4 THE PROPOSED DEVELOPMENT AND ALTERNATIVES CONSIDERED

4.1 INTRODUCTION

4.1.1 This chapter sets out the description of the Proposed Development and its construction, and identifies the main alternatives to the Proposed Development that have been considered by the Applicant and the reasons why these were rejected.

4.2 PROPOSED DEVELOPMENT

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

4.2.2 The Proposed Development comprises the:

" Planning permission is sought for a hybrid planning application consisting of:

- **demolition of buildings and structures as listed in Schedule 1;**
- **outline planning permission for up to:**
  - **> 1,175 new dwellings (Class C3);**
  - **> 60 close care dwellings (Class C2/C3);**
  - **> 929 m2 of retail (Class A1);**
  - **> 670 m2 comprising a new medical centre (Class D1);**
  - **> 35,175 m2 of new employment buildings, (comprising up to 6,330 m2 Class B1a, 13,635 m2 B1b/c, 9,250 m2 Class B2, and 5,960 m2 B8);**
  - **> 2.4 ha site for a new school (Class D1);**
  - **> 925 m2 of community use buildings (Class D2); and 515 m2 of indoor sports, if provided on-site (Class D2);**
  - **> 30m in height observation tower with zip-wire with ancillary visitor facilities of up of 100 m2 (Class D1/A1/A3);**
  - **> 1,000 m2 energy facility/infrastructure with a stack height of up to 24m (sui generis);**
  - **> 2,520 m2 additional education facilities (buildings and associated external infrastructure) at Buildings 73, 74 and 583 for education use (Class D1);**

> **creation of areas of Open Space, Sports Facilities, Public Park and other green infrastructure.**

- **the change of use of the following buildings and areas:**
  - > **Buildings 357 and 370 for office use (Class B1a);**
  - > **Buildings 3036, 3037, 3038, 3039, 3040, 3041, and 3042 for employment use (Class B1b/c, B2, B8);**
  - > **Buildings 217, 3102, 3136, 3052, 3053, 3054, and 3055 for employment use (Class B8);**
  - > **Buildings 2010, 3008, and 3009 for filming and heritage activities (Sui Generis/Class D1);**
  - > **Buildings 2004, 2005 and 2006 for education use (Class D1);**
  - > **Buildings 366, 391, 1368, 1443, 2007, 2008 and 2009 (Class D1/D2 with ancillary A1-A5 use);**
  - > **Building 340 (Class D1, D2, A3);**
  - > **20.3ha of hardstanding for car processing (Sui Generis); and**
  - > **76.6ha for filming activities (Sui Generis).**
- **the continuation of use of areas, buildings and structures already benefiting from previous planning permissions, as specified in Schedule 2.**
- **associated infrastructure works, including surface water attenuation provision and upgrading Chilgrove Drive and the junction with Camp Road."**

4.2.3 Notwithstanding the above and as previously set out (**Chapter 2**), the EIA has been carried out with regards to a range of development parameters including:

- Land use;
- Buildings and structures to be demolished;
- Extent of development parcels;
- Maximum building heights;
- Principal means of vehicle access;
- Internal vehicle circulation/pedestrian and cycle routes;
- Fencing;
- Open green space; and
- Drainage infrastructure.

4.2.4 The Proposed Development which has been the subject of this EIA is described within the Development Parameters which collectively comprise the Description of Development (set out at 4.2.2 above) and accompanying schedules, Schedule 1 and Schedule 2 (see **Appendix 4.1** and **Appendix 4.2**, respectively), and the following Parameter Plans:

- **Figure 4.1** Demolition and Change of Use Plan;
- **Figure 4.2** Composite Parameter Plan;
- **Figure 4.3** Building Heights Parameter Plan;
- **Figure 4.4** Green Infrastructure Plan; and
- **Figure 4.5** Existing and Proposed Fence Plan.

Demolitions and Change of Use

4.2.5 The majority of structures within the former Flying Field, including the taxiways and hard standings, are subject to existing temporary and/or full planning permissions, or permitted development, for employment uses. The Proposed Development seeks to rationalise and regularise these consents under the umbrella of one comprehensive planning permission. Therefore **Figure 4.1**: Demolition and Change of Use Plan shows those buildings that retain current planning uses (shaded blue). Those buildings and structures for which a change of use is proposed are shaded green, and those buildings that are proposed to be demolished to enable the Proposed Development to proceed are shaded orange. Details of each building that has an existing planning permission, that is subject to a proposed change of use, or demolition, is listed in Schedules 1 and 2 (see **Appendix 4.1** and **Appendix 4.2).**

Land Use

4.2.6 **Figure 4.2**: Composite Parameters Plan and **Table 4.1** below outlines the proposed land use for each of the 29 parcels where new build would take place within the Proposed Development. The parcel numbering starts at 10 and continues to 38. This numbering system has been adopted for this application as numbers prior to parcel 10 have already been utilised by the applicant for phasing the construction of developments that have achieved planning permission under previous applications and appeals including those known as the 'Lead Appeal' and the 'New Settlement Area'. Parcels 14 and 15 are shown on the Composite Parameter Plan for context, but do not form part of this planning application.

