



# HEYFORD MASTERPLAN

## ENVIRONMENTAL STATEMENT

### NON-TECHNICAL SUMMARY

PREPARED BY PEGASUS ENVIRONMENT  
P16-0631\_97B | MARCH 2020





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Prepared on behalf of Dorchester Group  
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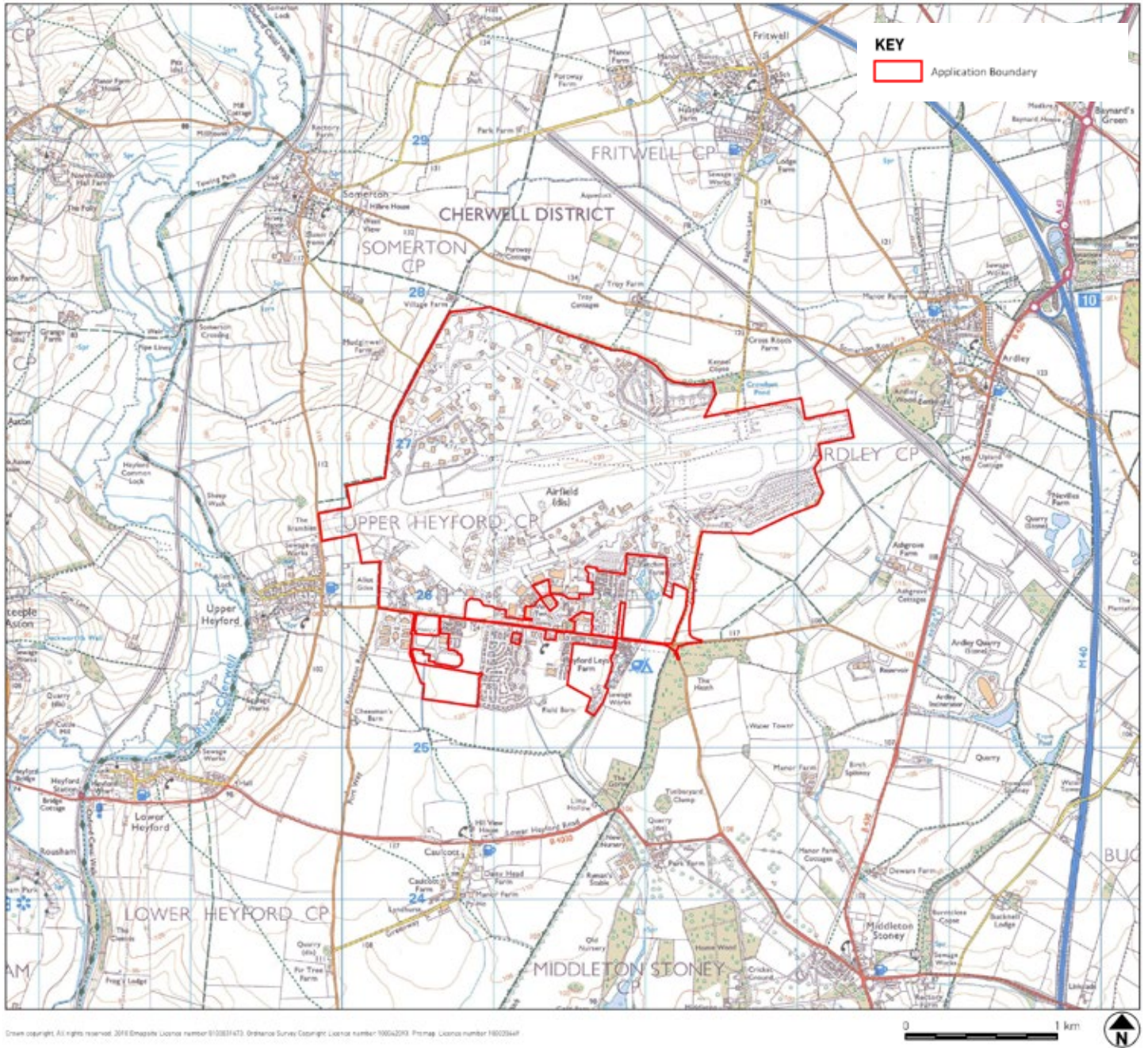


FIG 1 SITE CONTEXT PLAN

## **INTRODUCTION**

This Non-Technical Summary (NTS) summarises the findings of the Supplementary Environmental Information (SEI) to the Environmental Statement that was submitted in 2018 that accompanies a “hybrid” planning application submitted on behalf of Dorchester Living Limited (the “Applicant”) for development (the “Proposed Development”) on land at the Former RAF Upper Heyford air base and adjacent land lying to the north and south of Camp Road, Upper Heyford and centred on OX25 5HD (the “Application Site”). The hybrid application seeks detailed or outline planning permission for different elements of the Proposed Development as set out below.

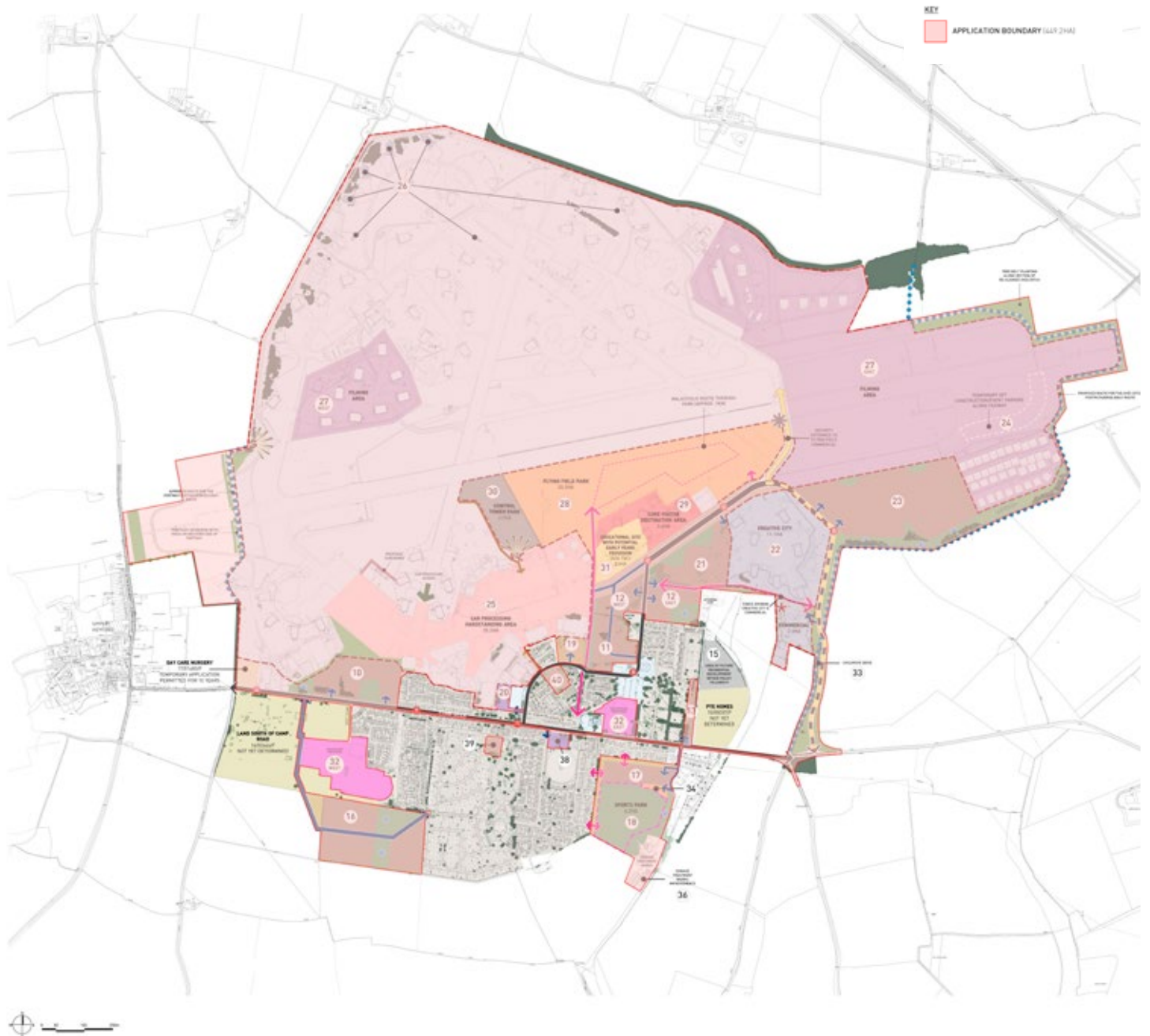


FIG 2 APPLICATION BOUNDARY

Due to ongoing consultation with Cherwell District Council and other statutory consultees the proposed design of the Proposed Development has been altered. These alterations need to be assessed to enable Cherwell District Council to determine if this planning application should be approved. This SEI draws together all of the environmental assessments that have been completed for this revised scheme.

The proposals comprise of the demolition of specified buildings and structures within the Flying Field to the south of the runway. Comprehensive redevelopment would take place including new dwellings, retail/commercial, healthcare, education, employment/energy facility, tourism uses and associated infrastructure and landscape measures; improvements would be made to Chilgrove Drive including a new junction with Camp Road.

The planning application seeks outline planning permission for the new build components of the Proposed Development, and seeks detailed permission for demolition of buildings and structures and the changes of use. The layout of Chilgrove Drive (to the east of the proposal) and all matters of layout, scale, access, and appearance of the residential, commercial/industrial, retail, medical facilities, education, heritage, community and sport facilities, and landscape design are to be reserved for future determination.

The Environmental Statement (ES) reports the findings of an Environmental Impact Assessment (EIA) that has studied the likely significant effects on the environment of the construction, operational and decommissioning phases of the Proposed Development by virtue of such factors as its nature, size or location. The ES comprises a comprehensive set of documents that will be available to view at the offices of Cherwell District Council (CDC) and on CDC's website. This SEI should be read with the ES.

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)

Printed copies of the ES documents may be purchased as follows: NTS (no charge); the ES Main Report, Figures and Appendices (£125). Alternatively, the complete ES is available on CD (£10). The SEI can be purchased for £55 and the SEI NTS (no charge). Postage is payable upon all orders. When ordering, please quote reference P16-0631 to:

