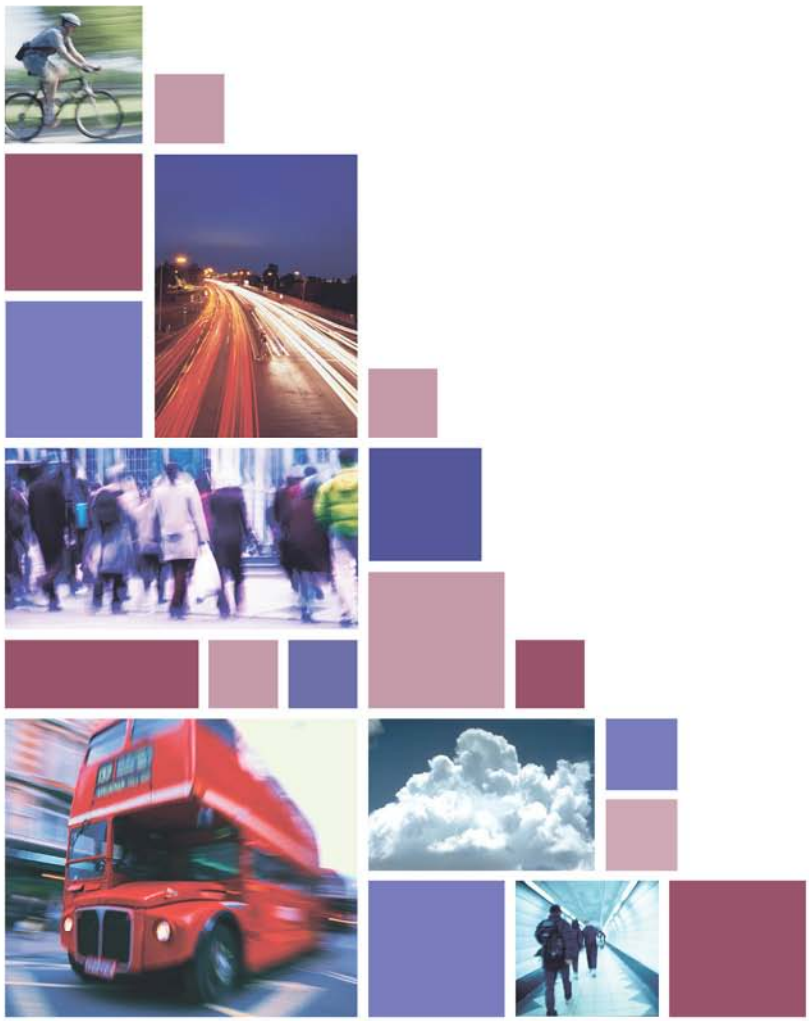
ashleyhelme

Land off Oxford Road, Bodicote

Transport Statement



Report Prepared for

Hollins Strategic Land

April 2018

Report Reference 1608/1

ashleyhelme

Transport Statement

Land off Oxford Road, Bodicote

Client: Hollins Strategic Land

Report Ref: 1608/1

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Transport Statement

Land off Oxford Road, Bodicote

1 Introduction

1.1 Ashley Helme Associates Limited (AHA) are appointed by Hollins Strategic Land to prepare a Transport Statement (TS) report to support the ouline planning application for the proposed residential development of 52 dwellings at Land off Oxford Road, Bodicote (henceforth referred to as the Site). The location of the Site is indicated on Figure 1.

1.2 The Site is currently occupied by a farm shop and grass field. The field is used for car boot sales.

1.3 The issues addressed within this TS fall broadly into the following areas:

- Site access proposals,
- Accessibility to the Site by non-car modes,
- The vehicular traffic impact on the operational performance of the local highway network.

1.4 The local highway network is described in Chapter 2. The proposed Site access arrangements are outlined in Chapter 3.

1.5 The accessibility of the Site by choice of mode is considered in Chapter 4.

1.6 The traffic impact of the proposed residential development is quantitatively assessed in Chapter 5. The summary and conclusions of the TS are presented in Chapter 6.

2 Highway Network

2.1 The Site is located to the north of Bodicote, Banbury, Oxfordshire. The Site has frontage on Oxford Road, to the east, and White Post Road, to the north.

2.2 **EXISTING CONDITIONS**

2.2.1 **White Post Road**

2.2.1.1 White Post Road is aligned in a general east-west orientation in the vicinity of the Site. It is a single carriageway road of varying width, and is subject to a 30mph speed limit along the majority of the Site frontage. There is a change of speed limit from 30mph to 40mph at the eastern end of the Site frontage, close to the junction with Oxford Road.

2.2.1.2 There is footway on the south side of White Post Road along the Site frontage. There is also footway on the north side of White Post Road, connecting to footway on Oxford Road. The footway on the north side of the carriageway terminates circa 70m from the Oxford Road junction, opposite the Site.

2.2.1.3 There is a general absence of waiting restrictions on White Post Road. Some on-street parking has been observed on the south side of White Post Road along the Site frontage.

2.2.1.4 To the West of the Site, White Post Road forms a roundabout junction with Sycamore Drive and Bankside. White Post Road forms the south and east arms of the junction. The existing junction layout is shown on Drg 1608/02.

2.2.1.5 At the north-eastern corner of the Site, White Post Road forms a junction with Oxford Road. The junction comprises a northbound on-slip and off-slip for Oxford Road. The slips comprise a simple taper diverge and a simple taper merge. Give way markings have been added to the taper merge, which has the effect of turning the merge into a priority controlled junction. The existing layout of the junction is shown on Drg 1608/03.

2.2.2 **Oxford Road**

2.2.2.1 Oxford Road is a single carriageway road that is generally aligned in a north-south orientation in the vicinity of the Site. Oxford Road is generally circa 9.0m wide in the vicinity of the Site and has marked on-road cycle lanes on both sides of the carriageway. There is footway on both sides of the road.

2.2.2.2 To the north of the junction with White Post Road, there are on/off slips for southbound traffic on Oxford Road, providing access to White Post Road via Bankside.

3 Proposed Site Access Arrangements

3.1 A holistic approach to the Site access arrangements is at the core of the development Site access strategy. Thus, there is a cohesive package of development access arrangements for differing modes of travel. Further information about walk, cycle and public transport modes is presented in Chapter 4.

3.2 The proposed access strategy for the Site is:

- Vehicles: Single access on White Post Road,
- Pedestrians/cycles: Access on White Post Road, and access on Oxford Road.

3.3 **DESIGN CONSIDERATIONS**

3.3.1 **Vehicle Speeds & Visibility Requirements**

3.3.1.1 White Post Road is subject to a 30mph speed limit, along the Site frontage. To establish the existing vehicular speeds, AHA commissioned a speed survey of White Post Road. Pneumatic tubes were installed in the vicinity of the Site. The survey was undertaken between 26 March 2018 and 1 April 2018 (inclusive) and recorded data over the full 24-hour period of each survey day. The results of the speed survey are:

- Eastbound: 7-Day Average Speed 19.3mph,
  7-Day Average 85%ile Speed 21.9mph.