Table 4.1 Proposed Land Use within each Parcel

Parcel Number	Parcel Description	Details	Approximate parcel Area (hectares)*
10	Residential – up to 130 new dwellings	Also an area for Green Infrastructure and provision of surface water attenuation Demolition of 7 buildings/structures comprising of POL 2, 268, 276, 279, 392, 416 and 1403	4.6
11	Residential – up to 80 new dwellings	Also an area for Green Infrastructure	3.1

Parcel Number	Parcel Description	Details	Approximate parcel Area (hectares)*
		Demolition of 7 buildings/structures comprising of 80, 81, 85, 89, 89A, 89B and 89C	
12	Residential – up to 120 new dwellings	Demolition of 6 buildings/structures comprising of 352, 353, 354, 360A, 369A and 381	4.0
13	Residential – up to 6 new dwellings	Also an area for Green Infrastructure and provision of surface water attenuation	0.5
14	Not included within the Proposed Development	This parcel already has planning permission	n/a
15	Not included within the Proposed Development	Area of potential future development within Policy Villages 5 Allocation, but not within this application site	n/a
16	Residential – up to 178 new dwellings	Also an area of Green Infrastructure and provision of surface water attenuation	7.6
17	Residential – up to 62 new dwellings	Also an area for Green Infrastructure, a community orchard and provision of surface water attenuation	4.0
18	Sports Park	Outdoor pitches and areas for play (7.4ha) Diversion of footpath 388/4 to perimeter of parcel	7.4
19	Up to 60 close care dwellings (Class C2/C3)	Area of land 0.9ha (Class C2/C3) Demolition of 5 buildings/structures comprising of 151, 157, 158, 170 and 171	0.9
20	Erection of a new medical centre and new retail floor space	New medical centre will be up to 670m^2 (Class D1) and new retail will be up to	1.3

Parcel Number	Parcel Description	Details	Approximate parcel Area (hectares)*
		929m^2 of retail floor space (Class A1) Demolition of 6 buildings/structures comprising of 315, 316, 317, 318, UH40 and UH41.	
21	Mixed use: Residential – up to 102 new dwellings; Employment – Change of use of Building 370	Also an area for Green Infrastructure Change of use of Building 370 to Office use (Class B1a) Demolition of 9 buildings/structures comprising of UH75, 197, 361, 362, 368A, 368K, 369, 371, 399 and 424	4.3
22	Creative City	Area for Commercial and Industrial Use (15.7ha). Change of Use of buildings 3036, 3037, 3038, 3039, 3040, 3041 and 3042 to B1b/c, B2, B8 use. Demolition of 22 buildings/structures comprising of 189, 365, 375A, 375B, 375C, 375D, 376, 377, 379, 382, 389, 1104, 1832, 1840, 1841, 3204, 3204A, POL 5, POL 20, POL25a, POL 25b, and UH17 Erection of 36,154m^2 of new employment buildings (Class B1/B2/B8) Erection of Energy Infrastructure/Facility up to 1,000m^2 and with an exhaust stack up to 24m in height	11.1

Parcel Number	Parcel Description	Details	Approximate parcel Area (hectares)*
23	Residential – approximately 470 new dwellings	As well as the area for the new residential dwellings there is an area for Green Infrastructure Demolition of 34 buildings/structures comprising of 385, 386, 387, 1100, 1102, 1103, 1105, 1106, 1107, 1108, 1109, 1111, 1112, 1113, 1114, 1115, 1119, 1140, 1153, 1159, 1160, 1161, 1162, 1163, 1164, 1181, 1182, 1183, 1184, 1185, 1601, 1602, 186CAS, and UH53 Demolition of concrete walls surrounding buildings 385 and 386, 3.5 m high wall surrounding Building 1108 Removal of earth mounds to rear/sides of building 1105, rear/side of building 1114, to north of building 1115 and extending westerly, and eastern edge of mound to north of UH51/52	14.4
24	Temporary Set Construction Area/Event Parking along taxiway	Change of use of a section of the southern taxiway for Filming to allow set building and parking if needed	2.0
25	Car Processing Area	Area of hardstanding to be utilised by an ongoing, operational business on site. The location and extent of the area of land is being altered from the area currently granted planning consent. The total area however remains at 20.3ha (Sui Generis use)	20.3
26	Change of Use of 7 buildings for employment use	Change of Use of Buildings 217, 3102, 3136, 3052, 3053, 3054 and 3055 for employment use (Class B8)	0.4

Parcel Number	Parcel Description	Details	Approximate parcel Area (hectares)*
27	Filming Area	Change of use of 76.6 ha for filming activities. This parcel is located over two areas within the Proposed Development Area. This area relates to the hard standing with no existing buildings being demolished. Buildings 2010, 3008 and 3009 to have a Change of Use for filming and/or heritage activities (Sui Generis/Class D1)	76.6
28	Destination Park	An area of Open Space to be used by the Public. It may have operational constraints placed upon it to enable ecological mitigation. Total area 21.5ha. Erection of an observation tower up to 30m in height with ancillary visitor facilities up to 100sq.m (Class D1/A1/A3 use) to south of main runway. Change of use of building 391 to house public art (Class D1).	20.3
29	Core Visitor Destination Area	Change of Use of Buildings 366, 1368, 1443, 2007, 2008 and 2009 to Class D1/D2 use, with ancillary A1-A5 uses.	4.2
30	Control Tower Park	Area of Public Open Space (4.1ha). Change of Use of Building 340 (Class D1/D2/A3 Use)	4.1
31	New School Site	Change of Use of Buildings 2004, 2005 and 2006 to education use (Class D1) within site area of 2.4ha. Demolish buildings 359 and 5022.	2.4