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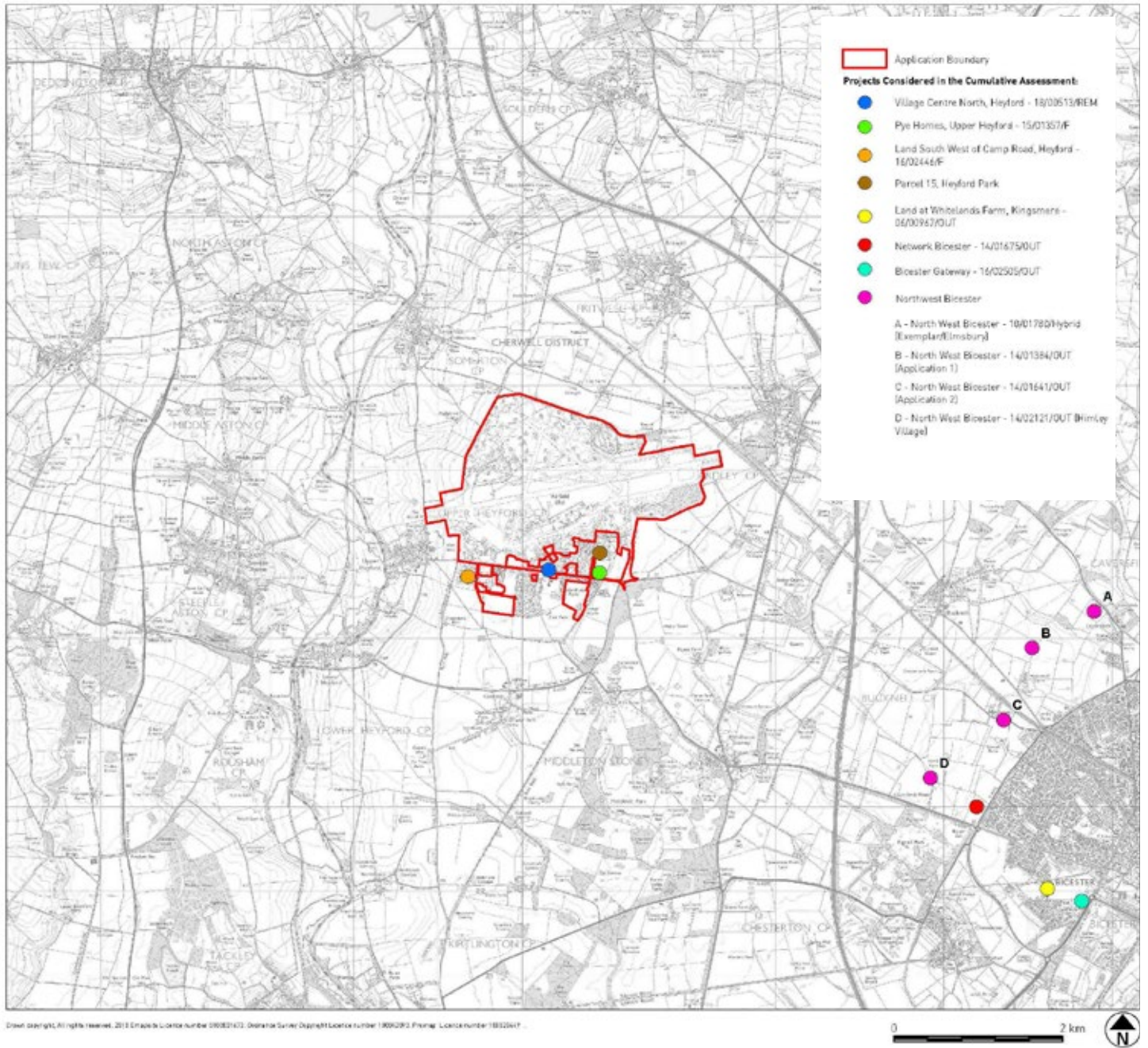


FIG 3 CUMULATIVE SITES PLAN



## ASSESSMENT SCOPE AND METHODOLOGY

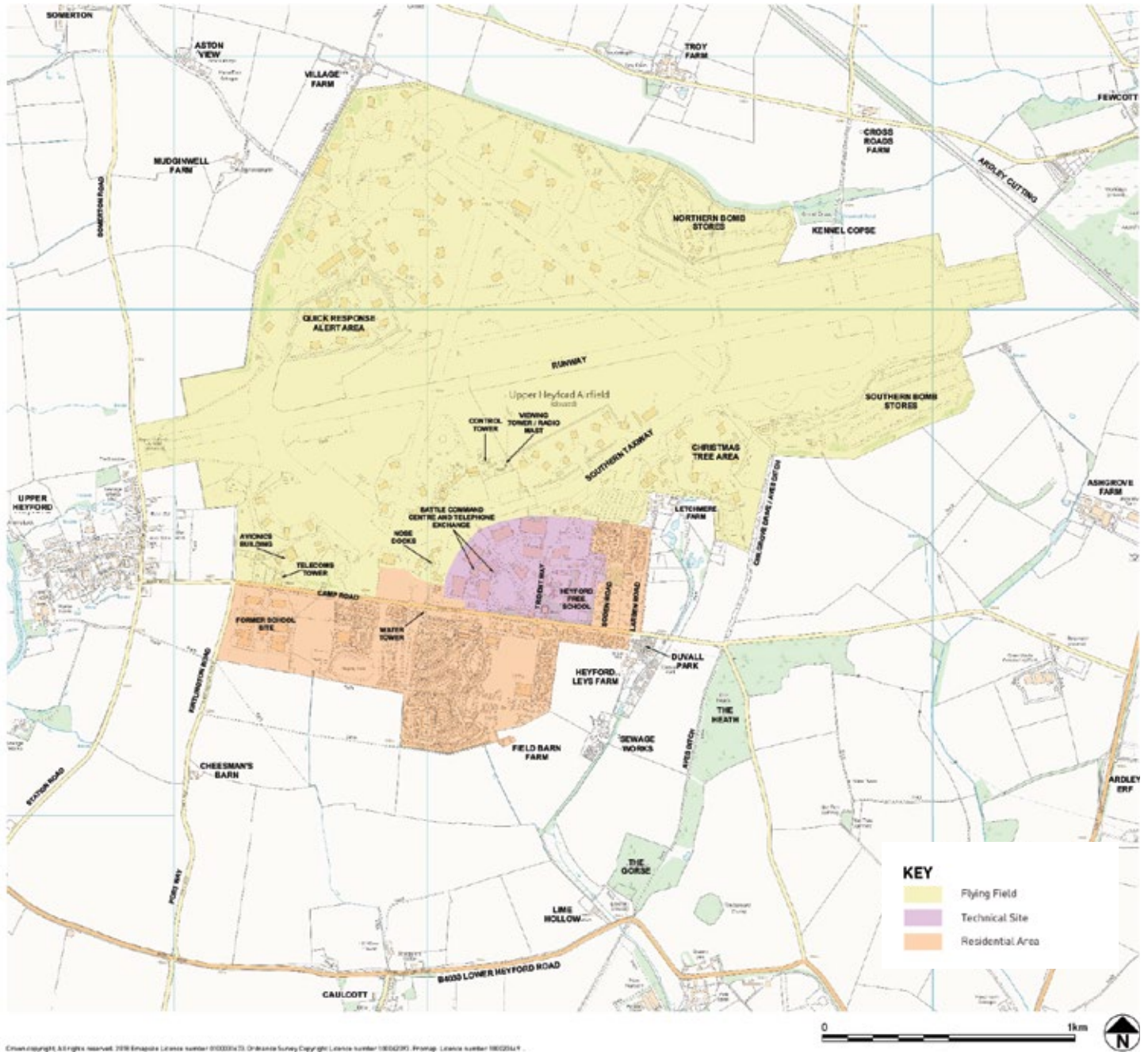
The EIA has been prepared in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations 2017.

Following on from the submission of the application in 2018 considerable consultation has taken place with statutory consultees to determine the acceptability of the Proposed Development. CDC provided their 'official' response in July 2019, and this SEI has worked to offer design mitigation/ amendments to resolve these concerns.

Opinion was sought from CDC when the ES (2018) was being prepared on the location and nature of sites that should be assessed as 'Cumulative Development' within the Environmental Statement. This identified five permitted or yet to be determined sites within or adjacent to the Application Site, and six sites adjacent to the north-western edge of Bicester. For this SEI this list of cumulative sites was considered again. This results in one of the permitted sites being removed (day nursery on Camp Road) as it has been built and a different scheme for the Village Centre North being considered as the one assessed in 2018 has been withdrawn and a new scheme submitted and approved.

Planning applications for two proposed employment use developments on the Southern Bomb Stores (SBS) within the Application Site have not been considered within the cumulative assessment; to date neither of these applications have been determined by CDC. Within the Proposed Development that this ES assesses, land within SBS is to be used for a combination of residential, Public Open Space (POS) and for filming activities. The Applicant has therefore confirmed that if the Proposed Development was to gain planning consent neither of the undetermined planning applications would be progressed and so they have been excluded from the assessment of cumulative effects.

Given the nature and intended longevity of the Proposed Development, decommissioning has not been considered as part of the EIA. Accordingly, the EIA has focused on the potential likely significant effects of the Proposed Development during the construction and operational phases only.



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FIG 4 EXISTING FEATURES PLAN

## APPLICATION SITE AND CONTEXT

The Application Site covers approximately 449 hectares of land occupying much of the c.520 hectares of the former RAF Upper Heyford Air Base (the former Air Base), yet excludes areas of completed and ongoing development within Heyford Park or areas subject to separate planning applications. The former Air Base is approximately 5.3km north-west of Bicester, 12.9km south-east of Banbury and 1.7km south-west of junction 10 at the M40, in Oxfordshire.

The former RAF Air Base was leased by the United States Air Force, and is now in the control of the Applicant. The former Air Base is designated as the RAF Upper Heyford Conservation Area, and the southwest corner of the Application Site falls within the Rousham (including Upper and Lower Heyford) Conservation Area.

The Application Site is located largely to the north of Camp Road, but also includes other land to the south of Camp Road that have been allocated for development under Policy Villages 5 of the CDC Local Plan.

Camp Road provides access to Upper Heyford and via the B430 to Middleton Stoney, Bicester, Ardley and Junction 10 of the M40. In turn, Junction 10 of the M40 motorway provides access to Banbury, Birmingham, Bicester, Oxford and London. Approximately 1.6km south-west of the Application Site is Ardley Energy Recovery Facility (ERF).

The majority of the Application Site boundary follows the former Air Base boundary which is marked by chain link security fences, beyond which lies open countryside to the north, east, and west; the southern boundary in part lies adjacent to open countryside, former Air Base structures, or new housing within Heyford Park.

The landscape that surrounds the Application Site is predominantly agricultural land, interspersed with villages including Fritwell 1.4km to the north, Ardley with Fewcott 0.7km to the northeast, Middleton Stoney 2.2km to the southeast, Caulcott 0.8km to the south, Lower Heyford 1.1km to the southwest, Steeple Aston 2.1km to the west, Middle Aston 2.2km to the west, North Aston 2.7km to the northwest and Somerton 0.9km to the northwest. Upper Heyford lies adjacent to the western boundary.



FIG 5 DEMOLITIONS PLAN

## THE PROPOSED DEVELOPMENT

The assessment has been carried out with regards to a range of development parameters to ensure that the Proposed Development as assessed represents the maximum (i.e. worst-case) scenario, whilst providing some limited flexibility for changes that may arise as the scheme evolves with the benefit of subsequent planning approvals and/or reserved matters. A series of parameter plans define the proposed demolition and change of use, location and extent of proposed land uses, and broadly defines principal access and circulation routes, surface water attenuation, green infrastructure, building heights and fencing.

Specified structures would be demolished to the north of Camp Road, south of the runway. Other buildings within the Flying Field will continue to be used for employment uses, whilst others will be changed to employment, tourism or education uses including the Control Tower and a number of Hardened Aircraft Shelters (HAS). The existing car processing area would be moved further to the west along the southern taxiway. The Quick Response Alert area, Northern Bomb Stores, Southern Bomb Stores and the eastern portion of the Flying Field are to be used temporarily for filming.

Provision is made for up to 1,175 new dwellings and 60 close care dwellings to the north of Camp Road within the Flying Field, and on allocated greenfield land south of Camp Road. New retail and medical facilities would be located within Village Centre North, and a community use building and a Sports Park are proposed in the eastern corner of the Application Site. Additional education facilities associated with the existing school sites and a separate primary school will also be provided.

Employment and mixed uses including business, general industrial/storage or distribution, and an energy facility would be located to the north of Camp Road, off Chilgrove Drive.

A Core Visitor Destination Area would be created adjacent to two large new public parks, Flying Field Park and Control Tower Park, south of the runway. A 30m high viewing tower would be located on the edge of Flying Field Park, next to the runway.

Chilgrove Drive and its junction with Camp Road will be improved with traffic lights to form the main HGV access to the Flying Field; the junction will include a dedicated equestrian crossing.

A comprehensive network of green spaces and landscape planting (known as Green Infrastructure or GI) would include the two large public parks, local parks and play spaces, cultural heritage features, and tree planting and ecological habitats across the Application Site as a whole. New links to public rights of way and the wider area would include reinstatement of Aves Ditch. A comprehensive surface water Sustainable Drainage System would also be created and foul water would be discharged to the refurbished waste water treatment plant via a new sewer drainage system.

