

FULL PLANNING APPLICATION FOR UP TO 300 RESIDENTIAL  
DWELLINGS (USE CLASS C3), TOGETHER WITH ASSOCIATED WORKS

LAND SOUTH WEST OF CAMP ROAD  
HEYFORD PARK, OXFORDSHIRE

**ENVIRONMENTAL STATEMENT  
NON TECHNICAL SUMMARY:  
AS AMENDED BY SUPPLEMENTARY  
ENVIRONMENTAL INFORMATION 2018**

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PREPARED BY PEGASUS GROUP ON BEHALF OF HEYFORD INVESTMENTS LP  
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FIGURE 1.1 – SITE LOCATION

# 1. INTRODUCTION

- 1.1 Heyford Investments LLP (the Applicant) submitted a planning application to Cherwell District Council (CDC) in December 2016 for 297 residential dwellings and associated works on land to the south west of Camp Road, Heyford Park, Oxfordshire; the reference for that planning application is 16/02446/F (see **Figure 1.1** Site Location Plan). The planning application was supported by an Environmental Statement and Non Technical Summary (ES 2016).
- 1.2 Consultee feedback to planning application 16/02446/F has been received and accordingly, minor changes have been made to the proposed detailed layout and mix of development in response, reducing the proposed number of dwellings for which planning permission is sought to 296. Further information regarding traffic and transport and cumulative developments has also become available and is presented in the Supplementary Environmental Information (SEI) to the Environmental Statement. Notwithstanding the reduced number of proposed dwellings, the SEI continues to assess a 'worst case' scenario of 'up to 297 residential dwellings'.
- 1.3 This document updates the Non Technical Summary (NTS) of the ES 2016 to describe the minor changes and to include the findings of the SEI.
- 1.4 The proposals comprise the demolition of the derelict class room blocks, central single storey school building, associated structures, hardstanding areas and a series of interconnecting internal access roads and footpaths. The site has been unused for c.20 years. Following this clearance, 297 new residential dwellings, which will be a mix of affordable housing and open market, two new access points off Camp Road and one off Izzard Road, areas of Public Open Space, footpaths, parking, landscaping and other associated works will be constructed.
- 1.5 The planning application seeks 'full' planning consent for the proposal. Therefore, the planning application is supported by a bundle of plans that specify the details of the application, such as locations and orientation of dwellings, detailed design of new access onto the highway and proposed landscaping. If approved, any consent would require the site to be built 'as shown' in the application plans.
- 1.6 The ES is a document that sets out the findings of an Environmental Impact Assessment (EIA). An EIA is a process for identifying the likely significance of environmental effects, both positive and negative, that may occur as a result of a Proposed Development. The EIA has been undertaken alongside a number of supporting technical studies, which together have been used to inform the design of the Proposed Development.
- 1.7 The EIA has not been assessed using the detailed plans. It has instead been completed using a 'Parameter Plan'. This Parameter Plan has defined the major design elements and limits of the development, such as demolition, building footprints and heights, areas for access roads and landscaping. By completing the ES against these major design elements it ensures that if the detailed design has to alter during the planning application process, the Environmental Statement remains accurate, ensuring that the effect of the Proposed Development is correctly assessed.

1.8 The full findings of the EIA are presented in a comprehensive set of documents that should be available to view at the offices of Cherwell District Council. The contact details are:

Planning Department  
Cherwell District Council  
Bodicote House  
Bodicote  
Banbury  
Oxfordshire  
OX15 4AA

Telephone: (01295) 227001

Email: [planning@cherwell-dc.gov.uk](mailto:planning@cherwell-dc.gov.uk)

1.9 Copies of the original NTS and/or this SEI NTS (no charge), and/or the ES 2016 Main Report, Figures and Appendices (£75 plus postage), and/or SEI 2018 Main Report, Figures and Appendices (£35 plus postage), or a digital copy of all these documents in CD format (£10 plus postage) are available from:

Pegasus Group  
Pegasus House  
Querns Business Centre  
Whitworth Road  
Cirencester  
Gloucestershire  
GL7 1RT

Tel: 01285 641717

Email: [Cirencester@pegasusgroup.co.uk](mailto:Cirencester@pegasusgroup.co.uk)

1.10 Quoting: CIR.D.0358

## 2. APPROACH TO ENVIRONMENTAL ASSESSMENT

- 2.1 The EIA identified and assessed the likely significance of effects on the environment during both the construction of the residential development and associated works, and when they are occupied (i.e. during 'operation').
- 2.2 The ES sets out the findings of the EIA, providing the data used to identify and assess any environmental effects, and a description of the measures proposed to avoid, reduce or remedy, if possible, any identified significant negative effects.
- 2.3 The EIA considered the following environmental themes:
- Socio Economics;
  - Transport and Access;
  - Noise and Vibration;
  - Air Quality;
  - Water Resources and Flood Risk;
  - Ground Conditions and Contamination;
  - Landscape and Visual Amenity;
  - Ecology and Nature Conservation; and
  - Archaeology and Cultural Heritage.
- 2.4 The potential environmental effects and the evaluation of their significance were carried out in accordance with the relevant industry standards and legislation where available. Where such standards and legislation did not exist the assessment was carried out based on available knowledge and professional judgement.
- 2.5 Assumptions regarding other Proposed Developments that may in combination with the Proposed Development lead to cumulative effects have changed since submission of the ES 2016, and so this has been updated and reported in the SEI. Several small changes have been made to the cumulative sites, but the main change relates to comprehensive mixed development as proposed by the recently submitted Heyford Masterplan planning application (reference 18/00825/HYBRID). The location of the cumulative sites in relation to the Application Site are shown on Figure 2.1: Cumulative Plan.

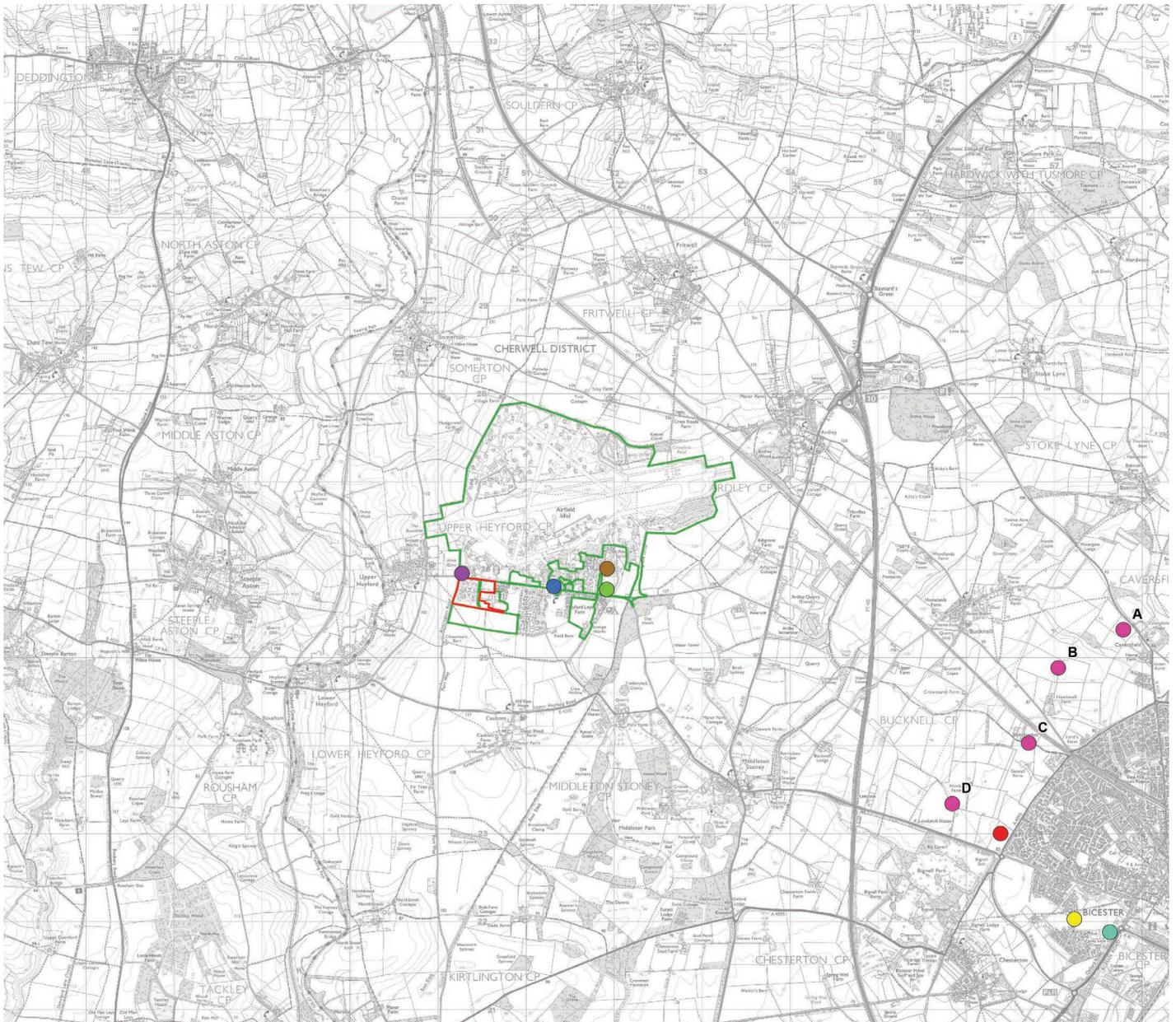


FIGURE 2.1 CUMULATIVE PLAN

## Cumulative Assessment

- 2.6 Within the ES each environmental topic considers the cumulative effect of the Proposed Development taking place as well as a number of other Proposed Developments within the local area. The methodology for deciding which developments (both approved, pending determination or yet to be determined) were to be included within the cumulative assessment has been presented to CDC. For the purpose of the Environmental Statement, each environmental topic has considered the same projects within their Cumulative Assessment.
- 2.7 It was agreed with CDC that a baseline for development within the local area should first be established. This baseline did include some areas of Heyford Park that had not been built and in some cases not yet obtained detailed consent. However, the baseline area does fall within the general scope of the approved Outline Consents for Upper Heyford/Heyford Park or Policy Villages 5 allocations.
- 2.8 The projects that have been considered in the cumulative assessment are shown on **Figure 2.1 Cumulative Plan** and include:
- Village Centre North, Heyford Park (reference 17/00895/F);
  - Pye Homes, Upper Heyford (reference 15/01357/F);
  - Parcel 15, Heyford Park (not yet submitted, but part of Policy Villages 5 allocation);
  - North West Bicester (references 10/01780/HBRID, 14/01384/OUT, 14/01641/OUT, and 14/02121/OUT);
  - Land at Whitelands Farm, Kingsmere (reference 06/00967/OUT);
  - Network Bicester (reference 14/01675/OUT);
  - Bicester Gateway (reference 16/02505/OUT);
  - Land South of Building 296/297, Heyford Park (reference 17/01680/F); and
  - Heyford Masterplan, Heyford Park (reference 18/00825/HYBRID).