Parcel Number	Parcel Description	Details	Approximate parcel Area (hectares)*
32	Additional Facilities at Heyford Free School sites	Additional Facilities (buildings and external infrastructure) at Buildings 73, 74 and 583 for education use (Class D1), comprising up to 2,520 sq.m of additional floorspace.	6.0
33	Chilgrove Drive	Re-alignment of Chilgrove Drive and new footpath and bridleway for Aves Ditch. New traffic signal controlled road junction with Camp Road.	5.0
34	Community Use/Indoor Sports provision	Construction of new building for the use as a Community Centre (Class D2) and/or indoor sports provision if indoor sport facilities are agreed with CDC to be provided on site	0.6
35	Residential – up to 27 new dwellings	Reallocation of previously consented residential units from the existing Phase 8 reserved matters approval (Southern part of Trident area) to now be included the new masterplan	0.5
36	Sewage Treatment Works	No physical upgrade works planned at the current time	1.4
37	Office Use	Change of Use of vacant Building 357 to B1(a) office use	0.3
38	Mixed use area - Village Centre South	Mixed use area new build development south of Village Centre to comprise a mix which may include Class A1-A5, D1, D2 uses within the overall floorspace permitted within the application description	0.2

*Rounded to the nearest 1 decimal place.

Building Footprints and Maximum Heights

4.2.7 For all proposed buildings and extensions to buildings this application is seeking outline planning permission. Therefore, there are no detailed design plans that accompany this Environmental Statement that show a preferred detailed layout of this proposal were

it to gain planning permission. However, an Illustrative Masterplan and a series of Testing Layouts have been prepared to demonstrate how development could be achieved in accordance with the Development Parameters.

4.2.8 Therefore, the technical assessments included within this Environmental Statement have assessed the Proposed Development and the maximum building heights that would be installed in each parcel. These maximum building heights can be seen on **Figure 4.3: Building Heights Parameter Plan.** If a development parcel is not shown to have a building height on this parameter plan, it means that no new buildings are proposed within this parcel and that the heights of any buildings being retained will remain unchanged.

4.2.9 For clarification, the proposed maximum building heights for each relevant parcel is shown within Table 4.2 below.

Table 4.2: Building Heights within Development Parcels

Parcel Number	Parcel Description	Details[1]
10	Residential – approximately 130 new dwellings	Maximum Building Height up to 10.5m above future ground level
11	Residential – approximately 80 new dwellings	Maximum Building Height up to 13m above future ground level
12	Residential – approximately 120 new dwellings	Majority of the parcel will have a maximum building height of up to 13m above future ground level. The southern section of the eastern element of the parcel will have maximum building height limited to up to 10.5m above future ground level.
13	Residential – approximately 6 new dwellings	Maximum building height up to 10.5m above future ground level
16	Residential – approximately 178 new dwellings and new indoor sports facilities	Maximum building height of up to 10.5m above future ground level.
17	Residential – approximately 62 new dwellings	Maximum building height of up to 10.5m above future ground level.
19	Up to 60 close care dwellings	Maximum building height up to 13m above future ground level.
20	Erection of a new medical centre and new retail floor space	Maximum building height up to 13m above future ground level.
21	Mixed Use - residential up to 102 new dwellings	Majority of the parcel will have a maximum building height of up to 13m above future ground level. The southeast corner of this parcel will have a maximum building height limited to 10.5m above future ground level.

[1] Ground level allows for a maximum of 1.5m above existing ground level (this establishes appropriate drainage, balancing of cut and fill and alignment of street buildings to consistent levels. Maximum heights assume the principal height and massing of the building projections (i.e. chimneys and/or plant are excluded). Building heights relate to proposed buildings only, existing retained buildings heights will remain unchanged.

Parcel Number	Parcel Description	Details[1]
22	Creative City	Majority of the parcel will have a maximum building height of up to 18m above future ground level. The south and southwest edge of this parcel will have a maximum building height limited to 10.5m above future ground level.
23	Residential – approximately 470 new dwellings	Maximum building height up to 13m above future ground level
28	Destination Park	An observation tower up to 30m in height with ancillary visitor and restaurant accommodation and a security entrance to the flying field in a new cabin up to 5m in height.
32	Additional Facilities at Heyford Free School Sites	Maximum building height up to 13m above future ground level
35	Residential – up to 27 new dwellings	Maximum building height of up to 18m above future ground level.
38	Mixed Use area – Village Centre South	Maximum building height of up to 13m above future ground level.

4.2.10 Where change of use is being sought within a parcel the building heights will remain the same as the current building despite a change of use.

Principal Means of Vehicle Access

4.2.11 There are two principal means of access into and through the Proposed Development. The first of these is Camp Road. Camp Road runs east to west through the centre of the development with several of the parcels gaining direct access off it. West Gate toward the western edge of the Application Site forms the only existing access to the Flying Field. The width of Camp Road will remain as existing.

4.2.12 The second is Chilgrove Drive which is located toward the eastern edge of the Application Site, where it forms a junction with Camp Road. The application seeks permission for re-alignment of Chilgrove Drive, improvements to the Camp Road junction, and enhancements to the (truncated) bridleway/PRoW that is known as Aves Ditch including provision of a dedicated equestrian crossing.

