now part of

Heyford Park
Phases 5D, 8C and Trenchard

Transport Statement

On behalf of **Dorchester Group**

Project Ref: 39304 | Final (v1) | Date: February 2019

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1 Introduction

1.1 Background

1.1.1 Peter Brett Associates, now part of Stantec (PBA) have been commissioned by Dorchester Group to provide highway and transport advice in support of a full planning application for 57 residential dwellings at Heyford Park near Bicester, Oxfordshire.

1.1.2 This Transport Statement (TS) provides an overview of the proposed development and sets out an assessment of the transport impacts of the proposed development.

1.1.3 This TS is prepared in the context of the phased redevelopment of the Former RAF Upper Heyford site which has been on-going for a number of years with proposals being discussed with Oxfordshire County Council (OCC) and Cherwell District Council (CDC).

1.2 Development Planning Context

1.2.1 This proposal sits in the context of a number of other planning applications that either currently have consent or form part of the current Local Plan allocation for the development and are awaiting determination at the current time. The key applications in the context of this new proposal are:

- Application 08/00719/OUT: submitted in 2008 for development to a maximum of 1,075 dwellings and around 1,700 jobs which went to Public Inquiry in 2008 / 2009 following which the Secretary of State granted planning permission in January 2010;
- Application 10/01642/OUT: a subsequent application to 08/00719/OUT for the same overall number of dwellings but with a greater number of retained dwellings on site was consented for the new settlement area in December 2011. This application is subsequently referred to as “1,075 unit scheme”;
- Application 13/01811/OUT: an application for 60 dwellings was granted permission in March 2016. This application is subsequently referred to as “60 unit scheme”;
- Application 16/00263/F; an application for 43 dwellings was granted planning permission in May 2017. This application is subsequently referred to as “43 unit scheme”;
- Application 15/01357/F; an application for 77 dwellings submitted by Pye Homes that forms a part of Cherwell Local Plan Policy Villages 5. The application has a resolution to grant permission subject to agreement of the S106.;
- Application 16/02446/F: an application for 296 dwellings that forms a part of Cherwell Local Plan allocation under Policy Villages 5. The application has a resolution to grant permission subject to agreement of the S106. This application is subsequently referred to as “296 unit scheme”; and
- Application 18/00825/HYBRID: this application consists of 1,175 dwellings, approximately 1,500 jobs and ancillary uses that form a part of Cherwell Local Plan allocation under Policy Villages 5. This application is currently awaiting determination. This application is subsequently referred to as “1,175 unit scheme”.

1.3 Development Proposals

1.3.1 The site is located on the Former RAF Upper Heyford site and lies in a rural area of Oxfordshire situated approximately 20km north of Oxford town centre. The nearest towns to the site are Bicester, approximately 10km to the south east, Brackley approximately 13km to the north east, and Banbury 15km to the north.

1.3.2 The Development proposals considered within this TS comprise of 57 residential units split across 3 separate plots comprising of:

- Trenchard: 31 dwellings located off Larson Road. These dwellings will replace 14 existing dwellings on the plot that currently has consent as part of the 1,075 unit scheme;
- Phase 5D: 11 dwellings located off Dow Street on a plot that currently has consent as part of a reserved matters application under the 1,075 and 60-unit schemes; and
- Phase 8C: 15 dwellings located off the Trident Road. These dwellings replace 2 proposed dwellings that currently have consent as part of the 1,075 unit scheme.

1.3.3 The location of the development plots is shown on **Figure 1.1**. The planning layouts for each plot is provided at **Appendix A**.

1.3.4 The development will provide an increased housing density on land that currently has an existing residential planning consent and will allow for a greater number of affordable units to be delivered.

1.4 Content of TS report

1.4.1 This Transport Statement will seek to assess the transport and traffic implications of providing the proposed residential dwellings. The content of this report is summarised below:

- **Section 2** sets out the planning and policy context for the site in transport terms at a national and local level;
- **Section 3** presents analysis of the existing and consented transport conditions relative to the site in relation to access and accessibility;
- **Section 4** describes development proposal and access arrangements to the site;
- **Section 5** presents the multi-modal development travel demand;
- **Section 6** presents the Residential Travel Plan for the proposed development; and
- **Section 7** presents the conclusions.

2 Policy Context

2.1 Introduction

2.1.1 A review has been undertaken of the national, regional and local transport policy documents in order to inform the development proposals. This section of the report sets out the key relevant policies.

2.2 National Planning and Policy Context

National Planning Policy Framework (NPPF)

2.2.1 The NPPF sets out the Government's commitment to ensuring that the planning system does everything it can to support sustainable economic growth. A positive planning system is essential because, without growth, a sustainable future cannot be achieved. Planning must operate to encourage growth and not act as an impediment. Therefore, significant weight should be placed on the need to support economic growth through the planning system.

2.2.2 The revised National Planning Policy Framework (NPPF) came into force in July 2018 and replaced the 2012 edition of the NPPF. The presumption in favour of sustainable development remains the core objective of the NPPF (paragraph 10 states that *"So that sustainable development is pursued in a positive way, at the heart of the Framework is a presumption in favour of sustainable development"*).

2.2.3 To promote sustainable transport, paragraph 108 states that *"In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:*

- *Appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
- *Safe and suitable access to the site can be achieved for all users; and*
- *Any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree."*

2.2.4 In Section 9 *'Promoting sustainable transport'*, paragraph 102 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."*

2.2.5 Paragraph 109 of the NPPF 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."*

2.2.6 Following this, paragraph 110 states that within the context of paragraph 109, applications for development should:

a. *"Give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;*

b. *Address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*

c. *Create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*

d. *Allow for the efficient delivery of goods, and access by service and emergency vehicles; and*

e. *Be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations."*

2.2.7 Paragraph 111 of the NPPF states *"All developments that 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

2.2.8 The Planning Practice Guidance provides the overarching framework within which the transport implications of development should be considered. It provides advice on the preparation of Transport Assessments, Transport Statements and Travel Plans. The key advice is as follows:

- *"Travel Plans, Transport Assessments and Statements are all ways of assessing and mitigating the negative transport impacts of development in order to promote sustainable development. They are required for all developments which generate significant amounts of movements."*

2.2.9 The key principles within which Transport Assessments and Statements should be undertaken are detailed as follows:

"Travel Plans, Transport Assessments and Statements should be:

- *Proportionate to the size and scope of the proposed development to which they relate and build on existing information wherever possible;*
- *Established at the earliest practicable possible stage of a development proposal;*
- *Be tailored to particular local circumstances (other locally-determined factors and information beyond those which are set out in this guidance may need to be considered in these studies provided there is robust evidence for doing so locally); and*

- *Be brought forward through collaborative ongoing working between the Local Planning Authority/ Transport Authority, transport operators, Rail Network Operators, Highways Agency where there may be implications for the strategic road network and other relevant bodies. Engaging communities and local businesses in Travel Plans, Transport Assessments and Statements can be beneficial in positively supporting higher levels of walking and cycling (which in turn can encourage greater social inclusion, community cohesion and healthier communities).”*

2.2.10 The guidance emphasises the importance to consult the relevant local authority at the outset in order to scope the transport assessment work, on the basis of the principles highlighted above.

2.3 Local Planning Policy Context

Oxfordshire Local Transport Plan: Connecting Oxfordshire 2015 - 2031

2.3.1 The current Oxfordshire Local Transport Plan: Connecting Oxfordshire 2015-2031 (LTP4) sets out OCC’s policy and strategy for developing the transport system in Oxfordshire to 2031. The LTP4 was adopted as policy in September 2015.

2.3.2 Connecting Oxfordshire has these transport goals:

i. To support jobs and housing growth and economic vitality;

ii. To support the transition to a low carbon future;

iii. To support social inclusion and equality of opportunity;

iv. To protect, and where possible enhance Oxfordshire’s environment and improve quality of life; and

v. To improve public health, safety and individual wellbeing.

2.3.3 A set of ten objectives form the basis for achieving these goals, and have been grouped under three themes:

Theme 1: Supporting Growth and Economic Vitality (Goal 1)

- *“Maintain and improve transport connections to support economic growth and vitality across the county;*
- *Make most effective use of all available transport capacity through innovative management of the network;*
- *Increase journey time reliability and minimise end-to-end public transport journey times on main routes; and*
- *Develop a high quality, innovative and resilient integrated transport system that is attractive to customers and generates inward investment.”*

Theme 2: Reducing Emissions (Goal 2)

- *“Minimise the need to travel;*
- *Reduce the proportion of journeys made by private car by making the use of public transport, walking and cycling more attractive;*

- *Influence the location and layout of development to maximise the use and value of existing and planned sustainable transport investment; and*

- *Reduce per capita carbon emissions from transport in Oxfordshire in line with UK Government targets."*

Theme 3: Improving Quality of Life (Goals 3, 4 and 5)

- *"Mitigate and wherever possible enhance the impacts of transport on the local built, historic and natural environment; and*

- *Improve public health and wellbeing by increasing levels of walking and cycling, reducing transport emissions, reducing casualties, and enabling inclusive access to jobs, education, training and services."*

2.3.4 The LTP4 Volume 2 Area Strategies states the following under the Bicester Area Strategy with regards to development at Heyford Park:

"BIC1 – ***Improve access and connections between key employment and residential sites and the strategic transport system by****:*

- ***Reviewing key county road links out of Bicester, including those that cross the county boundary****… The interrelationship of development at Upper Heyford with that of Bicester, connected by the B4030, will be considered carefully."*

"BIC2 – ***We will work to reduce the proportion of journeys made by private car by implementing a Sustainable Transport Strategy by****:*

- ***Growth at Upper Heyford*** *will need to be considered in terms of improved public transport frequency and connectivity with Bicester."*

2.3.5 The LTP4 recognises the importance of Travel Planning to encourage people to change their travel habits to ones which will cause fewer environmental problems. Travel Planning provides initiatives to increase levels of walking, cycling and use of public transport as appropriate, to bring about improved health and help towards the goal of reducing peak time traffic congestion.

2.3.6 Policy 34 of the LTP4 requires *"the layout and design of new developments to proactively encourage walking and cycling, especially for local trips, and allow developments to be served by frequent, reliable and efficient public transport."* This will be supported by the preparation of effective travel plans.

Cherwell Local Plan 2011-2031

2.3.7 Part 1 of the Cherwell Local Plan was re-adopted on 19th December 2016 and sets out how the district will grow and change up to 2031. It sets out the proposals for how they will develop and support the local economy, protect villages and strengthen town centres.

2.3.8 Section A sets out objectives for *'Ensuring Sustainable Development'* and lists Strategic Objectives such as:

- *"Strategic Objective 13. To reduce the dependency on the private car as a mode of travel, increase the attraction of and opportunities for travelling by public transport, cycle and on foot, and to ensure high standards of accessibility for people with impaired mobility; and*

- *Strategic Objective 14. To create more sustainable communities by providing high quality, locally distinctive and well-designed environments which increase the attractiveness of Cherwell's towns and villages as places to live and work and which contribute to the well-being of residents."*

2.3.9 Policy SLE 4: *Improved Transport Connections* details the Council's requirements of new developments in relation to transport connections. The policy states:

- *"All development where reasonable to do so, should facilitate the use of sustainable modes of transport to make the fullest use of public transport, walking and cycling."*

2.3.10 The Cherwell Local Plan lists former RAF Upper Heyford under *Section C.5 Our Villages and Rural Areas* and specifically in *Policy Villages 5: Former RAF Upper Heyford*. *Policy Villages 5* states that Heyford Park as a whole will provide a new settlement of approximately 1,600 dwellings (in addition to the 761 dwellings (net) already permitted) together with additional employment and supporting social and physical infrastructure, including the need to provide a local centre/hotel. Some of the key specific design and place shaping principles required of the development are:

- *"The settlement should be designed to encourage walking, cycling and use of public transport rather than travel by private car, with the provision of footpaths and cycleways that link to existing networks;*
- *Development should provide for good accessibility to public transport services; and*
- *A Travel Plan should accompany any development proposals."*

2.4 Relevance to the Proposed Development

2.4.1 The proposed development takes full account of the planning and transport policies identified above and the rest of this report demonstrates how the proposed development responds positively to these policies.