- Westbound: 7-Day Average speed 21.5mph,
  7-Day Average 85%ile Speed 24.7mph.

3.3.2 **Design Speed**

3.3.2.1 For access junctions on existing roads, MfS recommends that the design speed should be based on 85%ile speeds.

3.2.2.2 The design speeds lie well within the MfS threshold of 37.5mph (60kph). Therefore, the Site Access geometry and visibility splays should be based on guidance in MfS.

3.3.3 **Stopping Sight Distance**

3.3.3.1 The visibility standards in MfS and MfS2 are based on Stopping Sight Distance (SSD). This is derived from the design speed together with assumptions regarding driver perception/reaction times and rate of deceleration. In more recent times there have been significant advances in motor vehicle design, particularly in braking, and these changes are recognised in MfS2, which assumes:

- Driver perception/reaction time: 1.5 seconds, and
- Deceleration rate: 4.41 m/s^2.

3.3.3.2 Based on the identified design speeds the calculated SSDs are:

DIRECTION	**DESIGN SPEED**	**(mph & m/s)**	**SSD(m)**
Eastbound	21.9	9.79	26
Westbound	24.7	11.04	30.

3.3.3.3 Drg No 1536/01 demonstrates that the following visibility splays are available for a vehicle emerging from the Site access:

- Visibility to the left: 2.4m x 26m, and
- Visibility to the right: 2.4m x 30m.

3.4 **PROPOSED SITE ACCESS ARRANGEMENTS**

3.4.1 The proposed vehicular access arrangements are shown on Drg No 1608/01. This shows the closure of an existing Site access White Post Road and the introduction of a priority controlled access.

3.4.2 The Site access geometry comprises:

- 5.5m wide Site access road,
- 2.0m wide footway on both sides of the road,
- 3.0m ghost island right turn lane,
- Dropped kerbs, tactile paving and pedestrian refuge on White Post Road,

- 2.4m x 26m visibility splay to the left shown,
- 2.4m x 30m visibility splay to the right shown.

3.5 PEDESTRIANS

3.5.1 Pedestrian connectivity between the proposed residential development and the surrounding area is a key component of the development access strategy. This is converted into practice by a combination of:

- Well designed on-Site development layout that recognises pedestrian desire lines and provides enabling pedestrian facilities (eg footways, roads that discourage high speeds, a sense of place that is safe for pedestrians fostered by the layout of buildings, etc), and

- Pedestrian links between the Site and the surrounding area.

3.5.2 The former (on-Site layout) will be the subject of a reserved matters application, as the planning application is in outline. However, the principles of the pedestrian access strategy are established in this TS and will form the basis of the detailed development Site layout for which reserved matters permission will be sought.

3.5.3 The existing pedestrian infrastructure around the Site and the surrounding area is described in Chapter 4. The development proposals for improvements to the existing pedestrian infrastructure and pedestrian linkages to/from the proposed development are also described in Chapter 4.

3.5.4 In addition to access arrangements shown on Drg 1608/01, it is proposed to introduce a pedestrian/cycle access on Oxford Road, as shown on the indicative masterplan submitted as part of the outline planning application.

3.6 CYCLE

3.6.1 The existing cycle infrastructure around the Site and the surrounding area is described in Chapter 4. The development proposals for improvements to the existing cycle infrastructure and cycle linkages to/from the proposed development are also described in Chapter 4.

4.10 MOBILITY IMPAIRED

The needs of those with mobility impairment are an important component of the detailed design of the development. This is advocated in NPPF (eg NPPF para 35). The detailed design of the internal layout of the development, which must be the subject of reserved matters approval, will describe the facilities to be provided on Site to assist the mobility impaired, taking account of guidance and standards together with good practice and local/national policies.

4 Accessibility by non-car modes

4.1 WALK

It is established and acknowledged that walking is the most important mode of travel at the local level, and offers the greatest potential to replace short car trips, particularly under 2km.

4.1.2 The CIHT provides guidance about journeys on foot. It does not provide a definitive view of distances, but does suggest a preferred maximum distance of 2000m for walk commuting trips. A 400m distance corresponds to a walk time of 5 minutes, based upon a typical normal walking speed. Figure 2 presents the development 400m, 800m, 1200m, 1600m & 2000m walk isochrones, (ie reflecting 5, 10, 15, 20 and 25 minute walk journeys), and taking account of the pedestrian infrastructure.

4.1.3 The DfT National Travel Survey of 2015 confirms that 76% of all trips less than a mile (1.6km) are carried out on foot. There are a variety of amenities indicated on Figure 2 that lie within 1.6km of the Site. Based on the NTS data, it is reasonable to assume the majority of trips between the Site and these amenities will be undertaken on foot.

4.1.4 The 'walkable neighbourhood' concept is set out in MfS1 and endorsed in MfS2. MfS1 explains that:

"Walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes' (up to about 800 m) walking distance of residential areas which residents may access comfortably on foot. However, this is ***not an upper limit*** *and ... that walking offers the greatest potential to replace short car trips, particularly those under 2 km."* (MfS para 4.4.1, my emphasis)

4.1.5 Indicated on Figure 2 are examples of local facilities near to the Site. This illustrates that there are a number of amenities within 800m of the Site, including:

- Nursery,
- Primary school,
- Convenience store,

- Community centre,
- Playgrounds/public open space,
- Cricket club,
- Salons,
- Public house,
- Church,
- Employment (Cherwell District Council),
- Allotments,
- Bus stops.

4.1.6 Within about 1200m of the Site (typically a 15 minute walk) there are a number of additional facilities, including:

- Convenience Store,
- Supermarket,
- Post Office,
- Bank/ATM,
- Dentist, Pharmacy & Optician,
- Restaurants/takeaways.

4.1.7 Figure 2 demonstrates that there is a substantial range of amenities within 2000m of the Site, including among others 2no secondary schools with sixth forms. The edge of Banbury town centre is within 2000m of the Site and Horton Hospital provides a substantial employment destination within 2000m of the Site.

4.1.8 It is proposed to introduce dropped kerbs, tactile paving, and a pedestrian refuge on White Post Road as part of the Site access proposals. This provides a safe crossing of White Post Road, facilitating pedestrian journeys between the Site and Banbury town centre, Horton Hospital, and Sainsburys supermarket via Oxford Road. It is also proposed to introduce a pedestrian/cycle access on Oxford Road, as shown on the indicative masterplan submitted as part of the outline planning application. This will provide good connectivity between the Site and bus stops, amenities and cycle facilities on Oxford Road.

