

- *"Information about the proposed development, site layout, (particularly proposed transport access and layout across all modes of transport);*
- *Information about neighbouring uses, amenity and character, existing functional classification of the nearby road network;*
- *Data about existing public transport provision, including provision / frequency of services and proposed public transport changes;*
- *A qualitative and quantitative description of the travel characteristics of the proposed development, including movements across all modes of transport that would result from the development and in the vicinity of the site;*
- *An assessment of trips from all directly relevant committed development in the area (i.e. development that there is a reasonable degree of certainty will proceed within the next three years);*
- *Data about the current traffic flows on links and at junctions (including by different modes of transport and the volume and type of vehicles) within the study area and identification of critical links and junctions of the highway network;*
- *An analysis of the injury collision records on the public highway in the vicinity of the site access for the most recent three-year period, or five-year period if the proposed site has been identified as within a high collision area;*
- *An assessment of the likely associated environmental impacts of transport related to the development, particularly in relation to proximity to environmentally sensitive areas (such as air quality management areas or noise sensitive areas);*



- *Measures to improve the accessibility of the location (such as provision / enhancement of nearby footpath and cycle path linkages) where these are necessary to make the development acceptable in planning terms;*
- *A description of parking facilities in the area and the parking strategy of the development;*
- *Ways of encouraging environmental sustainability by reducing the need to travel; and*
- *Measures to mitigate the residual impacts of development (such as improvements to the public transport network, introducing walking and cycling facilities, physical improvements to existing.”*

2.3 Regional Policy

Oxfordshire Local Transport Strategy 2015-2031 (LTP 4)

- 2.3.1 The LTP 4¹ was agreed in 2015 and was updated in 2016 to place greater emphasis on improving air quality and making better provision for walking and cycling. The purpose of this document is to provide a clear strategy for developing the transport system in Oxfordshire to 2031.
- 2.3.2 The core transport goals of the LTP are as follows:
- To support jobs and housing growth and economic vitality;
 - To reduce transport emissions and meet our obligations to Government;
 - To protect, and where possible enhance Oxfordshire’s environment and improve quality of life; and
 - To improve public health, air quality, safety and individual wellbeing.
- 2.3.3 Policy 01 seeks to ensure that the transport network supports sustainable economic and housing growth in the county, whilst protecting and where possible enhancing its environmental and heritage assets, and supporting the health and wellbeing of its residents.
- 2.3.4 Policy 02 seeks to manage and, where appropriate, develop the country’s road network to reduce congestion and minimise disruption and delays, prioritising strategic routes.
- 2.3.5 Policy 03 advocates measures and innovation that will make more efficient use of transport network capacity by reducing the proportion of single occupancy car journeys and encouraging a greater proportion of journeys to be made on foot, by bicycle, and/or by public transport.
- 2.3.6 Policy 17 seeks to ensure through cooperation with district councils, that the location of development:
- Utilises existing and planned infrastructure.

¹ <https://www.oxfordshire.gov.uk/residents/roads-and-transport/connecting-oxfordshire/policy-and-overall-strategy>



- Provides new or improved infrastructure.
- Reduces the need to travel.
- Supports walking, cycling and public transport.

2.3.7 Policy 18 outlines the need to reduce the need to travel by improving internet and mobile connectivity and other initiatives that enable people to work at or close to home.

2.3.8 Policy 19 encourages the use of modes of travel associated with healthy and active lifestyles.

2.3.9 Policy 20 states that Oxfordshire Country Council seeks to carry out targeted safety improvements on walking and cycling routes to school, to encourage active travel and reduce pressure on school bus transport.

2.3.10 Policy 22 promotes the use of low or zero emission transport, including electric vehicles and associated infrastructure where appropriate.

Oxfordshire Plan 2050

2.3.11 The Oxfordshire Plan 2050 is a strategic planning document that aims to set out how the Housing and Growth Deal (secured by the Future Oxfordshire Partnership) can be delivered. It covers all six local authorities within Oxfordshire and sets out the strategy across a variety of topics and disciplines.

2.3.12 The document was recently consulted on as part of the Regulation 18 process. This consultation has now closed. The consultation document sets out various key themes and potential policies to support these.

2.3.13 Theme Four relates to Planning for Sustainable Travel and Connectivity. Of note, the documents sets out:

- Planned development is likely to increase travel demand. It is important that this is managed and the uptake of sustainable travel modes encouraged and the need to travel reduced.
- Significant improvements to bus/rail network and active travel network are required across the county.
- Technology and innovation have a big part to play in the future transport strategy. To include high quality mobile digital connectivity to promote home and flexible working and the uptake of low/zero carbon vehicles.

2.3.14 Potential policies are put forward to meet the objectives of the Oxfordshire Plan 2050 to include:

- Policy Option 17 – towards a net zero carbon network, which sets out all development should be planned to support the delivery of net zero, including:
 - Supporting enhanced walking and cycling networks and routes.



- Supporting delivery of enhancements to the bus/rail network.
- Supporting delivery of improvements to transport interchange.
- Supporting delivery of measures that improve the efficiency and effectiveness of freight and logistics.
- Supporting delivery of improvements to the local and strategic road network that are consistent with delivering the net zero position.
- Policy Option 18 – Sustainable Transport in New Development - this sets out that all development proposals should consider and plan for transport and access against a vision, focussed on enabling people to travel by active and sustainable means. In particular, plans should be considered in a hierarchical way as follows:
 - Reducing the need to travel.
 - Planning for sustainable travel modes.
 - Providing for zero emission vehicle use including provision of EV charging.
- Policy Option 20 – Digital Infrastructure – all new residential developments should plan for provision of fixed and mobile technology from the outset. This will support the reduction in the need to travel.
- Policy Option 21 – Strategic Infrastructure Priorities – new development needs to be supported by high quality infrastructure delivered in a timely fashion alongside delivery of development. Funds can be secured via s106 payments.

Street Design Guide: Oxfordshire County Council

- 2.3.15 The purpose of this document is to provide guidance for developments regarding high standards of urban design. The vision seeks to set specific design standards which will lead to greater economic and social well-being and improved health for its residents, establishing an environment for healthy lifestyles, sustainable travel and a zero-carbon economy.
- 2.3.16 The following objectives are outlined within the Street Design Guide:
- Provides street design guidance to deliver high quality streets and places;
 - Inspires landowners, developers, and designers to deliver the highest quality development through positive and constructive working relationships;
 - Promotes good quality design by helping people understand the process and the criterion that deliver it; and
 - Instils confidence in the residents of Oxfordshire that developments will be designed and delivered to the highest quality.
- 2.3.17 The following principles are key for achieving high quality street design:



- Prioritise sustainable and active travel to reduce congestion – design streets and places in a way that reduces car use while promoting active travel modes to address the climate emergency;
- Deliver clear and permeable hierarchy of street, routes and spaces which are inclusive and create safe and convenient ease of movement by all users;
- Ensure local facilities beyond the development boundary are easily accessible by active and sustainable modes;
- Design must adhere the County Council's maintenance needs;
- Understands and address the needs of all potential users to ensure inclusive design;
- A sufficient level of well-integrated and imaginative solutions for car and bicycle parking and external storage including bins; and
- Accords with all relevant County Council/District Council Design Guides.

2.4 Local Policy

Cherwell Local Plan (2011-2031)

- 2.4.1 The purpose of this document is to guide the changing use of land in Cherwell. This version of Cherwell's Local Plan was formally adopted in July 2015 and subsequently readopted in December 2016. The Local Plan outlines the long-term strategic 'spatial vision' for the local authority area.
- 2.4.2 Banbury is described in the Local Plan as a market town with a historic core and future growth is expected throughout the plan period. The majority of growth for employment and residential uses will occur on the edge of the town.
- 2.4.3 Strategic development Banbury 3 (West of Bretch Hill) seeks to provide 400 dwellings, with physical and social infrastructure. There will be a small portion of employment/enterprise space. Although not within the allocation, the application site will respect the principles defined within the Local Plan for Banbury 3:
- New footways and cycleways should be provided to connect into existing networks, the wider urban area and community facilities with a legible hierarchy of routes to encourage sustainable travel;
 - The Layout should seek to maximise potential for walkable neighbourhoods with a legible hierarchy of routes. Existing public rights of way should be preserved or enhanced; and
 - A green buffer should be provided either side of the bridleway that marks the western boundary of the site, to safeguard the rural character of the bridleway marking the western boundary of the site and forming part of the Banbury Fringe Circular Walk.