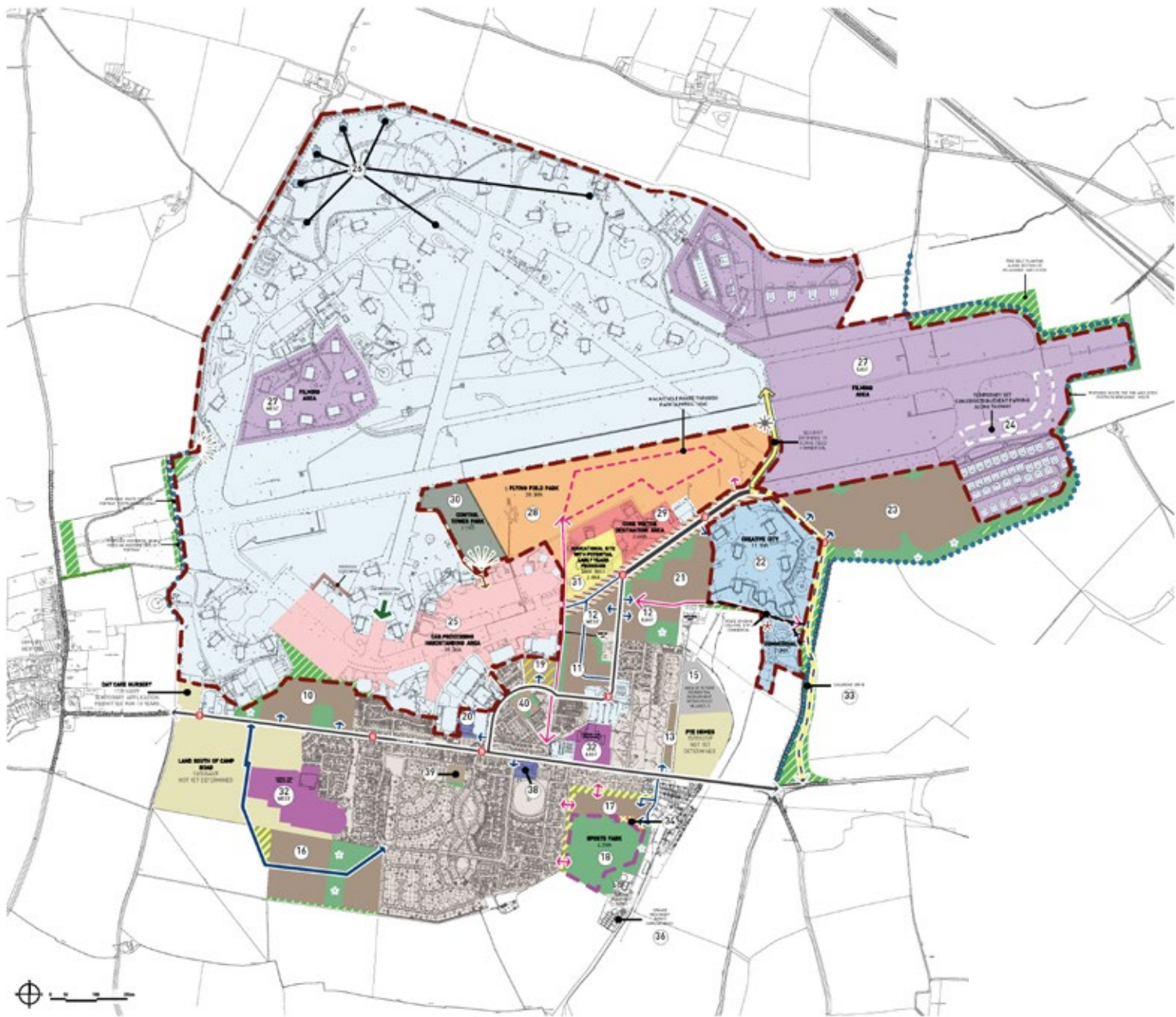


FIG 6 COMPOSITE PARAMETER PLAN

**HEYFORD RESIDENTIAL PROVISION** (RELATES TO P16-0631\_087)

**DORCHESTER LAND PART OF THIS APPLICATION**

PARCEL	NO. OF DWELLINGS	NO. OF PEOPLE
10	130	311
11	60	191
12	120	267
13	5	14
21	102	254
23	670	1123
25	27	65
<b>TOTAL</b>	<b>906</b>	<b>2235</b>

**DORCHESTER LAND NOT PART OF THIS APPLICATION**

PARCEL	NO. OF DWELLINGS	NO. OF PEOPLE
LAND SOUTH OF CAMP ROAD	299	710

**THIRD PARTY LAND PART OF THIS APPLICATION**

PARCEL	NO. OF DWELLINGS	NO. OF PEOPLE
16	178	425
17	52	148
<b>TOTAL</b>	<b>249</b>	<b>574</b>

**THIRD PARTY LAND NOT PART OF THIS APPLICATION**

PARCEL	NO. OF DWELLINGS	NO. OF PEOPLE
15	69	117
PYE HOMES	79	189
<b>TOTAL</b>	<b>128</b>	<b>306</b>

TOTAL	NO. OF DWELLINGS
ON PARAMETER PLAN	1400
PART OF THIS APPLICATION	1175
NOT PART OF THIS APPLICATION	425

**PROPOSALS KEY**

**LAND USE**

	EXISTING BUILT DEVELOPMENT/PROPOSALS
	EXISTING COMMERCIAL AREAS
	EXISTING APPLICATIONS WITHIN MASTERPLAN AREA LAND SOUTH OF CAMP ROAD, VILLAGE CENTRE NORTH, DAY NURSERY & PYE HOMES
	RESIDENTIAL
	CREATIVE CITY / COMMERCIAL
	CAR PROCESSING
	MIXED USE
	FLYING FIELD PARK
	CORE VISITOR DESTINATION AREA
	EDUCATIONAL SITE WITH POTENTIAL EARLY YEARS PROVISION (AGE 3-5) INCLUDING NEW BUILDING
	ANCILLARY OPEN ACTIVITY SUCH AS PARKING
	FILMING ACTIVITY AREA
	HEYFORD FREE SCHOOL SITES TO BE EXTENDED/EXPANDED
	UP TO 60 EXTRA CARE DWELLINGS (CLASS C2/C3) 0.9 HA
	AREA FOR COMMUNITY USES
	CONTROL TOWER PARK
	GREEN INFRASTRUCTURE INCLUDING CHILDREN'S PLAY AREAS

**GREEN INFRASTRUCTURE**

	STRATEGIC LANDSCAPE BUFFER
	COMMUNITY ORCHARD / ALLOTMENTS
	SPORTS PARK
	APPROXIMATE LOCATION OF ATTENUATION AREAS
	PROPOSED SCREENING
	VIEWPOINT ACROSS SITE
	EXISTING VEGETATION SUBJECT TO DETAILED TREE SURVEY (CLASS 'C' HATCHED GREEN)

**ACCESS & MOVEMENT**

	BUS ROUTE, VEHICLE ACCESS & FOOTWAYS
	PRIMARY VEHICULAR ACCESS
	PRIMARY HGV ACCESS
	MAINTENANCE ACCESS
	PRIMARY PEDESTRIAN / CYCLE ROUTES WHERE NOT IN ASSOCIATION WITH VEHICLE ACCESS
	PRIMARY CAR PROCESSING ACCESS
	SECONDARY COMMERCIAL ACCESS
	POTENTIAL BUS STOP LOCATIONS
	FOOTPATH/BRIDLEWAY ROUTE

**OTHER**

	SECURITY FENCE
	PARCEL NUMBER
	OBSERVATION TOWER & ZIPWIRE
	APPROXIMATE LOCATION OF ENERGY INFRASTRUCTURE / FACILITY

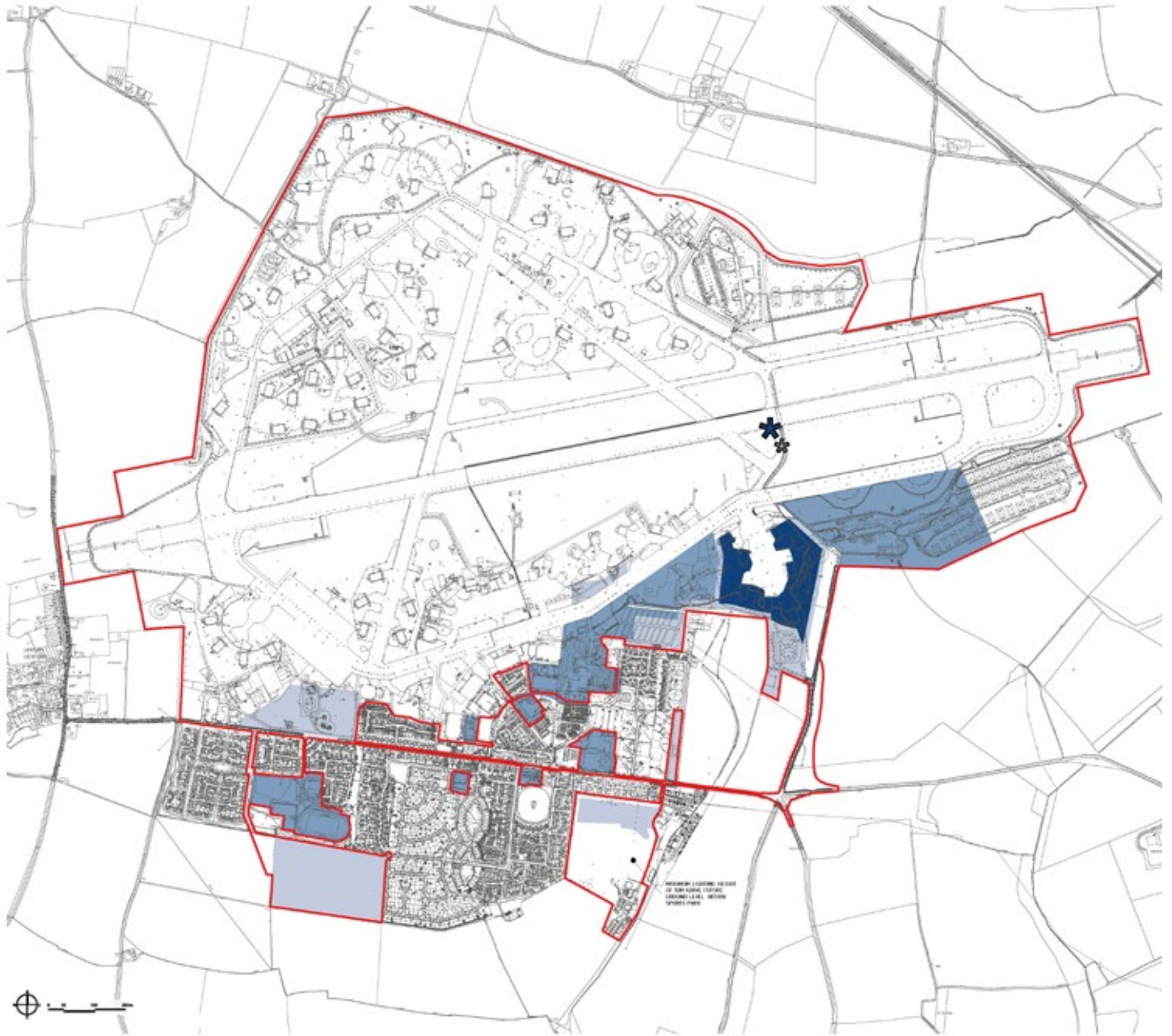


FIG 7 BUILDING HEIGHTS



**KEY**



APPLICATION BOUNDARY



EXISTING SURVEY SHOWN FOR CONTEXT



MAXIMUM BUILDING HEIGHT UP TO 5M  
ABOVE FUTURE GROUND LEVEL



MAXIMUM BUILDING HEIGHT UP TO  
10.5M ABOVE FUTURE GROUND LEVEL



MAXIMUM BUILDING HEIGHT UP TO 13M  
ABOVE FUTURE GROUND LEVEL



MAXIMUM BUILDING HEIGHT UP TO 18M  
ABOVE FUTURE GROUND LEVEL



MAXIMUM FEATURE TOWER HEIGHT UP  
TO 30M ABOVE FUTURE GROUND LEVEL

## CONSTRUCTION

The planning application seeks outline permission for the Proposed Development and therefore development of each parcel would be subject to approval of detailed design under Reserved Matters applications. Similarly, the extent of tree removal would be subject to Arboricultural Impact Assessments to be submitted in support of the Reserved Matters applications, which would guide detailed design and minimise tree loss.