4.2.13 It is proposed that a new staggered, signal-controlled junction will be installed that allows all vehicles to gain access in both directions along Chilgrove Drive. The width of the Chilgrove Drive carriageway, once re-aligned will be 6.5m wide. The proposed junction would include a Pegasus crossing that will allow equestrians and pedestrians to cross Camp Road to gain access to Chilgrove Drive. The bridleway would be physically separated from vehicular traffic apart from at the crossing points. This new footpath/cycleway/bridleway will run along the western edge of the southern section of Chilgrove Drive. Midway up there will be a further Pegasus crossing point that will allow horse riders to safely cross Chilgrove Drive and continue along its eastern edge so that they can gain access to the proposed reinstated Aves Ditch bridleway which will run along the southern perimeter of the Proposed Development (parcels 23 and 27).

4.2.14 A description and detailed plans of the proposed revised Chilgrove Drive and its junction can be found in **Chapter 6**: Transport and Access and accompanying Transport Assessment, **Appendix 6.1**.

4.2.15 All public and private vehicle access related works would be designed and implemented in accordance with the Design Manual for Roads and Bridges (DMRB) and/or standards prescribed by Oxfordshire County Council, as the relevant highways authority.

4.2.16 Following completion of the Proposed Development it is anticipated that Chilgrove Drive, the new junction, and Camp Road would all be adopted by Oxfordshire County Council.

Internal vehicle / pedestrian access

4.2.17 The Composite Parameter Plan (**Figure 4.1**) identifies principal internal routes for vehicles, buses and pedestrian/cycle movement; primary HGV access is also shown along Chilgrove Drive. Further details of access and accessibility, are provided within the Transport Assessment and associated Travel Plans that accompany **Chapter 6**: Transport and Access.

4.2.18 The precise details of the vehicle access roads within the various parcels would be subject to detailed design. All internal vehicle access would be constructed to Highway Authority standards/ Heyford Design Code.

Green Infrastructure

4.2.19 A comprehensive network of Proposed Green Infrastructure is shown on **Figure 4.4** and is described in more detail within the **Green Infrastructure Strategy** (GIS) that accompanies the planning application.

4.2.20 Landscape design is a key component for creating a successful development at Heyford Park in addition to the cultural heritage and ecological assets that make the site distinct. The green spaces are an integral part of the place and create a strong landscape structure across the site whilst respecting the existing landscape character of the site including the Cold War Landscape. The elements of new green infrastructure have been a driving factor in the creation of new routes and spaces within the Heyford Masterplan and aim to integrate within the existing settlement and green infrastructure (GI) framework to reinforce the sense of place. The landscape elements further help to define the public and private spaces whilst adding colour, seasonal interest and function to the environment at the smaller scale.

4.2.21 The landscape strategy has been developed in order to integrate the existing GI framework within the site and enable the overall masterplan to be accessible, distinct and legible. The development of the landscape strategy has included consideration of the cultural heritage and ecological constraints and opportunities as set out within the GI Strategy.

4.2.22 Key aims of the landscape strategy are as follows:

- Create a distinctive sense of place incorporating the cultural heritage assets that help to define the Cold War landscape;
- Create a diverse range of open spaces which successfully combine functions, ecology, character and existing GI assets;
- Create a variety of play and education opportunities with both informal and formal provision;
- Provide outdoor sports provision to benefit the whole community;

- Create a sense of place within the public open spaces to represent the local identity of Upper Heyford to enhance the place making of Heyford Park;
- Retention and enhancement of key habitat features;
- Incorporation of GI to ensure ecological connectivity and functionality within the site;
- Promote opportunities to improve and enhance biodiversity to achieve a biodiversity net gain;
- Consideration of planting species for habitat creation to enhance biodiversity and maintain the site's character;
- Improvement of access throughout the site to improve the pedestrian and cycle network;
- Incorporation of the existing PRoWs and provide links into the wider area including the reinstatement of Aves Ditch and Portway (historic routes); and
- Incorporate SuDS to create multi-functional assets to help reduce and control surface run-off.

4.2.23 Existing vegetation within the Application Site is to be retained and incorporated into the public open spaces where necessary. This includes enhancement of habitat where suitable to aid biodiversity whist maintaining the character of the site notably the Cold War landscape adjacent to the Flying Field.

Utilities and Infrastructure

Flood Risk and Drainage

4.2.24 The Proposed Development will result in an increase of impermeable surfacing within the Application Site, with the presence of buildings, highways and other hard surfaces. However, the surface water drainage system to be installed as part of the Proposed Development will intercept and manage rainfall run-off and discharge surface water to the surrounding streams, at rates equivalent to a pre-development / undeveloped scenario, i.e. retaining the 'natural' drainage regime, thereby ensuring no detrimental downstream effects.