3 Existing and Proposed Conditions

3.1 Introduction

3.1.1 The following section sets out a description of the site location and local transport conditions at the Heyford Park development. It is broken down into existing, consented and proposed provision across the site.

3.1.2 "*Existing*" refers to any provision already built and operational, including provision associated with the 1,075 unit scheme, 60 unit scheme and 43 unit scheme. "*Consented*" refers to any provision that has been granted permission but has not yet been constructed / become operational. This may also include elements of the 1,075 unit scheme that have not been constructed at the time of writing of this Transport Statement (February 2019). "*Proposed*" refers to any provision that is proposed as part of the 1,175 unit scheme that forms the main part of the Local Plan allocation and is currently awaiting determination. Whilst these proposals are not guaranteed they are set out within this report in order to provide further context.

3.2 Site Location and Description

3.2.1 The Heyford Park site is located on the former RAF Upper Heyford site, which lies approximately 20km north of Oxford. The nearest towns to the site are Bicester, approximately 7.5km southeast of the site, Brackley approximately 13km northeast, and Banbury 16km to the north (all distances crow fly). **Figure 3.1** illustrates the site location at a strategic level.

3.2.2 Heyford Park offers a great range of infrastructure over a sizeable area due to its military history. Following the closure of the airfield (1994), most of the infrastructure has been retained, with some now used for commercial purposes, although some are also disused and derelict. The existing employment areas comprise some B1 use with predominantly B2 / B8 uses occupying the existing Flying Field Buildings. There are also around 300 dwellings formerly used by military personnel which are still in use on the site for residential purposes and a further 865 residential dwellings with consent currently being constructed.

3.2.3 The RAF Upper Heyford former airbase site covers a total area of 520 ha (1,285 acres) with several existing points of access along Camp Road.

3.2.4 The M40 forms part of the strategic route to London to the southeast and Birmingham to the northwest.

3.3 Local Highway Network

Existing Provision

Camp Road

3.3.1 Camp Road forms the arterial route through former RAF Upper Heyford and connects the wider site to Upper Heyford village, and Somerton Road / Station Road to the west and to the B340 in the east. An overview of the currently consented highway scheme for Camp Road is illustrated on Woods Hardwick **Drawings HEYF-5-514 Q, HEYF-5-515 P, HEYF-5-516 Q** and **HEYF-5-517 Q** at **Appendix B**. It should be noted that the scheme shown between the two red outlines on **Drawing HEYF-5-516 Q** is not a consented scheme and has since been superseded by proposals associated with the Village Centre in this location. These proposals are illustrated on Woods Hardwick **Drawing HEYF-5-232 F** at **Appendix C**.

3.3.2 Currently, Camp Road is approximately 6m wide where it passes through the existing development, with one lane in either direction for the majority of the carriageway, and reduction to single-lane operation at a number of locations which provides traffic calming features i.e. kerb extensions. Camp Road is restricted to a 30mph speed limit along its length. Street lighting is provided, and pedestrian footpaths are present along its length, although not all of the footways have been formally adopted and are therefore not maintained at public expense by the local authority.

3.3.3 Camp Road is in the process of being improved as part of S278 works associated with the consented 1,075 unit scheme. These works are shown on Woods Hardwick plans at **Appendix B**. These improvements include a shared surface area in close proximity to the existing main gate, which will be adjacent to the proposed village centre location.

Chilgrove Drive

3.3.4 Chilgrove Drive historically formed a connection between Camp Road and Somerton Road to the north of the airfield but was cut off when the airfield was developed, creating a no through road and forming an access to the airfield. In recent times the access to the airfield has been temporarily blocked up. The current Chilgrove Drive is a narrow rural road approximately 3.6m wide up to 70m north of its junction with Camp Road and is approximately 2.5m wide thereafter.

Unnamed Road (between Camp Road and B430 Ardley Road)

3.3.5 The Unnamed Road between Camp Road and B430 Ardley Road is a narrow rural road which runs east to west and connects Camp Road in the west to Ardley Road in the east. The carriageway is approximately 5.4m in the vicinity of the Camp Road junction and approximately 5.5m wide at the junction with Ardley Road. The road is subject to a 60mph speed limit from the Ardley Road junction until it reaches the Camp Road junction where it decreases to 30mph.

Unnamed Road (between Camp Road and B4030)

3.3.6 The Unnamed Road between Camp Road and B4030 is a narrow rural road which runs north to south and connects Camp Road in the north to the B4030 in the south. The carriageway is approximately 6.0m in the vicinity of the Camp Road junction and approximately 6.2m wide at the junction with the B4030. The road is subject to a 60mph speed limit from the B4030 junction until it reaches the Camp Road junction where it decreases to 30mph.

B4030 (between Unnamed Road and B430)

3.3.7 The B4030 between Unnamed Road and the B430 is a rural road which runs northwest to southeast and connects the Unnamed Road to the northwest to the B430 in the southwest. The carriageway is approximately 6.1m in the vicinity of both the Unnamed Road junction and the B430 junction. The road is subject to national speed limit from the Unnamed Road until the approach to the village of Middleton Stoney, where the speed limit is reduced to 30mph through the village.

B430

3.3.8 The B430 forms a north-south link between the M40 and the A34 Trunk Road at Weston-on-the-Green, providing access to other key destinations including Banbury and Oxford. To the north, the B430 terminates at Junction 10 of the M40 immediately north of the village of Ardley. The road is subject to a 60mph speed limit which decreases to 40mph through Ardley. To the south, the B430 terminates at the A34 Trunk Road. The road is subject to a 60mph speed limit until it reaches the village of Weston-on-the-Green where it decreases to 40mph through the village. The B340 meets the B4030 at a staggered crossroads in Middleton

Stoney, located around 3.0kms to the south east of former RAF Upper Heyford. The road through Middleton Stoney is subject to a 30mph speed limit.

Station Road

3.3.9 Station Road is a narrow road which runs north to south and connects Camp Road in the north to the B4030 in the south. The carriageway is approximately 6.2m in the vicinity of the Camp Road junction and approximately 6.1m wide at the junction with the B4030. The road is subject to a 30mph speed limit from the Camp Road junction before turning to national speed limit, the road is then restricted back to 30mph on the approach into Lower Heyford and the B4030 junction.

B4030 (Station Road to A4260)

3.3.10 The B4030 is a narrow rural road which runs east to west and connects Station Road in the east to the A4260 in the west. The carriageway is approximately 5.6m wide in the vicinity of the Station Road junction and approximately 6.3m in the vicinity of the A4260 junction. The road is subject to national speed limit.

Somerton Road

3.3.11 Somerton Road is a narrow rural road which provides a connection from Camp Road to the village of Somerton in the north. The road is subject to a 30mph speed limit through Upper Heyford which increases to national speed limit when leaving the village in either direction.

3.3.12 Somerton Road links to Station Road at the junction with Camp Road which continues to the B4030 which runs parallel to Camp Road and onwards to the A4260 to the west.

A4260

3.3.13 The A4260 connects Banbury in the north to Frieze Way near Oxford in the south and is a predominantly rural road. The road passes through the villages of Kidlington, Deddington and Adderbury. The carriageway varies in width and speed limit along its approximate 33km stretch.

Consented Provision

Camp Road / Chilgrove Drive

3.3.14 As part of the 1,075 unit scheme, a roundabout was consented at the Camp Road / Chilgrove Drive junction that would enable access to the flying field via Chilgrove Drive. In addition, an HGV access was to be located where the school is now situated. However, due to the ongoing development, the current local plan allocation and proposed masterplan, these consented schemes are no longer appropriate, and alternatives are proposed to support the current Local Plan allocation. The revised proposals are set out under “Proposed Provision” below.

Middleton Stoney

3.3.15 There is a committed Section 278 (S278) scheme for the Middleton Stoney junction that was secured as part of the Dorchester Group’s previously approved 1,075 unit scheme and is shown on Woods Hardwick Drawing HEY/5/582 C, which is provided at **Appendix D** The committed S278 scheme retains the existing signalised junction form but widens the B430 Oxford Road approach, providing a right turn flare for vehicles turning into B4030 Bicester Road and also provide a short right turn island for vehicles turning into B4030 Heyford Road. The committed S278 scheme provides a baseline infrastructure scheme for consideration of future needs at this location to support the current Local Plan allocation.

Proposed Provision

Camp Road / Chilgrove Drive Junction

3.3.16 It is proposed that a re-aligned Chilgrove Drive is re-opened to provide access to the existing and proposed employment opportunities on the Flying Field and to provide access to the proposed development area as part of the 1,175 dwelling scheme. The access will be provided in the form of a new signalised staggered T-Junction arrangement that will provide increased capacity compared to the existing priority junction in this location.

A4260 / B4027 Junction (Hopcrofts Holt)

3.3.17 Capacity improvements are proposed at the Hopcrofts Holt junction in the form of widened approaches / flare lengths and modifications to the signal arrangement at the junction as part of the 1,175 dwelling scheme.

B430 / Unnamed Road Junction

3.3.18 Capacity improvements are proposed at the B430 / Unnamed Road junction (located to the east of Camp Road and north of Middleton Stoney) through the introduction of traffic signals at the priority junction.

B430 / B4030 Junction (Middleton Stoney)

3.3.19 Dorchester are currently in discussions with OCC to agree a suitable mitigation package for the Middleton Stoney junction and work is on-going. At the time of writing (February 2019) a number of mitigation options are in the process of being tested to understand the relative effectiveness of each.

3.3.20 It is considered likely that in order to provide suitable mitigation at the junction, either a scheme will be identified that can be delivered by Dorchester or a contribution will be agreed towards a larger scheme that would be delivered by the Local Highway Authority.

M40, Junction 10 and Baynards Green Roundabout

3.3.21 Dorchester are currently in discussions with OCC and Highways England to agree a suitable mitigation package for the M40, J10 and Baynards Green Roundabout and work is on-going. At the time of writing (February 2019) a number of mitigation options have been tested to understand the relative effectiveness of each.

3.3.22 As with Middleton Stoney It is considered likely that in order to provide suitable mitigation at the junction, either a scheme will be identified than can be delivered by Dorchester or a contribution will be agreed towards a larger scheme that would be delivered by the Highway Authorities.

3.4 Walk and Cycle Provision

3.4.1 **Figure 3.2** illustrates the existing and consented pedestrian and cycling routes, along with the location of the nearest bus stops.

Existing Provision

3.4.2 Camp Road provides walk and cycle access from the proposed development towards Upper Heyford to the west, and commuting, education and leisure opportunities to the east.

3.4.3 There is a footpath running adjacent to Camp Road on the south side. This starts at the junction with Larsen Road, and runs all the way to the Kirtlington Road junction. Along its length, the footpath is separated from the carriageway by verge and hedgerow. Beyond Kirtlington Road, the path adjoins the southern side of Camp Road to become a footway, approximately 1m to 1.5m wide.