4.1.9 **Walk Routes to School**

4.1.9.1 The closest primary school to the Site is Bishop Loveday C of E Primary school, which is located circa 250m from the centre of the Site on White Post Road. There is continuous footway between the Site and the primary school, and no crossing of roads is required between the Site and the primary school. There excellent opportunity for trips between the Site and the primary school to be undertaken on foot.

4.1.9.2 Figure 3 presents the existing Public Rights of Way (PROW) near to the Site. This shows that there is a restricted byway connecting White Post Road and Bloxham Road, known as the Salt Way. This provides a traffic-free pedestrian route to Blessed George Napier RC School, and Banbury Academy, providing very good opportunity for walk trips to be undertaken to the secondary schools.

4.2 **CYCLE**

4.2.1 It is recognised that cycling also has potential to substitute for short car trips, particularly those under 5km, and to form part of a longer journey by public transport.

4.2.2 The CIHT guidance 'Cycle Friendly Infrastructure' (2004) states that:

"Most journeys are short. Three quarters of journeys by all modes are less than five miles (8km) and half under two miles (3.2km) (DOT 1993, table 2a). These are distances that can be cycled comfortably by a reasonably fit person."(para 2.3)

4.2.3 Figure 4 indicates the 2km and 5km cycle isochrones for the Site, reflecting typically 10 minute and 25 minute journeys. Review of Figure 4 highlights that almost all of the built-up area of Banbury is within 5km of the Site. Additionally, all of Twyford, Adderbury, Broughton, North Newington, and most of Bloxham are accessible to Site residents by cycle.

4.2.4 Figure 5 indicates formally identified cycle routes in the locale of the Site. These include:

- National Cycle Network Route 5 (NCN 5): Reading to Holyhead via Oxford,
- A local signed on-road route linking the Site and NCN 5 to Banbury Rail Station.

4.2.5 In addition to the cycle routes shown on Figure 5, there are on-road marked cycle lanes on Oxford Road. It is also proposed to introduce a pedestrian/cycle access on Oxford Road, as shown on the indicative masterplan submitted as part of the outline planning application. This will provide a direct cycle link between the Site and these existing on-road facilities.

4.2.6 In summary, the destination opportunities within a 5km cycle ride of the Site for residents of the development comprise a full range of amenity and employment locations within Banbury itself and beyond.

4.3 BUS

4.3.1 Existing Bus Stops

4.3.1.1 Figure 2 shows the location of existing bus stops near to the Site. Bus stops are located on White Post Road and Oxford Road (southbound) within 400m of the Site. There is a bus stop on Oxford Road for northbound services within circa 450m of the Site. There is continuous footway between the Site and these stops.

4.3.2 Bus Services & Frequencies

4.3.2.1 Table 1 summarises the scheduled bus services calling at the bus stops indicated on Figure 2, and the frequency of the services. The most frequent services calling close to the Site are the S4 and B3 services.

4.3.2.2 The S4 service provides a direct link between Oxford and Banbury, operating at a 30 minute frequency between Banbury and West Adderbury, with 1 service per hour continuing to Oxford. The journey time to town centre is circa 8-9minutes, and the journey time to Oxford is circa 65 – 70 minutes.

4.3.2.3 The B3 service provides journeys to Banbury town centre via Bankside. The B3 is a 'loop' service in the vicinity of Bodicote and calls southbound only on White Post

Road. The journey time from Banbury town centre is circa 12 minutes, and the journey time to Banbury town centre is circa 22 minutes.

4.3.3 **Work Trips by Bus**

4.3.3.1 The bus services calling in the vicinity of the Site provide opportunity for residents of the proposed development to commute by direct bus to Banbury and Oxford.

4.3.3.2 Trips to/from Banbury in the AM & PM peak periods that may be suitable for commuting trips comprise:

	B3	S4	B3	S4	B3	S4	B3	S4
Depart Site	0707	0714	0737	0754	0807	0823	0837	0858
Arrive Banbury	0733	0722	0803	0803	0833	0834	0900	0906

	S4	B3	S4	B3	S4	B3	S4	B3
Depart Banbury	1650	1655	1720	1725	1750	1755	1820	1825
Arrive Site	1658	1707	1728	1737	1758	1807	1828	1837

4.3.3.4 Trips to/from Oxford in the AM & PM peak periods that may be suitable for commuting trips comprise:

Depart Site	0606	0643	0718
Arrive Oxford	0708	0806	0842

Depart Oxford	1620	1720	1820
Arrive Site	1729	1828	1925

4.3.3.5 It is demonstrated that bus services calling at close to the Site are suitable for commuting, as well as other journey purposes.

4.4 **RAIL**

4.4.1 Banbury Rail Station is circa 2.5km from the Site (refer Figure 2). This provides opportunity for residents to travel by rail, with the journey between the rail station and

the Site by cycle or bus. Cycle storage is provided at the station, and all bus services calling close to the Site call within 400m of the rail station. Additionally, there are 795 car park spaces provided at the station. There are mobility impaired spaces available free of charge for blue badge holders.

4.4.2 The main services calling at Banbury Rail Station comprise:

OPERATOR	PRINCIPAL ROUTE	TYPICAL WEEKDAY FREQUENCY (mins)
Chiltern Railways	London - Birmingham:	30
Cross Country	Manchester - Bournemouth:	60
Cross Country	Newcastle – Reading:	60

Additionally, there are a number of less frequent services calling at Banbury, operated by Chiltern Railways and First Great Western. Typically, there are circa 10-11 services per hour calling at Banbury Station.

4.4.3 Services calling at Banbury provide frequent direct trains to a wide range of destinations including, among others, London, Birmingham, Manchester, Leeds, Sheffield, Newcastle, Southampton, Bournemouth, Coventry, Stoke-on-Trent, Derby, Doncaster and York.

4.4.4 Banbury rail station provides opportunity for residents undertake regular journeys (eg for work) to a wide range of destinations. Journey times between Banbury and key destinations that may be suitable for daily commuting are:

DESTINATION	APPROXIMATE JOURNEY TIME (mins)
Bicester	14
Leamington Spa	17
Oxford	21
Warwick	22
High Wycombe	32
Reading	45
Birmingham	53
London Marylebone	54 - 64

4.4.5 It is demonstrated that there is excellent opportunity for residents of the proposed development to undertake journeys by rail to an extensive range of destinations.

4.5 SUMMARY

4.5.1 It is established that the proposed development is accessible by sustainable transport modes. There is a good range of amenities within walking distance of the Site, and there is good walk and cycle infrastructure in the vicinity. There is opportunity to undertake trips by bus for commuting, shopping and leisure purposes. Banbury rail station is accessible by cycle, bus and car, and provides good opportunity for public transport journeys to be undertaken to a wide range of destinations.

5 Traffic Flows

5.1 PEAK PERIODS

The times when the combination is greatest of traffic generated by the proposed residential development and existing highway network traffic are the weekday AM and PM peak hours. The TS includes quantitative analysis of the traffic impact of the proposed development for these periods.