4.2.25 A strategic approach has been adopted across the proposed parcels and use of attenuation ponds. The Proposed Development is to drain to nine attenuation basins, as shown indicatively on **Figure 4.1** Composite Parameter Plan. These ponds have been located to ensure that all phases of development meet the requirements in relation to management of surface water drainage. Further information relating to the attenuation basins and broad details of flood risk management and drainage strategy are set out within **Appendix 10.1**: Flood Risk Assessment that accompanies **Chapter 10**: Hydrology and Flood Risk. Detailed design of drainage and surface water attenuation features is subject to planning conditions, and detailed designs would be prepared in accordance with the drainage strategy as reserved matters for each development parcel**.**

Waste Water

4.2.26 Foul water is currently disposed to the private Heyford Sewage Treatment Works located in the south-eastern corner of the Application Site (parcel 36). The Water Cycle Study for the area has identified that the existing waste water treatment plant is likely to have sufficient volume capacity to accommodate the additional growth anticipated within its catchment. However, to accept and treat all of the additional waste water flow expected from proposed growth within the area it serves, without affecting water quality objectives, the quality conditions of a new discharge permit will need to be altered compared to the current permit, and treatment process upgrades are required. Foul water will be

discharged to the existing (but refurbished) waste water treatment plant via a new foul water drainage system to be installed as part of the Proposed Development.

Security and Lighting

4.2.27 There would be a need to retain or replace/refurbish the security fence that runs around the perimeter of the Flying Field to maintain security provision for the existing businesses which use the buildings in the northern Flying Field, whilst maintaining a feature of the historic airfield and its former military use. A new fence line would be established along part of the southern edge of the runway and around the Destination Park (parcel 28) to complete the security cordon, preventing humans and domestic pets from accessing the Flying Field and ecological habitats that support ground nesting birds. Existing security fencing that encloses the southern boundary of the Application Site, separating it from neighbouring agricultural land, would be removed as part of the Proposed Development.

4.2.28 Additional security fencing would be required around parcel 25 (Car Processing Area), which relocates the existing (fenced) car processing area. It is anticipated that the security/border fencing will be to a height of circa 2.2m above ground level.

4.2.29 The Proposed Development would be subject to a lighting scheme, the detail of which is not known at this time. However, lighting design would be developed in association with the detailed design of each parcel as it progresses to detailed design and reserved matters applications. This design will be consulted upon with relevant parties at that time. Nonetheless, for the purpose of this ES assessment consideration of lighting within the night time landscape has been considered. The assumptions and constraints of possible lighting at night time have been outlined in **Chapter 7**: Landscape and Visual Impacts**.** The main item to be aware of within the Application Site is the proposed location, nature and operating hours of the Observation Tower which is located to the south of runway on the northern boundary of Parcel 28 (Destination Park) which can be seen on **Figure 4.2 Composite Parameter Plan**. The operating hours and details of lighting within the Application Site and of the Observation Tower are not known at this time, but for the purpose of the Landscape Character Assessment, a worst-case scenario is assumed comprising of a structure 30m in height with an illuminated viewing platform at the top.

4.3 CONSTRUCTI0N

Programme

4.3.1 Planning for construction is necessarily flexible at this stage and subject to modification during site development and in response to market conditions. Consequently, the likely significant effects of the construction of the Proposed Development have been identified with the best possible degree of accuracy.

4.3.2 Proposed built development excluding the construction of Chilgrove Drive, is for outline planning permission. If planning permission is granted, then detailed designs for each parcel will have to be submitted to CDC for their consideration and approval prior to any demolition or construction starting. It is therefore predicted that the construction programme is expected to commence during 2020 and will last for a period of circa 8 years with completion in 2028.

Construction Methodology

Hours of Work

4.3.3 It is anticipated that the working hours will be as per ongoing Heyford Park construction activities as set out below:

- 08.00 – 18.00 Monday to Friday; and
- 08.00 – 13.00 Saturday

4.3.4 All work outside of these hours will be subject to prior agreement, and/or reasonable notice, with Cherwell District Council, who may impose certain restrictions. Night time working will be restricted to exceptional circumstances. Neighbouring houses and businesses would be notified in advance of such activities should any exceptional circumstances require working outside of these hours

4.3.5 The proposed working hours will be agreed with Cherwell District Council prior to the commencement of the works and will be set out in a Construction Environmental Management Plan (CEMP)/ Construction Management Plan (CMP).

Construction Methodology

4.3.6 The construction of the Proposed Development would not involve any unusual or specifically hazardous processes or materials. The key stages of construction would apply in turn to each development parcel or groups of parcels, subject to the size of the parcel(s), and would include:

- Site set-up and preliminary works;
- Demolition and site clearance;
- Preliminary construction of site accesses and internal access roads, including associated drainage works;
- On-plot construction of residential and mixed-use development (phasing to be confirmed) with phased completion of individual plots and associated hard and soft landscaping;
- Implementation of strategic landscaping / green space; and
- Site set-down and on-going monitoring.

4.3.7 *Site Set-Up* - It is anticipated that a site compound providing site office, welfare facilities, storage cabins and external materials setting down areas, would initially be set up in proximity to the development parcel entrance, albeit the site compound is likely to be relocated throughout the construction programme as appropriate for the works being carried out. It is anticipated that site compounds would be hard-surfaced, and security fenced with CCTV cameras and external lighting for use during hours when illumination falls below safe working levels and/or for security. Appropriate measures would be put into place for the safe storage of any potentially harmful materials and/or liquids, i.e. storage of fuels, in accordance with construction standard best practices. The existing security fencing around the southern perimeter of the Application Site would remain in place during the construction phase until such time as is appropriate for its removal.