3.4.4 There is a footpath running adjacent to Camp Road on the north side. A 1-2m wide footpath begins at the junction with Larsen Road and runs up until the Main Gate access to Heyford Park. The footpath then continues from approximately 125m east of Dacey Drive for a further 300m to the west. There are no controlled pedestrian crossing points on Camp Road, however, dropped kerbs and tactile paving are provided to enable uncontrolled crossing via the splitter islands on the approaches to the Main Gate roundabout. This provides access to the main employment area and Heyford Park Free School. A zebra crossing has been provided in the Village Centre as part of S278 works at the site. Street lighting is provided on Camp Road for its entire length.

3.4.5 For the final 120m of Camp Road, towards Somerton Road and Upper Heyford at the western end of the road, there are footways on both sides of the road of between 0.5 and 1m width. It is therefore possible to walk from the proposed development site to the existing bus stops on Camp Road close to the Somerton Road junction.

3.4.6 There is a consented S278 scheme, currently under construction along Camp Road, which is set out in Woods Hardwick plans at **Appendix B.** This scheme will provide a footway on the northern side of Camp Road, separated from the road along much of its length by a verge retaining existing hedgerows. On the southern side of Camp Road, shared footway/cycleway is to be provided, separated from the carriageway in most places by a verge with trees planted. The footway is up to 2m to the north of Camp Road and the foot/cycleway is up to 3m to the south of Camp Road.

3.4.7 To the west of Heyford Park, in Upper Heyford Village, there is a footway of about 0.5m width on the east side of Somerton Road where it meets Camp Road. This runs for about 60 metres in a northerly direction, and then switches to the other side of the road. The footway / footpath runs to the end of the village of Upper Heyford in a northerly direction for another 300m. This provides access to The Barley Mow Public House and village allotments. There are no footways/footpaths along Station Road from the junction with Camp Road.

3.4.8 There are a number of existing Public Rights of Way (PRoWs) criss-crossing the local area and these existing rural links are made up of the following:

- A network of public footpaths and bridleways to the south and east of the site linking Camp Road to Caulcott to the south, and Ardley at the northeast of the site;
- A network of public footpaths and bridleways to the northern perimeter of Heyford Park linking Fritwell with Somerton; and
- A network of public footpaths and bridleways to the south and west of the site linking Upper Heyford, Lower Heyford and Steeple Aston.

3.4.9 Historically, there were a number of PRoWs crossing Heyford Park, but some of these were curtailed when the site came into military use, circa 1915.

3.4.10 The key routes which were curtailed when the site came into military use include:

- Portway – a bridleway to the west of the runway running in a north – south direction; and
- Aves Ditch – a bridleway to the east of the runway running in a north – south direction.

3.4.11 In addition, there were two further historical routes crossing Heyford Park, one running in a southwest – northeast direction (on the approximate alignment of the existing runway) and one running in a northwest – southeast direction crossing the runway.

3.4.12 There are no dedicated cyclepaths or cycleways in the local area, other than that proposed along the north side of Camp Road as part of the consented scheme. The closest National Cycle Network (NCN) route is NCN 5, the West Midlands Cycle Route which connects Reading to Bangor through Oxford. The route can be accessed off A4260 Banbury Road, about 7.5km west of Heyford Park. However, being a rural area, traffic is light and therefore most cyclists use the local road network.

Consented Provision

3.4.13 As part of the consented development at the Former RAF Upper Heyford some of the original PRoWs on the site will be reinstated / re-routed and improvements will be made to connections to existing PRoWs elsewhere. In addition, the consented housing will be connected by a network of new walk and cycle links penetrating the residential areas and providing a permeable site which facilitates and encourages walking and cycling within the local area. The existing and consented walking and cycling provision is shown at **Figure 3.2**.

3.4.14 Reinstating the Portway and Ave's Ditch form part of the consented 1,075 scheme. These routes are illustrated on **Figure 3.2**. However, reinstating Ave's Ditch and Portway will not provide access to the flying field due to the need to retain security fencing; rather they will just pass around/through it.

3.4.15 The realignment of Ave's Ditch facilitates the opportunity for further enhancement of surrounding routes, for example, an extension of the existing bridleway 109/29 is proposed to the southeast of the Aves Ditch re- alignment.

3.4.16 The consented walking and cycling improvements as part of the 1,075 scheme also include funding towards the 'Heritage Trail' which will be a circular route around the flying field utilising improved existing off-site public footpaths (some of which are not in Dorchester Group control) providing east-west links with the circular route being complete in the north-south direction with the Portway and Ave's Ditch routes reinstated.

3.4.17 Likewise, a potential link from the southern residential area south of Camp Road connecting to the existing footpath 388/4 may be delivered by OCC as part of the existing S106 works.

3.4.18 As well as the off-road PRoWs, low levels of traffic in the predominantly rural area currently allow the potential for additional routes for walkers, cyclists and equestrians along the highway network. The Developer cannot commit to upgrading existing footpaths or changing footpaths to bridle paths across land not in their ownership, however, funding has been provided as part of the approved 1,075 scheme to OCC to enable joining up of the network in the local area. Additional contributions may be required as part of the new 1,600 dwellings Local Plan allocation application to achieve further connections.

Proposed Provision

3.4.19 The proposed walk and cycle strategy is illustrated on **Figure 3.3**. In combination with the infrastructure set out above, the proposed 1,175 unit and 296 unit schemes gives a high priority to walking and cycling and provides for:

- An extensive network of foot and cycle connections across the Heyford Park site;
- The completion of a foot / cycle corridor along Camp Road between Kirtlington Road in the west and Chilgrove Drive in the east; and

- Softer measures including a bike hire / pool scheme, a bicycle user group, a cycle repair scheme and adult cycle training sessions.

3.5 Public Transport

3.5.1 **Figure 3.2** illustrates the route of the local bus services; location of the nearest bus stops to the site; and Heyford and Bicester Rail Stations.

Bus

3.5.2 Heyford Park is currently served by one bus service, the 250, which runs between Oxford and Bicester, via Heyford Park along Camp Road. There are a number of bus stops located on Camp Road, as shown on **Figure 3.2.**

3.5.3 As part of the Section 106 for the consented 1,075 scheme, Dorchester Group funded an hourly bus service between Bicester and Heyford Park to complement and augment the then-existing hourly service operated by Thames Travel, thereby providing a half-hourly bus service over that section. Subsequently funding for the existing service was withdrawn by Oxfordshire County Council who are currently using the Dorchester Group funding to maintain the existing hourly service. At the time of writing, bus service number 250 is operated by Thames Travel. This service and its frequency is set out in **Table 3.1** and shown on **Figure 3.2**.

Table 3.1: Local Bus Services and Frequencies

Service/ Operator	Route	Frequency		
		Monday – Friday Daytime	Saturday Daytime	Sunday Daytime
250 Thames Travel	Oxford – Kirtlington – **Upper Heyford** – Bicester	Approximately every hour between 0541-1953	Approximately every hour between 0620-1937	No service

Note: Bus routes and frequencies correct as at February 2019

Rail

3.5.4 The nearest railway stations to the development are Heyford Station which is located approximately 3.3km south west of the site and Bicester North and Bicester Village which are located approximately 8km south east of the site.

3.5.5 Great Western Railways operate the line from Heyford Station which runs from Banbury to Oxford. Services are provided approximately every 90-120 minutes with reduced services on Sundays. From Oxford, there are onward direct connections to London Paddington. The journey time from Heyford to Banbury is approximately 18 minutes and to Oxford is approximately 16 minutes. The service from Heyford Station is summarised in **Table 3.2**.

Table 3.2: Train Services from Heyford and Frequencies

Operator	Route	Frequency	
		Mon – Sat	Sundays
Great Western Railways	Didcot Parkway – Oxford – **Heyford** – Banbury	120 mins with additional peak trains	None

3.5.6 Chiltern Railways operate both Bicester North and Bicester Village stations. Bicester North provides a service between London Marylebone and Banbury approximately every 60 minutes and a service between London Marylebone and Birmingham Snow Hill approximately every 60 minutes. The services are summarised in **Table 3.3**.

Table 3.3: Train Services from Bicester North and Frequencies

Operator	Route	Frequency	
		Mon – Sat	Sundays
Chiltern Railways	London Marylebone – Beaconsfield – High Wycombe – **Bicester North** – Banbury	60 mins	60 mins
Chiltern Railways	London Marylebone – **Bicester North** – Banbury – Leamington Spa – Warwick Parkway – Solihull – Birmingham Snow Hill	60 mins	60 mins

3.5.7 Bicester Village Station provides a service between London Marylebone and Oxford approximately every 30 minutes. The service from Bicester Village is detailed in **Table 3.4.** This service was introduced by Chiltern Rail in December 2016 following an upgrade to the Oxford to Bicester Village line as part of Phase 1 of the Western Section of East West Rail (see below).

Table 3.4: Train Services from Bicester Village and Frequencies

Operator	Route	Frequency	
		Mon – Sat	Sundays
Chiltern Railways	London Marylebone – High Wycombe* – **Bicester Village** – Oxford Parkway - Oxford	30 mins	30 mins

*Certain journeys only

Future Provision

3.5.8 East West Rail is a project to establish a railway connecting East Anglia with central, southern and western England. The project is split into a western, central and eastern section. As noted above, Phase 1 of the western section covers oxford to Bicester Village. Phase 2 of the western section comprising the route from Bicester Village to Bedford via Bletchley, Woburn Sands and Ridgmont is due to open in 2022.

3.5.9 The central and eastern sections of the project will provide connections to Cambridge, Ipswich and Norwich. Previously these areas were only accessible via London, but the project will enable direct connection cross-country. The central section of the project is anticipated to be in operation by 2030. A study has been undertaken to identify future rail enhancement schemes as options for investment and delivery for the eastern section, it is not yet known when the eastern section will be in operation. The project will afford greater connectivity and the opportunity to reach further destinations from Bicester Village.

Proposed Heyford Park Proposals

3.5.10 The exact details of the proposed public transport improvements to support the Local Plan allocation are still being agreed with OCC. However, at the time of writing it is considered that the proposals are likely to include an upgrade to the bus service to Bicester and retention of the current hourly service to Oxford.

Bicester Service

3.5.11 It is proposed to operate a frequent daytime service to Bicester on Monday to Saturday with operating hours that facilitate commuting to and from London by rail. It is also proposed to operate a lower frequency Sunday service. The Monday to Saturday daytime frequency of the service is likely to start with a half hourly service that is increased to a 20 minute, and potentially 15 minute service as the development is built out and patronage increases. The route would run between Heyford Park and Bicester Village Station, with Middleton Stoney and Bicester Town centre served on the route.

Oxford Service

3.5.12 It is proposed to operate an hourly daytime service to Oxford on Monday to Saturday, following the route of the current service 250 between Oxford and Upper Heyford. The route could terminate at Upper Heyford or alternatively, there is the possibility of running the Oxford service directly through to Bicester, thereby removing the need to transfer between the two buses.

Bus Stops

3.5.13 Bus stops would be provided within 400m of the majority of homes and employment opportunities proposed at the Heyford development (excluding those located on the flying field for security and operational reasons). It is proposed that the stops would be DDA / Equality Act compliant and provide shelter, seating and timetable information. Real time information will be provided by way of a phone application and on screens at the main bus stops at the development.

3.6 Local Facilities

3.6.1 There are a variety of local facilities, either consented or proposed, as part of the Heyford Park masterplan. These facilities are illustrated on **Figure 3.4** with indicative walk / cycle distances shown. Details of the facilities are provided below.

3.6.2 Higher order services are located in the nearby towns of Bicester, Oxford, and Banbury and can be accessed by bus, train or car dependant on the activity being undertaken. The site lies approximately 7.5km north west of Bicester, 20km north of Oxford and 16km south of Banbury.