The Applicant would prepare Construction Environmental Management Plans (CEMPs) that set out the agreed methods and procedures for construction, and standard measures and adoption of construction best practice to ensure that the risks to the environment are avoided and/or appropriately managed for each development parcel. The details of each CEMP would be agreed with the Council and monitored throughout the construction phase.

Construction is expected to begin during 2020, and will last for about 11 years with completion in 2031. Construction would be phased, although details of that phasing are not known at this stage.

## ALTERNATIVES

The Applicant has considered a 'No Development' and many alternative designs to the Proposed Development. The 'No Development' Alternative refers to the option of leaving the Application Site as it currently is, which would be contrary to approved and ongoing development on neighbouring land that comprises 1,075 new dwellings, refurbishment of 267 existing military dwellings, and other associated works including a school, playing fields and social infrastructure. Not developing the Application Site would result in large underused and derelict pieces of land remaining close to the permitted development thus detracting from perceived

quality, leading to a detrimental effect on the local community.

The main alternative designs considered included development and consideration of the 'LDA Design Framework' following adoption of the Policy Villages 5 policy by CDC. It concluded that the development area would need to extend onto land to the south of the southern taxiway within the Flying Field in order to accommodate the required number of homes and jobs.

Subsequently, various masterplan options developed on behalf of the Applicant have been presented to CDC with a wider Stakeholder Workshop and meetings held to guide further development of the masterplan. These meeting guided the Concept Masterplan which was presented at the Heyford Masterplan exhibition in late September and early October 2017. A Concept Master Plan was developed further to produce the Composite Parameter Plan that was submitted in the 2018 application.

The Composite Parameters Plan draws together information regarding proposed land use parcels, Green Infrastructure, and vehicular and pedestrian/cycle movement and access. It has been subject to extensive consultation and responds to environmental and technical constraints emerging from the EIA and other studies and forms the Preferred Option that was assessed in the EIA (2018).

Following more consultation with CDC and statutory consultees, this Preferred Option has been developed further with a new Parameter Plan being designed. This Parameter Plan in the basis of this SEI and should be referred to instead of the design presented within the ES (2018).



FIG 8 GREEN INFRASTRUCTURE PLAN

# SOCIO ECONOMICS

## INTRODUCTION

The analysis has focused on the provision of social and economic effects of the Proposed Development during both the construction and operational phases and the wide range of socio-economic issues that exist which will be affected by the Proposed Development.

The assessment is based on professional experience and best practice, and consideration of the policy requirement and tests set out within the National Planning Policy Framework, and the extant and emerging development plan.

## BASELINE CONDITIONS

Cherwell is expected to experience population growth and to see the population age in accordance with national trends.

The geographical area used by the Office for National Statistics which contains the Application Site currently experiences deprivation in regard to access to housing and services, but little deprivation in other domains.

Heyford Park is planned to accommodate significant housing growth during the development plan period. The Proposed Development is expected to provide a significant component of this supply.

There is currently sufficient educational capacity to serve the existing community within the Heyford Park Free School although some years may be minimally oversubscribed.

There are a greater number of GPs per patient within 5 miles of the Proposed Development compared to the national average, although these are somewhat remote being located in Bicester.

Cherwell experiences net out-commuting, as there are fewer jobs in the district than workers.

## LIKELY SIGNIFICANT EFFECTS

The key socio-economic effects can be summarised as follows:

- Provision of 422 additional jobs during construction;
- Accommodation for circa 4,436 people in the Proposed Development and baseline developments, of which 2,439 are estimated to be new to the area;
- A positive effect on the age of the population;
- New houses and services within the area to address the existing deprivation;
- Provision of housing (including affordable housing) to meet local and district-wide housing needs;
- Provision of a new school and extension of the existing school serving Heyford Park which will free up existing capacity in schools across the broader area;
- Provision of a new medical centre serving the Heyford Park community, and providing additional capacity across the broader area;
- An additional £57.6M of gross income, of which £31.2M is likely to be new to the area, which will support local services;
- An increase in the tourist economy;
- Increased provision of open space, meeting or exceeding standards; and
- Provision of c. 1,183 to 1,637 jobs during operation of the Proposed Development.

## MITIGATION AND ENHANCEMENT

No mitigation has been identified in socio-economic terms given that the Proposed Development provides beneficial effects. However, if mitigation is required it is considered likely that this can be addressed through appropriate financial contributions towards off-site provision.

## CUMULATIVE AND IN-COMBINATION EFFECTS

The key socio-economic effects of the Proposed Development considered in combination with the related developments are as follows:

- Accommodation for circa 5,569 people, of which 3,054 are estimated to be new to the area;
- A positive effect on the age of the population;
- New houses and services within the area to address the existing deprivation;
- Provision of housing (including affordable housing) to meet local and district-wide housing needs;
- Provision of a new school and extension of the existing school to benefit the broader area;
- Provision of a new medical centre providing additional capacity across the broader area;
- An additional £39.2M of gross income new to the area, which will support local services;
- An increase in the tourist economy;
- Increased provision of open space, with the standards being exceeded or met;
- Accommodation for 2,341 to 2,858 jobs during the operational phase of the Proposed Development, baseline developments and related developments.

## CONCLUSION

Overall the Proposed Development (alone and in-combination) is considered to provide beneficial socio-economic effects and will contribute to the housing and employment needs of the district, which provides potentially significant economic benefits.

- Key**
- Primary Pedestrian & Cycle Routes (off-road cycle provision)
  - Secondary Pedestrian & Cycle Routes (on-road cycle provision)
  - On-road Cycle Connections
  - Heritage Trail
  - Existing Bridleways
  - Existing Footpaths
  - Consented Bridleway
  - Potential Link with Public Right of Way

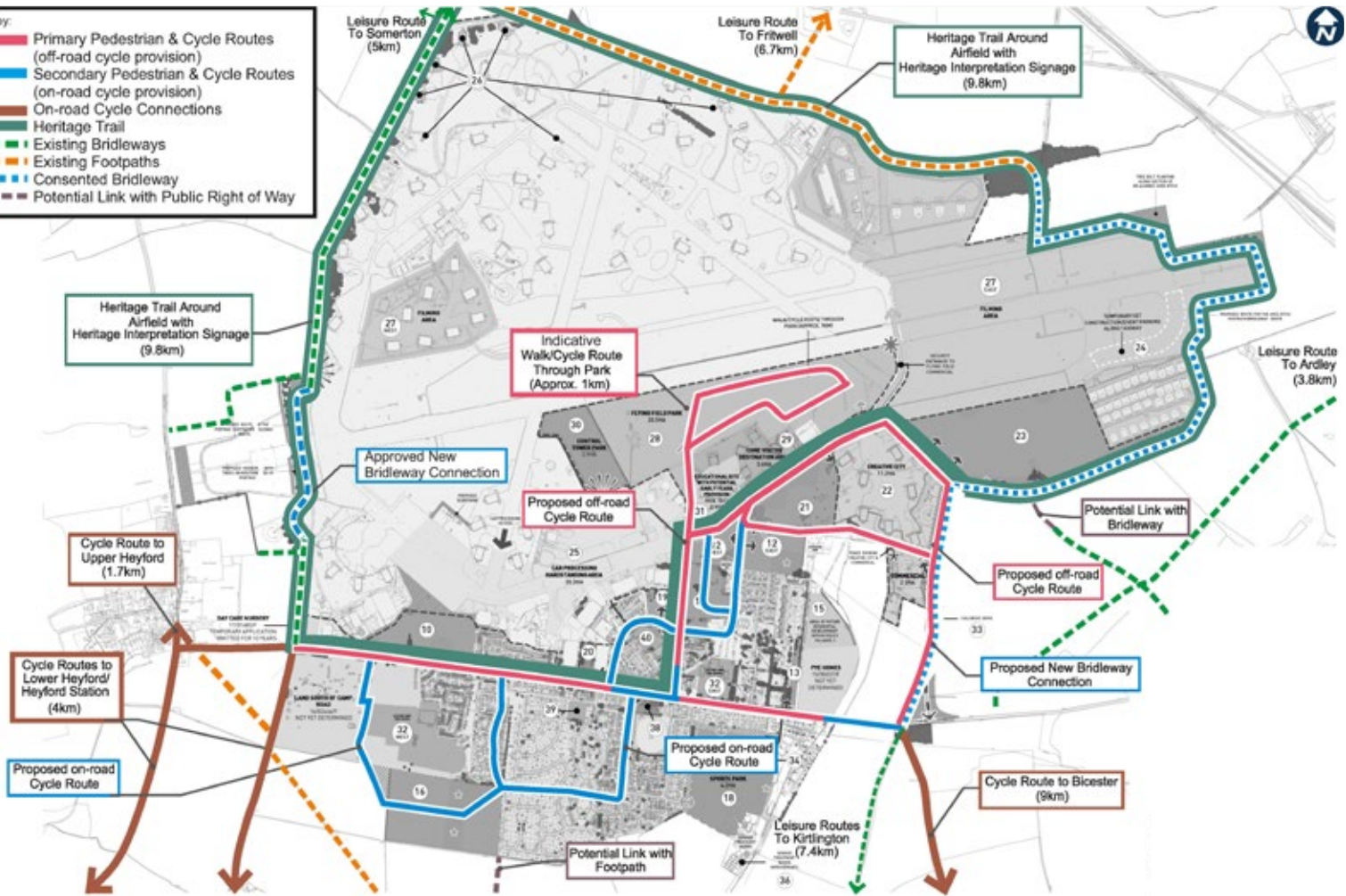


FIGURE 9 PEDESTRIAN AND CYCLE CONNECTIONS

# TRANSPORT & ACCESS

## INTRODUCTION

The likely significant effects of the Proposed Development in terms of transportation including effects of traffic together with other transport and access matters (e.g. effects on pedestrians, cyclists and public transport) has been assessed based on the Transport Assessment (TA) which is submitted with the ES.

## BASELINE CONDITIONS

As traffic levels are generally increasing and are likely to continue to do so until the Proposed Development is completed, the current year does not provide a suitable baseline for the assessment of the development. Therefore, the 'do nothing' scenario for 2031 was the most suitable baseline to be used in this assessment. This baseline includes all consented Heyford Park development and committed Local Plan/ third party development sites.

## LIKELY SIGNIFICANT EFFECTS

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 two links and one junction across the study area.

## MITIGATION AND ENHANCEMENT

Extensive consultation was undertaken and is ongoing with Oxfordshire County Council, Highways England and CDC to agree proposals for mitigation measures and improvements to the transport network, including key junctions across the study area. These measures would mitigate against significant adverse effects on driver delay times, accidents, safety and severance related to increases in traffic resulting from the Proposed Development.

There will be a benefit for pedestrians and cyclists due to the proposed infrastructure improvements and provision of new and enhanced routes and services such as cycle hire schemes.

A Construction and Environmental Management Plan and Construction Travel Plan will also be prepared to encourage the adoption of best practice methods and minimise any adverse effects resulting from construction traffic.

## CONCLUSION

On the basis that the proposed mitigation measures are implemented the Application Site is not likely to result in any significant effect to matters related to transport and access.