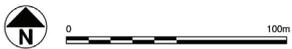


FIGURE 3.1 – SITE BOUNDARY

### 3. APPLICATION SITE AND CONTEXT

- 3.1 The site comprises 12.04 hectares (29.75 acres) of land at the former RAF Upper Heyford site. The site is located approximately 8.6km to the north-west of Bicester, 15.8km to the south-east of Banbury and 5km to the south-west of junction 10 of the M40 motorway, in Oxfordshire (see Figure 1.1: Site Location).
- 3.2 The site comprises part of the wider former RAF Upper Heyford and is currently occupied by the derelict former school buildings.
- 3.3 This site is currently accessed from Camp Road which is on its northern boundary. Camp Road provides access west to the village of Upper Heyford and east of the B430 which in turn provides access south (Ardley Road) towards Middleton Stoney and Bicester, and north (Station Road) towards the village of Ardley and Junction 10 of the M40 beyond. Junction 10 of the M40 is approximately 6.3km driving distance to the north-east and provides access north towards Banbury and Birmingham, and south towards Bicester, Oxford and London.
- 3.4 The former RAF Upper Heyford was a military base owned by the Ministry of Defence that was then leased by the United States Air Force until 1994. The Application Site falls within the 'residential area' of the former military base, which also provided facilities such as a hospital, school and sports facilities for the American Air Force and their families.
- 3.5 The boundary of the Application Site (See **Figure 3.1 Site Boundary**) is still a chain link fence with barbed-wire on the top of it, from when the base was an active military facility. On the Site there are six rows of single storey classroom blocks, each row

with generally between eight to twelve individual classroom buildings, each constructed of rendered brick work; a central single-storey school building incorporating a boiler house to the rear, again built of rendered brick work; associated structures and internal access roads. There is also an electricity sub-station, a water tank and large areas of hardstanding to the southern section of the Site.

- 3.6 The former RAF Upper Heyford lies to the east of the village of Upper Heyford. The area has relatively good public transport links and access to the M40 motorway. The former RAF Upper Heyford now provides a combination of residential and employment land, in part using the buildings constructed during its operational life as an airbase and with more recent development including further residential and employment development/redevelopment and changes of use.





## 4. THE PROPOSED DEVELOPMENT

4.1 The Proposed Development is shown at **Figure 4.1** Paramaters Plan and comprises:

- Demolition of the existing buildings and structures within the application boundary;
- Earth moving, where necessary, to provide a level area upon which to build, which may vary in height up to 2m higher or lower than the existing ground;
- The construction of 296 new dwellings;
- The construction of associated buildings and facilities such as access roads, footpaths, service areas, parking, fencing, lighting and the provision of utilities;
- A landscaped corridor around the perimeter of the Application Site, around the proposed areas of play and the pedestrian corridor through the centre of the site;
- Provision of a public bridleway parallel to the western boundary; and
- Surface water drainage

### Construction

4.2 The construction programme is expected to commence Autumn 2018, subject to gaining planning permission and the necessary approvals, taking a total of circa 4 years with completion by December 2023. It is anticipated that first occupation of residential dwellings would commence after September 2019. The details of the construction programme would be prepared by the main contractor once appointed.

4.3 The Applicant would prepare a Construction Environmental Management Plan (CEMP) that sets out the agreed methods and procedures for demolition and construction works, and standard measures and best practice to ensure that the risks to the environment are avoided or appropriately managed. The details of the CEMP would be agreed with the Council before works start and then monitored, and revised where necessary, throughout the construction phase.



FIG 4.2 DESIGN CONCEPT

## Alternatives

- 4.4 The Applicant has considered the following alternatives to the Proposed Development:
- The 'No Development' Alternative; and
  - Alternative Areas.
- 4.5 The 'No Development' alternative refers to not developing the site such that it would be retained in its derelict state. On neighbouring land, the Council have approved the construction of 1,075 dwellings including the retention and change of use of 267 existing military dwellings to residential use class C3 and other facilities such as school and playing fields. Not developing the Application Site would result in a large derelict piece of land remaining in close proximity to a large, new mixed use development in Cherwell District. Although the Application Site is fenced off and can't be accessed by the general public is visible within the local area, and if it remained in its current state it would greatly detract from the perceived quality of the immediate local area and could have a detrimental effect on the local community.
- 4.6 The main alternative designs considered comprise:
- 4.7 Design Concept June 2016 – the initial sketch masterplan for a residential development was taken to the Council in June 2016 (see **Figure 4.2** Design Concept). This masterplan defined Character Areas, the main street layout and storey heights as well as property density. The general street layout and suggested children's play areas were accepted at this sketch masterplan stage and remain in the detailed plans accompanying the planning application. However, the density of dwellings and areas for different storey heights have become more refined.
- 4.8 Detailed Sketch Layout August 2016 – A further meeting was held with the Council to discuss the refined design for this site. In this more detailed design a loop road around the parameter of the site was added (see **Figure 4.3** Detailed Sketch Layout). The vegetation planting was also improved to offer more planting along the roads, wider ecological corridors and more scattered planting within the proposal. More detached dwellings were added to the western areas of the site that fronted onto Camp Road. The areas of three storey height were more central to the Application Site.



FIG 4.3 DETAILED SKETCH LAYOUT

- 4.9 The Preferred Option which forms the Proposed Development conforms to the Development Parameters that have been subject to environmental impact assessment as reported in the ES and SEI.
- 4.10 The constraints and opportunities presented by the Application Site were used to inform the design principles for the Proposed Development. A Design and Access Statement (DAS) accompanies the planning application (2016) which describes the design stages in more detail.

## 5. SUMMARY OF ENVIRONMENTAL BASELINE AND ASSESSMENT OF EFFECTS

### SOCIO ECONOMIC

- 5.1 The Socio Economic Assessment considered the potential effects of the Proposed Development during both the construction and operational (occupation) phases, focusing on the availability and use of employment land and subsequent effects on employment and the economy. The minor amendments which are relevant to the socio-economic assessment include a slight reduction in the area of public open space, a reduction in the number of play areas and the introduction of a bridleway along the western edge of the Proposed Development.

#### Baseline Conditions

- 5.2 The Application Site comprises 12.04 hectares of land at former RAF Upper Heyford. The land was formerly occupied by the Upper Heyford American High School; this derelict site has been unused for c.20 years.
- 5.3 The 2011 Census identified 141,868 residents in Cherwell in 2011. At a more local scale, the area assessed within the Socio Economic study area has a population of 1,758 persons. It also indicates that the population of is younger than Cherwell District with an average age of 37.8 years compared to 38.9 years. Cherwell District itself has a younger population than England.
- 5.4 Included within the baseline assessment (60 dwellings under 13/01811/OUT, 43 dwellings under 16/00263/F and 761 dwellings under 10/01642/OUT). These 864 dwellings would accommodate 830 households based on the rate identified in the 2011 Census. Assuming the average number of residents

per household in 2016 (taken from the 2014 based subnational household projections) these 864 dwellings would be expected to accommodate circa 1,998 residents.

- 5.5 The 2014 based subnational population projections identified that the population of Cherwell District had increased to 144,494 in 2014. These then project a further increase of 15,400 persons from 2014 to 2031.
- 5.6 There is one school nearby, being the Heyford Park Free School and one nursery, The Old Station Nursery. The Annual Monitoring Report of the Council from April 2015 showed that 68 of 864 homes within the baseline assessment had been completed. The remaining 796 will accommodate pupils who will place demands on spare capacity. Without the remainder of these current applications, based on the current vacancy rate there would be 210 vacant places across the 14 year groups (15 per year). In the absence of more detailed information it is assumed that the level of vacancies will be consistent for each year, such that there will be 105 vacant primary places and 105 vacant secondary place).
- 5.7 The baseline position shows that should the remaining 796 dwellings when completed would produce a shortfall of 190 primary places and a shortfall of 118 secondary places.
- 5.8 The closest hospitals to the Application Site are the Bicester Community Hospital in Bicester and Horton General Hospital in Banbury. These hospitals include the provision of accident and emergency departments.

- 5.9 There is 1 GP surgery within 5 miles of the Application Site, namely Deddington Health Centre. Assuming the national averages of 1,625 patients per GP it is estimated that the 7 GPs at Deddington Health Centre could accommodate a further 222 to 277 patients each.
- 5.10 The nearest dentists, opticians and pharmacies are situated within Bicester.
- 5.11 Bicester Outlet Village and Bicester Town Centre are situated within 7 miles of the Application Site and there are a number of pubs and restaurants in the surrounding villages.
- 5.12 There are two places of worship namely Cherwell Valley Benefice and The Chapel, Heyford Park. These lie within 400m of the Application Site. Other faiths are provided for in the wider area.
- 5.13 The 2011 Census identified that Cherwell showed more workers commuting out from the area than visiting with the development expected to create 1060 workers based on a 1.28 workers per household.

### Likely Significant Effects

- 5.14 The Proposed Development is considered to have a moderate positive effect by contributing to the five-year land supply and providing for housing needs as required by the Local Plan (Part 1) throughout the plan period that will respond to the affordable housing needs over a more than local area.
- 5.15 The key socio-economic effects of the Proposed Development (in isolation) can be summarised as follows:
- Delivery of accommodation for a population of up to 663 persons, although a proportion of these will already live in the local area such that 347 of these people are estimated to be new to the area;
  - Provision of accommodation for in-migration (both from other parts of the UK and internationally) which will result in a younger population and reduce the effects of the ageing population;
  - Delivery of 89 affordable homes to contribute to current and future housing needs (including for shared, concealed and homeless households);
  - Contribution to the deliverable land supply in Cherwell;
  - Provision for existing and future housing demand and thereby support the affordability of housing;
  - Delivery of housing of an appropriate size, mix and tenure to respond to local needs;
  - Support for and generation of jobs in the construction sector; and
  - Provision of an additional £4.2M to £8.0M worth of household expenditure annually, with the potential for this to be spent in the local economy.

- 5.16 The Proposed Development would have minor positive effects on the area by providing a much-needed residential development to respond to population growth and household formation. It provides a complementary offer to the neighbouring developments, which include infrastructure and employment land. This development is in accordance with the emerging Local Plan and is required to fulfil the growth requirements of Cherwell.
- 5.17 The Proposed Development also forms part of the new settlement for which the socio-economic effects have also been assessed. This will provide a significant number of homes with corresponding positive effects on the accessibility of the housing market, as well as providing very significant areas of employment land that will significantly reduce the need to travel as well as supporting the local economy in their own right. It will also provide a range of infrastructure to meet the needs of the new and existing residents.