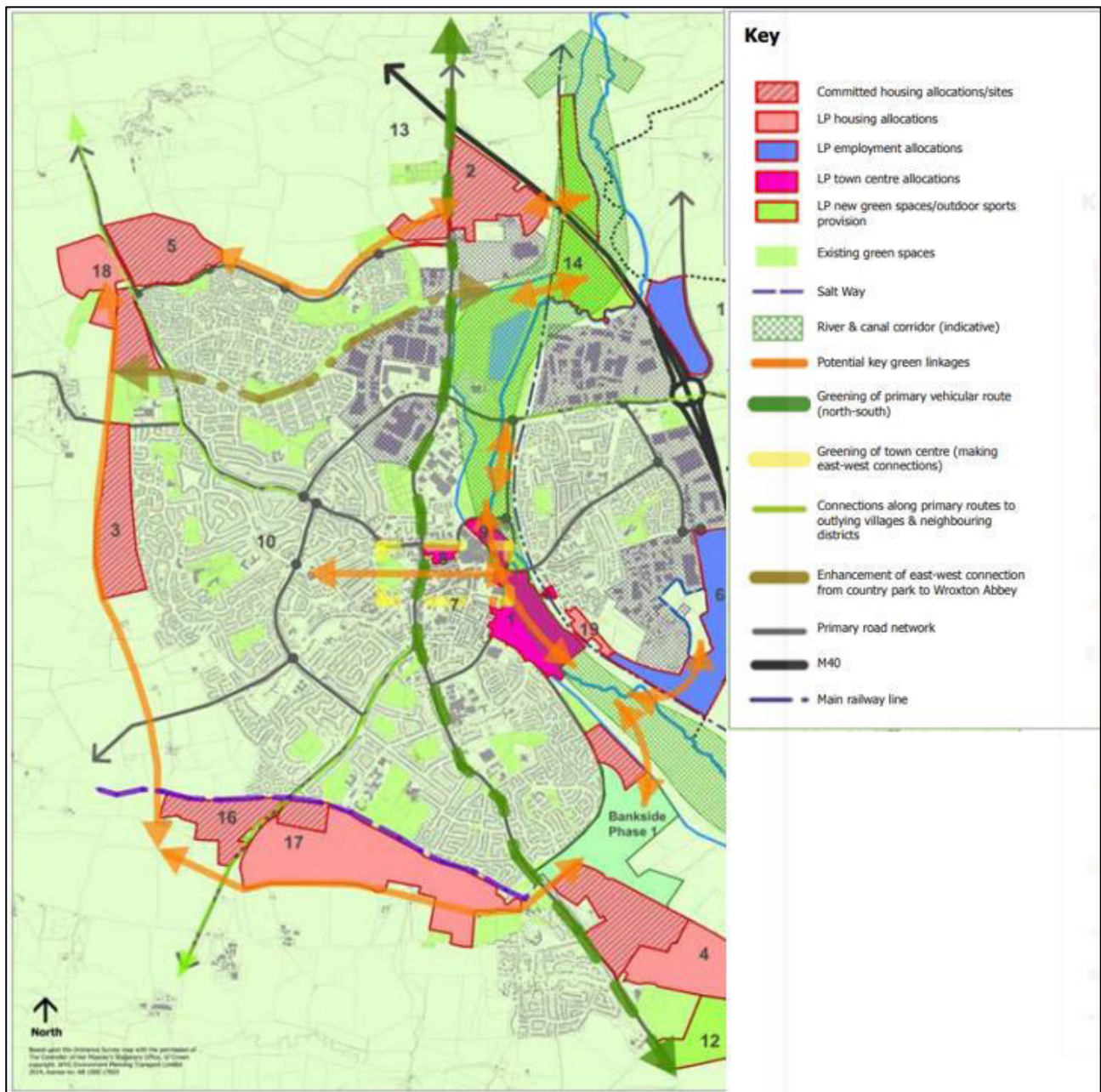
Cherwell Local Plan Review 2040

- 2.4.4 The Local Plan is prepared in accordance with public interests and to provide a framework for guiding development and informing decision making. This updated version of the Cherwell Local Plan seeks to update some of the current local plan policies and to address the needs of Cherwell up until 2040. This edition of the Local Plan is yet to be adopted, but once it has been adopted it will replace the Cherwell Local Plan 2015.

Adopted Banbury Vision and Masterplan SPD (2016)

- 2.4.5 The purpose of this document is to establish a long-term vision for the town and to identify projects and initiatives that will support this future growth. One key aspect of the vision is to reduce congestion and improve accessibility.
- 2.4.6 Some of the following approaches are recommended for improving the transport network into and through the town:
- Junction improvements at Cherwell Street and Bridge Street, which will improve capacity, bus access to the town centre and pedestrian links to the railway station.
 - Improvements to the Bloxham Road (A361) junction with Queensway and Springfield Avenue.
 - Improvements to the Warwick Road (B4100) roundabout junctions with the A422 Ruscote Avenue and Orchard Way.
- 2.4.7 The SPD recommends working with Oxfordshire County Council and bus operators to establish commercially viable services which provide key links into the town and between residential and employment areas.
- 2.4.8 Figure 2-1 illustrates Banbury's long-term environmental vision, which seeks to establish key green corridors between adopted employment and residential allocations on the periphery of the town. These corridors will be key for establishing sustainable connectivity for the long-term growth of the town and establishing a zero-carbon future. This demonstrates a potential link towards the western side of Banbury which could be of benefit to future residents of the proposed development.

Figure 2-1: Banbury Movement Masterplan



2.5 Policy Summary

2.5.1 The following aspects from National, Regional and Local Policy will underpin the assessment:

- This assessment will evaluate the impact of the development proposals and utilise opportunities to promote active and sustainable travel;
- Proposals will advocate active travel, public transport and low or zero emission approaches to protect Oxfordshire's environment and quality of life;



- Street design will be key for delivering an inclusive development, which seeks to improve economic and social well-being and improve the health of residents; and
- Street design will be inclusive to deliver improved economic and social well-being and improved health for residents, as accommodating active and sustainable travel designed is incorporated.