Retail

Consented

3.6.3 There are a range of food and non-food retail opportunities consented as part of the Heyford Park masterplan in the Village Centre, located close to the centre of the development area and split between the north and south of Camp Road. The Village centre area is currently under construction.

Education

Consented

3.6.4 There is an existing and operational school on the Heyford Park site serving both primary and secondary school students, known as Heyford Park Free School, and a nursery. The Free School is located on two campuses; one to the north of Camp Road, just to the east of the Village Centre and one south of Camp Road and east of the Phase 9 development area. The nursery is located to the north of Camp Road on the western edge of the development area.

Proposed

3.6.5 It is proposed to expand the existing Heyford Park Free School to provide:

- Additional school buildings and facilities located at the existing Campus to the south of Camp Road; and
- Additional school buildings located to the north of Camp Road, close to the proposed Flying Field Park.

3.7 Local Facilities

Leisure

Consented

3.7.1 There are several consented leisure facilities at the development as follows:

- A sports centre / gym with sports pitches which are located at the school campus to the south of Camp Road, except for a cricket pitch which is located to the south of the Village Centre;
- A boutique hotel (16 beds) with associated bowling alley which is located to the south of Camp Road as part of the Village Centre;
- A pub / restaurant which is located to the south of Camp Road as part of the Village Centre; and
- A heritage centre which is located to the north of Camp Road as part of the Village Centre.

Proposed

3.7.2 It is proposed to provide further leisure facilities at Heyford Park as set out below:

- The Flying Field Park, Control Tower Park and Visitor Destination Area will contain open space, an observation tower and ancillary visitor facilities. The Flying Field Park will be located to the north of Camp Road between the main development area and flying field. It is proposed that the Heritage Centre is relocated to this area of the development;
- A Community Centre and / or indoor sports provision is to be located south of the school campus to the south of Camp Road; and
- An outdoor sports park will be located in the south west corner of the development area.

Healthcare

Consented

3.7.3 There are no consented healthcare facilities on site.

Proposed

3.7.4 A new medical centre and dentist (670m^2) is proposed to be located to the north of Camp Road, close to the Village Centre. 60 close care dwellings are proposed to be located to the north of the Village Centre.

Employment

Consented

3.7.5 There are 1,700 jobs currently consented, the majority of which are located on the Flying Field located to the north of the site and accessed via Gate 7 at the western edge of the development area. Some of the jobs are located in the development area to the north of the Village Centre.

Proposed

3.7.6 It is proposed to provide a further 1,500 jobs across the Heyford Park site as part of the current Local Plan allocation, the majority of which will be located in the Creative City and Commercial Areas to the west of Chilgrove Drive. As part of the proposed development it is proposed to relocate access to the Flying Field from Gate 7 to Chilgrove Drive at the eastern edge of the development area.

3.8 Personal Injury Collision Data

Background

3.8.1 Personal Injury Collision (PIC) data was obtained from Oxfordshire County Council, the local Highway Authority, for a five-year and two-month period between 1st January 2012 to 28th February 2017 comprising a total of 62 months. The PIC data was collected to establish the existing highway safety in the vicinity of the site, identify any highway safety issues and include improvement measures where necessary.

3.8.2 The PIC study area includes key local links and junctions. The area extends south from Camp Road and includes strategic corridors such as the B430, A43 and A4260 as well as local roads such as Camp Road, the B4030 and Station Road. The links and junctions assessed is shown in **Figure 3.5**. The full report can be found in **Appendix E**.

Methodology

3.8.3 The PIC data assessment provides an overview of the number and severity of accidents and a summary of the vulnerable road users involved in the casualties. The assessment also compares the number of observed PICs against the predicted number of PICs that could be expected for the time period when the observations were recorded (5 years, 2 months), in accordance with the Department for Transport's '*Design Manual for Roads and Bridges, Volume 13'*. The calculations are based on variables including observed AADT traffic flow, road speed, length of road section and type of road.

Accident and Casualty Overview

3.8.4 A total of 107 collisions were observed in the study area. Of the observed incidents:

- 1 was classified as a fatal collision;
- 18 were classified as serious collisions; and
- 88 were classified as slight collisions.

3.8.5 There were 147 casualties as a result of the 107 collisions. Of these 147 casualties, 20 involved vulnerable road users. Vulnerable road users are classed as pedestrians, cyclists and powered two wheeled vehicles (P2W). A summary of the casualties by severity involving vulnerable road users is presented in **Table 3.5** below.

Table 3.5: Summary of Vulnerable Road User Casualties by Severity

	Fatal	Serious	Slight	Total
Pedestrian	1	1	1	3
Cycles	0	0	2	2
P2W	0	9	6	15
Total	**1**	**10**	**9**	**20**

Predicted Personal Injury Collisions

3.8.6 As stated above, the number of observed PICs has been compared against the predicted number of PICs which have been calculated using the Department for Transport's '*Design Manual for Roads and Bridges, Volume 13'* for the same five-year period. The tables below provide a comparison of links and junctions and observed PICs against their predicted PICs.

Link Collisions

3.8.7 **Table 3.6** below shows that one link is identified as having a notably higher than anticipated incident rate (Link 31, identified in red), three links are identified as having one more incident than anticipated, although this is not considered to be of significance (Links 17, 18 and 30, identified in orange). The observed records on all other links were equal to, or lower than, those anticipated.

Table 3.6: Summary of Observed and Anticipated Personal Injury Collisions on Links (5 years)

Link Reference	Link Description	Link Length (km)	Observed PICs	Anticipated PICs
1	A4260 Oxford Road - N Aston Rd (J14) to dualling of A4260	0.53	0	1
2	A4260 Oxford Road - Dualling of A4260	1.45	3	3
3	A4260 Oxford Road - End of dualling to Fenway	0.48	1	1
4	A4260 Oxford Road - Fenway to Hopcrofts Holt (J15)	1.10	1	4
5	A4260 Banbury Road - Hopcrofts to Unnamed Road (J16)	2.60	5	10
9	B4030 - Hopcrofts Holt (J15) to station entrance	1.75	1	3
10	B4030 - Station entrance to south of Hillside Barn	0.40	0	3
11	B4030 - South of Hillside Barn to south of Heyford Vegan B&B	0.37	0	1
12	B4030 - South of Heyford Vegan B&B to B4030/Freehold St junction (J11)	0.17	0	0
14	Station Rd - Freehold St junction (J11) to Camp Road	1.35	1	1
15	Camp Road - Somerton Road to Chilgrove Dr	2.11	3	6
16	B4030 - B4030/Freehold St junction (J11) to B4030 Lower Heyford Road/Unnamed Rd junction (J9)	3.49	6	6
17	Unnamed Road - Camp Road to B4030 Lower Heyford Road	1.20	2	1
18	B4030 - B4030/Unnamed Rd junction (J9) to Middleton Stoney Road junction (J6)	1.25	3	2
19	Unnamed Road - Camp Road to B430/Unnamed Road junction (J5)	1.5	1	1
20	B430 - B430/Unnamed Road junction (J5) to north of Middleton Stoney	1.4	1	5
21	B430 - Middleton Stoney residential area	0.8	1	9
26	B430 - B430/Unnamed Road junction (J5) to south of Ardley	1.4	4	6

Link Reference	Link Description	Link Length (km)	Observed PICs	Anticipated PICs
27	B430 - Ardley residential area	0.7	2	3
28	B430 - Ardley residential area to A43/B430 (Ardley) Roundabout (J2c)	0.2	0	1
29	A43 - A43/B430 (Ardley) Roundabout (J2c) to A43/Services Roundabout (J2b)	0.25	1	1
30	A43 - A43/M40 onslip/Services Roundabout (J2b) to A43/M40 offslip Roundabout (J2a)	0.2	2	1
31	A43 - A43/M40 offslip Roundabout to A43/B4100 Roundabout (J3)	0.6	8	4
32	M5 - north of slip road	0.3	5	5
33	M5 - between slip roads	1.5	5	22
34	M5 - northbound onslip	0.4	2	2
35	M5 - southbound onslip	0.7	1	2

Notes: Link only rates have also been calculated for roads where there are no adjoining junctions along its length. Collisions within 20m of the major junctions identified in this table have been allocated to the junctions. Any other collision occurring at minor unspecified junctions are allocated to the link in question. The link rates have therefore been calculated as a combined link and minor junction personal injury collision rate apart from those identified separately in the table above.

3.8.8 **Table 3.6** shows that the observed PICs were equal to, or less than, the anticipated PICs on all Link References except links 17, 18, 30 and 31. As the number of anticipated PICs on Link Reference 17, 18 and 30 was only slightly higher than that observed, analysis will focus on Link Reference 31 only.

3.8.9 On Link Reference 31 'A43 - A43/M40 off-slip Roundabout to A43/B4100 Roundabout (J3)', 8 accidents occurred when 4 were anticipated. It was observed that:

- All accidents were classed as slight;
- Three accidents were caused by careless driving or drivers being distracted; and
- Five accidents were rear shunts due to slow moving or stationary traffic.

3.8.10 It is considered that mitigation for the link will be provided as part of the improvements that are currently being discussed with OCC and HE for M40 junction 10 as part of the mitigation for the Local Plan allocation.

3.8.11 **Table 3.7** below shows that the observed records at all junctions were equal to, or lower than, those anticipated.

Table 3.7: Summary of Observed and Anticipated Personal Injury Collisions at Junctions (5 years)

Junction Reference	Junction Description	Observed PICs	Anticipated PICs
1	Camp Road / Chilgrove Drive	1	3
2a	M40 Junction 10 Southbound Off-slip/A43 Roundabout	3	55
2b	M40 Junction 10 Southbound On-slip/A43/Services	5	40
2c	M40 Junction 10 Northbound slips / A43 / B430 (Ardley) Roundabout	1	34
3	A43 / B4100 Roundabout	13	39
5	B430 / Unnamed Road Junction	1	4
9	B4030 Lower Heyford Road / Unnamed Road	1	4
12	B4030 / Portway Junction	3	5
13	B4030 / Freehold St	1	3
15	Hopcroft Holt	5	16

Notes: Link only rates have also been calculated for roads where there are no adjoining junctions along its length. Collisions within 20m of the major junctions identified in this table have been allocated to the junctions. Any other collision occurring at minor unspecified junctions are allocated to the link in question. The link rates have therefore been calculated as a combined link and minor junction personal injury collision rate apart from those identified separately in the table above.

4 Development Proposals

4.1 Development Proposals

4.1.1 The Location Plan for this full application highlights that development is proposed to take place on land both north and south of Camp Road. The application accounts for 57 units, 16 of which are consented as part of the 60 and 1,075 unit schemes and therefore there are 41 new units to be developed across three phases within previously consented plots. **Table 4.1** below shows the application for the proposed development.