### Mitigation and Enhancement

- 5.18 Only one adverse effect was identified. This relates to educational provision. It is understood that proposals are being developed for additional educational facilities that at present are not available for consideration.
- 5.19 These proposals may provide for the full educational needs (or more), but prior to these being available for consideration, the development is likely to require mitigation in the form of financial contributions for future educational provision.

### Conclusion

- 5.20 The Proposed Development and related cumulative developments have changed since the preparation of the ES 2016. The minor amendments to the Proposed Development have negligible effects in terms of the socio-economic issues.
- 5.21 The more significant amendments to the related developments have a more significant impact. The cumulative effects have been reassessed and in all cases the socio-economic effects are more positive than identified in the ES 2016. This primarily arises from continued discussions with Oxfordshire County Council to identify suitable solutions to address the educational needs; the commitment to the delivery of a medical centre; and a significantly greater number of jobs being accommodated in the proposed facilities and particularly on the employment land now proposed. Overall, the Proposed Development and cumulative developments would lead to major beneficial socio economic effects.

## TRANSPORT AND ACCESS

- 5.22 The transport and access chapter assessed the likely significant effects of the Application Site in terms of transportation including the effects of traffic together with other transport and access matters such as effects on pedestrians, cyclists and public transport.
- 5.23 The Application Site forms part of the wider Heyford Park Allocation Site. A transport assessment (Allocation TA) was undertaken for the Allocation Site and has been used for the basis of this assessment as it is considered to represent a robust scenario. However, reference is also made to assessment of the Application Site individually.
- 5.24 The Transport and Access Assessment was carried out using information contained within the separately prepared Transport Assessment (TA) and a Residential Travel Plan (TP).

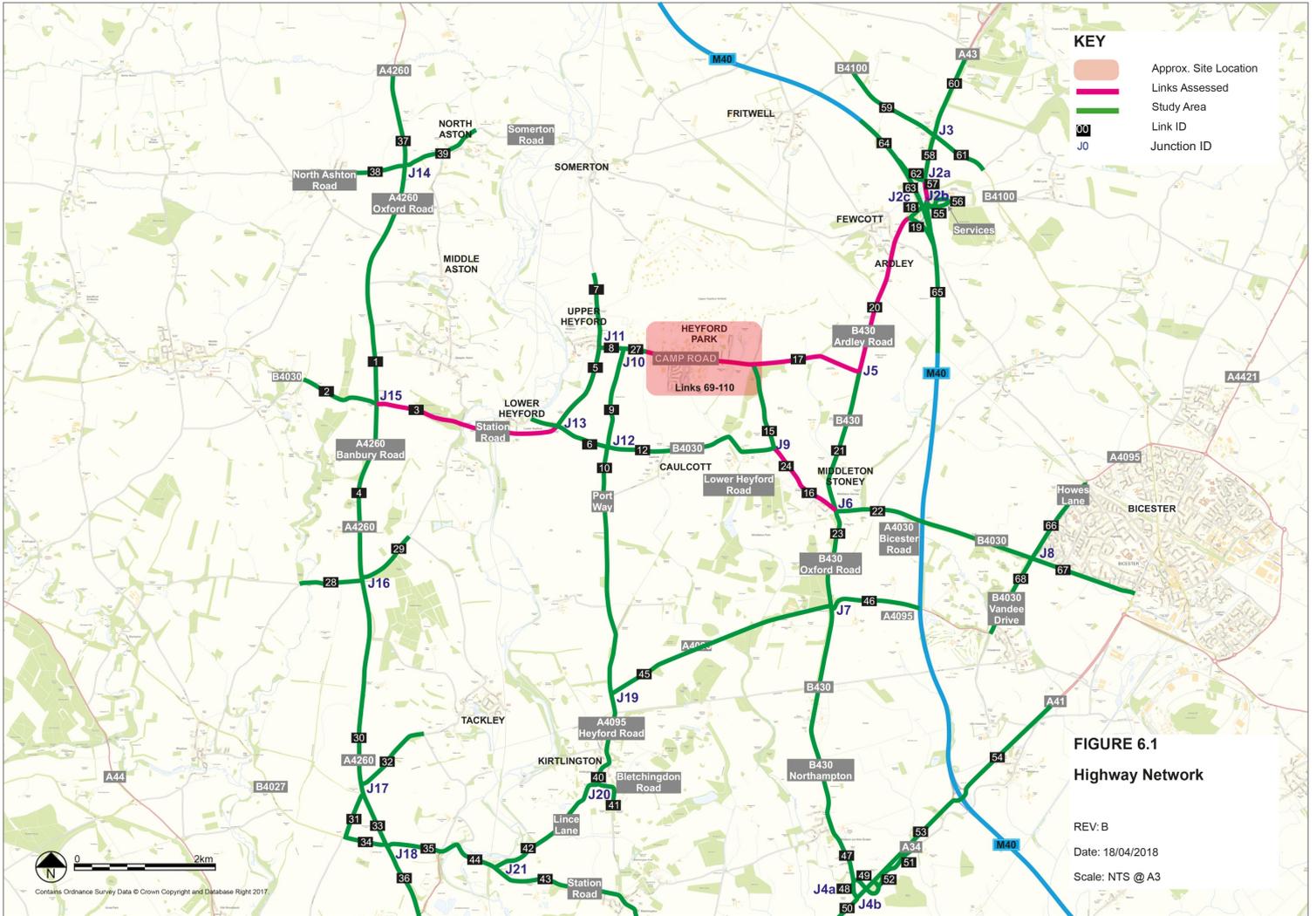


FIG 5.1 ASSESSED LINKS

## Baseline Conditions

- 5.25 Former RAF Upper Heyford is located within a network of predominantly rural roads, many of which are unclassified, although Junction 10 of the M40 motorway is located 6.1km to the east of Land South of Camp Road, and the A4260 Banbury to Oxford road runs from north to south some 4.7km west (see **Figure 5.1** Assessed Links). The Application Site is currently accessed via Elgin Street, which is on the western side of Camp Road close to the junction with Somerton Road.
- 5.26 Camp Road forms the arterial route through the southern part of former RAF Upper Heyford. The former runway, taxiway and employment buildings associated with the Flying Field, as well as the former officers' mess (the new free school), lie to the north of Camp Road whereas the existing residential and auxiliary buildings lie to the south. The previously consented housing will be located both to the north and south of Camp Road. The Application Site lies to the south of Camp Road. 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. Camp Road connects the Application Site to Upper Heyford village and Somerton Road / Station Road to the west, and to Chilgrove Drive and the B430 in the east.
- 5.27 Somerton Road provides connections to the village of Somerton to the north and is subject to a 30mph speed limit through Upper Heyford which increases to 60mph when leaving the village. 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. 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 Bicester 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 B430 meets the B4030 at a staggered crossroads in Middleton Stoney, located around 3.0 kilometres to the south east of former RAF Upper Heyford (see **Figure 5.1** Assessed Links).

5.28 Camp Road provides walk and cycle access from the main entrance of the Application Site towards Upper Heyford to the west, providing commuting, education and leisure travel opportunities for walkers and cyclists. It is well lit with footpaths towards Upper Heyford. There are also a number of PRow that cross the wider Heyford Site. The nearest railway stations are Heyford, located in the village of Lower Heyford (2.8km from the Application Site), and Bicester (10km from the Application Site). Heyford Railway Station is served by direct trains to key destinations, notably Banbury, Oxford and London Paddington with typical service frequencies of between 90 minutes and 150 minutes on weekdays and Saturdays.

5.29 Environmental receptors have been identified in the study area encompassing A4260 to the west, north and south of Hopcrofts Holt junction; the A430 from the M40 junction 10 to the north, to past the Middleton Stoney junction to the south; and the extent of Camp Road from Somerton Road junction to the B430. The following sensitivities are considered applicable to the various sections:

- High sensitivity around the middle of Camp Road due to location of the school; and
- Medium sensitivity for Camp Road at the local centre, the B430 close to the villages of Ardley and Middleton Stoney and both sides of the B4030 in Middleton Stoney.

### Likely Significant Effects

- 5.30 As the ES chapter used the Allocation TA as a basis for assessment and the Allocation Site has a different build out rate to the Application Site, two baseline scenarios have been used.
- 5.31 As traffic levels are generally increasing and are likely to continue to do so until development at the Application Site and Allocation Site is completed, the current year does not provide a suitable baseline for assessment. The Application Site and Allocation Site have different build-out rates. Construction at the Application Site is anticipated to be completed by 2022 and the year 2022 has therefore been used as the baseline ('do nothing') scenario. At the Allocation Site, as traffic is likely to increase until the completion of the development due to other committed development in the area, the year 2031 (end of the Local Plan period) has been used as the baseline ('do nothing' scenario).
- 5.32 The 'do nothing' scenario for the Application Site includes background growth, all consented Heyford Park development and committed Local Plan/ third party development sites to 2022. The 'do nothing' scenario for the Allocation Site includes background growth, all consented Heyford Park development and committed Local Plan/ third party development sites.
- 5.33 In the absence of mitigation measures it was identified that there could be significant and adverse effects on driver delay and accidents and safety at a number of links and junctions across the study area.

## Mitigation and Enhancement

- 5.34 Three new principal site accesses will serve the site. Two will be located on Camp Road to the east and west of Elgin Street, and the third will be located off Izzard Road, which will also lead to Camp Road. Each of these accesses will take the form of priority T-junctions.
- 5.35 The implementation of a Construction Environmental Management Plan (CEMP) will reduce the effects of the demolition work on the local environment in terms of delays on the local road network. A CEMP will mitigate against the delays and severance that may result from the construction traffic including HGVs.
- 5.36 Extensive consultation has been undertaken and is ongoing with Oxfordshire County Council, Highways England and Cherwell District Council to agree proposals for mitigation measures and improvements to the transport network, including key junctions across the study area as part of the wider Heyford Park development a threshold for development will be placed on each of the required mitigation measures once fully agreed with the highway authorities. These measures would mitigate against significant adverse effects on driver delay times, accidents and safety, and severance related to increases in traffic resulting from the Allocated Heyford Park site and will be delivered as part of the phased delivery of the allocated site development.