3 Baseline Conditions

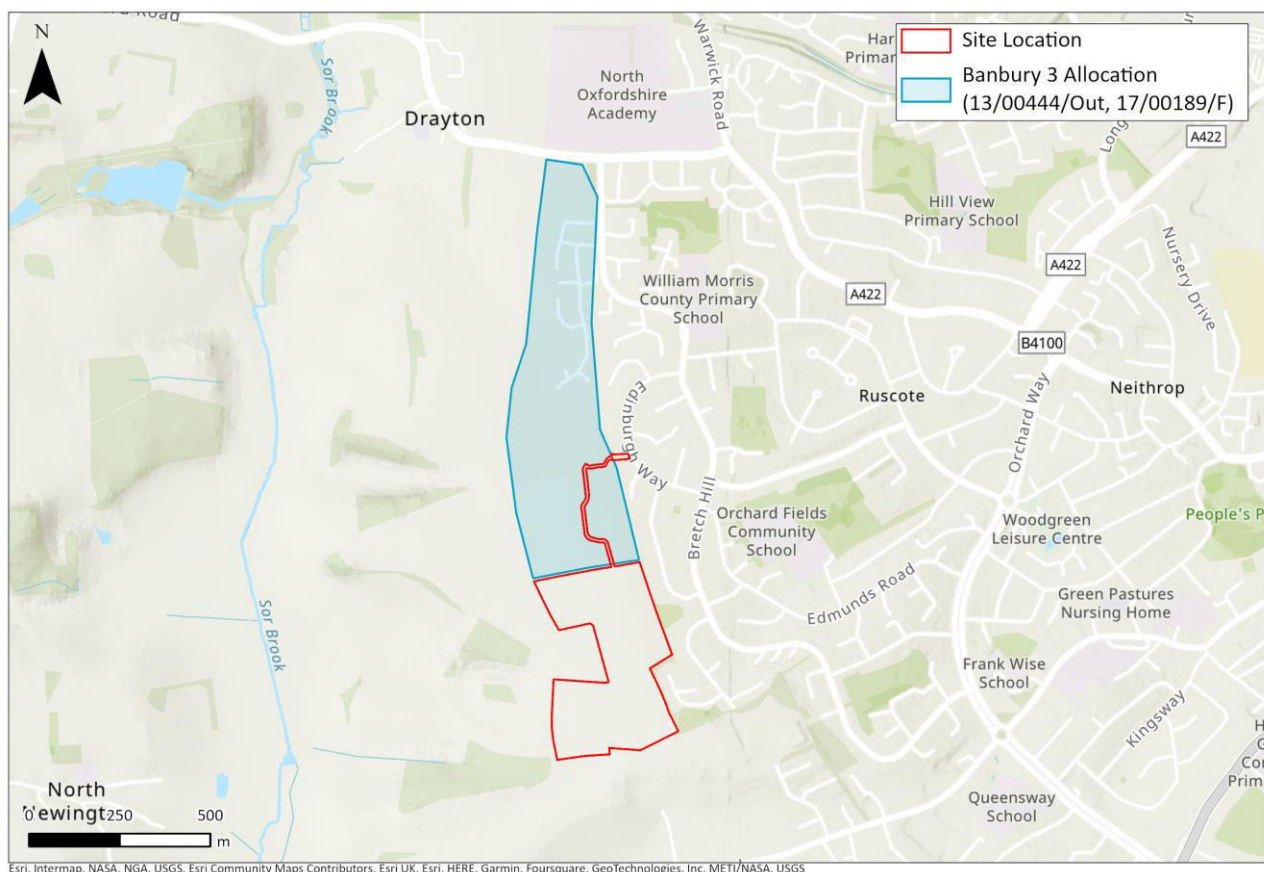
3.1 Overview

3.1.1 This section provides a summary of the existing transport conditions at the site and on the surrounding highway network. It is based on the findings of a desktop study.

3.2 Site Location and Context

3.2.1 The proposed development is located to the west of Banbury, and is bounded by residential dwellings to the east, the consented Banbury Rise residential development to the north, open fields to the south and a farm track to the west which leads to Withycombe Farm (which is adjacent to the site's western boundary). It should be noted that Banbury Rise remains subject to a phased build out. At the time of preparing this report, a total of 371 dwellings are built and occupied on the Banbury Rise site with a further 109 planned for completion.

Figure 3-1: Site Context Plan



3.2.2 The consented Banbury Rise development to the north of the proposed site is allocated within the Cherwell District Council Local Plan under Policy Banbury 3 (West of Bretch Hill) and is currently



under construction. The site has consent (through outline and Reserved Matters, and full planning permission) for 480 dwellings and a small parcel of employment land.

3.3 Local Highway Network

Bretch Hill

- 3.3.1 Bretch Hill is a single carriageway road, approximately 6.8m in width and subject to a 20mph speed limit. Approximately 55m south of the Bretch Hill/Stratford Road junction there is a narrowing of the carriageway which reduces the lane width to 2.5m, with priority given to vehicles travelling northbound. Additionally, there is a 7.5ton weight restriction imposed along Bretch Hill.
- 3.3.2 The George Parish Road/Bretch Hill junction provides the northern access point to the Banbury Rise development.
- 3.3.3 There is footway provision consistently provided along the eastern side of the carriageway and street lighting. There is footway provision on the western side of the carriageway commencing to the north of George Parish Road which provides access to bus stops located along Bretch Hill.
- 3.3.4 As part of the obligations attached to the Banbury Rise consent, highway works have been completed on Bretch Hill to remove a build out, delivered under s278 agreement.

Edinburgh Way

- 3.3.5 Edinburgh Way is a single carriageway road, approximately 5.5m in width and subject to a 20mph speed limit. There is continuous footway provision on both sides of the carriageway and street lighting.
- 3.3.6 Edinburgh Way facilitates access to the consented Banbury Rise's southern access point. Further details regarding Edinburgh Way and its role within the proposed development's access is outlined in Chapter 4.
- 3.3.7 Again as part of obligations attached to the Banbury Rise consent, traffic calming has been introduced on Edinburgh Way.

Stratford Road

- 3.3.8 Stratford Road is a single carriageway road, approximately 7m in width and subject to a 30mph speed limit. The junction formed with Bretch Hill was recently improved from a simple priority junction to provide a right turn facility from Stratford Road.

Dover Avenue

3.3.9 Dover Avenue is a single carriageway road, approximately 5m in width and subject to a 20mph speed limit. There is footway provision on both sides of the carriageway and street lighting. To the north Dover Avenue connects to Edinburgh Way and to the south it connects to Bretch Hill.

3.4 Local Facilities and Accessibility

3.4.1 Guidance provided by the Institution of Highways and Transportation (IHT) in their publication '*Guidelines for Providing for Journeys on Foot*' (2000) suggests that in terms of commuting, walking to school and recreational journeys; walk distances of up to 2,000m can be considered as a preferred maximum with 'desirable' and 'acceptable' distances being 500m and 1,000m respectively. It should be noted that journeys of a longer length are often undertaken.

3.4.2 For non-commuter journeys, the guidance suggests that walk distances of up to 1,200m can be considered as a preferred maximum, with the 'desirable' and 'acceptable' distances being 400 and 800m respectively. Again, it should be noted that journeys of a longer length are often undertaken.

3.4.3 Assuming a typical walking speed of approximately 1.4m/s, Table 3-1 summarises the broad walk journey times that can fall under each category, from the Institute of Highways and Transportation (2000).

Table 3-1: IHT Walking Standards

IHT Standard	Distance (m)		Walk Time (mins)	
	Commuting and Walking to School	Other, non-commuter journeys	Commuting and Walking to School	Other, non-commuter journeys
Desirable	500	400	6	5
Acceptable	1,000	800	12	10
Preferred Maximum	2,000	1,200	24	14

3.4.4 The distances between the nearest site access point and key facilities, along with other facilities, are set out in Table 3-2.

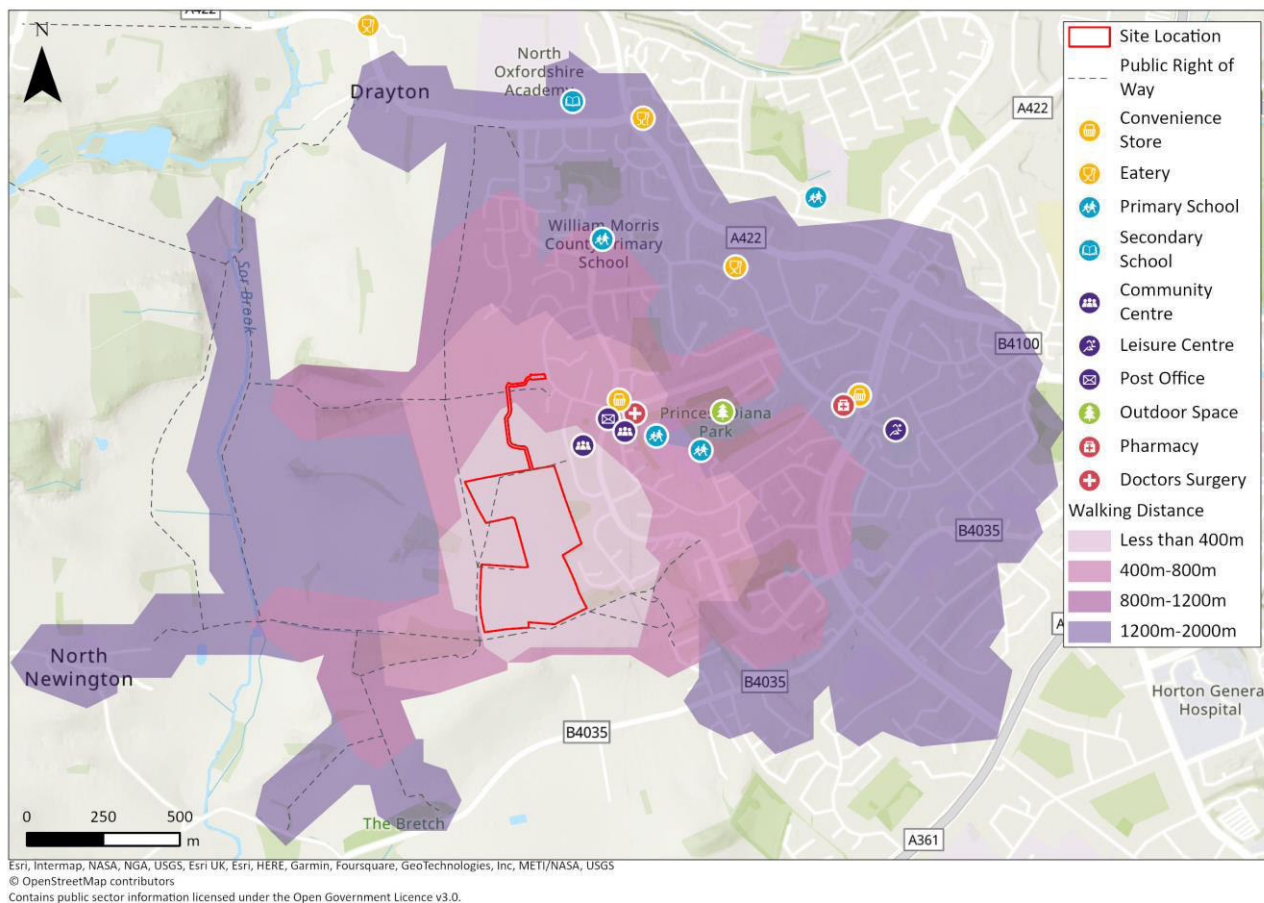
**Table 3-2: Access to Local Amenities**