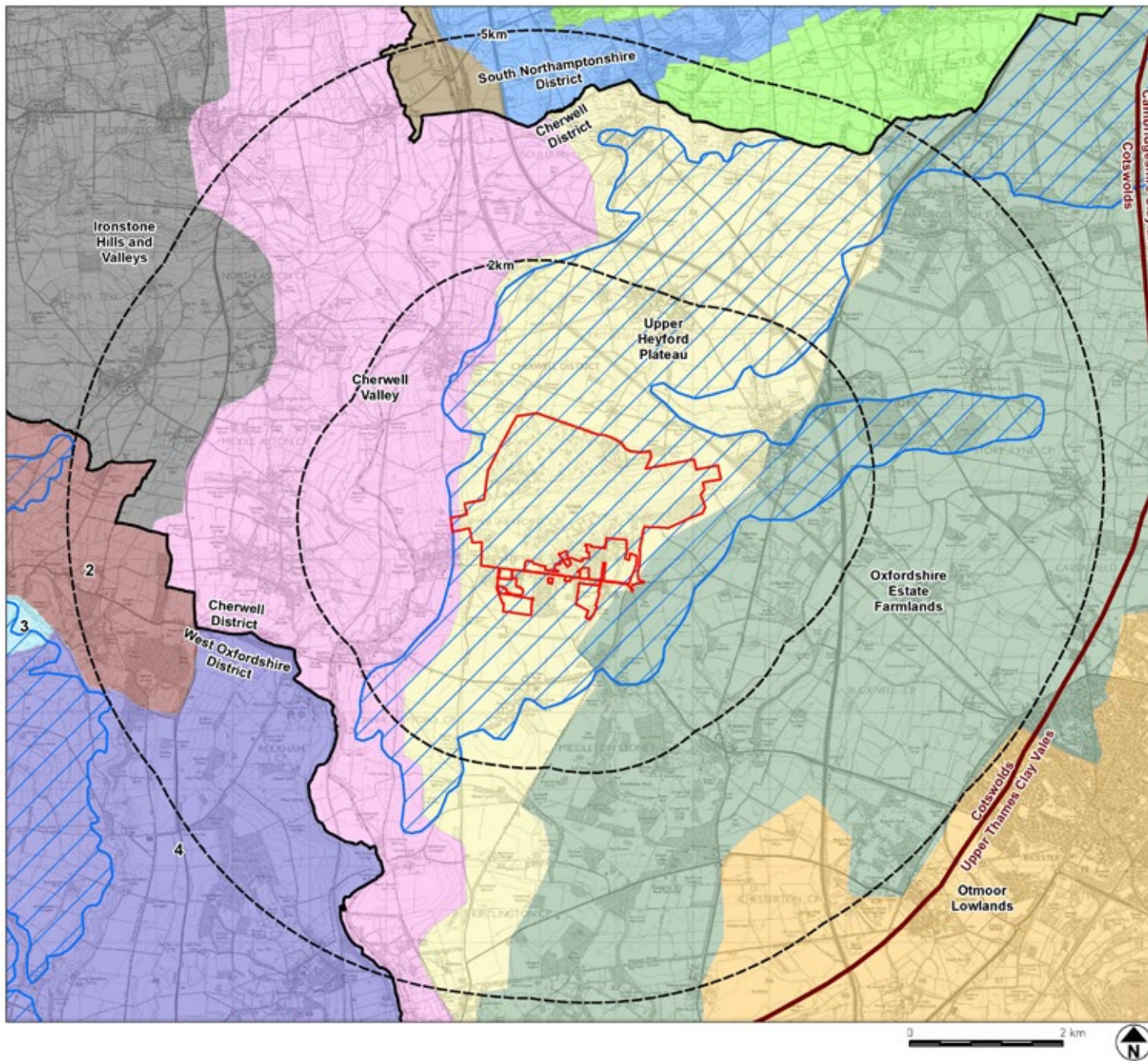


FIG 10 LANDSCAPE CHARACTER AREAS PLAN



# LANDSCAPE & VISUAL IMPACT

## INTRODUCTION

The Landscape and Visual Impact Assessment has considered landscape elements, landscape character, night time character, visual receptors, representative viewpoints, and cumulative effects in combination with other identified development sites. The Assessment has been conducted in accordance with best practice and considers published Landscape Character Assessments (LCA's).

## BASELINE CONDITIONS

The former Flying Field is not publicly accessible, and is largely in employment use. Built form to the north of Camp Road is complex and large scale, comprising military structures of the Flying Field and Technical Area. The area to the south of Camp Road is in residential and education use and is characterised by domestic scale houses and bungalows. Due to its scale and former functions, the Application Site comprises a varied built form and scale, circulation routes, and spaces.



Visual receptors include residential properties in and around Heyford Park, the fringes of the former Air Base and surrounding villages, users of Public Rights of Way (PROW), and road users. A number of historic parks are located in the surrounding landscape, of which Rousham Park (Grade I) is most relevant due to its proximity and elevation.

Twenty-four representative viewpoints have been assessed to represent

different receptors and landscape character. Six further viewpoints within the Flying Field represent newly created or more publicly accessible viewpoints than at present.

## LIKELY SIGNIFICANT EFFECTS

Temporary construction activity, the completed development, and proposed lighting would be seen in the context of existing built form within the Flying Field, Technical Area, Heyford Park, and other developments within the vicinity including Ardley ERF and Cherwell Services.

There would be negligible effects on topography, land form, and drainage features during construction and the relationship with the surrounding landscape would be unchanged. New sustainable drainage systems, would be integrated within the proposed Green Infrastructure as ponds and swales, resulting in minor beneficial effects.

Of the buildings to be demolished, only one is openly visible from the publicly accessible Camp Road; all others are within the core of the Technical Area or are obscured by vegetation along Chilgrove Drive. Overall, their loss would be of minor to negligible significance in landscape terms.

Comprehensive land use changes would occur between the runway and Camp Road, and on allocated greenfield land. The proposed land uses, built form and infrastructure would create a high quality, cohesive urban form that would fit with existing Heyford Park and former Air Base development. On balance, adverse effects upon landscape elements, would be offset by beneficial effects arising from the Proposed Development, leading to an overall neutral effect.

New Green Infrastructure would provide a network of landscape corridors and public open spaces as described in 'The Proposed Development' above. Proposed tree planting would help screen views toward the Proposed Development, soften the edges of the Application Site, and improve landscape amenity and recreation leading to a major to moderate beneficial effect.

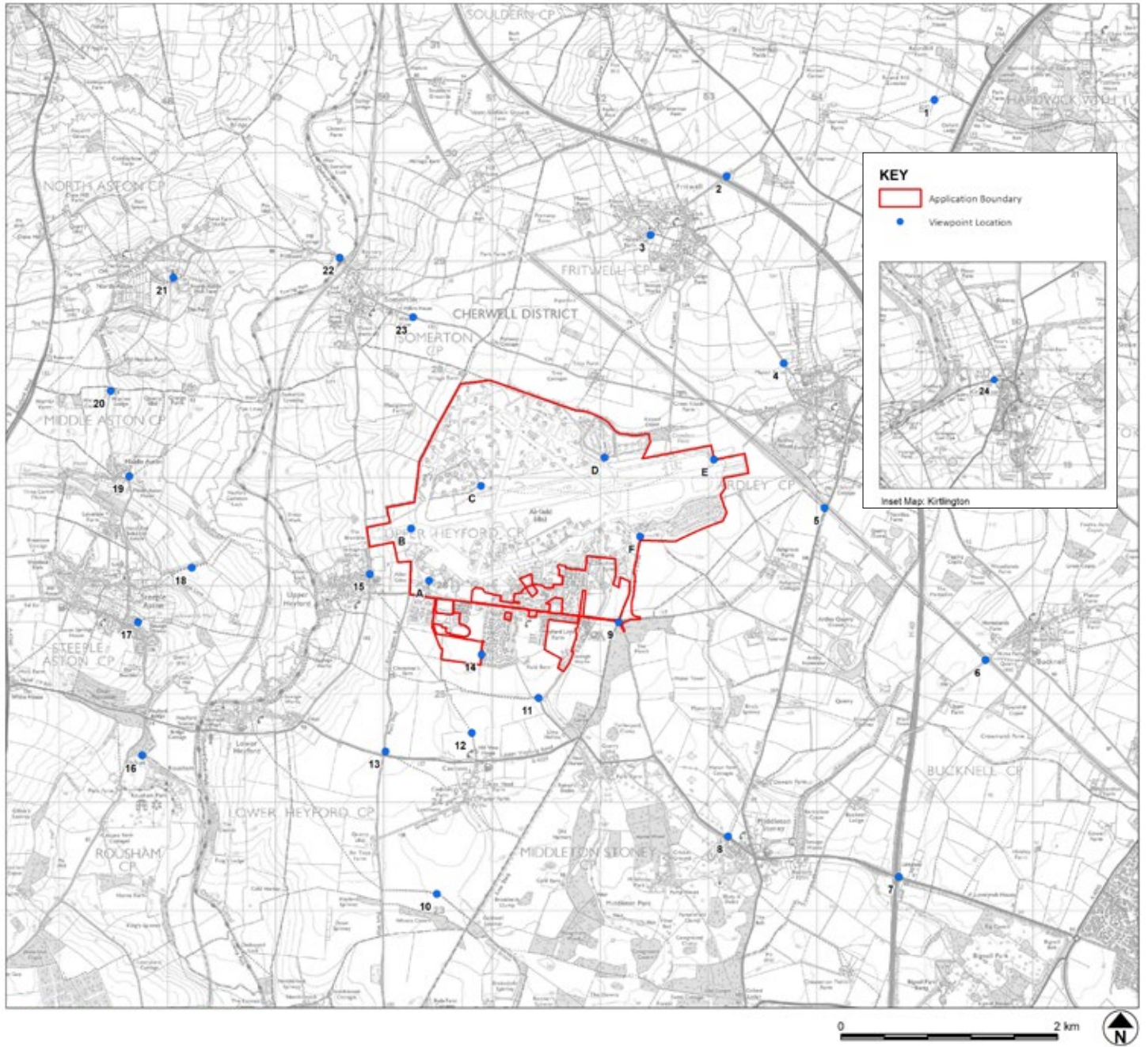


FIG 11 VIEWPOINT LOCATION PLAN

The effects of the Proposed Development upon each of the considered LCAs during construction and operation have been assessed as negligible. The Proposed Development would help to fulfil published Landscape Strategy objectives of 'establish tree belts around airfields' and 'maintain the sparsely settled rural character of the landscape by concentrating new development in and around existing settlements' but would also have some negative, leading on balance to an overall neutral effect in the context of the host LCAs.

Construction lighting would be temporary and seen in the context of Heyford Park and the former Air Base, leading to no greater than a minor significance of effect. One illuminated pitch may be provided within the Sports Park, which would be seen against the backdrop of existing lighting and sky glow of Heyford Park but would be seasonal and limited in terms of operating times and frequency. Indirect effects on night time character, would at most be a minor level of effect. Proposed Filming Activity would be temporary, and may include night time filming; it would be short-lived and infrequent, leading to a minor level of effects.

Established vegetation and intervening landform restricts views from residential properties, PROW and roads to the north, east, south and west toward low-level construction activities, although tall plant may be visible. Overall, the significance of effects during construction would be negligible and no mitigation would be required. The significance of residual effects upon distant receptors during operation would be negligible with only the top of the Viewing Tower potentially visible to the north and east, and limited new development seen in the context of Heyford Park and the former Air Base to the south and west.

Construction activities would be visible to residents close or adjacent to the Proposed Development parcels. Many of these properties have been recently constructed and

therefore are considered to have medium sensitivity to construction activities leading major to moderate effects. The Proposed Development would deliver high quality design leading to overall neutral residual effects during operation due to the quality of the like-development seen in the context of existing Heyford Park and/or the former Air Base urban form.

Tall plant such as cranes would not be visible from the majority of Rousham House and Registered Garden, but they may be visible from two locations which would comprise a very small and temporary element within the overall view leading to no more than a negligible magnitude of effect. A small portion of the Proposed Development would be seen as a relatively small element on the horizon at a distance of over 2km from the two viewpoints and so the magnitude is considered to be negligible, with the majority of the park free from views towards the Proposed Development; the residual effects are negligible and not significant in landscape and visual terms.