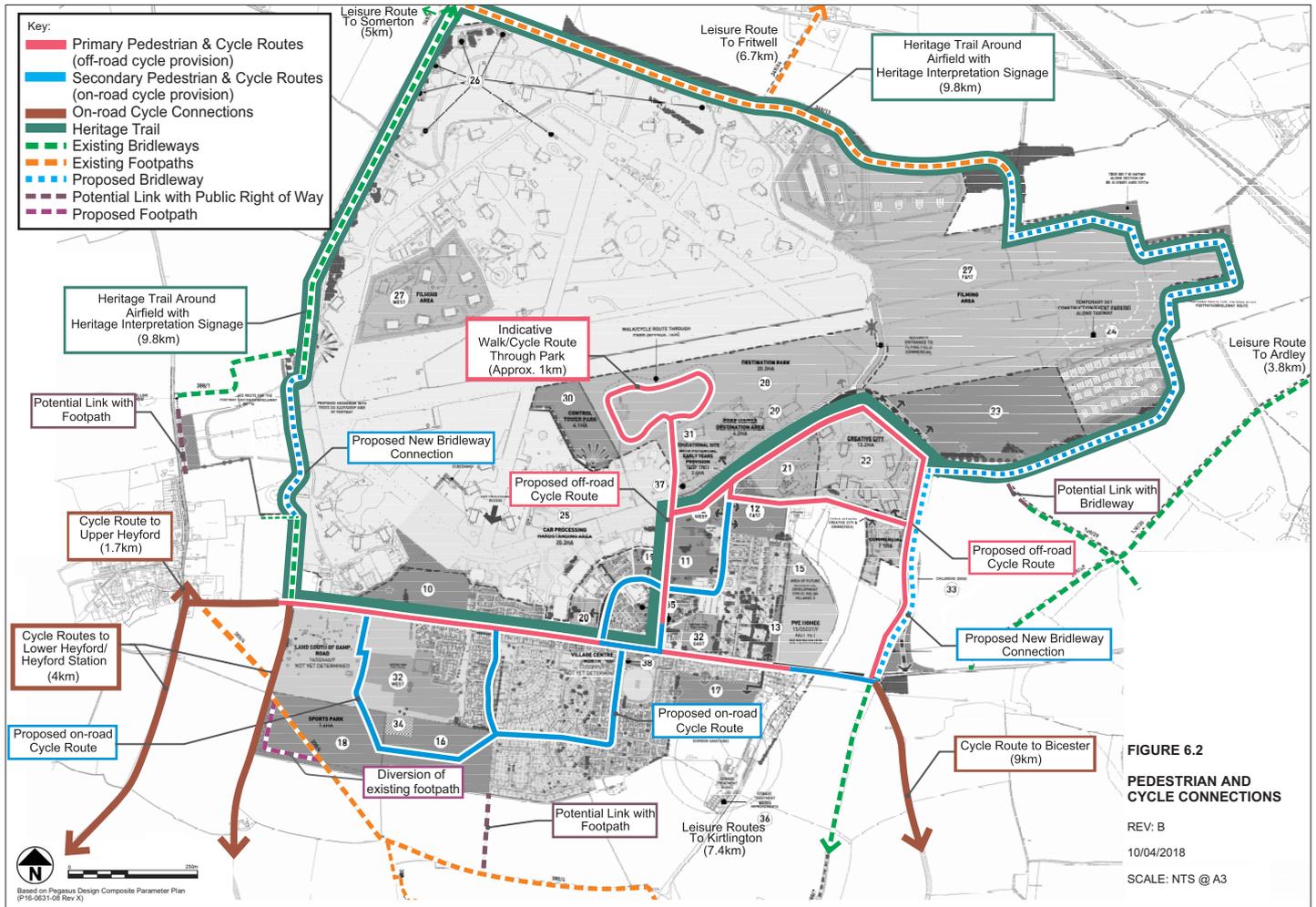


FIGURE 5.2 PUBLIC TRANSPORT WALKING & CYCLING PROVISION

## Improvement of Walking, Cycling and Public Transport

- 5.37 As a result of the Proposed Development, it is expected that there will be an increase of cyclists and pedestrians in the local area. Within the Proposed Development, a shared footway/cycleway will be provided along the principal internal highway network to enable pedestrian and cycle movement through the Proposed Development and to the site access points on Camp Road (See **Figure 5.2** Public Transport, Walking and Cycle Provision).
- 5.38 The existing footpath running adjacent to Camp Road will be retained for pedestrian access which will connect to the shared footway/cycleway east of the Proposed Development currently under construction. A bridleway would also be provided parallel to the western boundary. This will provide a net minor beneficial effect.
- 5.39 The Proposed Development will lead to a higher demand for public transport for residents. It is proposed to enhance the bus stops on Camp Road to improve the uptake of this mode leading to a net minor beneficial effect.
- 5.40 Travel planning to be implemented as part of the Proposed Development will help enhance the uptake of sustainable modes of transport with the resultant reduction in traffic on the local roads.

## Conclusion

- 5.41 On the basis that the proposed mitigation measures are implemented, no significant residual effects on matters related to transport and access are likely to occur as a result of the Proposed Development of the Application Site.

## NOISE AND VIBRATION

5.42 The Noise and Vibration Assessment considered the potential effects on local residents arising from noise and / or vibration from the demolition and construction phases of the Proposed Development, and from noise following the occupation of the buildings. The assessment also considers the likely significant environmental effects of existing and future noise and vibration on the proposed use of the Application Site.

### Baseline Conditions

5.43 A survey was undertaken from 1st to 2nd April 2014 to determine the typical background noise outside nearby residential properties. This was updated by an environmental sound survey that was conducted on the 14th and 15th June 2017 to determine the existing noise climate. The dominant noise sources within the area are the surrounding road network, namely Camp Road.

### Likely Significant Effects

5.44 An assessment was conducted on the impact of the future traffic flows on the Application Site to determine if internal and external noise criteria could be met. The assessment concluded that impact on the majority of the Application Site would not be significant, however properties fronting onto Camp Road may require further mitigation.

5.45 Construction from the development was assessed to determine the impact on existing receptors. With the implementation of a Construction Environmental Management Plan (CEMP), the level of impact construction noise from the Application Site is likely to have on existing receptors is deemed to be not significant.

5.46 Traffic flows associated with the development have been assessed to determine the impact on the existing road network and the potential increase of noise on existing receptors. The level of impact development traffic will have on existing receptors is deemed to be not significant.

### Mitigation and Enhancement

5.47 Proposed residential properties fronting onto Camp Road and Kirtlington Road may require mitigation in the form of appropriate boundary treatments. For gardens with a direct line of sight to Camp Road and Kirtlington Road, 1.8m high barriers along the boundary of the garden are likely to allow private external amenity guidance levels to be met.

### Cumulative Impact

5.48 Construction periods of the Proposed Development could overlap with neighbouring sites. However, it is envisaged that each development would have its own CEMP and minimise noise break out from its site such that cumulative impacts are likely to be not significant.

5.49 The assessment uses traffic flow data for 2031 which incorporates cumulative traffic growth and so there is not a significant cumulative effect.

### Conclusions

5.50 The assessment has demonstrated that with the use of appropriate mitigation measures, the Application Site is suitable for development and would not result in any significant noise or vibration effects.

## AIR QUALITY

- 5.51 The Air Quality Assessment considered the potential effects from the construction and occupation of the Proposed Development with regards achieving European Limit Values or UK statutory objectives for nitrogen dioxide and particulates (i.e. fine particles such as dust), and the effect on local residents.

### Baseline Conditions

- 5.52 There are no Air Quality Management Areas in the vicinity of the Application Site and monitored nitrogen dioxide (NO<sub>2</sub>) concentrations in the study area are well below the relevant objective.
- 5.53 For the Ardley Cutting and Quarry Site of Special Scientific Interest (SSSI) there are predicted exceedances of the oxides of nitrogen critical level and nitrogen deposition critical loads in 2016, and of the nitrogen deposition critical load only in 2021 without the Application in place. There are no predicted exceedances of the acid deposition critical loads within the assessed habitats.

### Likely Significant Effects

- 5.54 During construction the main potential effects are dust annoyance and locally elevated concentrations of fine particulate matter (PM<sub>10</sub>). The suspension of particles in the air is dependent on surface characteristics, weather conditions and on-site activities. Impacts have the potential to occur when construction activities coincide with dry, windy conditions, and where people are located downwind and close to the activity being undertaken.
- 5.55 The assessment has considered the activities that will be undertaken and the risk that these pose to

identify the mitigation measures that will need to be put in place. With the mitigation measures in place, construction dust effects are not significant.

- 5.56 The main operational effects of the development will arise from road traffic emissions. Pollutant concentrations have been modelled at locations adjacent to the road network where the effects are likely to be greatest.
- 5.57 No exceedances of the annual mean NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> objectives are predicted with and without the Application in place in 2022. The air quality effects on human health are considered to be not significant as there are no predicted exceedances at any of the assessed human health receptor locations in 2022.
- 5.58 For the Ardley Cutting and Quarry SSSI, the oxides of nitrogen (NO<sub>x</sub>) critical level is not predicted to be exceeded in 2022 with or without the Application in place. The nitrogen deposition critical load is predicted to be exceeded within the Ardley Cutting and Quarry SSSI both with and without the Application in place. There are no exceedances of the acid deposition critical load. The air quality effects on ecological habitats of road traffic generated by the Application are considered to be not significant as the increase of nitrogen deposition is less than 1% at all of the assessed ecological receptor locations.

### Mitigation and Enhancement

- 5.59 5.59 Construction dust and fine particulate matter mitigation measures would be included within a Construction Environmental Management Plan (CEMP) to be agreed with the Local Authority.
- 5.60 5.60 The effects of the Application development traffic are judged to be not significant. No additional traffic mitigation is proposed to alleviate the direct effects of the Application, but transport mitigation will be employed as outlined in the Transport Assessment.

### Conclusion

- 5.61 There are no air quality constraints to the Proposed Development.

## WATER RESOURCES AND FLOOD RISK

- 5.62 The potential impacts of the Proposed Development associated with the water environment, particularly flooding matters, potable water supply and foul drainage has been assessed. The assessment was based on the findings of a separately prepared and updated Flood Risk Assessment.

### Baseline Conditions

- 5.63 The site currently drains either via an existing drainage system and/or allows overland flows to a watercourse, known as Gallos Brook, to the south of the site. The site is located in the upper region of the River Cherwell catchment. The Cherwell catchment is predominately rural with some urban areas. The ecological status of Gallos Brook has been classified as 'Poor' as shown on the Environment Agency (EA) website. The EA online flood maps show the site to lie entirely within Flood Zone 1 Low Probability, which is land with less than a 1 in 1,000 annual probability of river or sea flooding.
- 5.64 The existing combined surface water and foul drainage network is owned and operated by the Applicant as a private asset for whom a management company oversees and manages the existing foul water treatment works. With regards to potable water, the development site is currently within the network area that is supplied by Thames Water (TW).

### Likely Significant Effects

- 5.65 The removal of vegetation and compaction of the soil has the potential to increase runoff rates. Construction of the Proposed Development may also introduce contaminants and silt into surface water runoff, which may enter the Gallos Brook. The phased construction process allows each phase within this site to manage surface water via the proposed surface water drainage strategy, which should be constructed prior to any other development. However, the impacts of the construction phase would be temporary and reversible.
- 5.66 There is potential for the Proposed Development to increase the risk of flooding on site and downstream due to the increase of impermeable surfaces, however the surface water drainage strategy will manage runoff using sustainable drainage techniques to mimic greenfield drainage conditions and mitigate this potential effect. Runoff generated by the development could also contain urban pollutants, but through use of sustainable drainage techniques, additional treatment steps will be provided to remove such pollutants.