Table 4.1: Planning Application Proposals

Location Plan Reference	Summary of Development Proposals	Relevant Planning Application
Trenchard	31 Dwellings (14 of which already consented under 1,075 unit scheme), comprising of 28 3-bed and 3 4-bed dwellings	Plot and 14 dwellings previously consented as part of 10/01642/OUT
Phase 5D	11 Dwellings (originally part of a Reserved Matters Application, now part of a Full Application), comprising seven 3-bed and four 4-bed	Plot previously consented as part of 10/01642/OUT and 13/01811/OUT
Phase 8C	15 Dwellings in 2 blocks of apartments (2 of which already consented under 1,075 units scheme), comprising of 12 1-bed and 3 2-bed dwellings	Plot and 2 dwellings previously consented as part of 10/01642/OUT

4.1.2 This Transport Statement has been based on the proposals above and as outlined on the location plan at **Figure 1.1.**

4.2 Proposed Vehicular Access

Trenchard

4.2.1 It is proposed that vehicles will access and egress the plot via Trenchard Circle and Larsen Road which connects to Camp Road to the south. Trenchard Circle provides a road that loops around the existing buildings to the east of the proposed Trenchard Phase and back to Larsen Road, enabling vehicles to access and egress from the site without having to turn around, if necessary. A swept path analysis, included at **Appendix F**, indicates that 'estate' cars, fire tenders and refuse vehicles will be able to manoeuvre around this site and with the ability to turn around near the pumping station, at the north-west corner of the site, if necessary.

Phase 5D

4.2.2 For Phase 5D plots 17 and 18, are accessed via several footway crossover junctions located to the south of Camp Road. The other proposed plots in Phase 5D are all accessed via the wider site's internal road system, with plots 8-13 being accessed from the road along the plots southern boundary and plots 14-16 accessed from Dow Street which runs along the western edge of the Phase's boundary. Swept path analysis, included at **Appendix F**, shows that cars can access and egress the parking bays of each parcel.

Phase 8C

4.2.3 It is proposed that vehicles will access a car park, servicing all units, via a small priority junction onto/from the internal road network of the wider site, which runs along the Phase's south-western boundary. A swept path analysis, included at **Appendix F**, indicates that an estate car can access, turn and egress within the car park.

4.3 Internal Road Layout

Trenchard

4.3.1 The internal road layout remains unchanged from the consented scheme.

4.3.2 A two metre wide footway is provided along the roads western edge, connecting to the existing footway on Larsen Road.

Phase 5D

4.3.3 The internal road layout remains unchanged from the consented scheme.

Phase 8C

4.3.4 The internal road layout remains unchanged from the consented scheme.

4.4 Proposed Car Parking

4.4.1 Vehicular Parking will be provided in accordance with the latest OCC parking standards (maximum) which were provided to PBA by OCC in January 2018. The parking standards for residential dwellings are described in **Table 4.2.**

Table 4.2: OCC Residential Car Parking Provision

No. of beds	OCC Policy Requirement	Trenchard		5D		8C	
		No. of units	No. of spaces	No. of units	No. of spaces	No. of units	No. of spaces
1 bed	1 space	-	-	-	-	12	12
2/3 bed	2 spaces	28	62 (Inc. 7 garages)	7	15 (Inc. 1 garage)	3	3
4+ bed	2+ spaces	3	8 (Inc. 3 garages	4	10 (Inc. 4 garages)	-	-

Trenchard

4.4.2 For the proposed units at Trenchard, a total of 70 car parking spaces are to be provided for the residential units, plus five visitor parking spaces. As shown in **Table 4.2,** 62 parking spaces – seven of which are garages – will be provided for the 28 two and three bed units. For the four bed units, eight spaces are provided, three of which are garages.

Phase 5D

4.4.3 For the proposed additional units at Phase 5D, a total of 25 parking bays are to be provided. 20 of these are parking bays and five are garages for units 14-18. This is in accordance with the guidance set out in Table 4.2.

4.4.4 Visitor spaces are provided in the adjoining plot.

Phase 8C

4.4.5 For the proposed additional units at Phase 8C, a total of 19 car parking spaces are to be provided, four of which are visitor parking spaces. This is in accordance with the guidance set out in **Table 4.2**.

4.5 Proposed Cycle Parking

4.5.1 Cycle parking will be provided in accordance with the latest OCC parking standards (minimum), which were provided to PBA by OCC in January 2018. The cycle parking standards for residential dwellings are described in **Table 4.3.**

Table 4.3: OCC Residential Cycle Parking Provision

No. of beds	OCC Policy Requirement	Trenchard		5D		8C	
		No. of units	No. of spaces	No. of units	No. of spaces	No. of units	No. of spaces
1 bed	1 space	-	-	-	-	12	12
2+ bed	2 spaces	31	62	11	22	3	6

Trenchard

4.5.2 Cycle parking will be provided within the curtilage of individual dwellings, either within garages or rear gardens. A minimum of 62 cycle spaces will be provided.

Phase 5D

4.5.3 Cycle parking will be provided within the curtilage of individual dwellings, either within garages or rear gardens. A minimum of 22 cycle spaces will be provided.

Phase 8C

4.5.4 A total of 18 cycle parking spaces are to be provided in dedicated cycle stores on the ground floor.

4.6 Servicing

Trenchard

4.6.1 Refuse and recycling will be collected from the kerbside. Swept path analysis included at **Appendix F** demonstrates that a refuse vehicle can access the site.

Phase 5D

4.6.2 No bin stores are located within the Phase's boundary, therefore individual household refuse will be collected from the kerbside.

Phase 8C

4.6.3 A bin store is located within the apartment block and swept path analysis indicates a refuse vehicle will be able to pass by the area in which it is located, as shown at **Appendix F**. The bin store is located within the maximum walking distance for refuse collectors, as set out in Manual for Streets.

5 Assessment Methodology and Development Impact

5.1 Forecast Trip Generation and Mode Split

5.1.1 Trip rates have been discussed with OCC previously as part of the Transport Assessment that was prepared to assess the full Heyford Park Local Plan Allocation (PBA, April 2018). For the purpose of this Transport Statement, for consistency and robustness, the sensitivity trip rates agreed with OCC are the trip rates that have been used for this assessment and the same methodology for calculating the trip rates have been applied.

5.1.2 For clarity the trip rates and mode split calculations that were used in the Local Plan Allocation TA are replicated below. The sensitivity person trip rates are shown in **Table 5.1** below. Details of the TRICS data used to obtain the person trip rates are provided in **Appendix G**.

Table 5.1: TRICS Person Trip Rates

Land Use	Time Period	Arrivals	Departures	Total
Residential (per dwelling)	AM Peak Hour	0.268	0.825	1.093
	PM Peak Hour	0.548	0.283	0.831

5.1.3 It was considered that these residential trip rates need to be split by journey purpose in order to accurately reflect the mode splits and trip distributions of the different journey purposes. The splits of residential journey purposes were calculated based on TEMPro data for the Zone E02005930: Cherwell 010 (illustrated on **Figure 5.1**). The splits are set out within **Table 5.2** and a summary of the calculations used are provided at **Appendix H**.

Table 5.2: Residential Journey Purpose Split

Journey Purpose	AM Peak	PM Peak
Residential – Employment	43.3%	34.6%
Residential – Education	29.3%	7.9%
Residential – Other	27.4%	57.6%
Total	**100%**	**100%**

5.1.4 A mode split was calculated for residential development traffic for each journey purpose as follows:

- Residential to employment: based on 2011 Census journey to work data for the MSOA E02005930: Cherwell 010, (illustrated on **Figure 5.1**); and
- Residential to education and residential to other: based on TEMPro 7.1 data for the Zone E02005930: Cherwell 010 (illustrated on **Figure 5.1**).

5.1.5 While these sources of modal split data were considered to be the most suitable for breaking down the multi-modal trip generation of the residential aspect of the development, at a scoping meeting held on 1st February 2017, OCC requested the provision of alternative modal splits for comparison purposes. These additional modal splits have been obtained and are shown alongside PBA's proposed figures in order to provide validation and confirm that they are appropriate to be used within the analysis.

Residential to Employment

5.1.6 The agreed mode split for residential to employment trips is summarised in **Table 5.3** and **Appendix H**.

Table 5.3: Modal Splits for Residential to Employment Trips

Mode	TEMPro	Census	Heyford Park TP Survey
Car Driver	**80.3%**	80.6%	84.8%
Car Passenger	**9.2%**	4.5%	12.8%
Cyclist	**1.5%**	1.2%	0.3%
Pedestrian	**5.0%**	5.0%	0.9%
Public Transport	**4.1%**	8.7%	1.3%
Total	**100%**	100%	100%

5.1.7 The TEMPro 'home based work' trip purpose data was chosen as being most appropriate for this journey purpose. The 2011 Census data and results of the 2014 Travel Plan survey completed by existing employees at Heyford Park was used to validate the proposed modal split taken from the 2017 TEMPro outputs. It was considered that all three modal splits were broadly comparable, particularly in terms of the percentage of car drivers. While the 2014 Travel Plan survey data seemed to suggest a slightly greater level of car drivers than the other data sources, this is most likely associated with the nature of the existing business types operating from the development and is unlikely to be replicated by residents on site. The Census data was considered to have too high a public transport mode split.

Residential to Education

5.1.8 The mode split for residential to education trips is summarised in **Table 5.4** and **Appendix H**.

Table 5.4: Proposed Mode Split for Residential to Education Trips

Mode	TEMPro		NTS
	AM	PM	
Car Driver	**19.8%**	**34.4%**	23.0%
Car Passenger	**44.6%**	**36.4%**	23.9%
Cyclist	**1.2%**	**1.0%**	1.8%
Pedestrian	**23.0%**	**20.0%**	37.2%
Public Transport	**11.4%**	**8.1%**	14.2%
Total	**100%**	**100%**	100%

5.1.9 In order to validate the residential to education modal splits extracted from TEMPro for the Cherwell 010 zone, reference was made to the National Travel Survey.

5.1.10 It was considered that the mode split data from TEMPro differs in the AM and PM peak hours because this data is for the network peak periods (07:00 – 10:00 and 16:00 – 19:00). In the AM peak this is likely to encompass the majority of trips to education. In the PM peak the majority of education trips are likely to have already passed as schools tend to finish before the network peak period begins. The few remaining trips in the PM peak will be associated with after school clubs etc. and it is likely that any school transport (bus etc) may not be available at this time, this would account for a higher car mode share in this PM peak.

5.1.11 The proposed TEMPro modal split was broadly validated by the comparison of the National Travel Survey data, especially for car driver trips. On the basis of the lack of local context associated with the National Travel Survey, the TEMPro modal split was considered the most appropriate to inform this aspect of the traffic impact analysis.

Residential to Other

5.1.12 The mode split for residential to other trips is summarised in **Table 5.5** and **Appendix H**.

Table 5.5: Mode Split for Residential to Other Trips

Mode	TEMPro		TRICS	
	AM	PM	AM	PM
Car Driver	**52.0%**	**48.0%**	60.6%	61.6%
Car Passenger	**31.3%**	**34.8%**	17.1%	21.6%
Cyclist	**1.6%**	**2.7%**	1.4%	2.0%
Pedestrian	**11.6%**	**10.5%**	19.4%	13.8%
Public Transport	**3.4%**	**4.0%**	1.5%	1.2%
Total	**100%**	**100%**	100%	100%

5.1.13 In order to provide some validation of the modal split taken from TEMPro for the Cherwell 010 zone, reference was made to the modal split associated with the multi-modal trip generation within the TRICS database. It was considered that the TRICS modal split is broadly comparable albeit with a slightly higher car driver modal share. However, the TRICS modal split related to all trip purposes and furthermore, given that TEMPro data reflected local conditions within the vicinity of Heyford Park, it was considered that the proposed TEMPro figures were the most appropriate for this trip purpose.

Resultant Trip Rates for all Modes

5.1.14 Applying the journey purpose splits and mode splits to the person trip rates, the trip rates for all modes are calculates and set out within **Table 5.6**.