4.3.8 *Preliminary Works* – Any required ecological, tree protection, archaeological and/or other surveys and protection works would be carried out in accordance with construction standard best practice and the relevant guidance, discharge of condition and/or licence, as appropriate. Such measures would be implemented prior to construction and/or demolition works commence for each parcel and would be maintained throughout the development of that parcel.

4.3.9 *Demolition* - The existing structures (those approved for demolition) and hard surfacing (e.g. existing access roads and hardstanding areas) would be demolished and/or broken-out. It is not anticipated that the structures / surfaces would involve any unusual / specifically hazardous contaminants that warrant specialist demolition methods. Accordingly, it is proposed to demolish structures from top to bottom and break out surfacing using high reach excavators and/or other suitable standard construction plant. Notwithstanding the above, a pre-commencement demolition survey would be carried out of all structures to confirm the construction materials and assess the potential for contamination/hazardous materials. If required, a pre-demolition asbestos survey would be carried out and where potential is identified, appropriate measures would be put into place to ensure the health and safety of workers and the surrounding environment, and the disposal of waste arisings at an appropriately licenced facility. Where feasible and subject to fulfilling appropriate standards, demolition materials would be broken up and temporarily stored on site for re-use as clean hardcore/base materials. Where this is not feasible, materials would be temporarily stored on site until sufficient quantity has been bulked up for transport off-site to a suitable recycling or disposal facility. Demolition method statements would be prepared in advance of works.

4.3.10 *Site Clearance* - Clearance works would generally be limited to the removal of fencing and soils. Where suitable, the excavated soils would be appropriately stockpiled for re-use on site as part of the Green Infrastructure. Earthworks will be required to a) infill sub-surface voids, primarily comprising a few sub-service utilities voids; and b) re-grading across the development parcel to create a suitable development platform, albeit the site is generally level there may be a need to regrade up to plus/minus 1.5m to establish appropriate drainage, cut/fill balance and for the principal and internal access roads. It is not anticipated that additional fill materials will be required to be imported; all earth works would involve re-use of suitable clean fill materials and cut/fill across the site.

4.3.11 *Principal Means of Access and Internal Access* - Standard/conventional construction methods (i.e. DMRB and/or Manual for Streets standards) would be used for the construction of the new accesses to Camp Road, potential secondary access, internal access roads and private drives, primarily involving the removal of surface soils, laying of a base layers incorporating any drainage and/or other services infrastructure to appropriate falls/levels and finishing with a surface dressing/appropriate hard landscaping treatment. Construction of accesses to Camp Road would likely involve some short-term, temporary, disruption to traffic flow along Camp Road which would be controlled by appropriate measures, e.g. traffic lights/manned-stop/go boards etc., to be agreed with OCC as the Local Highways Authority.

4.3.12 *Construction of Buildings* - Whilst the footprint, materials and appearance of proposed buildings are yet to be determined, subject to reserved matters applications, it is anticipated that they would be constructed using standard/conventional construction materials and methods. The construction is to be undertaken using standard construction methods and adopting construction best practice and procedures which would be set out within the CMP / CEMP to enable any prospective departures to be identified and appropriate provisions made. It is anticipated that standard strip foundations would be used.

4.3.13 *Principal construction works site set-down* – Following completion of construction of the principal means of access, internal access, residential dwellings and any necessary associated utilities and infrastructure etc. the site compounds would be removed; however, it may be necessary to leave behind a limited number of welfare buildings to support landscaping and any ecological mitigation/enhancement works.

4.3.14 *Landscaping and ecological mitigation/enhancement works* – All landscaping and ecological mitigation/enhancement works would be carried out in accordance with the

appropriate method statement and at times appropriate to the planting / mitigation season.

4.3.15 *Construction Plant and Machinery* - The construction of the Proposed Development would use standard construction plant and machinery. Likely plant and equipment would include (but not limited to):

- Long-reach Excavators;
- Bulldozers;
- Tippers;
- Front-end loaders;
- Scrapers;
- Hydraulic excavators; and/or
- Backhoe Loaders.

4.3.16 *Construction Environmental Management Plan* - The construction procedures will be provided to CDC (and other relevant bodies) in the form of a CEMP and/or CMP prior to commencement of the works. This would include:

- Details of the development parcel site set-up, site compound facilities and services;
- The plan of the phasing of the works and its context within the whole project;
- Prohibited or restricted operations (location, hours etc.);
- Details of construction operations highlighting any operations likely to result in disturbance and/or working hours outside the core working period, with an indication of the expected duration of key phases and dates;
- The details of proposed routes for HGVs travelling to and from the Application Site;
- Details of all works involving interference with a public highway, including temporary carriageway/footpath closures, realignment and diversions;
- Housekeeping procedures and environmental control measures;
- Procedures for managing environmental risks and responding to environmental incidents;
- Baseline levels for noise, vibration and/or dust and details of any monitoring protocols that may be necessary during the construction works (where specifically requested by the Council);
- Standard measures to control and mitigate potential for noise, dust, air quality and water pollution (see below);
- Standard measures for the management of run-off due to construction activities to reduce the risk of pollution and elevated flood risk both on and off site;
- Measures to maintain flow in any watercourse and protect water quality during the proposed diversion works;
- Any requirement for monitoring and record keeping;
- Contact details during normal working hours and emergency details outside working hours;
- The mechanism for the public to register complaints and the procedures for responding to complaints;
- Provision for reporting, public liaison, prior notification etc.; and
- Procedures for regular dialogue with the Council, relevant authorities and the local community.