During the construction stage receptors at seventeen viewpoints would be subject to negligible and/or negligible (no change), including receptors at Rousham Park. Receptors at one viewpoint would experience minor effects. Five receptors would be subject to moderate but not significant effects (due to the existing development context that is experienced) and one viewpoint would be subject to temporary, major effects.

During operation, receptors at 20 of the 24 viewpoints, including Rousham Park, would be subject to negligible (no change) or negligible effects. One viewpoint would be subject to moderate but not significant effects due to the existing development context and two viewpoints would be subject to moderate effects. One viewpoint adjacent to the proposed Camp Road/Chilgrove Drive junction would experience neutral effects as initial adverse effects are

replaced by beneficial features. Effects experienced by users of the reinstated Port Way and Aves Ditch PROWs would be neutral.

Only negligible or negligible (no change) cumulative effects would be experienced by all 24 viewpoints for sites close to the Application Site. No landscape or visual effects would arise from the cumulative sites in and around Bicester.

The Proposed Development would increase public access to heritage features within the Flying Field, including the Scheduled Monuments. The Flying Field context and intervisibility between each of these key Cold War structures would remain as existing. The Proposed Development to the south of the runway would be seen in the context of, and as infill to, the former Air Base structures and Heyford Park development. The proposed Viewing Tower would be established as a new landmark structure and would be most apparent from the Northern Bomb Stores, leading to moderate but not significant effects. The long-term effects upon the Avionics Building and QRA would be negligible.

Three future viewpoints from the reinstated Port Way and Aves Ditch PROW would experience moderate and not significant effects during construction. During operation, controlled views would be gained across the Flying Field. The Proposed Development to the south of the runway would be seen in the context of, and as infill to, the former Air Base structures and Heyford Park development. The proposed Viewing Tower would be established as a new landmark structure, south of the runway. The effect upon future PROW users would be neutral.

## **MITIGATION AND ENHANCEMENT**

Site hoardings will be used to reduce or remove sight of the works from neighbouring properties in accordance with the Construction Environmental Management Plans.

Arboricultural Impact Assessments would be prepared for each development parcel to guide design and minimise tree loss.

The Green Infrastructure Strategy would help to integrate the Proposed Development with the existing landscape, fulfilling Landscape Strategy guidelines published by Oxfordshire County Council, and would increase tree planting within the Application Site and create two new public parks providing access to the Flying Field.

## **CONCLUSION**

In summary, the Proposed Development is considered appropriate to the character of the local landscape and of the site and offers suitable landscape mitigation measures in terms of visual and landscape amenity. Careful siting of development parcels and height restrictions ensure that the effect upon landscape character and views are minimised. Certain high sensitivity receptors would experience a higher degree of change and consequently higher level of effects as a result of the Proposed Development but these would be few and would generally be limited to those occurring in closest proximity to the Application Site. The residual effects upon Rousham Registered Park and Garden, and upon surrounding villages and isolated residential properties, would be negligible. The intervisibility and interrelationship between the most sensitive Cold War receptors within the Flying Field would be maintained with the Proposed Development in place.

# ECOLOGY

## INTRODUCTION

An assessment of Ecology and Nature Conservation was carried out, in the context of national planning policy and guidance, local planning policy, UK wildlife and animal welfare legislation, and consultation with OCC, CDC and Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust (BBOWT). The assessment has been undertaken with reference to best practice guidelines.

## BASELINE CONDITIONS

Baseline information was obtained from a series of ecology surveys carried out within the Application Site in 2017 and a desk study which included reviews of monitoring reports. A habitat survey and appropriate protected species surveys have also been conducted.

Important designated Sites within, adjacent to the Application Site or within the study area include the Upper Heyford Airfield Local Wildlife Site (within the Application Site) and the Ardley Cutting and Quarry Site of Special Scientific Interest (SSSI).

The Application Site includes a range of habitats, including common and widespread habitats of low intrinsic value, such as hard standing, buildings, amenity grassland and poor semi-improved grassland, and habitats of relatively higher value, such as unimproved calcareous and unimproved neutral grassland.

The Application Site supports three partly distinct but connected populations of great crested newt, four badger setts, a population of reptiles, several species of bats which forage within or adjacent to the Application Site and a community of breeding birds, which within open grassland habitats supports species on conservation concern such as curlew, skylark yellow wagtail and grey partridge.

## LIKELY SIGNIFICANT EFFECTS

A range of mitigation measures have been included into the design of the Proposed Development. Detailed ecology method statements will be set out in a CEMP, the production of which would be subject to a planning condition. Once these were considered, an assessment of the likely effects on the features as a result of the Proposed Development, at construction and operation phases, was carried out. The effects thus identified included the loss of Habitats of Principal Importance (HPIs) comprising calcareous grassland and hedgerows. Unimproved natural grassland will also be affected and the loss of five ponds was identified. Adverse effects before mitigation on foraging bats, reptiles, breeding birds and great crested newt were also identified, either as a result of habitat loss or disturbance during operation.

## MITIGATION AND ENHANCEMENT

In order to mitigate for the likely losses, several mitigation options have been set out which will include the creation of a large area of calcareous grassland off site adjacent to the former Air Base. Other measures will include the management of poor semi-improved grassland on site to increase its value for reptiles and amphibians and the creation of eight new ponds. The management of these new and enhanced areas will be detailed in the Landscape and Ecology Management Plan (LEMP) which will also be subject to planning conditions. Impacts to the LWS on site arising from proposed filming activities will be mitigated for through the implementation of appropriate Environmental Risk Assessments carried out for each new filming project. A list of prescriptions to which all new projects must adhere aimed at protecting key features of ecological interest will also be produced and will be included in the LEMP for this area.

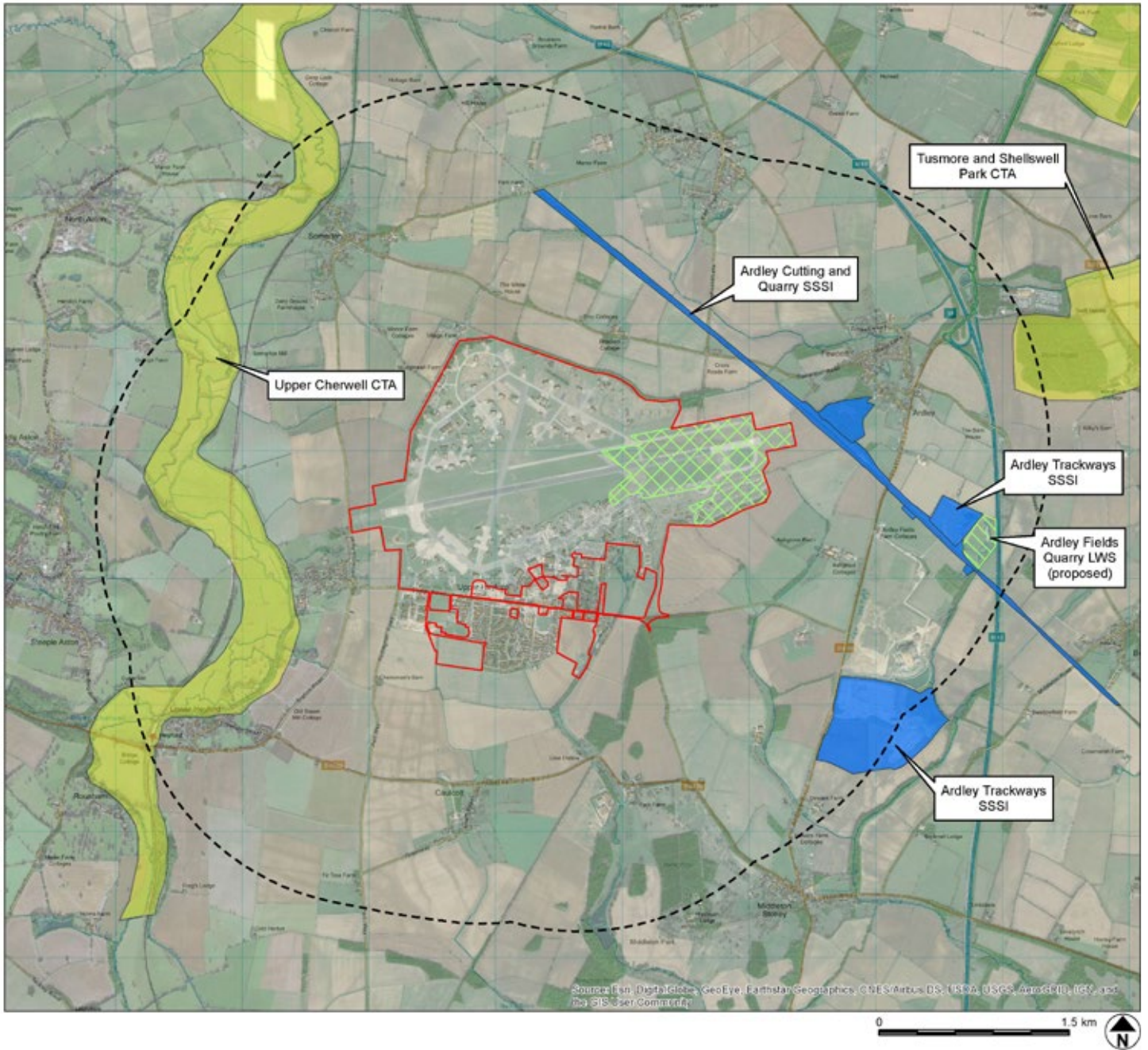


FIG 12 SITE BOUNDARY AND DESIGNATED SITES

## CONCLUSION

In summary, much of the ecologically valuable habitats within the Application Site will be retained. The creation of new areas of ecologically valuable habitats to directly compensate for the loss of those from within the Application Site will benefit a range of taxa, including farmland birds, reptiles and invertebrates. Effects on protected species can be mitigated through established mitigation methods. No adverse residual effects that are significant in terms of national or local planning policy are anticipated to occur as a result of the Proposed Development. Beneficial effects have been identified for certain features (such as roosting bats).

The assessment of the change in biodiversity value arising from the proposed development of the Application Site, as calculated through the use of the Biodiversity Impact Assessment Calculator has determined that the development will result in a net gain for biodiversity.

### KEY

-  Application Site
-  2 km radius from site
-  Site of Special Scientific Interest (SSSI)
-  Conservation Target Areas (CTA)
-  Local Wildlife Site (LWS)
-  Proposed Local Wildlife Site



FIG 13 FORMER RAF UPPER HEYFORD KEY LANDSCAPES AND BUILT HERITAGE DESIGNATIONS



# ARCHAEOLOGY & CULTURAL HERITAGE

## INTRODUCTION

The impact of the Proposed Development on the Cultural Heritage resource, comprising the archaeology, historic landscape and built heritage of former RAF Upper Heyford has been addressed. This has been assessed on the basis of the historical and archaeological studies, and the sensitivity of known cultural heritage receptors has been identified both within the Application Site and also a 1km area surrounding it.

## BASELINE CONDITIONS

The Application Site on an upland plateau above the Cherwell valley is peripheral to the medieval village settlements in the vicinity and has modest archaeological significance. Its principal interest is the RAF airfield, itself not of unusual character, but which was transformed in the Cold War as one of a series of principal air defence sites of the USAF. Its remarkable landscape of 20th-century structures has been designated as a Conservation Area, and includes Scheduled Monuments and Listed Buildings.

The context of the present development is the latest part of a continuous process of change in bringing new uses to the site while conserving the most significant heritage features of the RAF and Cold War phases; this means that some aspects of the RAF sites are no longer extant, and that there are existing consents for uses and new structures on the site (principally housing). The proposed development would continue this process, and while involving some losses of less significant structures, and impacts on the setting of a number of individual features and character areas, at the same time the heritage interest of the site will be secured and brought into the public domain in a way that will increase public access to the site, and to information about its history and significance.