### Mitigation

- 5.67 A series of upgrades are proposed to make the foul drainage network more efficient and reduce the overall volume going to the treatment works, providing a betterment on the existing situation. There not currently sufficient capacity to meet the water demand of the Proposed Development at this site. Therefore, an additional water main will be laid along Camp Road linking existing distribution mains west and east of the site.

### Cumulative Effects

- 5.68 It has been assumed that all Proposed Development considered within the cumulative assessment will be developed in accordance with national and local policy regarding flood risk and drainage. Therefore, there will be no cumulative effect as a result of this development.

### Conclusion

- 5.69 The nature and size of the Proposed Development means there is potential for the site to have a detrimental impact on the environment. However, the proposed mitigation would ensure that Proposed Development is acceptable and does not have a detrimental effect.

## GROUND CONDITIONS AND CONTAMINATION

5.70 The Ground Conditions and Contamination Assessment considered the potential for significant effects with respect to the existing ground conditions and contamination and their effects on human health and the environment.

### Baseline Conditions

5.71 A pipeline within former RAF Upper Heyford airbase which was used to supply the NATO POL on the Flying Field to the north crosses the east of the Application Site. A surface water oil interceptor is also located at the southern boundary.

5.72 The earliest historical map from 1884 – 1885 shows the Application Site is used as agricultural farmland. This use continues until the early 1900's. It is known that the construction of former RAF Upper Heyford began in 1916, Upper Heyford was occupied by the Royal Air Force (RAF) throughout World War II (WWII), although the aerial photograph from 1945 does not show the land to be occupied. By 1966 the Application Site is referred to as RAF Upper Heyford and roads and taxiways associated with the flying field to the north are located across the Application Site. In 1974 the Application Site was subject to further development with the building of housing, a water tower, electricity substation and boiler house for families living at the airbase. It is known above ground storage tanks (AST's) and underground storage tanks (UST's) were present at this time. By this period the Application Site and former RAF Upper Heyford were occupied by USAF. The wider airbase underwent further expansion in 1982 and the houses were converted into the 'Upper Heyford

American High School' with associated playing fields and baseball pitches. In 1993 operations at the airbase were closed, and the school was no longer occupied. The school buildings and electricity substation were still present on the 2006 and 2014 Ordnance Survey (OS) maps, but are now in state of disrepair; the water tower has been removed. The POL system and supply pipeline has been cleaned and made safe by this time.

5.73 Geology maps and site investigations indicate that the site lies over a series of interbedded Limestones, Sandstones and Mudstones, and Siltstones of varying thickness which lies over a significant thickness of Mudstone.

5.74 The site comprises a two underground water bearing layers (aquifers) separated by a Mudstone/Siltstone layer of a lower ability to allow water to pass through. A small stream (Gallos Brook) adjacent to the southern boundary of the Application Site issues into the River Cherwell. Potential contamination sources on the Application Site includes the likelihood of made ground across the Application Site.

5.75 Sources of potential contamination included pollution present within the soils, beneath the existing structures and paved areas. It is considered that human health, property and the below ground and surface waters would be the most likely affected by pollution. Ways in which contamination could occur include direct contact, breathing in and eating, movement of contaminants through soils and contaminated water running off the site and spillage.

### Likely Significant Effects

- 5.76 It was determined that there would be a negligible effect to construction workers from the demolition and construction works as workers would be required to comply with health and safety regulations and use appropriate personal and respiratory protection equipment.
- 5.77 The general public nearby the site may be exposed to contaminated dust during demolition and construction works. A Construction Environmental Management Plan (CEMP) will be prepared setting out the actions to reduce dust escaping the site. This would ensure that at worst the likely effect would be indirect, short-term and not significant.
- 5.78 Surface and below ground waters may be affected during the demolition and construction phase with the introduction of fuels and chemicals to the site and the lifting of ground slabs exposing previously covered (contained) contamination. Without appropriate measures in place, this effect could be indirect short-term and significant. The CEMP would include measures for the appropriate storage of fuels and chemicals to manage this risk.
- 5.79 Due to the site being part of a former airbase and having potentially contaminating sources in both the soils and surface and ground waters, it is considered that once occupied the likely contamination effect on future users as a result of direct contact, breathing in of dust and vapours would be direct, long term, permanent, adverse and significant in the absence of any controlling measures.
- 5.80 Furthermore, due to the site being part of a former airbase there is potential that, without any

controlling measures, contaminating sources could affect surface and below ground waters, vegetation (trees, grass and other planting) and the building structures. This would arise as a result of the contamination, which was previously capped by existing buildings or hard surfaces, being exposed. Therefore, the effect would be permanent, direct, long term and significant in the absence of any controlling measures.

### Mitigation and Enhancement

- 5.81 Before any demolition and construction work starts, it is proposed that site investigations be carried out to inform a detailed strategy to identify and remedy, where necessary, contamination. The strategy would identify ways to break the link between any sources of contamination and those likely to be affected through appropriate control measures. The use of such control measures would reduce the risk of contamination to negligible.

### Cumulative Effects

- 5.82 Effects relating to Ground Conditions and Contamination are typically site specific. As such it is considered unlikely that cumulative and in-combination effects would result from the Proposed Development and the cumulative schemes. Therefore, the revision of the Parameter Plan is anticipated to have a negligible effect on the surrounding area.

### Conclusions

- 5.83 Following the implementation of appropriate control measures the effect of contamination from the Proposed Development on the environment and future users would be reduced to acceptable levels.

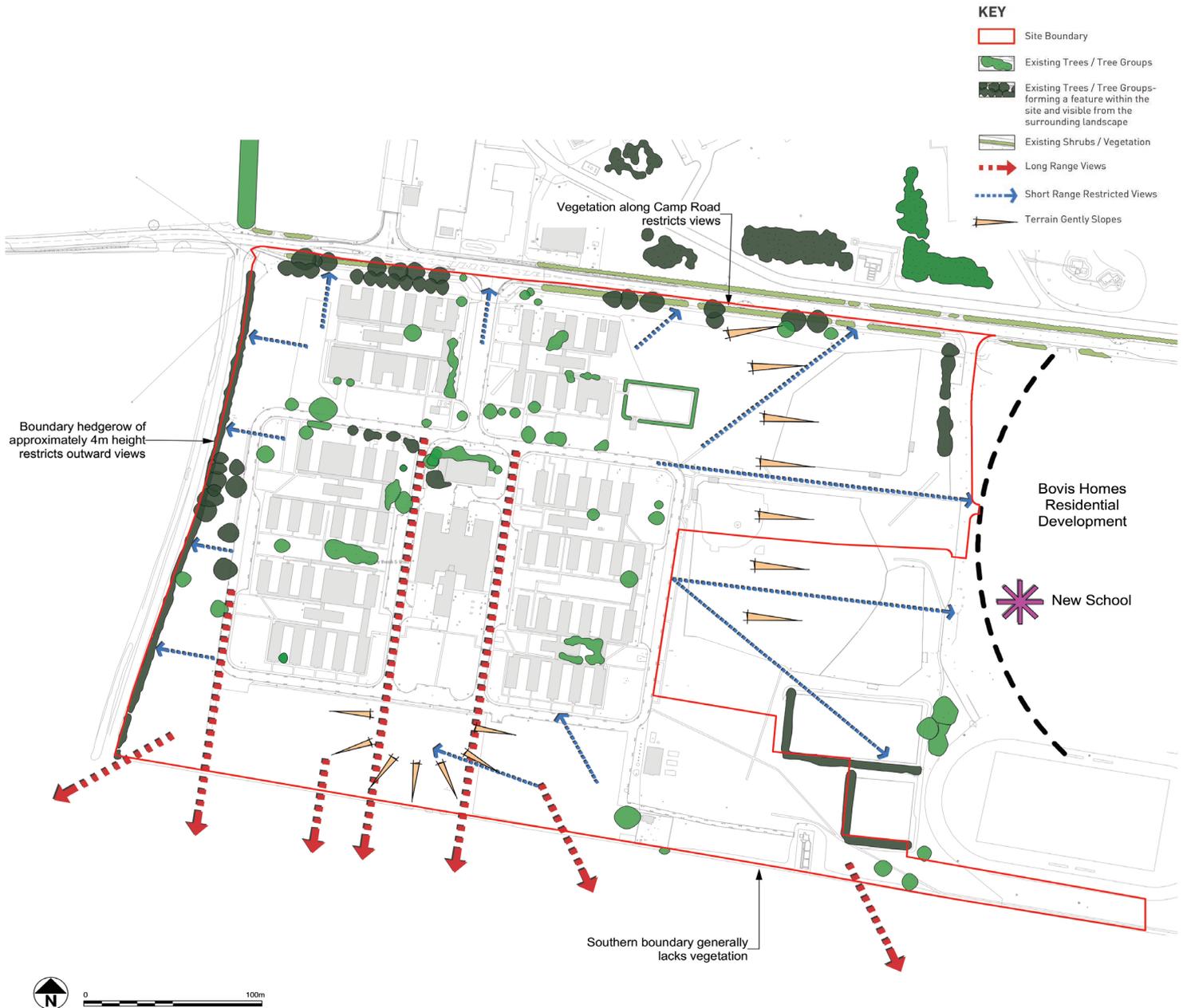


FIG 5.4. LANDSCAPE FEATURES PLAN

## LANDSCAPE AND VISUAL AMENITY

5.84 The Landscape and Visual Amenity Assessment considered the potential effects of the Proposed Development on the character and features of the landscape, and effects on views from a number of publicly accessible locations.

### Baseline Conditions

5.85 The character of the site is influenced by the mature hedgerows along its western boundary, mature trees in its western and northern part and non-native evergreen belts of trees in the south eastern corner. The site is relatively enclosed by these trees and hedgerows with limited views out to the west, towards the surrounding countryside. To the east, views of the recently built houses (Bovis Homes) can be seen. Views of the open countryside can be gained mostly to the south, though these are influenced by the chain link fence surrounding the former Air Base (see **Figure 5.4** Landscape Features Plan).

5.86 Three Landscape Character Areas (LCAs) have been considered, plus one that is described within the Oxfordshire Wildlife and Landscape Study. The Application Site and land around it lies within the area identified as Upper Heyford Plateau LCA/Farmland Plateau LCA. The Cherwell Valley LCA is the nearest adjacent LCA and is located approximately 0.3km away to the west. Other LCAs have not been considered due to distance from the Application Site.