Type	Description/Name	Location	Distance from pedestrian/cycle access point (km)	Compliant with IHT Standard?	Approximate Journey Time (mins) ²	
					Walking	Cycling
Employment	Banbury Town Centre	Banbury	2.2	-	25	6
Food Retail	Londis	Bretch Hill	0.4	Desirable	5	1
	Nisa Local	The Fairway	1.2	Preferred Maximum	13	3
	The Fairway Fish Bar	The Fairway	1.2	Preferred Maximum	15	3
	Barley Mow Banbury	Warwick Rd	1.8	-	20	5
Non-Food Retail	Bradley Arcade Post Office	Bretch Hill	0.4	Desirable	5	1
	The Hill Sports and Community Facility	Dover Avenue	0.1	Desirable	1	1
	The sunshine centre	Bretch Hill	0.4	Desirable	5	1
	Woodgreen Leisure Centre	Hilton Rd	1.3	Desirable	14	4
Education	North Oxfordshire Academy	Stratford Rd	1.5	Preferred Maximum	18	5
	William Morris Primary School	Bretch Hill	0.85	Acceptable	10	3
	St Joesph RC Primary School	Mold Cresent	0.65	Acceptable	8	2
	Orchard Fields Community Primary	Edmunds Rd	0.5	Desirable	6	1
	Frank Wise School	Hornbeam Close	1.7	Preferred Maximum	21	6
Health	Wignall Dr D J	West Bar Street	2.1	-	25	6
	Peak Pharmacy	The Fairway	2.3	-	29	8
Outdoor Space	Princess Diana Park	Prescott Close	0.6	Acceptable	7	2

² Assuming a 1.4m/s walking speed as given in the IHT publication 'Guidelines for Providing for Journeys on Foot' (2000)

A cycling speed of 4.4m/s has been taken from the Sustrans Information Sheet FF11 or 'Cycle Friendly Employers' Information Sheet' and states that "a five mile journey can be comfortably cycled by an adult in 30 minutes"

Figure 3-2: Local Amenities (Walking Distance for commuter journeys)



- 3.4.5 Manual for Streets³ classifies 'Walkable Neighbourhoods' as having access to a range of facilities up to 800m. Nevertheless, this is not an upper limit and guidance provided by PPS3 (Planning Policy Statement) advises that walking has the capacity to replace car journeys for up to 2km.
- 3.4.6 Based on the guidance outlined above, the proposed development can be defined as being situated within a walkable neighbourhood with several key amenities (Leisure clubs, educational facilities and food retail) are within what is considered an acceptable walking distance. The routes to amenities presented in Table 3-2 are suitable for pedestrians, as within the existing highway network there is a network of footways with streetlighting and suitable crossing facilities where applicable.



3.5 Sustainable Travel

Walking

- 3.5.1 Within the local highway network there is adequate pedestrian infrastructure to support access to key amenities and Banbury town centre. The infrastructure provision is primarily in the form of dropped kerbs and tactile paving, however, along roads closer to the town centre there are controlled crossings which provide safe access.

Cycling

- 3.5.2 Guidance on Local Cycling and Walking Infrastructure Plans (LCWIPs) from the Department for Transport (DfT), states that it is possible for cycling to replace trips made by other modes of transport, typically up to 10km. However, it also outlines that some individuals may be able to cycle further.
- 3.5.3 The National Cycle Route 5 (NCR) is located to the south-west of the proposed site. Access can be achieved via the public rights of way to the west of the site and Broughton Road. The NCR 5 provides a connection for onward journeys to the east and south to Longford Park, Bloxham and Oxford. NCR 5 routes to the north and west provide a connection to Stratford-upon Avon and Redditch, as well as, intersecting the NCR 48 at Shipston-on-Stour.
- 3.5.4 Banbury's Local Cycling and Infrastructure Plan (LCWIP) is currently under development⁴, as the consultation stage for route enhancements occurred during May and June 2022. The publication of the consultation summary will be available in October 2022.
- 3.5.5 Table 3-3 provides a summary of the applicable route enhancements:

⁴ <https://letstalk.oxfordshire.gov.uk/banbury-lcwip-initial>

**Table 3-3: LCWIP Consultation Route Enhancements**

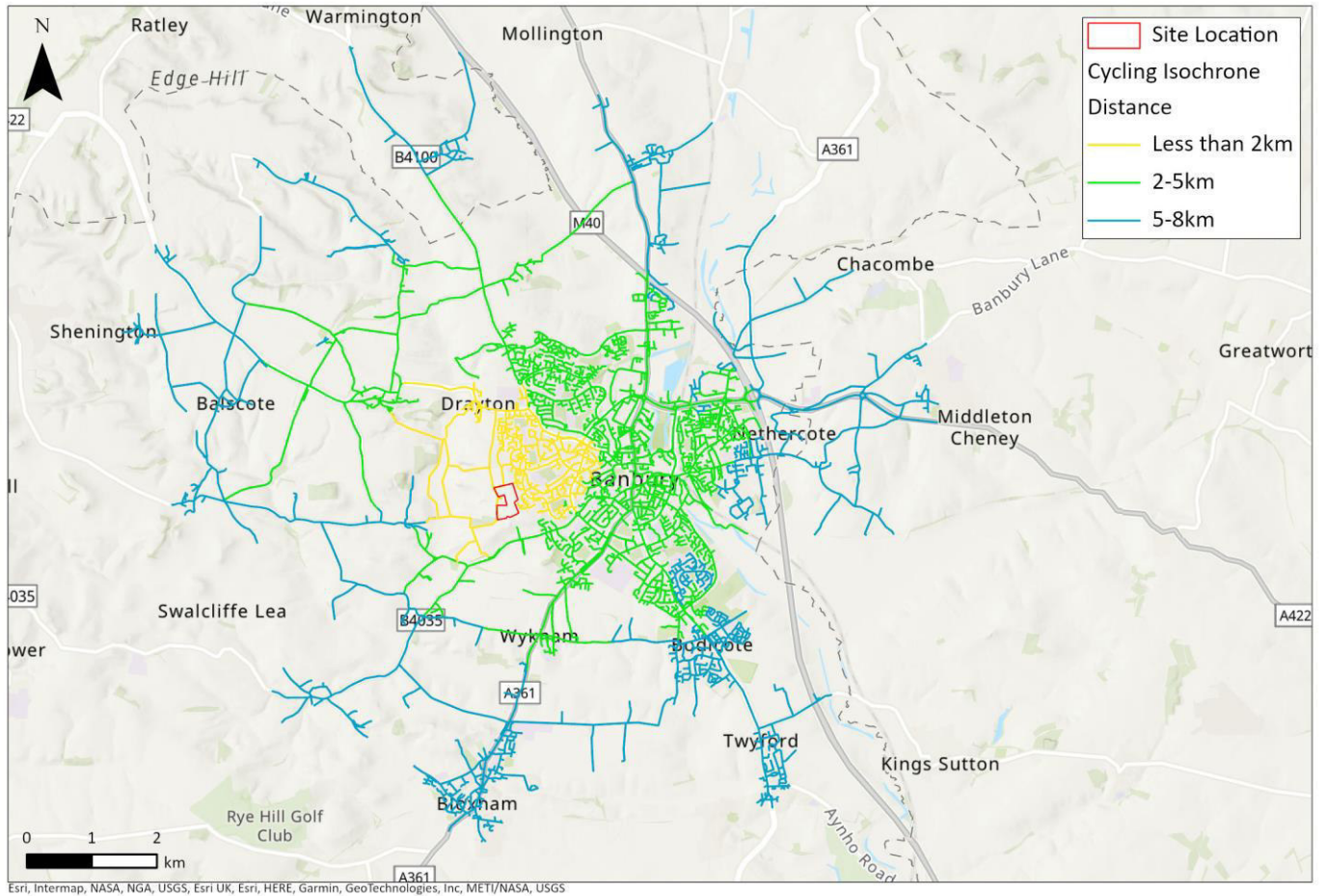
Route	Enhancement
Queensway – High Street	<ul style="list-style-type: none"> – New Modal filters – New pedestrian and cycling crossings – Junction amendment (B4035/A361/High Street)
Southam Rd – Bloxham Rd	<ul style="list-style-type: none"> – New pedestrian and cycle crossings along Orchard Way, Woodgreen Avenue and Queensway – Several junction amendments along this route
Village Route 1	<ul style="list-style-type: none"> – Route from Woodgreen Avenue to Wroxton
Village Route 2	<ul style="list-style-type: none"> – Route from North Newington to Wood Green Avenue

3.5.6 Overall, these proposals intend to improve access and improve the propensity to travel by active travel modes. The range of infrastructure improvements will make individuals feel safer, as new crossing points and traffic calming will create a network which is in accordance with LTN 1/20.