In terms of archaeology, the Application Site contains one medium sensitivity heritage assets comprising of the Iron Age tribal boundary of Aves Ditch. In addition, six post-medieval boundary features, two post-medieval structures and three features associated with early development of the RAF Upper Heyford Airfield, have been identified within the Application Site, although these are considered to have a low sensitivity. The hedge running along Aves Ditch is considered to be an historic hedgerow and as such is considered to have a medium sensitivity. The Application Site may also contain previously unidentified archaeological remains of unknown sensitivity.

The Application Site falls within the high sensitivity RAF Upper Heyford Conservation Area. The amended application area means that only a very small area is within the Rousham Conservation Area which has a very high sensitivity. Rousham (including Upper and Lower Heyford) Conservation Area contains the Grade I registered Rousham Gardens. Within the Application Site there are five Scheduled Cold War structures, the very high sensitivity Hardened Telephone Exchange, Battle Command Centre and Quick Reaction Alert Area, and the high sensitivity Northern Bomb Store/Special Weapons Area and Avionics Maintenance Facility ('Avionics'). The Application Site also contains five Grade II listed buildings (Three Nose Docking Sheds, Squadron Headquarters and The Control Tower) that are considered to be of high sensitivity.

Outside of the Application Site, consideration has been given to the designated heritage assets within the surrounding study area (including listed buildings in historic village Conservation Areas), but most of this has been scoped out of the assessment for lack of any significant impact.

The built heritage of the former RAF Upper Heyford Conservation Area has been divided into Character Areas with sensitivities varying from negligible to very high. Of the 34 Character Areas identified one Character Area is considered to have a very high sensitivity (The Quick Reaction Alert Area) and four Character Areas are considered to have a high sensitivity (Central Airbase, Southwest Hardened Aircraft Shelters ('HASs'), Northern Bomb Stores/Special Weapons Area, and Avionics and HASs). All of these are associated with the Cold War airfield landscape. The remaining character areas are considered to have medium sensitivity (Central Runway, Central Plateau, The South Aircraft Shelters, North Edge, Plateau Edge, North Fringe, The Northwest Fringe, Southeast HASs, Technical Area, Aircraft Sheds, 1920's Core, and Officers Housing). Low sensitivity Character Areas include Runway West Terminal, Runway East Terminal, Southern Conventional Arms Store, Tanker Area, Built Up Edge, The Sports Fields and Large Buildings, The South Residential Buildings, Service Area, Post-war Open Landscape, North Residential Area, and North Bungalows). The remaining Character Areas and built heritage are of negligible sensitivity.

Existing and consented development has already brought change to almost half of the Character Areas (of Low or Medium Significance and mostly to the south of Camp Road). The Proposed Development will impact on the built heritage within the Application Site through the removal of structures during construction and changes to the setting of key buildings and landscapes in the operation phase once the development is complete.

## LIKELY SIGNIFICANT EFFECTS

Prior to mitigation, construction of the Proposed Development would have a moderate adverse effect upon Aves Ditch and the historic hedgerow, and at most a moderate/ slight effect upon the six post-medieval boundary features, two post-medieval structures and three modern military buildings. There will be an unknown adverse effect upon any previously unidentified archaeological remains. There would be no significant (moderate or higher) effects upon the archaeological resource from operation.

The adverse effects of the Proposed Development on the archaeological resource would be reduced to neutral through an agreed programme of evaluation and mitigation undertaken prior to development. Any archaeological strategy for the Application Site would be agreed with the Oxfordshire County Council, before development starts, and generally the effect of investigation and recording of heritage at Upper Heyford would be beneficial.

Prior to mitigation, there would be moderate effects on the built heritage of the Technical Area during construction due to demolition of one aircraft hangars. Pre-mitigation effects of slight to moderate significance upon Character Areas and the low and medium sensitivity buildings within them (mostly from demolition) would include: Central Airbase/ Runway, North Fringe HASs, Southern Conventional Arms Store, South East HASs, Tanker Area, Southwest Edge, Technical Area and Aircraft Sheds. Overall, pre-mitigation construction could result in a moderate to large adverse effect on the Former RAF Upper Heyford Conservation Area.

The pre-mitigation operation of the Proposed Development would have moderate to large adverse effects on three Character Areas (Central Airbase, Southwest HASs, and Avionics and HASs), and the South Aircraft Shelters, either through changes to setting from new build or the extent of car processing. There will be a neutral to slight adverse effects in adjacent areas, but overall, pre-mitigation operation would be a significant effect.

Operation would also have a significant impact upon the setting of Listed and Scheduled structures within the Conservation Area, this includes a moderate to large adverse effect on the 3 Grade II listed Nose Docking Sheds, and the Scheduled Battle Command Centre and Hardened Telephone Exchange. There will be a large/very large adverse effect to the setting of the Avionics Maintenance Facility. Operation of the Proposed Development would have a Slight to Moderate Adverse effect upon the Former RAF Upper Heyford Conservation Area and potentially a Moderate to Slight Adverse Effect Upon the Rousham Landscape and Conservation Area due to possible light pollution from the whole development of RAF Heyford.

## MITIGATION

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, and generally the effect of investigation and recording of heritage at Upper Heyford would be beneficial. The adverse effects would be further offset by the heritage tourism and educational attributes of the scheme which would have a large beneficial effect upon the Application Site by increasing public access and awareness of the heritage interest of Upper Heyford.

The application of this mitigation would reduce the effect of the Proposed Development (during construction and operation), upon the Character Areas, Listed Buildings and Scheduled Monuments within the former RAF Upper Heyford Conservation Area, to a slight to moderate adverse effect.

Following the application of this mitigation there would nevertheless be a slight to moderate residual adverse effect upon the Former RAF Upper Heyford Conservation Area as a whole.

The adverse effects of the Proposed Development upon the Rousham Landscape and Conservation Area has been reduced through the redesign and the movement of the sports park and its lighting to the eastern edge of the application. Following the application of this mitigation the residual effect, during operation, is considered to be slight or at most moderate adverse.

## CUMULATIVE EFFECTS

There would be no cumulative effects upon the archaeological resource as a result of the Cumulative Developments.

The Cumulative Developments adjacent to the Application Site, will have a cumulative effect on the historic buildings and historic landscape of former RAF Upper Heyford. The other four developments are too far away from the Proposed Development to have a cumulative effect. The cumulative effect of the adjacent developments upon the Character Areas within RAF Upper Heyford would be neutral adverse. The cumulative effect of these developments upon the Scheduled Monuments or Listed Buildings within the Application site is generally considered to be neutral to slight adverse. The cumulative effect of the erosion of character of the RAF Upper Heyford Conservation Area resulting from these developments would be slight to moderate adverse, while the impact of street lighting on Rousham Gardens could potentially be adverse slightly.

## CONCLUSION

The former RAF Upper Heyford is a significant site, whose designations reflects its importance as a representative location for Cold War heritage. The proposed development continues a process of change for the site, which will involve some loss and changes of setting for significant parts of the heritage. Although many of the effects will be mitigated to a lower degree of significance, there will be an overall slight to moderate adverse effect for the Conservation Area as a result of the amount of change to heritage assets. This can nevertheless be set against the significant beneficial effect of increased public access to the site and to information about its history and significance, and the results of the process of investigation and record being brought into the public domain.

# HYDROLOGY & FLOOD RISK

## INTRODUCTION

The likely significant effects of the Proposed Development on hydrology and flood risk has been assessed in relation to potable water supply, surface water drainage, foul water drainage, water quality, groundwater quality, and flood risk.

## BASELINE CONDITIONS

The River Cherwell is the closest watercourse approximately 0.6km to the west. A number of small streams issue close to the Application Site boundaries and flow away from the Application Site. Potable water is currently supplied to the area by Thames Water.

The Application Site is currently served by extensive drainage systems which discharge water to surrounding streams, directly (surface water) and via the private Upper Heyford Sewage Treatment Works (STW) located in the south-eastern corner of the Application Site (foul water). The existing STW has sufficient volume capacity to accommodate additional growth.

The entirety of the Application Site is underlain by a 'Major Aquifer' with a 'high' vulnerability which has been marginally impacted by petroleum hydrocarbons as a result of the former Air Base use.

The Flood Risk Assessment confirmed that the Application Site is within Flood Zone 1, and at low / negligible risk of flooding.

## LIKELY SIGNIFICANT EFFECTS

Thames Water's Water Resources Management Plan 2015-2040 confirms that a supply-demand balance is forecast across the Plan period, which includes an allowance for projected growth. Consequently, the effect of the construction and operation of the Proposed Development on potable water supply would be of 'negligible' significance.

The proposed surface water drainage system will intercept and manage rainfall run-off and discharge surface water to rates equivalent to a pre-development / undeveloped scenario. Accordingly, the effect of the construction and operation of the Proposed Development on surface water drainage would be of 'negligible' significance.

During operation, sewage will be discharged to the existing STW via a new drainage system to be installed as part of the Proposed Development; the effect of construction and operation on foul water drainage would be of 'negligible' significance.

The proposed surface water drainage system will incorporate pollution controls that when combined with the proposed STW refurbishment, will ensure that any discharge from the Application Site would not adversely affect downstream water quality. If the initial period of the construction phase is undertaken when the surface water drainage system is not fully operational it may adversely affect downstream water quality leading to 'significant adverse' effects, whilst the effect of the operation phase would be of 'negligible' significance.

Without mitigation, the effect of construction on groundwater quality was considered to be of 'significant adverse' significance, whilst the effect of the operation phase was considered to be of 'negligible' significance.

Noting that the Application Site is within Flood Zone 1, the effect of the construction and operation of the Proposed Development on flood risk was considered to be of 'negligible' significance.

## **MITIGATION AND ENHANCEMENT**

A range of measures are to be integrated into the design, construction and operation of the Proposed Development in order to mitigate the adverse effects identified above. The proposed surface and foul water drainage systems will incorporate appropriate levels of pollution control and necessary upgrades to the existing STW. Additional proposed measures will include measures to limit drinking water demand, use and wastage; management and operational systems to reduce the risk during the initial period of the construction phase as prescribed in Environment Agency Guidance; and, remediation/reduction and/or removal of any contaminants on a permanent basis.

Such mitigation measures were considered to retain and reduce effects to 'negligible' significance, with the exception of the assessed effect on groundwater quality which would deliver 'significant beneficial' effects, by removing potential contamination sources that may affect groundwater quality.

## **CUMULATIVE EFFECT**

The same baseline conditions apply to cumulative projects adjacent to the Application Site and effects would be same, i.e. negligible to significant beneficial impact.

Cumulative sites at Bicester are located outside the catchment or are significantly downstream of the Application Site, and therefore they have no interaction with the Proposed Development. As such, no cumulative impact would affect the site.

## **CONCLUSION**

With the proposed mitigation measures in place during design, construction and operation of the Proposed Development, it would be acceptable from a hydrology and flood risk perspective, resulting in either 'negligible' or 'significant beneficial'.

# GROUND CONDITIONS

## INTRODUCTION

Likely significant effects of the Proposed Development in respect of ground conditions has been assessed, specifically in relation to site history, geology, hydrogeology and hydrology.

## BASELINE CONDITIONS

The site is a former Air Base, constructed in 1915 and closed by 1994. Underlying geology comprises sand and gravel with lenses of clay and silt, overlying bedrock of the White Limestone Formation which is classified by the Environment Agency as a Principal Aquifer. Previous ground investigations have shown that groundwater occurs at various depths. One local licensed groundwater abstraction is present 650m southeast of the site. The closest watercourse of noted is the River Cherwell approximately 600m west of the site.

A historical landfill is 180m northeast of the site. Radioactive materials were stored on the site between 2006 and 2015. Previous ground investigations at and in the vicinity of the site have identified localised impacted groundwater and contaminated Made Ground.