5.2 CHANGE IN TRAFFIC

5.2.1 As set out in para 1.2 the Site is currently occupied by a farm shop. The proposed development will result in the demolition of the existing farm shop and construction of 52no residential dwellings. The traffic that could be generated by the existing use may be considered as the 'fall back' situation if the proposed development, for whatever reason, is not implemented. However, for the purposes of robust assessment it is assumed that all traffic generated by the proposed development in the AM and PM peak hours is new to the highway network.

5.6 GENERATED TRAFFIC: PROPOSED DEVELOPMENT

5.6.1 The proposed development comprises 52 houses. It is necessary to estimate the traffic generated by the proposed houses to assess the traffic impact of the proposed development.

5.6.2 Planning permission has been granted for a development comprising 280 dwellings to the west of White Post Road (application ref 15/01326/OUT), in the vicinity of the proposed development. AHA TA 1361/7/F was submitted in support of the successful planning application.

5.6.3 Table 3 of TA 1361/7/F sets out the trip rates adopted for the 280 dwelling scheme, derived from TRICS, and these are agreed with the highway authority. For consistency the same trip rates are adopted to estimate traffic generated by the proposed development. The adopted trip rates are presented in Table 2 herein.

5.6.4 Table 3 sets out the resultant estimate of traffic generated by the proposed development based on trip rates set out in Table 2.

5.6.5 Review of Table 3 confirms that the proposed development is only predicted generate 31 vehicles (two-way) in the AM peak hour, and 34 vehicles (two-way) in the PM peak hour. It is concluded that the traffic generated by the proposed development will have no material impact on the operation of the highway network, and no further quantitative analysis is required.

6 Summary & Conclusions

6.1 Ashley Helme Associates Ltd (AHA) are appointed by Hollins Strategic Land to prepare a Transport Statement for the proposed residential development at Land off Oxford Road, Bodicote. The location of the Site is indicated on Figure 1, in the context of the local highway network.

6.2 The Site is currently occupied by a farm shop and grass field. The field is used for car boot sales. The outline planning application proposes residential development comprising 52 dwellings.

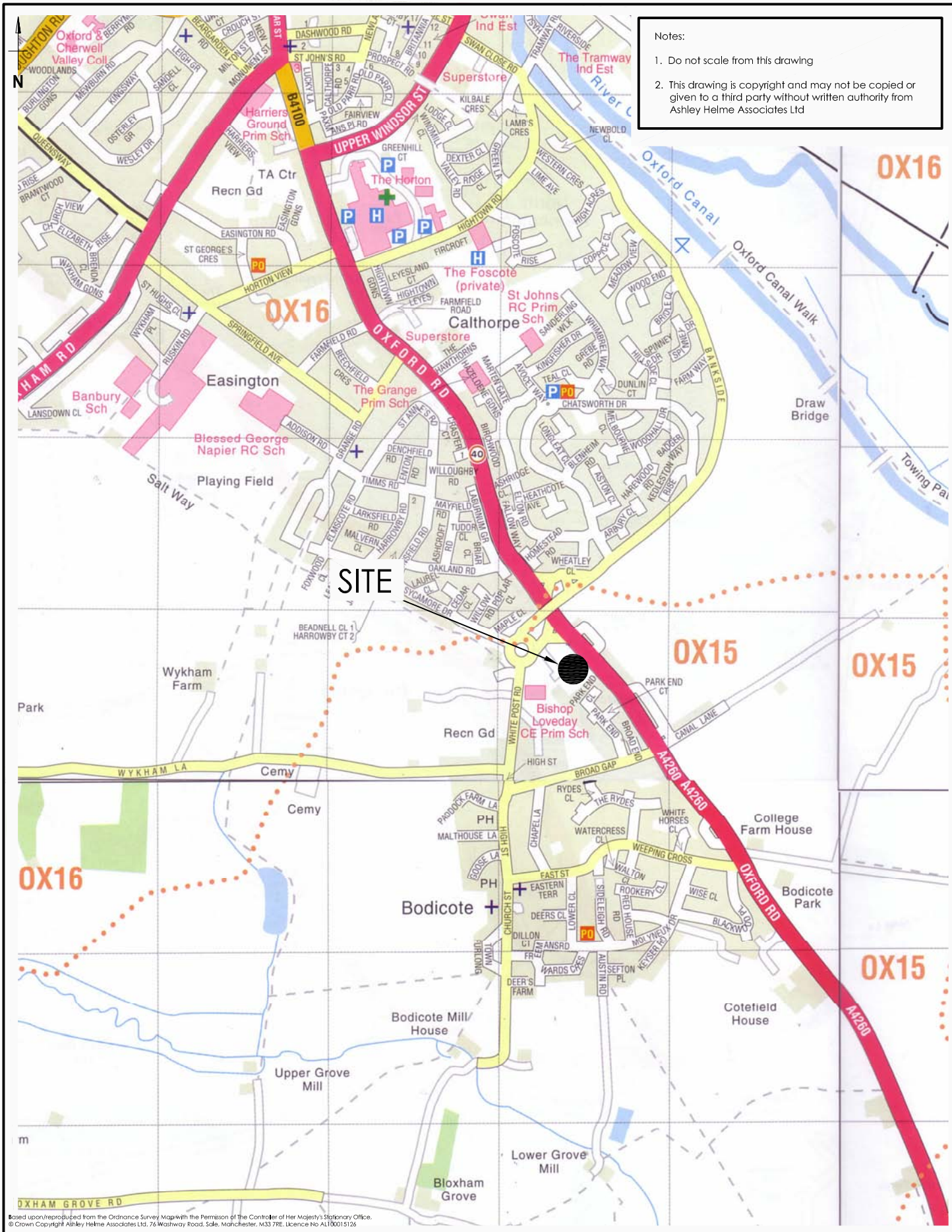
6.3 It is proposed that vehicular access to the Site is from White Post Road. It is proposed that an existing priority controlled junction is closed, and a new priority controlled junction is introduced to the east of the existing junction. The proposed access arrangements are presented in Drg 1608/01. In addition, a pedestrian/cycle access is proposed on Oxford Road.

6.4 An accessibility appraisal of the Site is undertaken, to assess the transport sustainability of the development proposal. It is established that the location of the Site provides very good opportunity for journeys to be made on foot, by cycle and on public transport to a range of amenities and employment locations.

6.5 It is estimated that the proposed development will generate 31 vehicles (two-way) in the AM peak hour, and 34 vehicles (two-way) in the PM peak hour. It is concluded that the traffic generated by the proposed development will have no material impact on the operational performance of the local highway network.

6.6 It is concluded that the proposed development is in accordance with national and local transport policies, and that there are no transport/highways reasons for refusal of planning permission.