3.5.7 Figure 3-3 demonstrates the surrounding areas which is accessible from the proposed development.



Figure 3-3: Cycling Isochrone

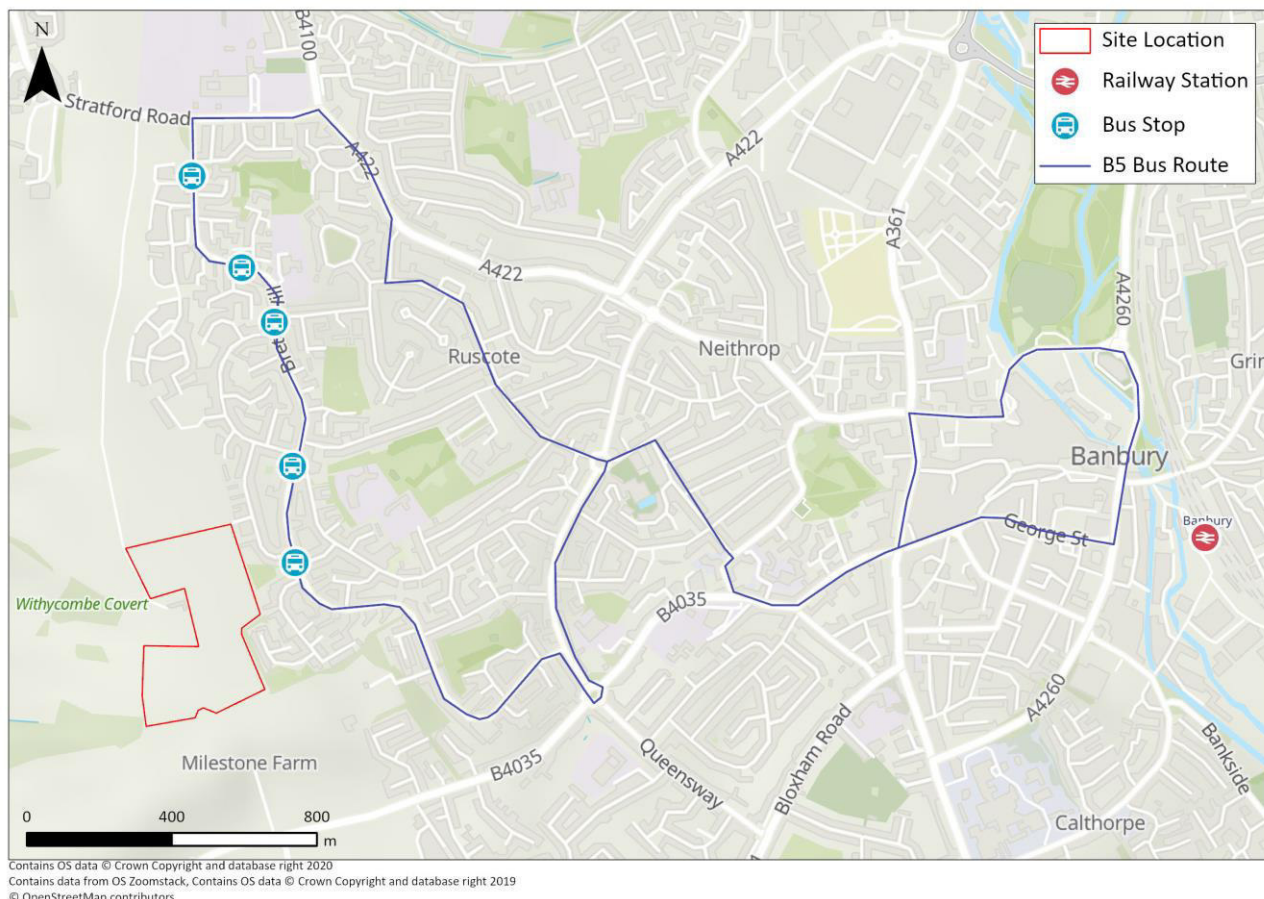


3.5.8 Figure 3-3 demonstrates that the whole of Banbury is within a reasonable cycling distance of the proposed site. The isochrone was measured from the vehicular and pedestrian/cycle access points which are discussed in further detail within Chapter 4. Subsequently, it is considered that cycling is a viable choice for residents wanting to commute into the centre of Banbury or the local railway station. The railway station is 3.4km east of the site and a 11-minute cycle time from the pedestrian and cycle access point.

Public Transport

3.5.9 Figure 3-4 demonstrates the public transport accessibility of the site, with bus and rail facilities within the vicinity of the site.

Figure 3-4: Public Transport



Bus

- 3.5.10 Several bus stops are located along Bretch Hill, and they benefit from a high-frequency service (Figure 3-4). The nearest bus stop is adjacent to Dover Way's southern junction with Bretch Hill, approximately 210m south-west of the pedestrian and cycle access point. Currently, there is a bus shelter.
- 3.5.11 The CIHT⁵ recommends that new developments are within 400m of bus stops, therefore, these proposals support best current practice and guidance regarding bus stop accessibility.

Table 3-4: Local Bus Services

Route	Operator	Last Service	Frequency
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⁵ https://www.ciht.org.uk/media/4459/buses_ua_tp_full_version_v5.pdf



Service Number			First Service		Mon- Friday	Saturday	Sunday
B5	Banbury – Bretch Hill	Stagecoach	06:00	20:00	Every 15 minutes	Every 15 minutes	Every 15 minutes

Rail

The nearest railway station is Banbury railway station, as shown in

- 3.5.12 Figure 3-4, which is approximately 3.4km away from the proposed development (40 min walk, 13 min cycle). The railway station is served by Chiltern Railways and Great Western Railway, which facilitate access to destinations such as London Marylebone, Birmingham Snow Hill, Birmingham Moor Street, Bournemouth and Oxford. The station benefits from a one train per hour service for Snow Hill and three trains per hour for journeys to London Marylebone.
- 3.5.13 The station has 978 car parking spaces (14 accessible spaces) and 63 cycle parking spaces. The station is an 11-minute journey by bicycle. Additionally, the railway station is directly accessible via the B5 bus route which is accessible from any bus stop along Bretch Hill.

3.6 Highway Safety

- 3.6.1 Analysis of collision data has been undertaken to determine whether there are any inherent safety issues on the local highway network which could be exacerbated by the proposed development. To assess the current position, Personal Injury Collision (PIC) data for the most recently available five-year period (01/01/2017-31/12/2021) was obtained from Crashmap (www.crashmap.co.uk).