Table 5.6: Residential Trip Rates

	Time Period	Arrivals	Departures	Total
Person Trip Rates (per dwelling)	AM Peak Hour	0.268	0.825	1.093
	PM Peak Hour	0.548	0.283	0.831
Vehicle Trip Rates (per dwelling)	AM Peak Hour	0.147	0.452	0.599
	PM Peak Hour	0.319	0.165	0.483
Public Transport Trip Rates (per dwelling)	AM Peak Hour	0.016	0.050	0.066
	PM Peak Hour	0.024	0.012	0.036
Pedestrian Trip Rates (per dwelling)	AM Peak Hour	0.032	0.100	0.132
	PM Peak Hour	0.051	0.026	0.078
Cyclist Trip Rates (per dwelling)	AM Peak Hour	0.004	0.012	0.016
	PM Peak Hour	0.012	0.006	0.018

Trip Summary

5.1.15 The trip rates set out within **Table 5.6** have been used to calculate the trip generation of the development and this is set out within **Table 5.7**. The trip generation has been based on the impact of 41 new residential units. Although a total of 57 total units are proposed on the site, 16 of these are already consented for development as part of previous applications. Therefore, for the avoidance of double counting, these have been discounted from the trip generation calculations found within this Transport Statement. Therefore, the net trip impact of the proposals have been considered.

Table 5.7: Full Trip Generation for the Proposed Additional 41 units at Heyford Park

Mode	All Purposes					
	AM Arrivals	AM Departures	AM Total	PM Arrivals	PM Departures	PM Total
Car Driver	6	19	25	13	7	20
Car Passenger	3	9	11	6	3	9
Cyclist	0	0	1	0	0	1
Pedestrian	1	4	5	2	1	3
Public Transport	1	2	3	1	1	1
Total	11	34	45	22	12	34

5.1.16 **Table 5.7** demonstrates that up to 25 two-way vehicle trips could be associated with the proposed 41 net new dwellings. This comprises 10 two-way trips associated with the Trenchard phase, seven with Phase 5D, and eight with Phase 8C in the AM peak. This is considered to provide a robust assessment given the use of the previously agreed sensitivity trip rates.

5.2 Forecast Trip Distribution

5.2.1 A distribution profile for the trips generated by the additional 41 units has been derived from the 'Do Nothing' SATURN model that was prepared as part of the testing of mitigation options for the Middleton Stoney junction associated with the Local Plan allocation. It is considered that this model provides a robust assessment of traffic flows and models the distribution of traffic associated with Heyford Park in a 2031 forecast year. The 'Do Nothing' scenario includes the full Heyford Park development including consented uses and proposals associated with the Local Plan allocation, but no highway mitigation is included in this model run.

5.2.2 The development flows have been extracted from the model and a simple distribution model has been generated that identifies the two-way movements of traffic using key links on the road network between the site and key local junctions. These junctions include:

- M40, Junction 10 and Baynards Green Roundabout;
- B430 Ardley Road / Unnamed Road;
- B430 / B4030 Middleton Stoney signalised junction; and
- A4260 / B4030 Hopcrofts Holt signalised junction.

5.2.3 The proportion of development trips that use each junction has been calculated. This calculates the impact of the proposed development on the key local junctions.

5.2.4 The percentage of development traffic forecast to impact on each of the mitigated junctions is set out in **Table 5.8**, for both AM and PM peak hours.

Table 5.8: Trip Distribution Percentage Impact

Junction Name	Development Impact %	
	AM Peak	PM Peak
M40 J10 / Baynards Green Roundabout	37%	35%
Ardley Road / Unnamed Road	48%	48%
Middleton Stoney	38%	40%
Hopcrofts Holt	3%	3%

5.2.5 **Table 5.8** demonstrates the percentage impact the proposed development will have on key local junctions. The largest impact is at the Ardley Road / Unnamed road junction directly to the east of the site. This junction forms one of the key access routes to and from the site from Bicester and the M40 and therefore is expected to experience the largest impact as a result of the development.

Development Impact

5.2.6 The vehicle trip generation figures set out in **Table 5.7** have been applied to the distribution set out in **Table 5.8**. This demonstrates the impact in vehicles that are forecast at each of the junctions. The results are set out in **Table 5.9** below. It should be noted that there is some double counting of trips within **Table 5.9** due to vehicles travelling through one junction and onto the next, therefore these values do not sum to the totals shown in **Table 5.7**.

Table 5.9: Development Impact

Junction Name	Development Impact (Vehicles)	
	AM Peak	PM Peak
M40 J10	9	7
Ardley Road / Unnamed Road	12	10
Middleton Stoney	9	8
Hopcrofts Halt	1	1

5.2.7 **Table 5.9** demonstrates that the proposed development of an additional 41 dwellings will have a negligible impact on the key local junctions. The largest impact is forecast at the Ardley Road / Unnamed Road junction, with 12 vehicles during the AM peak and 10 vehicles during the PM peak. This equates to approximately one additional vehicle every 5 and 6 minutes in the AM and PM peaks respectively.

5.2.8 The results of this assessment show that the impact of the proposed development will have a minimal impact at the junctions. The mitigation schemes that are currently being delivered as part of the consented applications along with those currently being negotiated with OCC and HE as part of the mitigation for the Local Plan allocation are considered suitable to accommodate the small increase in trips generated by the net increase of 41 units.

6 Travel Plan

6.1.1 Full Travel Plans are being prepared for the existing development (i.e. any development already built), consented development (i.e. any development granted planning permission, but not yet built or complete) and proposed development (i.e. development associated with the 1600 dwellings / 1500 jobs Local Plan allocation). The current proposals will be covered by the full Residential Travel Plan.

6.1.2 The Residential Travel Plan will set out a suite of measures, targets and strategies to encourage the reduction of single occupancy private car trips associated with the proposed development as well as providing measures to reduce single car occupancy trips in the surrounding areas adjacent to the site. The Travel Plan will be a working document, given that the proposals will have a build out period of a number of years. The Travel Plan will be regularly monitored, reviewed and updated as the site develops, as part of a commitment to ensuring traffic impacts from the development are minimised, and that emerging and new technologies and travel practices are fully considered.

6.1.3 The Travel Plan will set out holistic packages of measures tailored to the needs and travel behaviours of residents on the site, based on current knowledge and technology, designed to reduce single occupancy car use associated with the proposed development by supporting and providing alternative forms of transport and reducing the need to travel where possible and practical. These measures will be integrated into the design, marketing, and occupation phases of the site. The Travel Plan will also assist in minimising localised levels of traffic congestion and improving the environmental quality of the area in line with local and national policy aims and objectives.

6.1.4 The Residential Travel Plan will provide an anticipated baseline modal split calculated using the person trips rates included in this document along with supporting calculations derived from Census and School NTS data.

6.1.5 The Travel Plan will include initial targets with an on-going commitment to re-survey, and to work towards the targets set, or revised targets as necessary, as the site continues to be developed.

7 Conclusions

7.1 Summary and Conclusions

7.1.1 Peter Brett Associates, now part of Stantec (PBA) have been commissioned by Dorchester Group to provide highway and transport advice in support of a full planning application for 57 residential dwellings at Heyford Park near Bicester, Oxfordshire.

7.1.2 This Transport Statement has provided an overview of the proposed development and an assessment of the transport impacts of the proposed development.

7.1.3 The development phases are located within the wider Heyford Park development, with access to existing, consented and proposed sustainable transport connections and local facilities.

7.1.4 Vehicle and cycle parking are provided in accordance with OCC parking standards, and the proposed internal site layouts are appropriate to accommodate refuse and emergency vehicles.

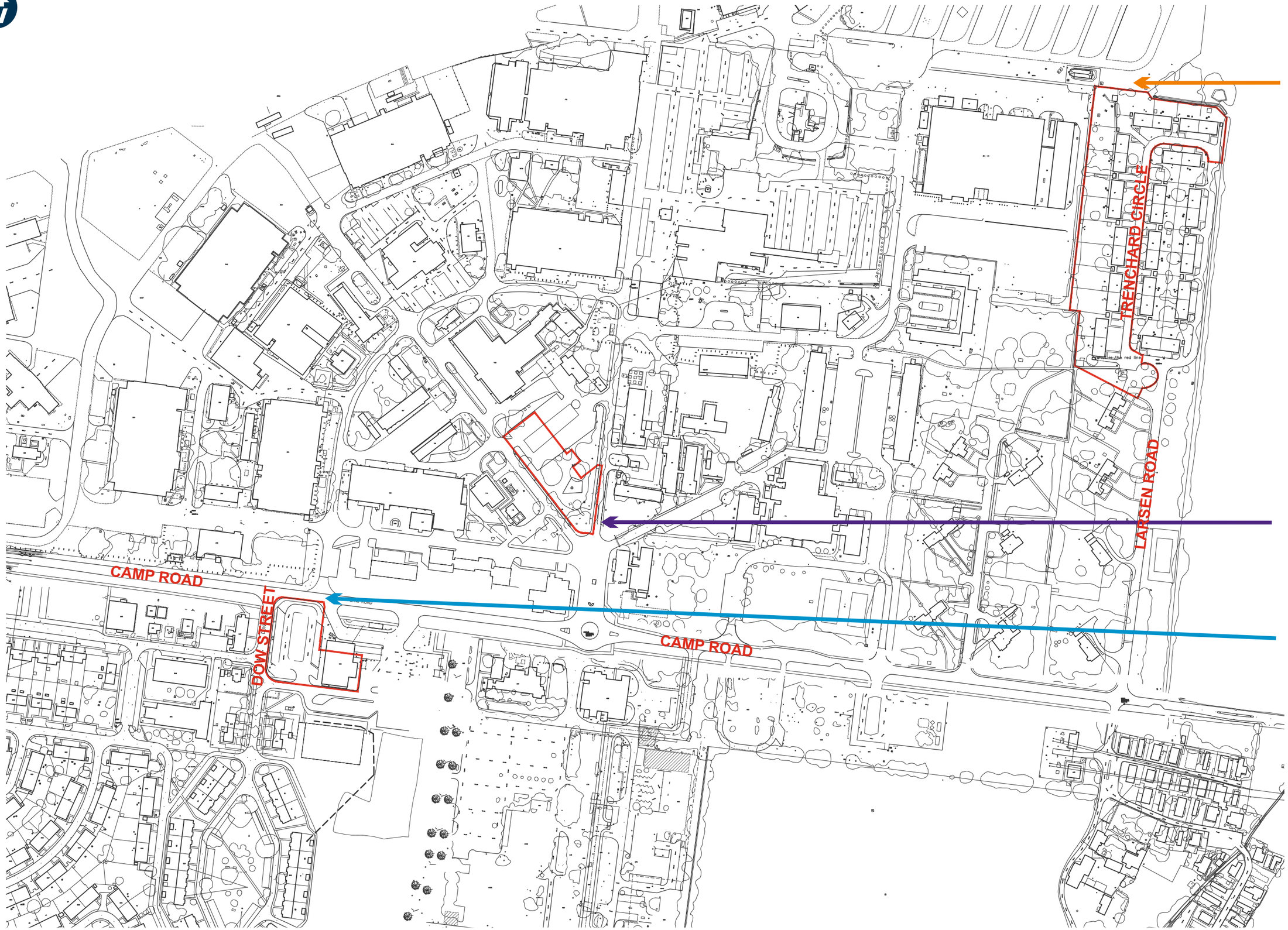
7.1.5 Local network analysis demonstrates that the proposed 57 dwellings (41 net new dwellings) have a negligible impact on the local and strategic highway network and can be accommodated without the need for additional mitigation beyond current commitment s supporting the S106 agreement for the 1,075 unit consented scheme.

7.1.6 It is therefore proposed that the development provides a contribution towards transport infrastructure on a roof tax type basis towards measures associated with the 1,075 unit consented scheme at the Heyford Park development.