Figures



LOCATION PLAN

FIGURE 1

ashleyhelme associates
76 washway road, sale, manchester, m33 7re
e: aha@ashleyhelme.co.uk t: 0161 972 0552 f: 0161 972 0553

1608_1_1

Notes:

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Key:

TRAVEL
- 1 Bus Stop
- 2 Rail Station

EDUCATION
- 1 Nursery/Creche/ Surestart Centre
- 2 Primary School
- 3 Secondary School/ Sixth Form

COMMUNITY
- 1 Place of worship
- 2 Community Centre
- 3 Library

SHOPPING
- 1 Convenience Store/ Newsagent
- 2 Supermarket
- 3 Post Office
- 4 Bank/ATM
- 5 Specialist Shop

HEALTH
- 1 Health Centre
- 2 Pharmacy
- 3 Dentist
- 4 Opticians
- 5 Hospital

LEISURE
- 1 Restaurant/takeaway
- 2 Public House
- 3 Salon
- 4 Sports Ground/Club
- 5 Public Open Space
- 6 Playground
- 7 Leisure Centre
- 8 Allotments

Employment Locations

400m Isochrone (5 minute walk)

800m isochrone (10 minute walk)

1200m isochrone (15 minute walk)

1600m isochrone (20 minute walk)

2000m isochrone (25 minute walk)

SITE

WALK ISOCHRONES & LOCAL AMENITIES

FIGURE 2

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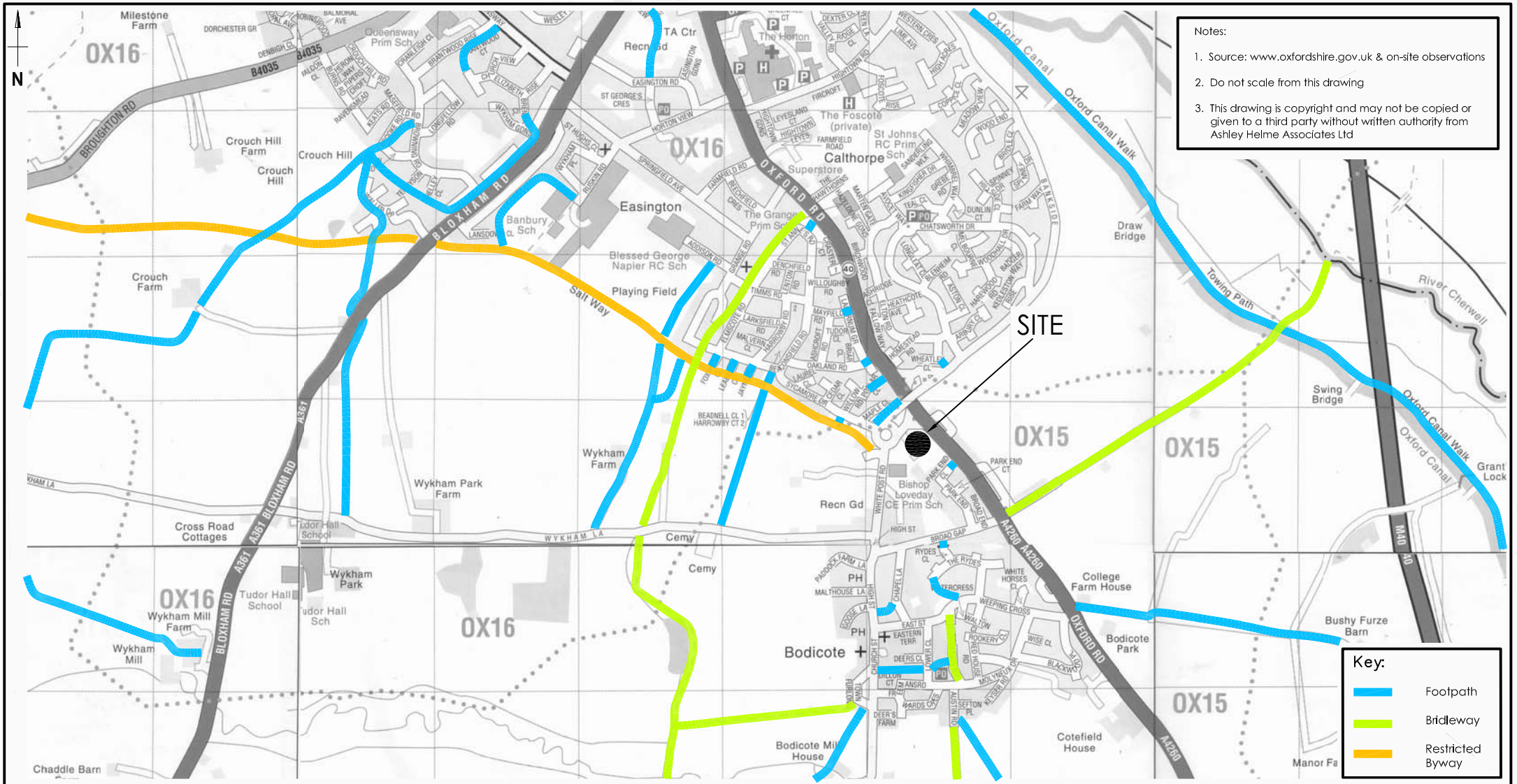

FIGURE 3

PUBLIC RIGHTS OF WAY (PROW)