Figure 3-5: Study Area

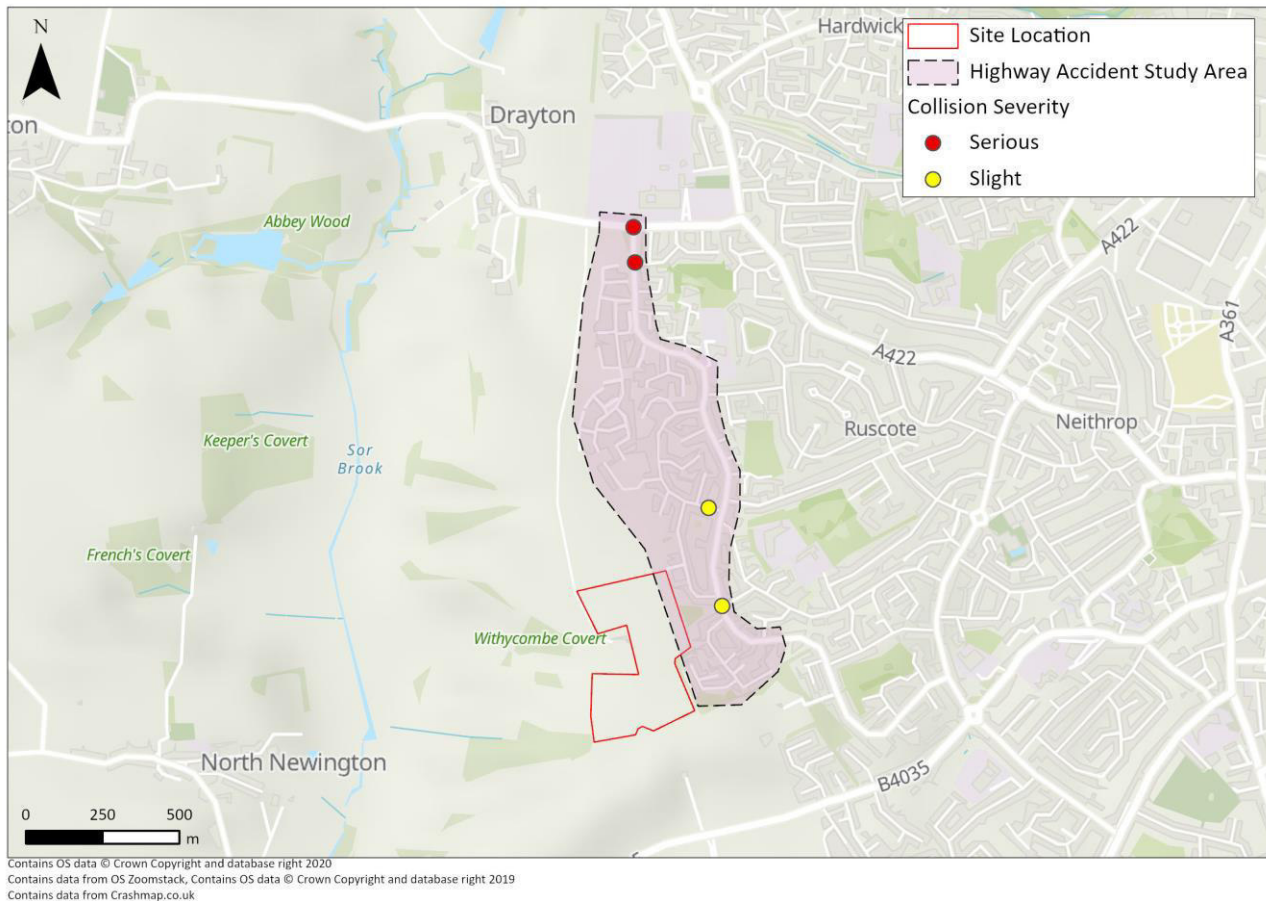


Table 3-5: Highway PIC Summary

Location	Link / Junction	Severity				Involving Sensitive Users			
		Slight	Serious	Fatal	Total	Pedestrian	Cycle	Motorcycle	Total
Bretch Hill / Conway Drive	Link	1	0	0	1	0	1	0	1
Bretch Hill / Trinity Close	Junction	0	1	0	1	0	0	1	1
Stratford Road / Bretch Hill	Junction	0	1	0	1	0	0	1	1
Edinburgh Way	Link	1	0	0	1	0	1	0	1
Total:		2	2	0	4	0	2	2	4

3.6.2 A maximum of one PIC was recorded at any junction or on any link within the latest five-year period. There is therefore no evidence to suggest there are any common occurrences in terms of collisions within the study area and no further assessment is deemed necessary.



- 3.6.3 A review of the latest five-year period of highway PIC data within the study area presented in Figure 3-5 therefore does not suggest that there are any existing highway safety concerns that would be exacerbated by the proposed development.



4 Development Proposals

4.1 Overview

- 4.1.1 Outline permission is sought *“for a residential development comprising up to 250 dwellings (with up to 30% affordable housing), public open space, landscaping and associated supporting infrastructure. Means of vehicular access to be determined via Edinburgh Way, with additional pedestrian and cycle connections via Dover Avenue and Balmoral Avenue. Emergency access provision also via Balmoral Avenue. All other matters reserved”*. The site layout is included within Appendix A.

4.2 Access Arrangements

Construction Access

- 4.2.1 Construction access for the consented development has been taken along a dedicated track along the western boundary of the wider site from the A422 Stratford Road. It is proposed that this arrangement would continue for the proposed development minimising impacts on local residents and the local highway network. The precise arrangements would be determined and agreed through the Construction Traffic Management Plan (CTMP). It is envisaged that the preparation of this would be secured by condition attached to the outline consent and would be prepared prior to commencement of the construction process.

Operational Access

Vehicle Access

- 4.2.2 The general vehicle access will be achieved through the consented Banbury Rise development to the north of the site (planning ref: 13/00444/OUT and 17/00189/F). The Banbury Rise development has two access points; one formed with Bretch Hill (via George Parish Road) and the second formed with Edinburgh Way (via Bailey Road).
- 4.2.3 From Bailey Road, there is a looped arrangement with a 5.5m wide carriageway and accompanying footway provision. This looped arrangement serves 137 dwellings and is located directly adjacent to the northern boundary of the application site. The vehicle tracking of the approved layout is included within Appendix B. The proposed continuation of this access road to serve the proposed development is illustrated in Appendix C.
- 4.2.4 OCC Street Design Guide was published in September 2021 and provides guidance and principles which should be adopted in the design of new development. The guidance specifies that up to 400 dwellings could be served by one access and where the quantum exceeds 150 dwellings, an emergency access would also be required. Considering the looped arrangement providing access



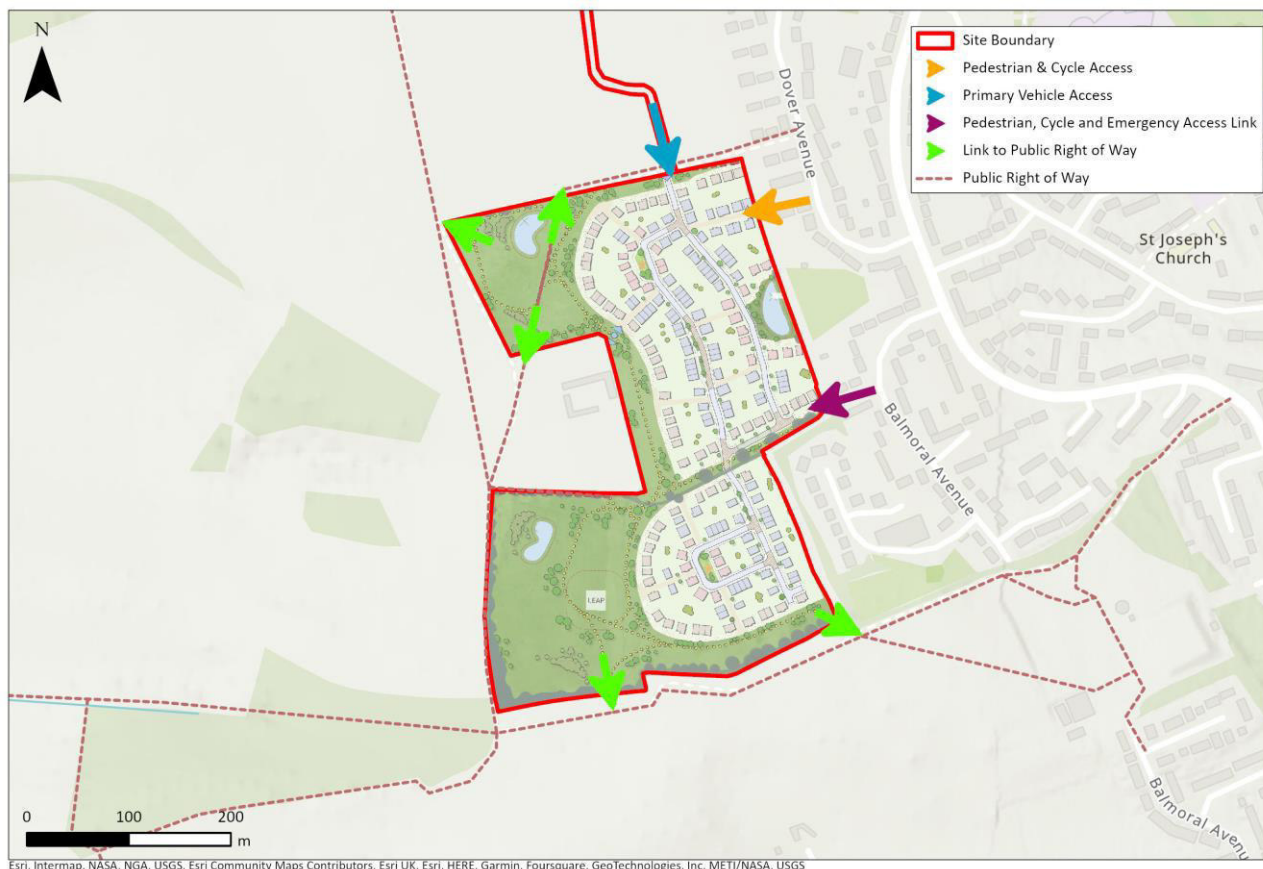
to 137 dwellings at the southern extent of the Banbury Rise development and taking access via this to the proposed development of up to 250 dwellings would mean this closed arrangement would provide access to up to 387 dwellings. This is compliant with the Street Design Guide but would also require an emergency access point.