4.3.17 The proposed measures that form part of the 'Standard measures and the adoption of construction best practice methods' as referred to in the Assessment Approach (see **Chapter 2**) include:

- Selection of construction methodologies to minimise generation of noise, light spillage, vibration and/or dust;
- All vehicles and/or plant to be switched off when not in use;
- All vehicles and/or plant to be used in accordance with the manufacturer's instructions and subject to regular maintenance;
- The site compound / storage of materials to be appropriately sited to reduce environmental risk and appropriately secured;
- Stockpiles of soil materials to be appropriately sited to reduce environmental risks, of an appropriate height/batter to avoid slippage, with appropriate surface water management and subject to dust control measures;
- Implementation of surface water drainage traps/attenuation, where required, with appropriate arrangements for discharge and/or collection (as appropriate);
- All liquids and solids of potentially hazardous nature (e.g. diesel fuels, oils and solvents) to be stored on surfaced areas with appropriate bunding to reduce the risk of spillage;
- Use of plant that may give rise to nuisance (noise and/or dust) to be adequately screened (where deemed necessary);
- Wheel and/or vehicle body washing facilities to be used to prevent tracking out of mud/dust onto the public highway using wheel wash or wash out skip as appropriate (where deemed necessary);
- Deployment of a road sweeper/road cleaning for use on the public highway (where deemed necessary);
- Programme of cleaning traffic management cones, lights and signs where deployed (as necessary); and
- Vehicles carrying materials to/off-site to be enclosed and/or sheeted as appropriate.

4.3.18 The requirement to comply with the procedures set out within the CMP/CEMP will be included as part of the contract conditions for each element of the work including the supply chain as appropriate. All contractors tendering for work will be required to demonstrate that their proposals can comply with the procedures and current best practice techniques.

4.3.19 Any proposed departures from the agreed CEMP/CMP will be submitted to the Council, relevant authorities and affected parties in advance.

4.3.20 It is envisaged that the applicant will register the project with the Considerate Constructors Scheme (CCS). This is designed to encourage environmentally and socially considerate ways of working, so as to reduce any adverse impacts arising from the construction process.

Traffic Management

4.3.21 Whilst no long-term road closures are envisaged, short term traffic management would be required for the construction of the principal means of the access along Chilgrove Drive and at its junction with Camp Road/unnamed roads. In addition, further short-term measures may be required for Camp Road as the other parcels are developed within the Application Site. Prior consent will be obtained from OCC as the Local Highways Authority as appropriate.

4.3.22 It will be the responsibility of the Applicant or their Contractor to finalise consultations with OCC as the Local Highways Authority. Notice regarding planned closures and diversions of roads and footpaths shall be given by the Applicant or their

Contractor to the Highways Authority, the Police, the Fire Brigade and other emergency services sufficiently in advance of the required closure or diversion dates.

4.3.23 It is anticipated that materials/plant will routed from the strategic highway network from the east via Ardley and Camp Road.

4.3.24 In order to minimise the amount of construction vehicles using the public highway, the following factors will be considered:

- Recycling of materials on site, where possible; and
- Preparation of a Site Waste Management Plan (SWMP).

4.3.25 All construction traffic entering and leaving the Application Site will be closely controlled. Vehicles making deliveries to the Application Site and/or removing spoil or demolition material etc., will travel via designated routes, which would be agreed with the Highways Authority.

4.3.26 The CEMP will include a Travel Plan Framework so to encourage site management and workers to travel to the Application Site by public transport. The use of public transport for workers will be a consideration during pre-tender discussions.

Construction Materials and Resources Use

4.3.27 Materials and resources used during construction of the Proposed Development would be sourced from sustainable and/or local sources where practicable.

4.3.28 Where possible materials arising from the demolition of buildings and breaking out of hard surfaced areas would be recycled and reused on-site or transferred to an appropriately licensed recycling facility (see Waste Management below).

Waste Management, Recycling and Disposal

4.3.29 The construction process is likely to give rise range of waste arisings including demolition spoil (concrete, brick rubble, steel, aluminium, plastics, wood etc.), soils, packaging (plastics, pallets, expanded foams etc.), and liquids (dirty water, fuels etc.). In addition, waste materials may be generated from inaccurate ordering, poor usage, badly stored materials, poor handling, spillage etc.

4.3.30 All contractors will be required to investigate opportunities to minimise waste arisings at source and, where such waste generation is unavoidable, to maximise the recycling and reuse potential of demolition and construction materials. Wherever feasible, such arisings will be dealt with in a manner that reduces environmental impact and maximises potential re-use of materials. Recycling of materials will largely take place off-site where noise and dust are less likely to result in impacts to the occupants of surrounding properties.

4.3.31 A SWMP would be prepared to set out the procedures to sort, reuse and recycle construction waste. Adherence to the SWMP would support better control over materials handling and waste, compliance with relevant waste legislation for the handling, transport and disposal of wastes, compliance with environmental management systems and management of waste-related costs.

4.3.32 No burning of demolition or construction waste would be undertaken on the Application Site. Building materials containing asbestos would be fully assessed in advance of demolition works commencing. Any identified asbestos or other controlled waste would be removed by a licensed contractor in accordance with the relevant legislation and regulations.