5.87 The character of both the Upper Heyford Plateau LCA and the Farmland Plateau LCA is influenced by the former Air Base. Elsewhere these LCAs

are characterised by elevated and generally simple topography, agricultural land use, sparse settlements and limited tree cover

5.88 Cherwell Valley LCA lies to the west, and broadly speaking covers the floor and upper slopes of the River Cherwell valley. It is characterised by its topography and small settlements. Tree cover is frequent, but due to the changes in levels distant views can be gained locally.

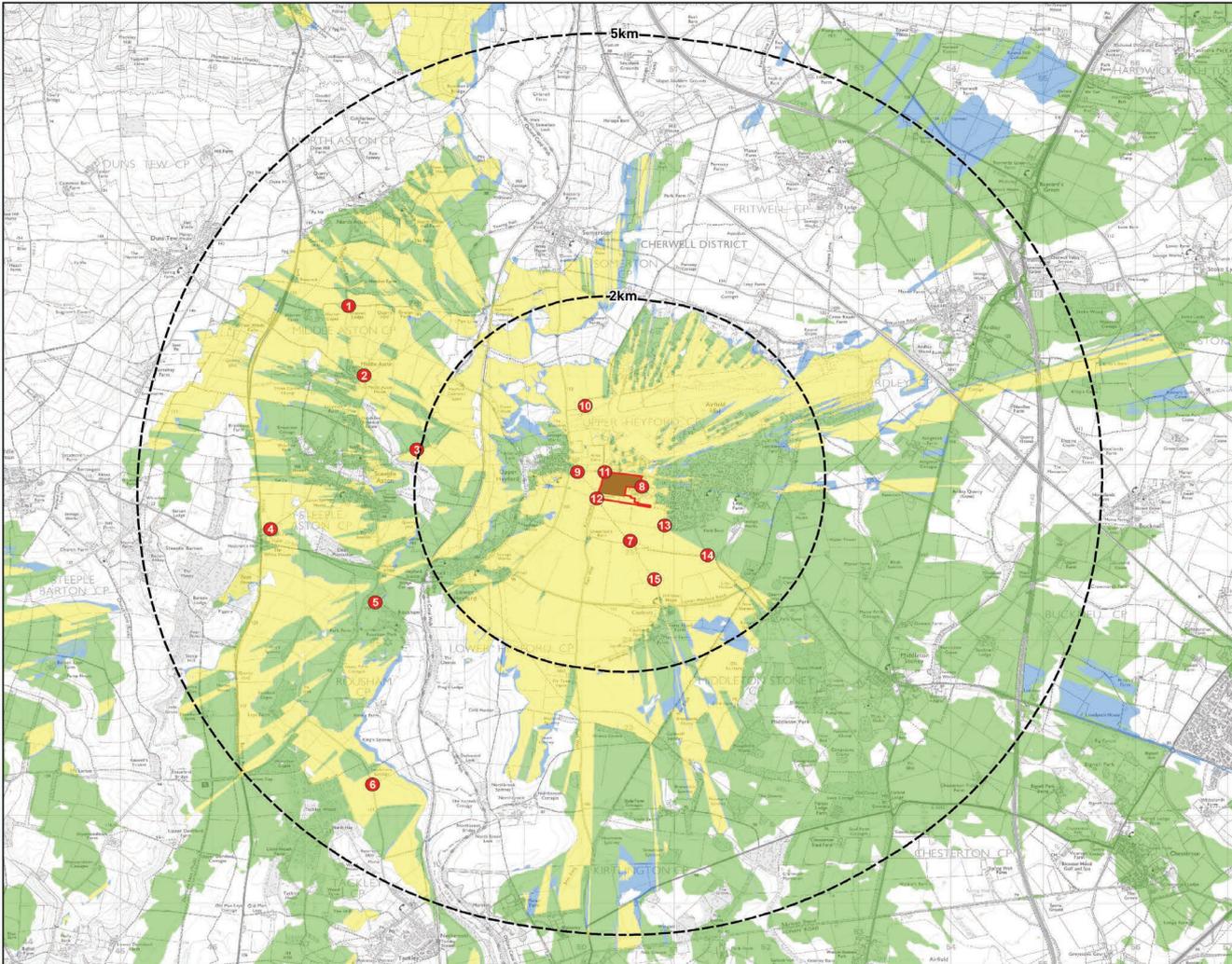
5.89 Those persons likely to gain views of the Proposed Development would be the users of public rights of way and road users in the vicinity, such as Camp Road, Izzard Road, Kirtlington Road and The B4030 Lower Heyford Road. Upper Heyford is the closest settlement outside of the former Air Base, located to the west some 0.3km away. Other settlements are more distant and are screened by trees and hedgerows.

5.90 There are a number of historic parks located in the surrounding landscape, mostly to the south and south west, with Rousham Park (Grade I) being the most relevant. Other visual receptors, such as cyclists and those travelling along railway lines have also been considered.

5.91 A number of viewpoints have been identified in consultation with Cherwell District Council's Landscape Officer at varying distances and locations to represent different type of receptors (see **Figure 5.5** ZTV Plan).

**KEY**

-  Application Area
-  Viewpoint
-  Residential Landuse Area
-  Screened ZTV & Bare Earth - 10m
-  Screened ZTV & Bare Earth - 15m
-  Bare Earth ZTV - 15m



**FIG 5.5 ZTV PLAN**

## Likely Significant Effects

- 5.92 The detailed layout and disposition of the residential dwellings and vehicular access/circulation have been amended but continues to be in accordance with the original Parameter Plan (ES 2016). Further, the location, extent, and uses proposed for the Green Infrastructure corridors remains in accordance with the original Parameter Plan, although the bridleway is introduced.
- 5.93 The potential for the minor amendments as described in the SEI to influence the findings of the Landscape and Visual Amenity assessment as reported in the ES 2016 includes reduction in the number of 3-storey buildings; provision of a new bridleway; rationalisation of the proposed play areas; increased size of water attenuation basin; and amendments to the provision of Green Infrastructure, including loss of one further established tree.
- 5.94 The landscape and visual effects during construction and operational phases of the Proposed Development has been considered. The effects upon the landscape elements found within the Application Site, the surrounding LCAs and a number of identified visual receptors and viewpoints have also been assessed.
- 5.95 The effects of the Proposed Development upon the character of the Upper Heyford Plateau LCAs during the construction stage have been assessed as negligible and not significant. The operational phase would also result in negligible effects with the character of this LCA prevailing.
- 5.96 The Proposed Development would have little effect upon the landscape elements such as trees, although one further established tree would be lost. The visibility of the Proposed Development is also likely to be limited to close range views and the overall appreciation of this landscape would be largely unchanged with the buildings within the former Air Base providing an appropriate context. The Application Site already includes buildings such as the derelict school huts, roads, lighting and signage.
- 5.97 The Cherwell Valley LCA has been assessed as subject to minor indirect landscape effects both during the construction and operational phase of the Proposed Development; there would be no direct physical effects. The appreciation of this landscape would be largely unchanged and the overall character would continue with only limited areas where the Proposed Development would be visible.
- 5.98 The Proposed Development would help to fulfil some of the Oxfordshire County Council guidelines as it would add to the tree belt around the former Air Base and concentrate new development in and around the existing Heyford Park settlement, resulting overall in negligible effects upon this character area.
- 5.99 During the construction stage receptors at eight viewpoints would be subject to negligible and/or negligible (no change), including receptors at Rousham Park. Receptors at four viewpoints would experience moderate significant effects. Three viewpoints which experience close proximity views of the derelict buildings and underused site would experience neutral effects as this is replaced by construction activities, being of neutral significance.

- 5.100 During operation, viewers at 8 viewpoints, including Rousham Park, would be subject to no change or negligible effect, which would be not significant effects.
- 5.101 Viewers at two viewpoints would experience moderate and significant effects at Year 1, reducing to minor or negligible at Year 15 with the retained vegetation along the western boundary providing some limited screening. Viewers at two viewpoints would be subject to major and significant effects due to close proximity. Such effects would be similar at Year 1 and 15 for one of these viewpoints, but new landscape planting long the southern boundary of the Application Site would reduce the effect to moderate and significant for the other viewpoint at Year 15.
- 5.102 Neutral effects at Year 1 would rise to major beneficial and significant effects for receptors at three viewpoints due to the replacement of derelict buildings on the brownfield site with high quality residential development and Green Infrastructure.

### Mitigation and Enhancement

- 5.103 The proposed tree belts and groups of trees that will be planted along the boundaries of the Application Site would tie-in with existing boundary planting outside of the site and in doing so will meet Oxfordshire County Council Landscape Strategy guidelines.
- 5.104 Landscape features that are to be kept will be protected throughout the construction phase.
- 5.105 Construction compounds will be sensitively sited to limit or reduce their visibility from the surrounding areas. The use of site hoardings will be considered in key locations to reduce or remove sight of the works from nearby receptors.
- 5.106 The Proposed Development will be carefully considered to reduce its visual appearance and help integrate it into the landscape. Native tree and shrub planting will be considered to provide high quality designed open space.

VIEW FROM TAIT DRIVE

## Cumulative Effects

- 5.107 The effects upon landscape character arising from construction and operation of the Proposed Development and cumulative development sites within or adjacent to the former Air Base would be negligible in the context of existing Heyford Park and former military features.
- 5.108 The potential for cumulative visual effects to arise between the Proposed Development and the cumulative schemes as set out on Heyford Masterplan, Village Centre North, Pye Homes and Parcel 15 varies according to juxtaposition, distance, orientation and the relative elevation of viewpoint and the presence and scale of intervening buildings and vegetation buildings (and in some instances proposed buildings within the cumulative sites). No cumulative landscape of visual effects would arise in combination with the sites adjacent to Bicester.
- 5.109 Cumulative sites in proximity to the Application Site and/or those south of Camp Road are likely to give rise to the most notable effects upon the representative viewpoints that lie within close range.