7.1.7 The proposed development will be covered by the Residential Travel Plan that is in place for the consented 1,075 unit scheme. This includes measures, initiatives and targets for reducing single occupancy car trips to and from the site.

7.1.8 It is concluded that there is no material reason as to why the development cannot proceed on highway and transport grounds.

Figures



Trenchard:
-31 dwellings
-14 of which are consented under '1,075' application

Phase 8C:
-15 dwellings in two blocks of apartments
-2 flats are part of '1,075' S106 unit numbers

Phase 5D:
-11 dwellings

Dorchester Group

Heyford Park - Phases 5D, 8C and Trenchard

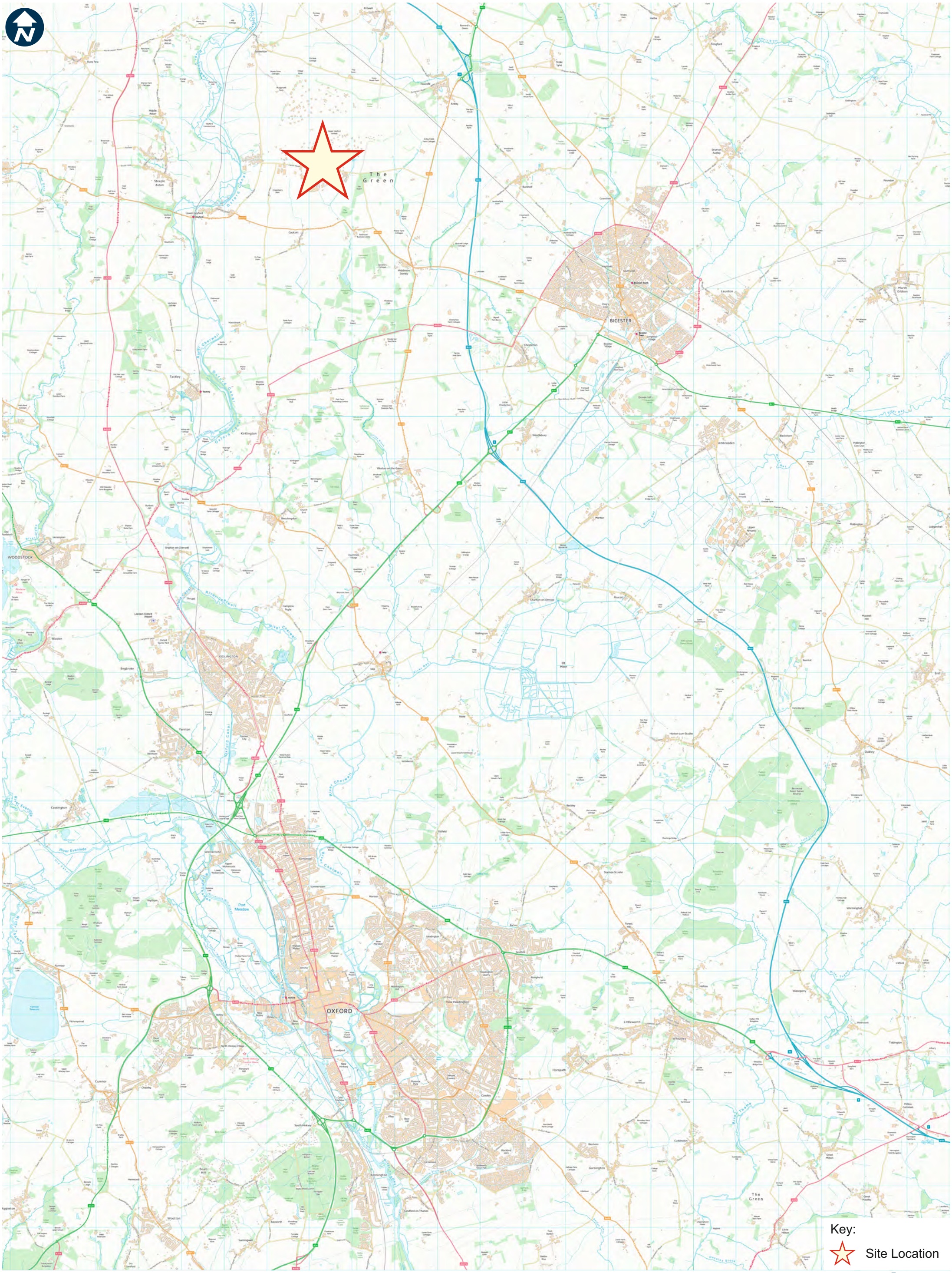
Transport Statement

Local Site Location Plan

Drawing: Figure 1.1
Date: 2019/02/14
Drawn by: AA
Checked by: JP

pba peterbrett now part of Stantec

J:\39304 Heyford Park Tranche 2\Technical\Corel\Transport Statement\Figure 1.1



Dorchester Group

Heyford Park - Phases 5D, 8C and Trenchard

Transport Statement

Site Location Plan

Drawing: Figure 3.1
Date: 2019/02/14
Drawn by: AA
Checked by: JP

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J:\39304 Heyford Park Tranche 2\Technical\Corel\Transport Statement/Figure 3.1 - Site Location Plan

KEY:

- EXISTING FOOTPATHS
- EXISTING BRIDLEWAYS
- RESTRICTED BYWAY
- CONSENTED SEGREGATED CYCLE ROUTE
- CONSENTED BRIDLEWAY
- BUS ROUTE 250 (OXFORD TO BICESTER)
- APPROX. BUS STOP LOCATIONS
- HEYFORD RAIL STATION

Upper Heyford Airfield

Upper Heyford

Lower Heyford

Dorchester Group

Heyford Park - Phases 5D, 8C and Trenchard

Transport Statement

Existing and Consented Public Transport, Walking and Cycling Provision

Drawing: Figure 3.2
Date: 2019/02/14
Drawn by: AA
Checked by: JP

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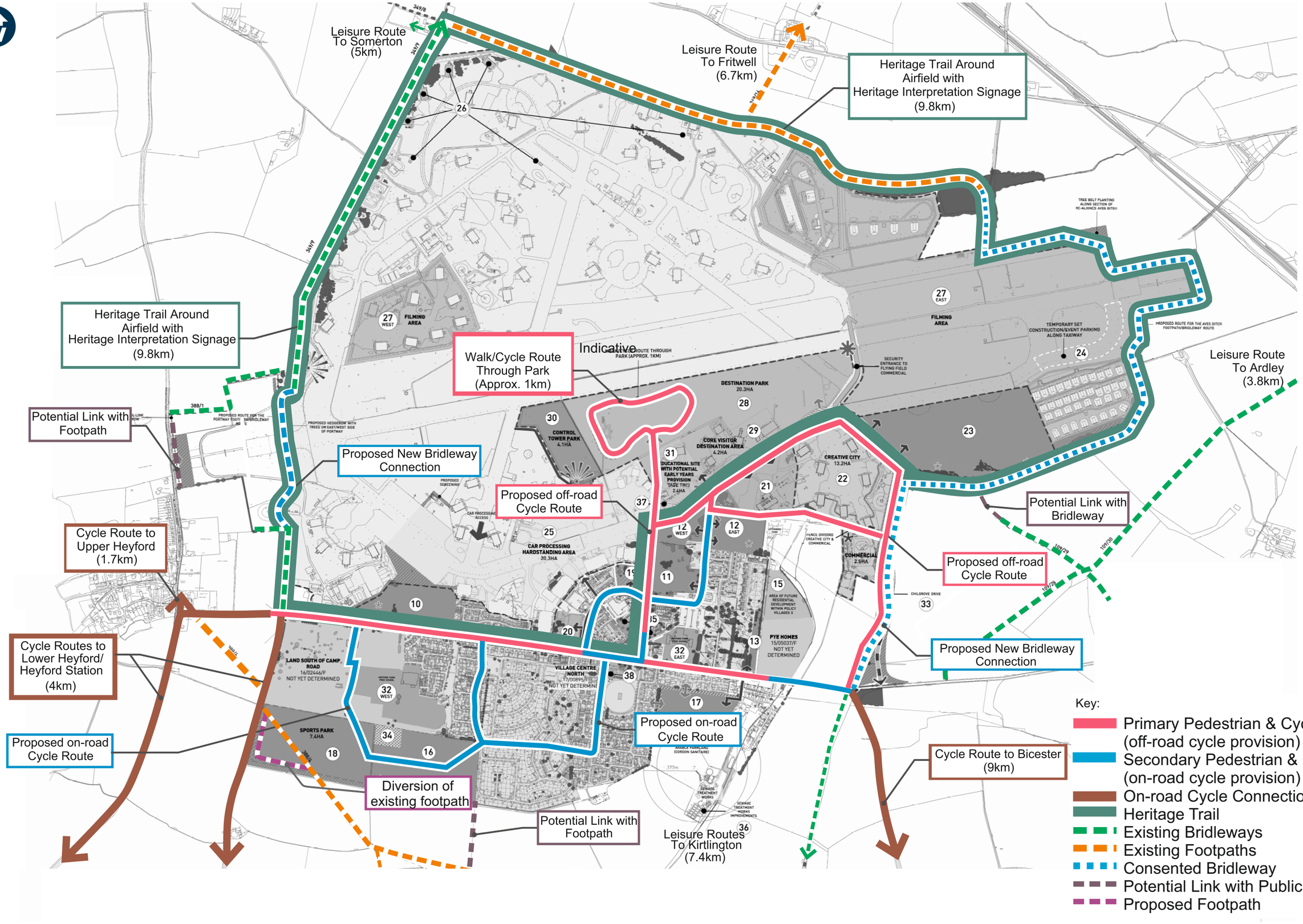

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Background image reproduced from "Draft Composite Parameter Plan" P16-0631_08D, issued 05.06.2017 by Pegasus