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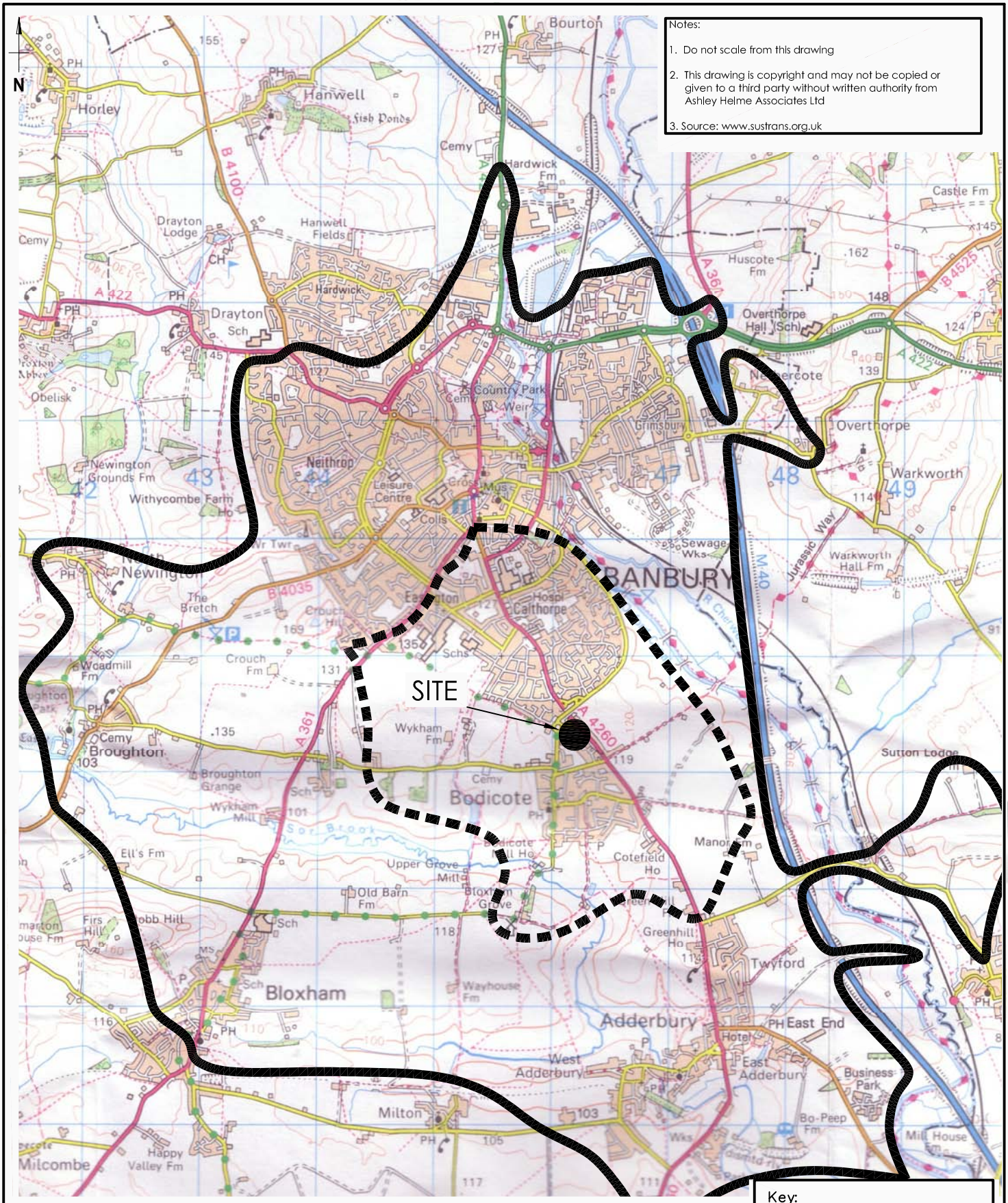

CYCLE ISOCHRONES

FIGURE 4

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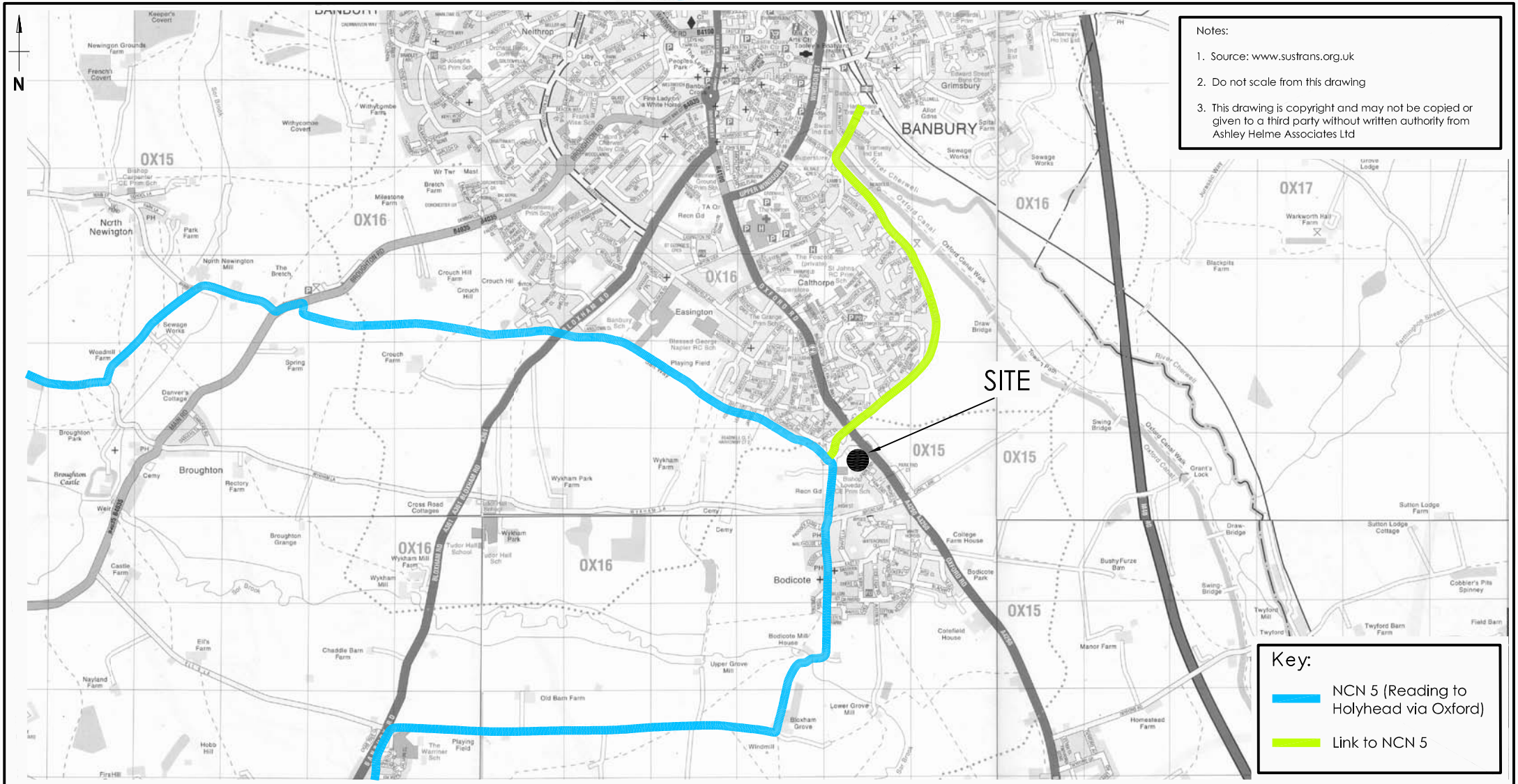

FIGURE 5 CYCLE ROUTES

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Tables

BUS No	Route	FREQUENCY			OPERATOR
		Mon- Sat		Sun	
		Day	Eve		
Services calling within 400m of site					
499	Banbury-Kings Sutton-Aynho-Evenly-Brackley	15 trips[1]	-	-	HT
S4	Oxford-Banbury	30mins	60mins	8 trips[2]	SCO
B3	Banbury-Bodicote and Longford Park	30mins	-	-	SCO

Source: www.oxfordshire.gov.uk & www.travelinesoutheast.org.uk

Notes

1. 15 trips, 7 in direction to Brackley and 8 in direction to Banbury,
2. 8 trips, 4 in each direction.