## Conclusions

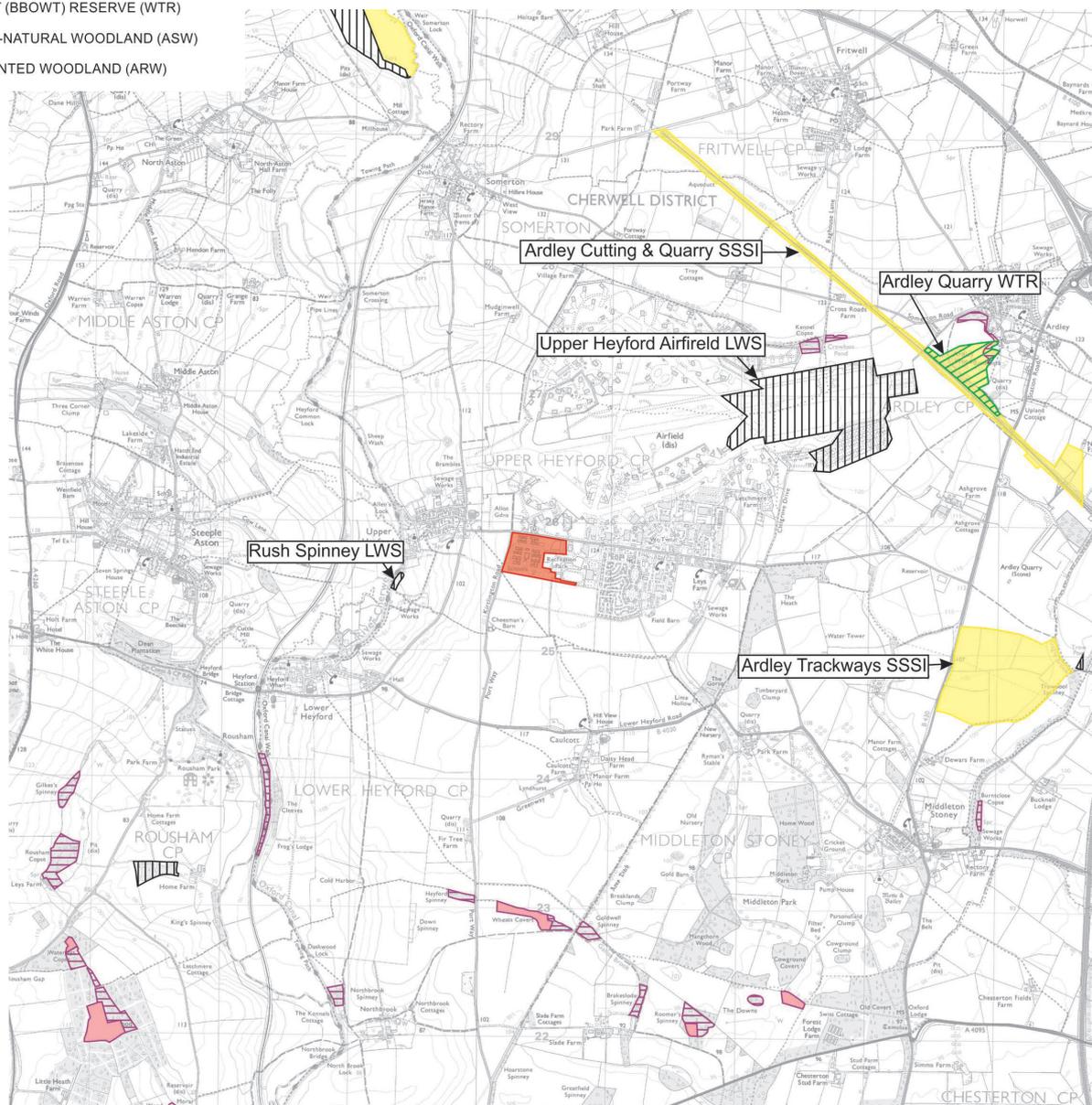
- 5.110 In summary, the Proposed Development is appropriate to the character of the local landscape and of the site and offers suitable landscape mitigation measures in terms of visual amenity. Certain high sensitivity receptors such as those travelling along the public footpath between Upper Heyford and the B4030 would experience a higher level of effects but these would be few and would generally be limited to those close to, but separated from, the Application Site by agricultural land. Cumulative sites in proximity to the Application Site and/or those south of Camp Road are likely to give rise to the most notable effects upon the representative viewpoints that lie within close range.



VIEW FROM FOOTPATH 388/4/10 AT UPPER HEYFORD

**KEY**

-  SITE LOCATION
-  SITE OF SPECIAL SCIENTIFIC INTEREST (SSSI)
-  LOCAL WILDLIFE SITE (LWS)
-  WILDLIFE TRUST (BBOWT) RESERVE (WTR)
-  ANCIENT & SEMI-NATURAL WOODLAND (ASW)
-  ANCIENT REPLANTED WOODLAND (ARW)



**FIG 5.6 ECOLOGICAL DESIGNATIONS**



## ECOLOGY AND NATURE CONSERVATION

5.111 The Ecological and Nature Conservation Assessment, as updated in the SEI, considered the potential significant effects on legal and locally protected ecological sites, valued habitats for wildlife and protected species.

### Baseline Conditions

5.112 The Application Site was surveyed in May 2015 using methodology recommended by Natural England, with update surveys undertaken in June 2016. There is no known change to the condition of the Application Site since the original application. Accordingly, it is considered that there would have been no change to the baseline conditions previously described that would affect ecology and nature conservation since the original Application, with details as per that set out previously.

5.113 The Application Site is not subject to any statutory nature conservation designation. The nearest statutory nature conservation designation is located approximately 2.9km to the north-east of the Application Site, whilst the nearest non-statutory nature conservation designation is located approximately 0.8km to the west of the Application Site. These and other designations are separated from the Application Site by development and open countryside (see **Figure 5.6** Ecological Designations).

5.114 The trees and hedgerows associated with the Application Site are considered to be of low to moderate ecological value at the local level, whilst all other habitats including buildings, hard-surfacing, semi-improved grassland and recolonising ground

are deemed to be of low to negligible ecological value at the site/local level. The habitats within the Application Site provide opportunities for bats, Badger, Great Crested Newts, reptiles and nesting birds.

5.115 Three bat feeding perches were recorded within three buildings within the Application Site, and are used by common species on an infrequent basis and are therefore of low conservation significance. In addition, foraging/commuting activity was low and limited to a few registrations of Common Pipistrelle. Overall, the Application Site is considered to be of low value for bats at the local level.

5.116 No Badger setts are present within the Application Site, although it affords foraging potential and mammal paths indicate Badgers roam through the Application Site. Overall, the Application Site is considered to be of low value for Badgers at the local level.

5.117 A single waterbody is present within the Application Site and a second waterbody lies off-site 55m to the east. No Great Crested Newts have been recorded. The Application Site supports suitable terrestrial habitat, although the Application Site is separated from the nearest known breeding population by existing development. Overall, the Application Site is considered unlikely to support Great Crested Newts, although there is possibility they migrate through the Application Site on occasion, and therefore the Application Site is considered to be of low value to Great Crested Newts at the local level.

5.118 Suitable reptile habitat is present within the Application Site, although no reptiles have been recorded during the surveys. Accordingly, the Application Site is considered to be of low value to

reptiles at the local level.

- 5.119 The Application Site habitats provide nesting opportunities for birds, such that overall, it is considered to be low value for birds at the local level.

### Likely Significant Effects

- 5.120 The nearest ecological designations are separated from the Application Site by existing development and the open countryside, and therefore no likely significant effects on the designations are anticipated from the Proposed Development.
- 5.121 The Proposed Development will result in the loss of approximately 2.6ha of semi-improved grassland, recolonising ground, and a 10m section of hedgerow, as well as all the buildings, hard-surfacing and amenity planting areas. The hedgerows and trees associated with the northern and western boundaries will largely be retained.
- 5.122 Prior to mitigation, general construction effects on habitats are anticipated to be at most minor adverse at the local level, and temporary over the short term. Prior to mitigation, general operational effects on habitats are anticipated to be at most minor adverse at the local level, and permanent.
- 5.123 Due to their legal protection, protected species have been considered irrespective of the value level, and safeguarding measures are proposed.
- 5.124 During construction works, there is potential for any feeding/flying bats to be disturbed through the use of lighting (although some lighting already exists on and around the site). Three feeding perches will be lost, as will a very short section of hedgerow with trees. Prior to mitigation, effects on bats are

anticipated to be minor adverse at the local level, and temporary during construction over the short term, and minor adverse at the local level, and permanent during operation.

- 5.125 During the construction works, there is potential for the movement of any Badgers through the Application Site to be disrupted. In addition, in terms of operational effects, the Proposed Development of the Application Site will result in the loss of suitable foraging habitat. Prior to mitigation, construction effects on Badgers are anticipated to be minor adverse at the local level, and temporary over the short term, and not significant during operation.
- 5.126 With regard to Great Crested Newts, the on-site waterbody will be lost to the development, as will suitable terrestrial habitat. However, given the distance and separation of the Application Site from the nearest known breeding pond, Great Crested Newts are unlikely to occur within the Application Site, and therefore no likely significant effects on this species is anticipated from the Proposed Development.
- 5.127 During construction works there is potential for the movement of reptiles to be disrupted, and for harm to reptiles to occur during works without mitigation in place, whilst retained areas of suitable habitat could also be adversely affected. In terms of operational effects, a proportion of habitats that afford limited opportunities for foraging, shelter and movement will be lost. Prior to mitigation, effects on reptiles are anticipated to be minor adverse at the local level, being temporary over the short term during construction, and permanent during operation.

5.128 The proposals will result in the loss of the buildings and vegetation, which would reduce general nesting opportunities. There is also potential for nesting birds to be disturbed during the construction works. Prior to mitigation, effects on birds are anticipated to be minor adverse at the local level, and temporary over the short term during construction and permanent during operation.

#### **Mitigation and Enhancement**

5.129 Best practice in line with the current British Standard for tree protection will be followed during construction to safeguard retained habitats, whilst advice issued by the Environment Agency will be followed to safeguard against any potential soil or water pollution during construction.

5.130 Existing buildings will either be demolished at a time of year when bats are unlikely to be using the roosts, or subject to a careful dismantling by hand and under ecological supervision. Replacement roosting opportunities will be incorporated within the Proposed Development. Following mitigation, construction effects on roosting bats are not anticipated, with operational effects on roosting bats anticipated to be minor adverse to not significant at the local level, and permanent.

5.131 Measures will be taken to minimise light-spill onto retained habitats during construction. Any new lighting scheme for the Proposed Development will be sensitively designed to minimise lighting of boundary vegetation, where appropriate. New hedgerow planting will maintain connectivity of flight paths across the Application Site. Following mitigation, construction and operational effects on foraging/commuting bats are anticipated to be neutral.

5.132 Measures will be undertaken during construction to avoid disturbance and harm to Badgers that may use the site. The landscape planting will include fruit and nut bearing plants to maintain foraging interest at the Application Site, whilst green open space will be retained to enable Badgers to move around the Proposed Development. Following mitigation, construction effects on Badgers are anticipated to be neutral, whilst operational effects on Badgers will be minor beneficial at the local level, and permanent.

5.133 Habitats will be managed prior to construction to safeguard reptiles, even though they have not been found within the site. Following mitigation, construction effects on reptiles are anticipated to be neutral, and operational effects are anticipated to be minor adverse at the local level, and permanent.

5.134 Building demolition and site clearance will be undertaken outside of the nesting season (i.e. outside March to August inclusive) or if within the nesting season, conducted by a suitably qualified ecologist. As an enhancement, bird boxes will be incorporated within the Proposed Development to provide new nesting opportunities for birds. Following mitigation, construction effects on birds are anticipated to be minor adverse at the local level, and temporary over the short term. Prior to mitigation, operational effects on birds are anticipated to be minor adverse to not significant at the local level, and permanent.