Heyford Park - Phases 5D, 8C and Trenchard

Transport Statement

Walking and Cycling Strategy

Drawing: Figure 3.3
Date: 2019/02/18
Drawn by: AA
Checked by: JP

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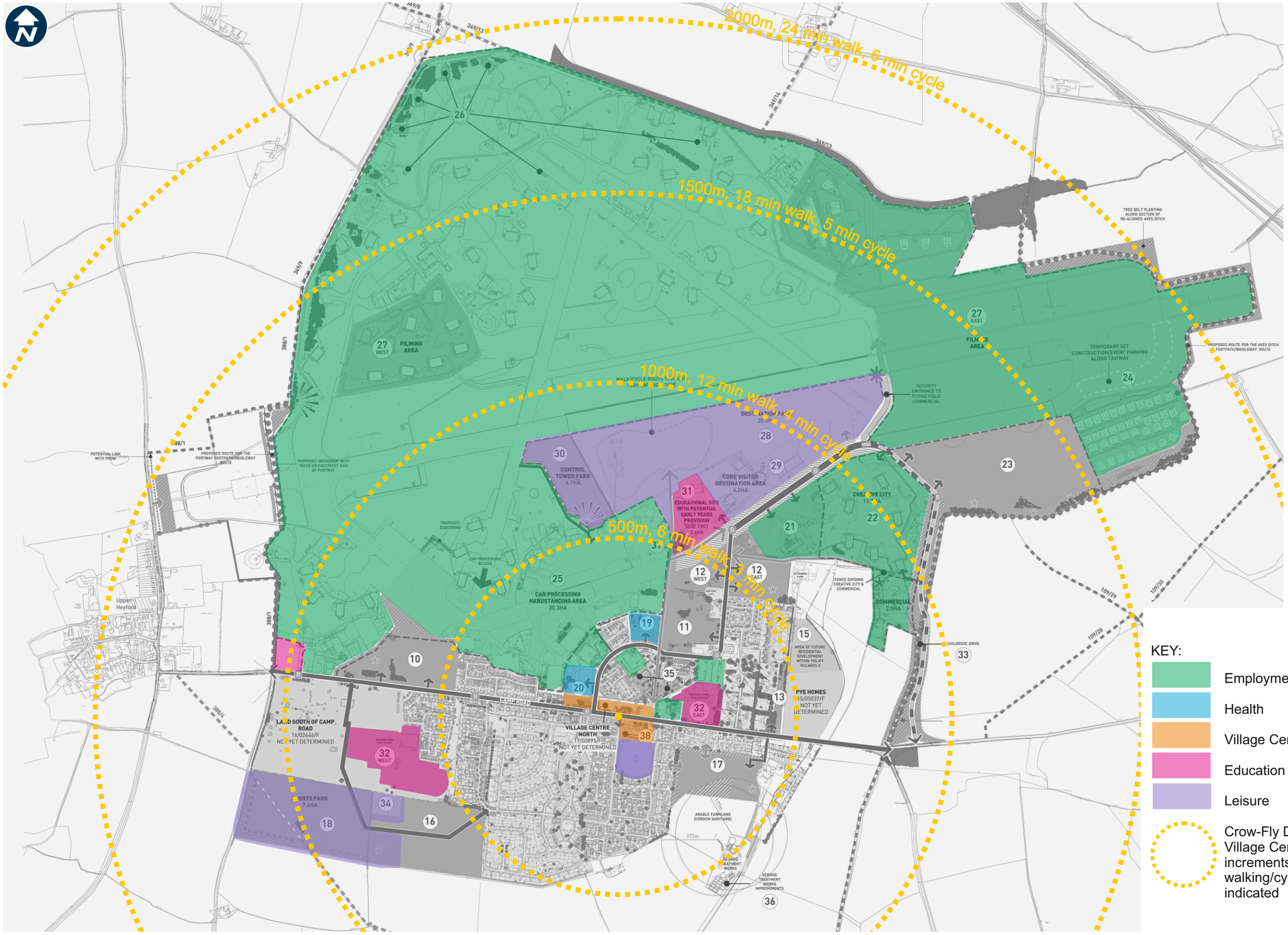
J:\39304 Heyford Park Tranche 2\Technical\Corel\Transport Statement\Figure 3.3



KEY:

- Employment
- Health
- Village Centre (Retail/Leisure)
- Education
- Leisure
- Crow-Fly Distance from Village Centre, in 500m increments with average walking/cycling speed indicated

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Heyford Park - Phases 5D, 8C and Trenchard

Transport Statement

Consented and Proposed Local Facilities

Drawing: Figure 3.4
Date: 2019/02/14
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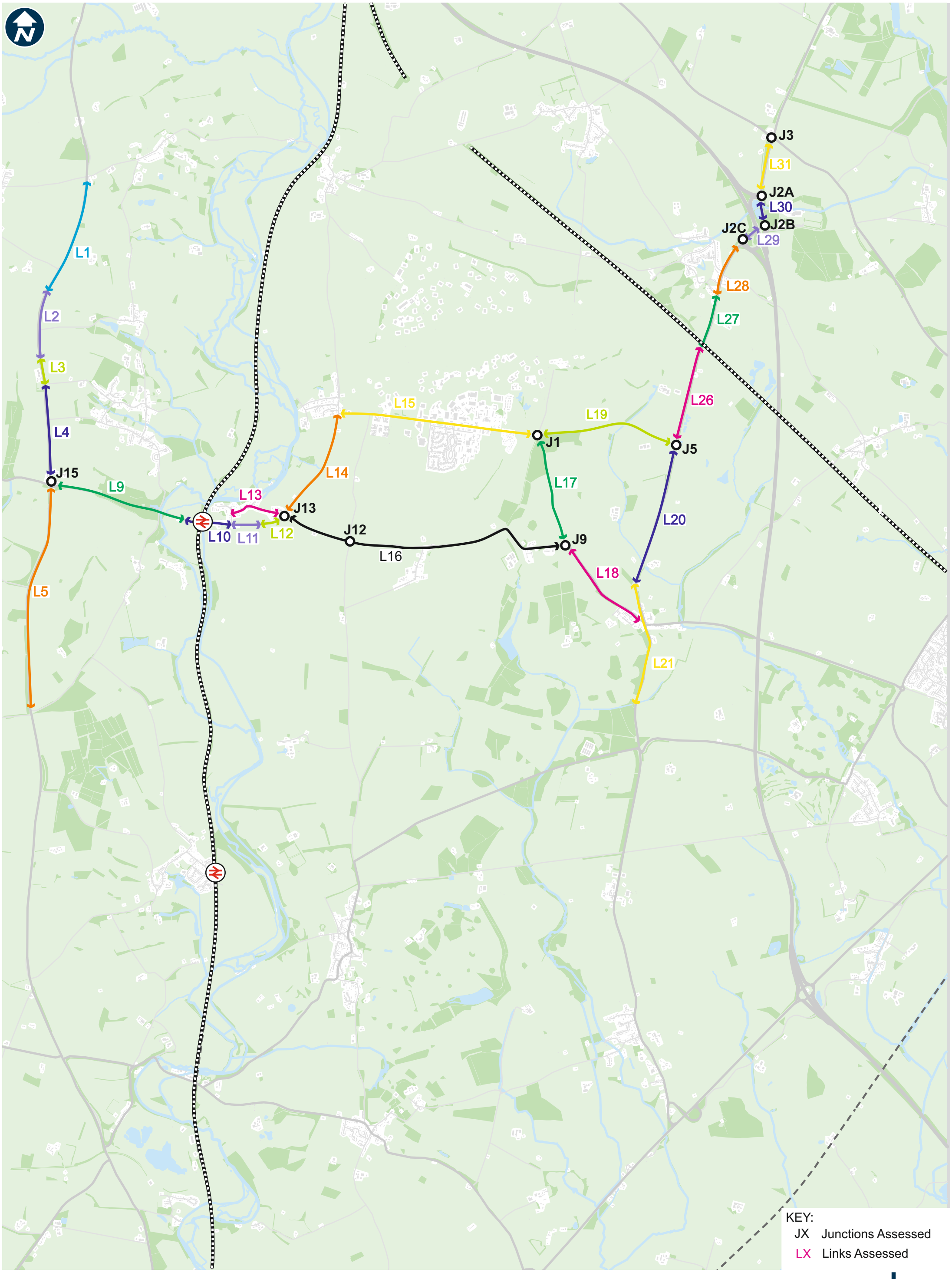

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Heyford Park - Phases 5D, 8C and Trenchard

Transport Statement

Personal Injury Collision Data Link and Junction Analysis

Drawing: Figure 3.5
Date: 2019/02/14
Drawn by: AA
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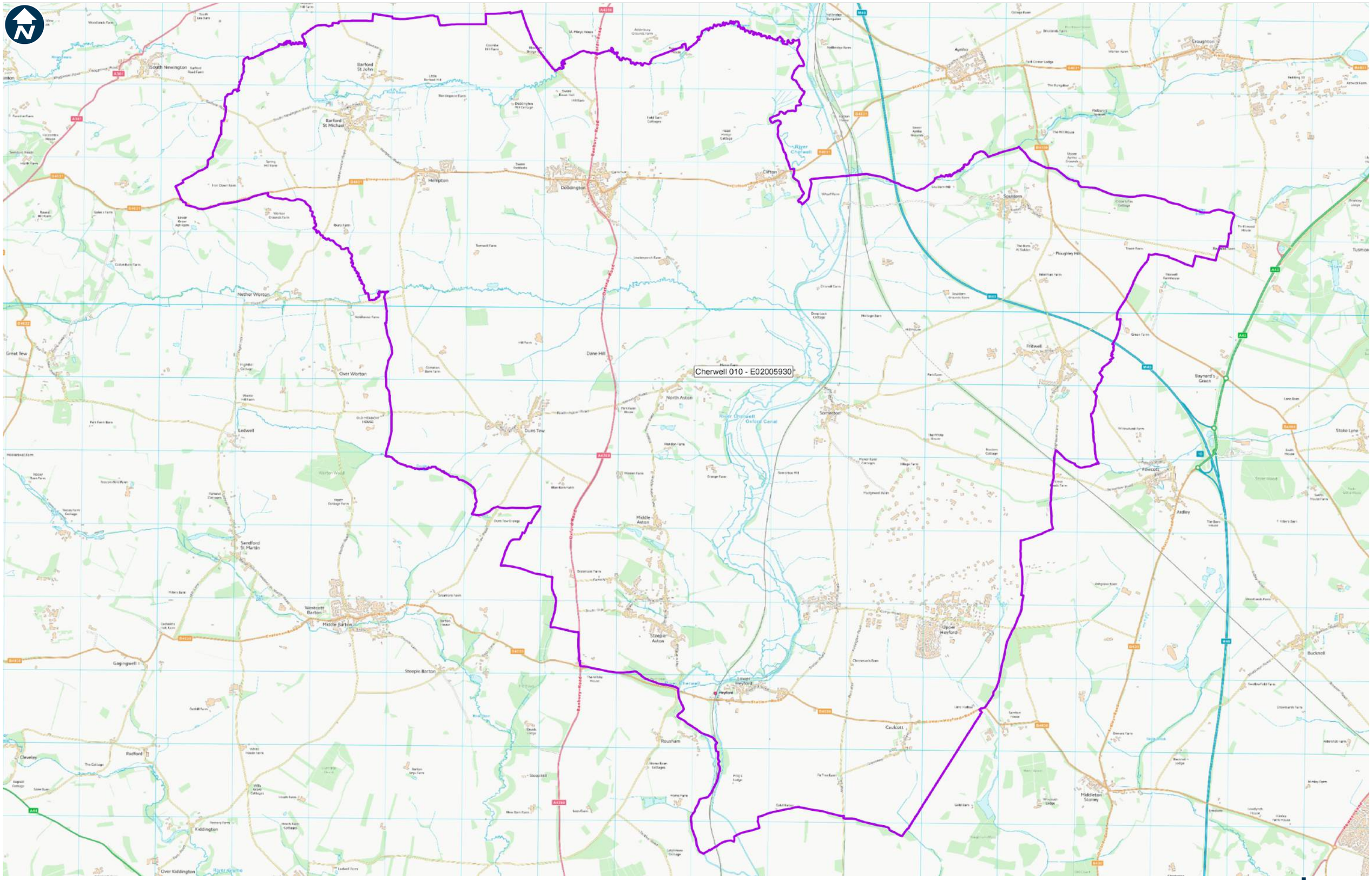
J:\39304 Heyford Park Tranche 2\Technical\Corel\Transport Statement\Figure 3.5



Client Logo

Heyford Park - Phases 5D, 8C and Trenchard

Transport Statement

Census MSOA/Tempro Zone “Cherwell 010"

Drawing: Figure 5.1
Date: 2019/02/14
Drawn by: AA
Checked by: JP

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J:\39304 Heyford Park Tranche 2\Technical\Corel\Transport Statement\Figure 5.1

Appendix A Focus Design Planning Layouts

Appendix B Woods Hardwick Drawings HEYF-5-514Q, HEYF-5-515P, HEYF-5-516Q, HEYF-5-517Q

Appendix C Woods Hardwick Drawing HEYF-5-232F

Appendix D Woods Hardwick Drawing HEYF-5-582C

Appendix E Personal Injury Collisions Report

Appendix F Focus Design Swept Path Assessments

Appendix G TRICS Report

Appendix H Mode Split Calculations