Key:

SCO Stagecoach In Oxfordshire
HT Heyfordian Travel

TABLE 1 BUS SERVICES AND FREQUENCIES

PEAK HOUR	ARR	DEP	2-WAY
AM	0.156	0.441	0.597
PM	0.413	0.245	0.658

Notes:
1. Source: TRICS,
2. Units = vehicles/hour/dwelling.

TABLE 2 **TRIP GENERATION RATES**
RESIDENTIAL
AM & PM PEAK HOURS

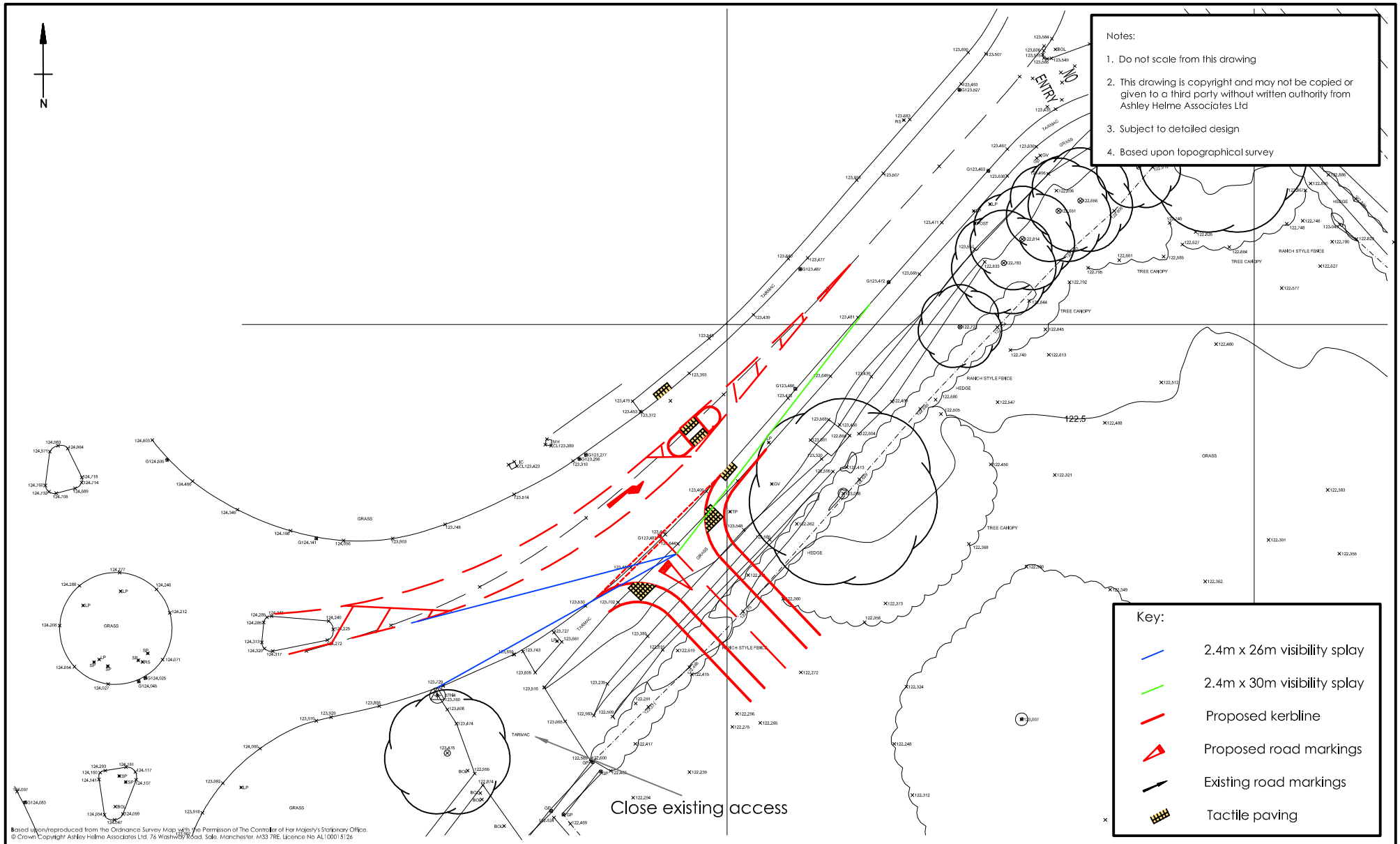
PEAK HOUR	ARR	DEP	2-WAY
AM	8	23	31
PM	21	13	34

Notes:

1. Refer Table 2 for trip rates,
2. Assumes 52 houses.

TABLE 3 **GENERATED TRAFFIC**
PROPOSED DEVELOPMENT
AM & PM PEAK HOURS

Drawings



Project: OXFORD ROAD, BODICOTE	Title: PROPOSED SITE ACCESS ARRANGEMENTS WHITE POST ROAD	Drawing No: 1608/01	Rev:
Client: HOLLINS SRATEGIC LAND		Date: APRIL 2018	Scale: 1:500@A4