## LIKELY SIGNIFICANT EFFECTS

During demolition and construction, ground workers may be exposed to contaminated soils and groundwater, and neighbours and visitors may inhale dust. Asbestos may be present in former buildings and airborne fibres may be released upon demolition. Without mitigation, these impacts would be of moderate adverse significance, and major adverse significance in relation to asbestos release.

During the demolition and construction phase Controlled Waters may be impacted by spillages or leakages and runoff, and contaminants could be released through disturbance of contaminated soils. Without mitigation, these impacts would be of moderate adverse significance.

Once the development is complete, future site users may be exposed to contamination through touch, dust, ground gases and impacted drinking water. Without mitigation, these impacts are considered to be of moderate adverse significance.

New planting may be affected by contaminated soils or groundwater. Without mitigation, this impact would be of minor adverse significance.

No additional major contamination sources are likely to be introduced by proposed uses, except for fuel or oil leakages around car park areas of driveways. Water attenuation features may also mobilise contaminants in soils or groundwater. As above, service routes and foundations may introduce new migration pathways for contaminants. Without mitigation, these impacts would be of moderate adverse significance.



## MITIGATION AND ENHANCEMENT

Ground Investigation is proposed to confirm the ground and groundwater conditions and levels of contamination in the soils and groundwater across the site. If unacceptable risks are identified, then remediation will be carried out during the demolition and construction works.

During demolition and construction works, mitigation measures would be in place in accordance with relevant health and safety regulations. Construction and Environmental Management Plans would control materials storage, dust generation, spill controls and any other potential soil or groundwater contaminant generation. Asbestos surveys and removal would be undertaken prior to demolition in accordance with best practice and statutory requirements. All asbestos removed will be disposed of at an appropriate waste facility.

If required, mitigation measures will be put in place to reduce the impact to neutral significance for human health and to achieve minor beneficial significance for Controlled Waters and plant life.

## CONCLUSION

With the mitigation measures integrated into the design, construction and operation of the Proposed Development, it is concluded that the proposed development is acceptable from a ground conditions perspective, with all potential effects assessed as being of either 'negligible' or 'minor beneficial' significance.

# AIR QUALITY

## INTRODUCTION

The air quality effects associated with the construction and operation of the Proposed Development have been assessed.

## BASELINE CONDITIONS

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.

For the Ardley Cutting and Quarry Site of Special Scientific Interest (SSSI) there are predicted exceedances of the nitrogen oxides (NO<sub>x</sub>) critical level and nitrogen deposition critical loads in 2031, and of the nitrogen deposition critical load only in 2031 without the development in place. There are no predicted exceedances of the acid deposition critical loads within the assessed habitats.

## LIKELY SIGNIFICANT EFFECTS

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.

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.

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.

An exceedance of the annual mean NO<sub>2</sub> objective is predicted

if development traffic for the fully occupied development is applied to the road network in 2021. However, additional modelling has shown that if the same amount of traffic is applied to the road network in 2022, there are no predicted exceedances of the objective. This is due the improvement in vehicle emissions resulting from more an increased uptake in lower emission vehicles year on year. As not all development traffic will be on the road network in 2021, and emissions reductions would remove the predicted exceedance in less than a year, the predicted exceedance is unlikely to occur in practice. The development is therefore not predicted to have a significant effect on local air quality.

For the Ardley Cutting and Quarry SSSI, the NO<sub>x</sub> critical level is not predicted to be exceeded in 2021 with or without the development in place. The nitrogen deposition critical load is predicted to be exceeded within the Ardley Cutting and Quarry SSSI both with and without the development in place. There are no exceedances of the acid deposition critical load.

With only the Proposed Development in place in 2021, the increase in nitrogen deposition is a maximum of 1.6% of the critical load. Taking into account the cumulative effects of the Proposed Development, the increase in nitrogen deposition is a maximum of 1.9% of the critical load, and therefore potentially significant. In both cases however, the predicted deposition is dominated by the existing background deposition, which will likely reduce by more than the development contribution by the time that the development is complete. The maximum area of habitat affected by increases in deposition of more than 1% is only 3.4% of the habitat area and therefore the increase in nitrogen deposition is unlikely to have a significant adverse effect on the Ardley Cutting and Quarry SSSI.

## MITIGATION

Construction dust and fine particulate matter mitigation measures are to be included within CEMP's to be agreed with the Local Authority.

The effects of the development traffic for the Proposed Development are judged to be not significant. No additional traffic mitigation is proposed, but transport mitigation will include Transport Plans that would encourage use of less polluting modes of travel.

## CONCLUSIONS

There are no air quality constraints to the Proposed Development.

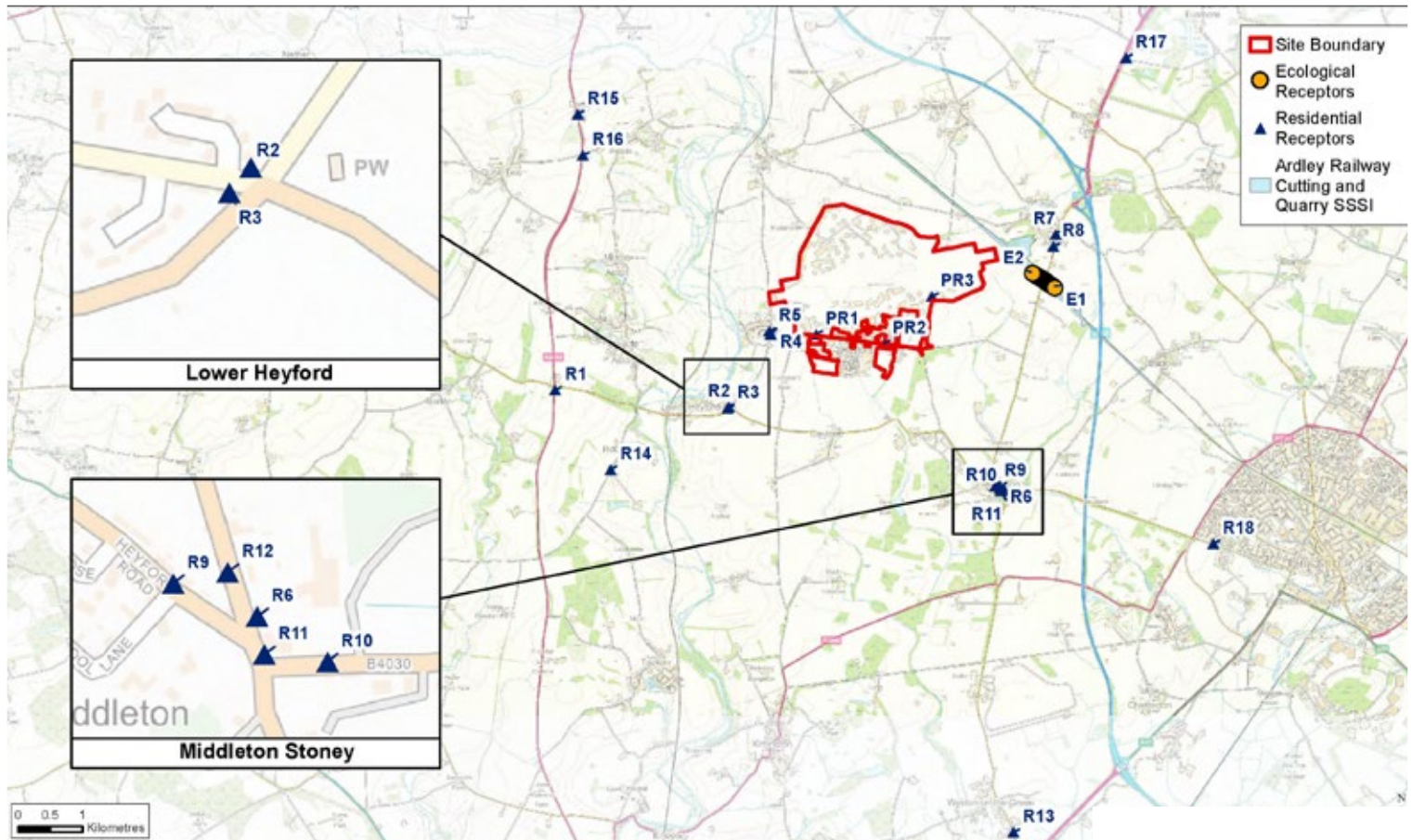


FIG 14 AIR QUALITY RECEPTORS

# NOISE AND VIBRATION

## INTRODUCTION

The likely significant noise and vibration effects of the construction and operational phases has been assessed at noise sensitive receptors around the Application Site. The assessment also considers how proposed uses may be affected by the effects of existing and future sound climate on the proposed use of the Application Site

## BASELINE CONDITIONS

An environmental sound survey was conducted in June 2017 to determine the existing noise climate. The dominant noise sources within the area are the surrounding road network, namely Camp Road, and an existing substation located to the south-east of Heyford Park.

## LIKELY SIGNIFICANT EFFECTS

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.

Construction from the development was assessed to determine the impact on existing receptors. With the implementation of Construction and Environmental Management Plans, the level of impact construction noise that the Application Site is likely to have on existing receptors is deemed to be not significant.

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.

The existing substation has been assessed using accepted guidance. The level of impact the substation will have on the proposed receptors is deemed to be not significant with suitable mitigation in place.

## MITIGATION AND ENHANCEMENT

Proposed residential properties fronting onto Camp Road may require mitigation in the form of building orientation, and gardens would be located to the back of properties, away from roads, so that buildings shield amenity areas, where practical. Properties located near to the substation would be orientated so that habitable rooms do not overlook the area. The erection of a noise barrier may also provide suitable mitigation.

## CUMULATIVE IMPACT

Construction 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. The traffic flow data for 2031 incorporates cumulative traffic growth and has already been included within the assessment and is therefore not a significant cumulative effect.

## CONCLUSION

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.

# CONCLUSION

Overall the Proposed Development (alone and in combination) is considered to provide beneficial socio economic effects and will contribute to the housing and employment needs of the district, which provides potentially significant economic benefits

Following the implementation of the identified mitigation measures, the Proposed Development is not likely to result in any significant effect to matters related to Transport and Access, Air Quality, or Noise and Vibration; effects upon Hydrology and Flood Risk and Ground Conditions, are assessed as being of either 'negligible' or 'minor beneficial' significance.

The Proposed Development is considered appropriate to the character of the local landscape and of the site and offers suitable landscape mitigation measures in terms of visual and landscape amenity. Careful siting of development parcels and height restrictions ensure that the effect upon landscape character and views are minimised. Certain high sensitivity receptors would experience a higher degree of change and consequently higher level of effects as a result of the Proposed Development but these would be few and would generally be limited to those occurring in closest proximity to the Application Site. The residual effects upon Rousham Registered Park and Garden, and upon surrounding villages and isolated residential properties, would be negligible. The intervisibility and interrelationship between the most sensitive Cold War receptors within the Flying Field would be maintained with the Proposed Development in place.

The former RAF Upper Heyford is a significant site, whose designations reflect its importance as a representative location for Cold War heritage. The proposed development continues a process of change for the site, which will involve some loss and changes of setting for significant parts of the heritage. Although many of the effects for the Conservation Area as a result of the amount of change to heritage assets. This can nevertheless be set against the significant beneficial effect of increased public access to the site and to information about its history and significance and the results of the process of investigation and record being brought into the public domain.

Much of the ecologically valuable habitats within the Application Site will be retained. The creation of new areas of ecologically valuable habitats would directly compensate for any losses and will benefit a range of taxa, including farmland birds, reptiles and invertebrates. No adverse residual effects are anticipated to occur as a result of the Proposed Development and indeed beneficial effects have been identified for certain features such as roosting bats. Overall, the assessment of the change in calculated biodiversity value has determined that the Proposed Development will result in a net gain for biodiversity.

It is concluded that on balance, there would be limited significant adverse residual effects resulting from the Proposed Development which would be balanced, and in some cases enhanced, by delivery of beneficial effects. Overall, there would be no overriding environmental constraints that would preclude the Proposed Development on the Application Site.

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