- 4.2.5 Existing dwellings 28 to 42 Balmoral Avenue are served from a small access road, which is within the adopted highway and directly abuts the sites eastern boundary. It is proposed that this access is continued into the site to provide a minimum 3.7m wide emergency access which would also serve as a pedestrian and cycle connection. The principle of taking an emergency access via Balmoral Avenue has been agreed with OCC. The preliminary access drawing is provided in Appendix C.

Pedestrian and Cycle Access

- 4.2.6 Pedestrian and cycle access will be ensured via the vehicular access points with further connections provided to Dover Avenue (as shown in Appendix C) and Balmoral Avenue (via the proposed emergency access). Providing further pedestrian and cycle access through the eastern boundary ensures a more direct route to schools, bus stops and local convenience stores, which allows the development to seamlessly integrate into the adjacent neighbourhood.
- 4.2.7 The site is also bound by various Public Rights of Way. As part of the indicative site layout, it is proposed to provide a circular walking route within the site which would tie into and improve the existing public footpath running along the northern boundary of the site and which continues towards Withycombe Farm. This circular route is also proposed to connect to the adjacent PROW running along the southern boundary of the site. This is proposed, in the future, to be upgraded to provide a new cycling link connecting Bretch Hill to North Newington, as identified by OCC in their emerging Banbury LCWIP. This southern link would also provide onward connections to the recently consented Balmoral Avenue South development.
- 4.2.8 The proposed linkages to the PROW network are illustrated in Figure 4-1.

Figure 4-1: Access Strategy



4.3 On-site Design Principles

- 4.3.1 The street design principles will be integrated into the proposed residential development to deliver inclusivity and provide economic and social well-being which will support Oxfordshire's aims of enhancing health of residents through urban design.
- 4.3.2 The internal layout will provide a hierarchy of streets in line with the Street Design Guide and Manual for Streets. The precise details will be agreed at reserved matters stage but in principle:
- Pedestrian footways of 2m will be provided alongside the carriageway.
 - Vehicle speeds and volumes would be such that cyclists can adequately use the carriageway, in line with LTN 1/20⁶.
 - A carriageway width of 5.5m will be provided for the primary street through the development.

⁶ Local Transport Note 1/20, Figure 4.1 – Specifies mixed traffic cycling is suitable for most people where speeds are less than 20mph and daily flows are less than 2,000 vehicles.



- Beyond the primary street through the development, carriageway widths can be reduced to 5m (secondary routes) or to a combined/shared use facility with an overall width of 6m.
- Private drives can be provided for up to 5 dwellings.
- Appropriate traffic calming will be provided, where required, to ensure speeds are kept to no more than 20mph.
- The internal layout will be fully vehicle tracked to ensure it is accessible by refuse, delivery and emergency service vehicles as appropriate.

4.3.3 Overall, the internal layout will support active travel modes and ensure that permeability into the existing neighbourhood and surrounding PROW network is enhanced.

4.4 Suitability of Internal Layout of Consented Development

4.4.1 The consented development immediately to the north has been through technical approval via the local highway authority. This layout has been deemed suitable for providing access to the consented development.

4.4.2 It is proposed to take access via the loop formed by Longley Crescent. Longley Crescent is formed by a 5.5m wide carriageway and 1.8m wide footway. Priority is given to north/south movements at the northern Longley Crescent junction which would guide vehicles to utilise the western side of the loop without the requirement for further traffic calming.

4.4.3 This has been tracked and drawings submitted with the technical approval pack to demonstrate service vehicles can adequately access the site.

4.4.4 Beyond the Longley Crescent loop, the road continues south currently terminating at a turning head. This road would be extended to provide access into the proposed development.

4.4.5 This continuation of the road is relatively straight in nature at present with no traffic calming features. A concept sketch is provided in Appendix C which demonstrates a potential traffic calming feature to reduce speeds as vehicles enter the proposed development; it is suggested this could take the form of a raised table with surface change. This section forms part of the layout agreed through technical approval for the Banbury Rise development and at the appropriate time, it would be necessary to seek a minor amendment to the agreed layout through the s38 process.

4.5 Parking

4.5.1 As with the details of the internal street layout, the precise layout and quantum of parking will be determined in line with standards. This will include cycle parking, vehicle parking and EV parking. For reference, the requirements are set out below and have been taken from:



- Street Design Guide (Design of Cycle and Car Parking).
- Oxfordshire Cycling Design Standards (Quantum of Cycle Parking)
- Oxfordshire Parking Standards for New Residential Developments (Quantum of Car Parking).

Cycle Parking

4.5.2 A summary of the relevant guidance to note in the provision of suitable cycle parking is provided below.

Table 4-1: Cycle Parking Guidance and Standards

Dwelling Type	Cycle Parking Type	Provision
House	Private cycle parking	<ul style="list-style-type: none"> • If a garage is suitably sized then it can be considered as suitable cycle storage. • If a dwelling has no garage, secure enclosed cycle parking must be provided. This can be in a rear garden if there is direct access or at the front of the property if there is no direct garden access.
Apartment	Communal cycle storage	<ul style="list-style-type: none"> • In close proximity to building entrance. • Well overlooked. • Covered and well lit. • 5% of parking must be for non-standard bikes. <p>Quantum:</p> <ul style="list-style-type: none"> • 1 space per 1 bed unit • 2 spaces per 2+ bed unit. <p>PLUS</p> <ul style="list-style-type: none"> • 1 space per two units.

Car Parking

4.5.3 A summary of the relevant guidance to note in the provision of suitable car parking is provided below.

**Table 4-2: Residential Parking Standards for Cherwell Urban Area**

Number of Bedrooms	Max. Number of Allocated Spaces	Max. Number of Spaces when 2 Allocated Spaces provided per dwelling		Max. Number of Spaces when 1 Allocated Space provided per dwelling		Max. Number of Spaces unallocated spaces per dwelling when no allocated spaces provided
		Allocated Spaces	Unallocated Spaces	Allocated Spaces	Unallocated Spaces	
1	1	2	n/a	1	0.4	1.2
2	2	2	0.3	1	0.6	1.4
3	2	2	0.3	1	0.8	1.7
4+	2	2	0.5	1	1.3	2.2

4.5.4 The Street Design Guide provides guidance on the provision of charging facilities for electric vehicles. In line with guidance, all houses with on-plot parking will be provided with the necessary infrastructure to enable the installation of a dedicated EV charging point.

Summary

4.5.5 At reserved matters stage, the above guidance and standards will be applied to determine an appropriate supply and layout of cycle and car parking.



5 Trip Generation, Distribution and Assignment

5.1 Introduction

5.1.1 This section provides a summary of the travel demand calculations that have been used to determine the highway impacts of the development proposals. The methodology outlined below has been agreed with OCC through the scoping process.