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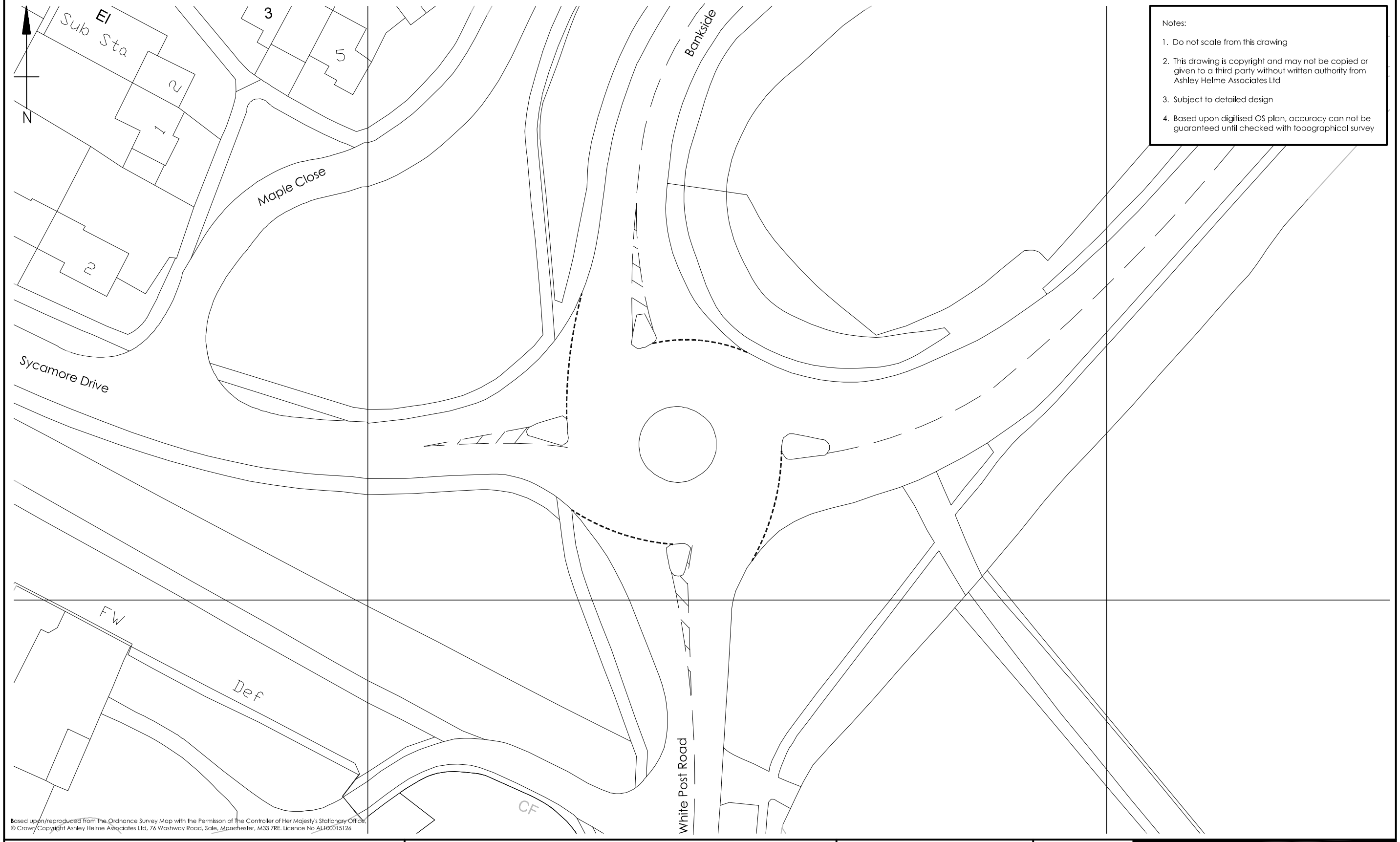

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Project: LAND OFF OXFORD ROAD, BODICOTE	Title: EXISTING JUNCTION ARRANGEMENTS: STUDY JUNCTION 2	Drawing No: 1608/02	Rev:
Client: HOLLINS STRATEGIC LAND		Date: APRIL 2018	Scale: 1:500 @ A3

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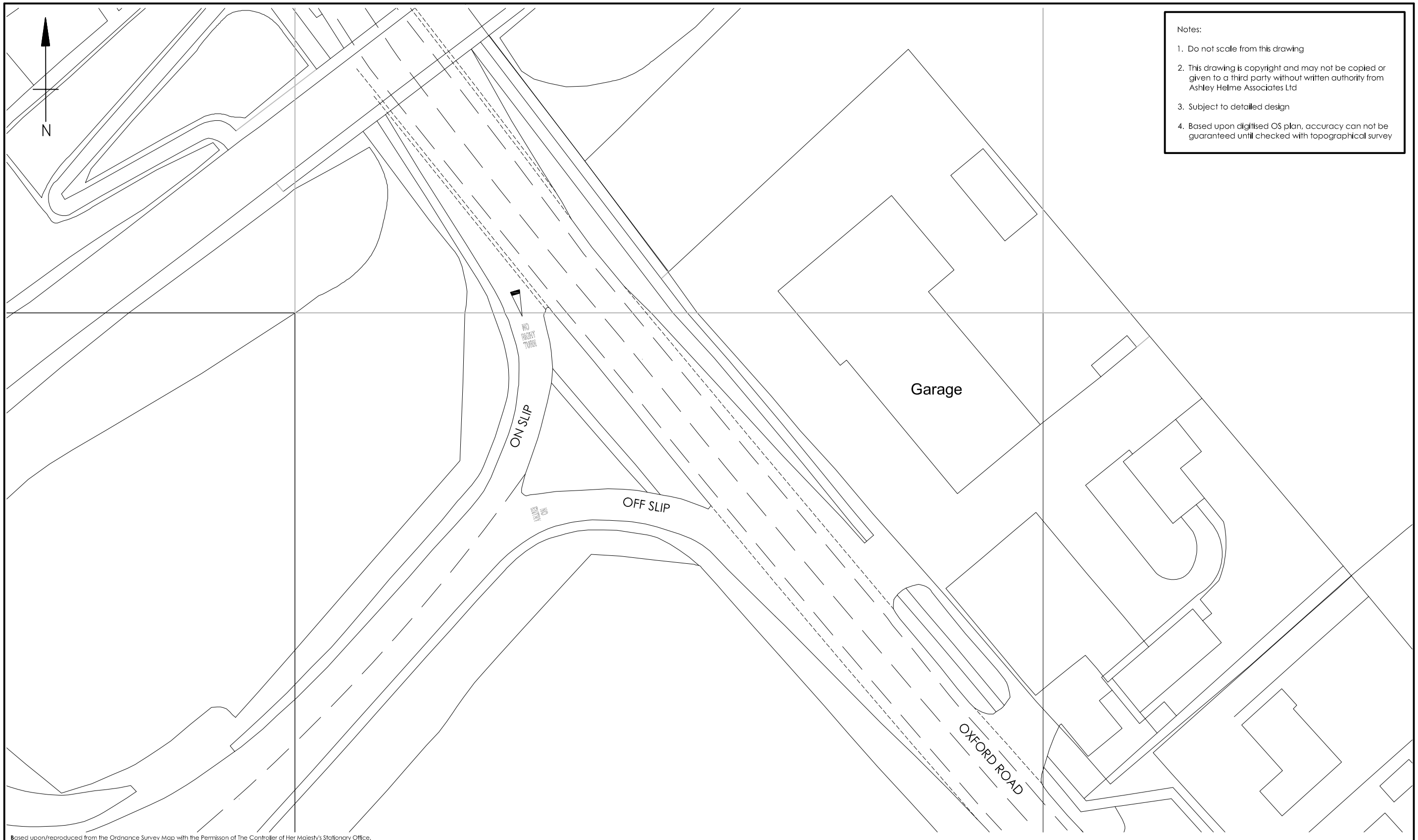

Notes:

1. Do not scale from this drawing
2. This drawing is copyright and may not be copied or given to a third party without written authority from Ashley Helme Associates Ltd
3. Subject to detailed design
4. Based upon digitised OS plan, accuracy can not be guaranteed until checked with topographical survey

Project: LAND OFF OXFORD ROAD, BODICOTE	Title: EXISTING JUNCTION ARRANGEMENTS: STUDY JUNCTION 3	Drawing No: 1608/03	Rev:
Client: HOLLINS STRATEGIC LAND		Date: APRIL 2018	Scale: 1:500@A3

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