#### Cumulative Effects

5.135 The Proposed Development area largely lies outside the zone of influence for the potential impact of residential development on the nearby SSSIs, such that development within the Application Site is unlikely to contribute to cumulative effects on these designations. In regard to non-statutory nature conservation designations, neither of the designated sites is likely to be subject to significant cumulative increases in recreational pressure.

5.136 Habitats lost to the Proposed Development within the Application Site are of low intrinsic value, such that no cumulative losses of rare or notable habitat types are anticipated. Accordingly, there is no mechanism by which cumulative or in-combination effects could occur to rare or notable habitat types.

5.137 Overall, in the absence of residual adverse effects from the Proposed Development, and legislative and policy requirements relating to notable habitats and species, it is considered unlikely that significant effects will arise as a result of the Proposed Development in combination with other developments.

#### Conclusions

5.138 The proposed changes to the original Application are not anticipated to have any significant effect on any of the identified important ecological receptors during the demolition, construction or completed development phases. All other factors requiring consideration, including planning policy and legislation, assessment methodology, baseline conditions and mitigation measures remain the same. No new potential cumulative effects have been identified. Overall the original conclusions of the Ecology and Nature Conservation chapter as reported in the ES 2016 are unchanged, insofar as there is no reason to conclude that any ecological designations, habitats of nature conservation interest, or any protected species will be significantly harmed by the proposals, as amended.

## ARCHAEOLOGY AND CULTURAL HERITAGE

5.139 The Archaeological and Cultural Heritage Assessment considers the potential effects on historic buildings and structures, the historic landscape, and potential archaeology.

### Baseline Conditions

5.140 The potential for the Application Site to contain archaeology from deposits from the Palaeolithic period is very low as the Limestone upland on which former RAF Upper Heyford stands is likely to have been eroded away.

5.141 Similarly, the potential for the Application Site to contain significant archaeological deposits of the Mesolithic period is very low, although there is a higher potential for artefacts of this period to remain in the plough/top soils.

5.142 Despite the presence of Neolithic features at nearby Steeple Aston, there are no archaeological features and artefacts within the Application Site and Study Area. In addition, the overall lack of Neolithic evidence to the east of the River Cherwell suggests a low potential for archaeology of this period to be discovered within the Application Site.

5.143 There are fewer recorded Bronze Age sites to the east of the River Cherwell than to the west, but there is a higher potential for Bronze Age archaeology to occur. Therefore, there is an uncertain but moderate potential for Bronze Age archaeology within the Application Site.

5.144 There is a very high potential for evidence of Iron Age settlement to be present within the Application Site. Iron Age ring ditches have been found in the

Flying Field to the north and evidence for settlement has been found throughout the Study Area.

5.145 Many of the enclosures identified as being potentially Iron Age in date within the Study Area may well have continued in existence into the early Roman period. The Roman Road, Port Way, which forms the western boundary of the Application Site, is well known and is likely to have attracted settlement and burial in places along its length and there may be evidence for the road itself below ground within the Application Site.

5.146 The majority of the surrounding villages were in existence by the 11th century. It is therefore likely that these were the main settlement sites throughout the medieval period, and as such it is unlikely that there were additional settlements within the Site. During the later medieval and post-medieval periods, the Site probably lay within one of the communal open fields of Upper Heyford, used for arable purposes. It is unlikely that there would be settlements dating to these periods on the Application Site, although the finds to the south east of the Flying Field may suggest an unknown early settlement nearby. The 19th century maps show the Application Site as a field with no development upon it until the RAF airfield was laid out before the Second World War.

5.147 The historic villages of Upper and Lower Heyford date from the medieval period, and contain a significant number of historic buildings dating from the medieval centuries to the 19th century. These comprise churches, farmhouses, cottages and other dwellings, many of them listed buildings, and occur both in compact village streets and

linear extensions of the villages. The villages are in conjoined Conservation Areas that also include Rousham.

- 5.148 Rousham is one of the most renowned English designed landscapes, and of outstanding importance. On the north side of the house overlooking the Cherwell valley, a more formal garden by Charles Bridgeman of the 1720s was transformed by William Kent in the 1730s. It has come to be seen as the quintessential English garden and is a Grade I registered park and garden.
- 5.149 The history of RAF Upper Heyford is a complex story of development from an early RAF airfield of 1916, through expansion as a bomber base in the 1920s and developed and extended in the 1930s period of re-armament, and then fully used during World War II for training and bombing operations. The wider RAF Upper Heyford site is a Conservation Area.
- 5.150 The use of the RAF Upper Heyford site during the various episodes of the Cold War, and its use predominantly as an American Airbase, resulted in some of its most remarkable and enduring features of 'hardened' buildings capable of surviving aerial bombardment, and the special requirements of intelligence gathering and storage of nuclear weapons.
- 5.151 The Application Site was originally the site of a late or post-war barracks, which was used for Prisoners of War before becoming the Upper Heyford High School.

### Likely Significant Effects

- 5.152 The impacts from the Proposed Development likely to affect the archaeological heritage resource are removal of buildings and existing foundations/hardstanding on the Application Site; and construction of housing, insertion of services and any landscaping.
- 5.153 Housing will be 2-3 storeys high, will not have basements, but will have strip foundations. No significant earth moving or landscaping is proposed. Drainage trenches will be excavated and it is likely that topsoil will be stripped across the Application Site prior to construction. The topsoil stripping, and the excavation of the footprints of the houses and the drainage trenches will all impact upon any archaeological remains present.
- 5.154 There are no known sites of significant archaeological interest within the Application Site, although remains of the Port Way Roman Road may extend into the western strip of the Site. Remains of the Roman Road would be of medium sensitivity depending on its survival and extent. If affected by the Proposed Development, below-ground impacts on any remains may be large and may result in its total destruction in this area. However, given that only one small section of a much longer road will be affected, the impact is considered overall to be moderate leading to a moderate adverse effect.
- 5.155 Remains associated with the surfaced areas of the 1920s airfield were present on the Application Site, but it is likely these were removed prior to the 1980s development. If any remains did survive they would be of negligible sensitivity and the effect upon them would be none.

- 5.156 It is possible that along the whole route of Port Way as yet unknown sites and finds may be present dating from the Roman period, as cemeteries/burials and buildings were often located along these roads.
- 5.157 The whole Application Site has a high potential to contain deposits relating to settlement dating to the Iron Age and Romano-British periods. The evidence for this relates to the large amount of such sites seen in the Study Area.
- 5.158 There may be evidence in the Application Site from the medieval and post-medieval periods but this is likely to relate to the agricultural use of the land and whilst their sensitivity is unknown, any such remains found are unlikely to be important.
- 5.159 In areas which have been identified as relatively undisturbed, such as the majority of the Application Site below the concrete hut bases and the grassed and surfaced areas, survival of any archaeological features is likely to be good, particularly within the grassed areas. Given the unknown sensitivity of the potential archaeological remains, it is not possible to provide an assessment of the actual impact or significance of effect at this stage, and further work would be needed to define the presence and sensitivity of this resource.
- 5.160 The hedgerow running along the western side of the Application Site is 'important' using the criteria of the 1999 Hedgerow Regulations. However, this will be retained during development as the western boundary of the Application Site.
- 5.161 There are no significant impacts on Listed Buildings and Conservation Areas in Upper and Lower Heyford villages. Outside of the villages the potential visibility of the site from parts of the Conservation Area between Upper and Lower Heyford would be a minor or negligible impact of slight significance.
- 5.162 The minor effect of change in setting to the scheduled Avionics Building on the Flying Field to the north would be a slight/moderate effect, while the loss of the unlisted Conservation Area buildings of the former Upper Heyford High School would be no more than a slight effect.
- 5.163 The Proposed Development has the potential to impact upon the setting of the Rousham Registered Park and Garden and Conservation Area. The Landscape and Visual Assessment has identified two views from Rousham in which the Proposed Development would be visible. The Proposed Development would comprise a very small portion of these views, and would not change their overall character. As a result, the magnitude of impact of the Proposed Development upon these very high value viewpoints is considered to be negligible resulting in a minor overall effect.
- 5.164 It is not known whether the street lighting associated with the Proposed Development would be visible above the screening provided by the hedgerow running along the western edge of the application area, although it should be noted that the Application Site has existing street lighting. Were the proposed street lighting to be visible, this would cause a minor impact upon the setting of the very high value Registered Park and Garden, resulting in a moderate overall adverse effect but is more likely slight adverse. This would be mitigated in the design phase by the application of a sensitive design code, reducing the overall effect to minor.

### Mitigation and Enhancement

- 5.165 The adverse effects of the Proposed Development upon the built heritage resource would be reduced through an agreed programme of building recording undertaken prior to the demolition or alteration of buildings within the Application Site.
- 5.166 Potential adverse effects of the Proposed Development upon the Rousham Landscape and Conservation Area would be reduced by the use of appropriately designed lighting units and their planned layout and enhanced landscape planting.

### Cumulative Effects

- 5.167 Generally, the cumulative effect of the five developments examined as part of the cumulative effects assessment is at most minor/ However, in the case of the Conservation Areas, the cumulative effect on the erosion of character in the RAF Upper Heyford Conservation Area would be Moderate Adverse, while the impact of street lighting on Rousham Park could potentially be Moderate Adverse.

### Conclusions

- 5.168 Whilst the Application Site has a high potential for unknown archaeology to be present, it is considered that evaluation and any mitigation arising from it would reduce the significance of effects on this resource to an acceptable level through a suitable and agreed programme of archaeological works. Mitigation by design to both avoid adversely affecting the Historic Hedgerow and any potential remains associated with Port Way has helped to reduce the overall effect.
- 5.169 There is some potential for impacts to the designated sites and Conservation Areas around the site in Upper and Lower Heyford, and Rousham, as well as to the historic features within the Site and its own Conservation Area. The effects of the Proposed Development would have no more than Slight or Slight Moderate Adverse effects, and concerns can mostly be met by proposed mitigation by design and recording of lost historic structures. Generally, the cumulative effect of the five developments examined as part of the cumulative effects assessment is at most Slight Adverse. However, in the case of the Conservation Areas, the cumulative effect on the erosion of character in the RAF Upper Heyford Conservation Area would be Moderate Adverse, while the impact of street lighting on Rousham Park could potentially be Moderate Adverse or more likely Slight Adverse.

## 6. CONCLUSION

- 6.1 The Environmental Impact Assessment as reported in the Environmental Statement 2016 and updated by the Supplementary Environmental Information 2018 has demonstrated that, following the implementation of the identified mitigation measures, there would be only a few significant adverse environmental effects resulting from the Proposed Development. It is therefore concluded that no overriding environmental constraints occur that would preclude the development of this land for new residential dwellings and associated works.



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