5.2 Trip Generation

5.2.1 The TRICS database has been used to generate an appropriate trip rate for the development of the site. The following criteria was applied to the TRICS category:

- **Main Land Use** – Residential
- **Sub land Use** – Houses Privately Owned
- **Areas** – All areas excluding; Greater London, Scotland, Republic of Ireland and Northern Ireland.
- **Days Included**– Monday - Friday
- **Location Type** - Suburban, Edge of Town, and Residential Zone;
- **Number of Dwellings** – 50-400

5.2.2 The resultant trip generation is given in Table 5-1. Full TRICS output reports are provided within Appendix D.

Table 5-1: Trip Generation

	AM Peak (08:00-09:00)			PM Peak (18:00-19:00)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Trip Rate (Proposed Development)	0.135	0.365	0.500	0.346	0.161	0.507
Trip Generation (Up to 250 dwellings)	34	91	125	87	40	127

5.2.3 Table 5-1 demonstrates that the site is forecasted to generate 125 two-way trips in the AM and 127 two-way trips in the PM peak. This equates to approximately two vehicle movements every minute on average.

5.3 Traffic Distribution and Assignment

5.3.1 The distribution of development traffic is based on 2011 census Journey to Work data for the Middle Super Output Area (MSOA) which is most representative of current vehicle movements. The MSOA of *Cherwell 005* has been adopted which is the MSOA to the east of the application site containing the existing residential area.

5.3.2 The MSOA within which the site is located (*Cherwell 001*) does not include any of the existing built form of Banbury but includes small, rural settlements to the west of Banbury. It is therefore deemed appropriate to use the adjacent MSOA to derive the residential trip distribution. It is considered to



provide a representative assessment of the likely trip distribution as it encompasses residential dwellings adjacent to the proposed site.

- 5.3.3 To calculate the distribution, data for car trips from Cherwell 005 MSOA as a place of residence has been extracted from the 2011 Census Table WU03EW (Location of usual residence and place of work by method of travel to work).
- 5.3.4 The assignment of trips has been calculated using GIS software and congestion data⁷ for a typical weekday peak period to reflect real life journey patterns and route choices. Detailed turning flow diagrams are provided in Appendix E.

⁷ Data is sourced from [Here.com](https://www.here.com) which captures typical traffic conditions based on GPS/mobile data



6 Impact Assessment and Identification Offsite Improvements

6.1 Geographic Scope and Data Collection

6.1.1 Based on the agreed traffic generation, distribution and assignment, it has been agreed with OCC that the following junctions will be assessed:

- Bailey Road/Edinburgh Way
- Edinburgh Way/Bretch Hill/Prescott Avenue
- Prescott Avenue/The Fairway
- The Fairway/Orchard Way
- Orchard Way/Ruscote Avenue/Warwick Road

6.1.2 Classified turning counts were undertaken at these junctions on 28th June 2022 between the hours of 07:00 and 10:00 and 16:00 and 19:00, as agreed with OCC. At the time of preparing this report the resulting data is awaited. The junction capacity assessments will be submitted as an addendum to this report.

6.2 Assessment Scenarios

6.2.1 It has been agreed that the following scenarios will be considered for the network AM and PM peak hours:

- 2022 Base – Based on surveyed flows
- 2028 Base + Committed Development (Opening Year of 2023 + 5 Years) – Based on uplifted surveyed flows using TEMPro factors and the further addition of traffic associated with pertinent committed development to provide a robust future position.
- 2028 Base + Committed Development + Proposed Development.

6.3 Future Year Assessment and Committed Development

6.3.1 The following approach has been taken to obtain appropriate future year traffic flows (2028):

- Application of TEMPro factors to understand background growth and growth resulting from wider development from 2022 to 2028. It has been agreed that the following TEMPro (v7.2b) factors for the Cherwell 005 area will be applied to uplift 2022 traffic volumes to 2028 to account for background growth and to account for growth associated with wider development:
 - Weekday AM Peak – 1.0785
 - Weekday PM Peak – 1.0838
- Addition of appropriate committed development traffic, as follows:



- Banbury Rise: the inclusion of dwellings consented but not yet built and occupied. At the time of undertaking the traffic surveys on 28th June 2022, a total of 371 dwellings were occupied and 109 not occupied. The proportional traffic flows from the original Transport Assessment for the Banbury Rise development not yet built and occupied are added to the future year flows.
- Balmoral Avenue South (Ref: 20/01643/OUT) – 49 dwellings with the distribution and assignment of traffic as per the submitted Transport Assessment are added to the future year flows.

6.4 Offsite Improvements

- 6.4.1 The Addendum report will also consider the requirement for any offsite improvements to mitigate any impacts which are identified to be unacceptable in NPPF terms.
- 6.4.2 In early discussions with OCC, it has been discussed that it is likely that any impacts identified would be mitigated through a contribution towards local schemes identified to improve conditions for and encourage increased uptake of active travel modes.

6.5 Summary

- 6.5.1 The geographic study area has been agreed with OCC during the scoping process. This includes the assessment of five junctions which will be conducted in standalone junction modelling software.
- 6.5.2 Traffic flows collected on 28th June 2022 will be utilised to assess the operation of these junctions currently, in a future year with planned growth and with the addition of proposed development traffic to understand the potential development impacts.
- 6.5.3 The findings of this modelling exercise will be presented in an Addendum report submitted via the local planning authority.



7 Summary and Conclusion

7.1 Summary

- 7.1.1 PJA has been appointed by Bloor Homes to prepare a Transport Assessment to support an outline application *“for a residential development comprising up to 250 dwellings (with up to 30% affordable housing), public open space, landscaping and associated supporting infrastructure. Means of vehicular access to be determined via Edinburgh Way, with additional pedestrian and cycle connections via Dover Avenue and Balmoral Avenue. Emergency access provision also via Balmoral Avenue. All other matters reserved”*.
- 7.1.2 A review of background conditions has found that:
- The site is accessible via a range of walking and cycling infrastructure;
 - The site is accessible by various public transport nodes;
 - A range of amenities are located within a short walking distance of the site; and
 - An analysis of collision data indicates that there are no existing highway safety concerns on the local highway network that would be exacerbated by the proposed development.
- 7.1.3 It is proposed to develop the site for up to 250 dwellings. Since the application is outline, the precise details of the site layout and parking arrangements are not yet defined; however, a set of principles following local and national guidance have been defined.
- 7.1.4 In terms of access, it is proposed vehicle access will be achieved through the consented Banbury Rise development which has two vehicular access points. Emergency access is proposed to be taken via Balmoral Avenue. This emergency access along with a further access point via Dover Avenue will provide additional access points for pedestrians and cyclists into the existing neighbourhood, providing convenient access to local facilities. The emerging Banbury LCWIP sets out aspirations for local route improvements which the developer would provide a proportionate and reasonable contribution towards.
- 7.1.5 The network of PROW surrounding the site are proposed to be enhanced (where it is within the ownership of the applicant) and connected to.
- 7.1.6 The TRICS database has been used to forecast the trip generation of the proposed development. The parameters and resulting trip rates have been agreed with OCC. The site is forecast to generate approximately 125 two-way vehicle movements in each peak hour.
- 7.1.7 The traffic has been distributed using Census Journey to Work data for the MSOA of Cherwell 005, the area adjacent to the site containing the existing residential area. This has then been assigned to the local network using GIS software which utilises traffic data reflecting typical conditions during the peak periods on the network and usual route choices.



- 7.1.8 From the agreed development traffic assignment, the study area for junction capacity assessment has been agreed as follows:
- Bailey Road/Edinburgh Way
 - Edinburgh Way/Bretch Hill/Prescott Avenue
 - Prescott Avenue/The Fairway
 - The Fairway/Orchard Way
 - Orchard Way/Ruscote Avenue/Warwick Road
- 7.1.9 Traffic data was collected at the above locations on 28th June 2022 and the results of the modelling will be presented in an Addendum report to be submitted to the local planning authority. This will present the modelling using the agreed assessment parameters.
- 7.1.10 The Addendum will also consider the requirement for any offsite improvements to mitigate any impacts which are identified to be unacceptable in NPPF terms. In early discussions with OCC, it has been discussed that it is likely that any impacts identified would be mitigated through a contribution towards local schemes identified to improve conditions for and encourage increased uptake of active travel modes.

7.2 Conclusion

- 7.2.1 The National Planning Policy Framework (NPPF) states that opportunities to promote sustainable transport modes should be taken up and that safe and suitable access to the site is achievable for all users. This report has demonstrated that the proposed development meets the criteria set out in NPPF.
- 7.2.2 The NPPF states that an application should only be refused on highways grounds if it is demonstrated the development would result in an unacceptable impact on highway safety or the residual cumulative impacts are deemed severe.
- 7.2.3 It has been demonstrated that the proposed development would not have an unacceptable impact on highway safety and the impacts and the severity of these, along with the requirement for any mitigation measures, will be considered within the Addendum report.



Appendix A Site Layout