Management of Contracts

4.3.33 Individual contracts (for example for demolition and waste removal) will incorporate relevant requirements in respect of environmental control, based largely on the standard of 'good working practice' as well as statutory requirements. Any sub-contractors (where used) will be required to demonstrate how they will achieve best practice, how targets will be met and how potential effects will be minimised. All sub-contractors will be subject to stringent due diligence audit by the Applicant's Financial and Health and Safety departments.

Public Liaison

4.3.34 There will be a designated Construction Liaison Officer who will deal with public and other complaints and enquiries. This nominated individual will be named at the Application Site entrance, with a contact number, and will be identified to the Council prior to the start of site activities, and whenever a change of responsibility occurs.

Responses to Complaints

4.3.35 Any complaints will be logged on site, where necessary. The procedures will specify the roles and responsibilities of the Construction Liaison Officer and the Council in respect of breaches and complaints from the public. The required actions will be different in each specific case, depending on the operation, equipment or location or applying additional controls.

Decommissioning

4.3.36 While it is anticipated that the Proposed Development will exist well beyond its design life of plus 60 years (including refurbishment) it may ultimately require subsequent redevelopment. Such demolition would comply with all the legislative requirements and codes of practice pertaining at that time. It is anticipated that a detailed method statement would be prepared which would incorporate the safety and effect of the demolition upon the local environment, as relevant at the time of decommissioning.

4.3.37 Accordingly, demolition and decommissioning has been scoped out of this EIA.

4.4 ALTERNATIVES CONSIDERED

4.4.1 The EIA Regulations (Schedule 4, Part I (2)) require for inclusion in an ES:

> **"An outline of the main alternatives studied by the applicant or appellant and an indication of the main reasons for his choice, taking into account the environmental effects"**

4.4.2 The Applicant has engaged in pre-application discussions with representatives of Cherwell District Council, Oxfordshire County Council, Historic England commencing with a workshop held in April 2017 and a series of general Heyford Park planning meetings as well as dedicated pre-application focussed issue meetings held over the 2017 and into 2018.

4.4.3 A series of community and local stakeholder based consultations were also held in October 2017.

4.4.4 A more detailed summary of these pre-application discussions and the resultant evolution of the proposals can be found in the **Design and Access Statement** (DAS) and also the **Report on Community Engagement**.

4.4.5 In summary, the main alternatives to the Proposed Development which the Applicant has considered include:

- The 'No Development' Alternative; and
- Alternative Designs.

The 'No Development' Alternative

4.4.6 The 'No Development' Alternative refers to the option of leaving the Application Site in its current use and physical state.

4.4.7 Without development the land would continue to remain in its current state and would likely deteriorate into a derelict state. On neighbouring land, Cherwell District 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 associated works and facilities including a school, playing fields and social infrastructure. Not developing the Application Site would result in a large derelict pieces of land remaining in close proximity to a large, new, mixed use development in Cherwell District. Although much of the site is fenced off and can't be accessed by the general public it is visible within the local area, and if remained in its current state would greatly detract from the perceived quality of the immediate local area and would be a detrimental effect on the local community.

Alternative Designs

4.4.8 The consented development on neighbouring land excludes the Application Site but provides the context to the on-going development of the 'New Settlement Area'. The DAS that accompanies the planning application describes in detail the design evolution and concepts.

4.4.9 The main alternative masterplan designs considered comprise:

- LDA Design Framework.
- Heyford Masterplan Stakeholder Workshop Options:
    - Phasing Tranches Plan Options A1 – A4, and Option B.
- Concept Masterplan P16-0631_52, Revision A.
- Heyford Masterplan P16-0631_08, Revision Y.

4.4.10 A separate appraisal was also conducted into the feasibility and location of the proposed Viewing Tower. The purpose of that appraisal was firstly to test the extent of visibility of a series of alternative tower location options and heights when viewed from outside of the former air base, and the potential effect upon designated landscapes and other sensitive receptors. The second aim of the appraisal was to capture a photographic record of the extent of views that would be gained from the alternative viewing tower locations and heights. The Viewing Tower Study was informed by desk top studies and site survey. The alternative locations tested are shown on **Figure 4.8**: Tower Test Locations.

LDA Design Framework

4.4.11 The LDA Design Framework was developed following adoption of the Cherwell Local Plan and Policy Villages 5 proposals for further development at the former Air Base. The LDA Design Framework demonstrated that a number of features could be delivered in keeping with Policy Villages 5 objectives. However, it concluded that to accommodate 1,600 homes and 1,500 jobs, the development area would need to extend beyond the Policy Villages 5 area onto land to the south of the southern taxiway on the Flying Field.

Phasing Tranches Plan Options

4.4.12 On 3rd April 2017, various masterplan options that were developed on behalf of the Applicant following the initial LDA work were presented to CDC to guide further development of the masterplan. This presentation also set out the context for a new vision for heritage and tourism at Heyford Park. The options proposed to bring visitors into the heart of the site, rather than the periphery.

4.4.13 The masterplan was divided into three development tranches, comprising:

- **Tranche 1** - Land South of Camp Road (the former school site) and (in part) Southern Bomb Stores;
- **Tranche 2** - Policy Villages 5 parcels to the south of Camp Road, and parcels to the north of Camp Road falling within the Technical Area and north of the Land South of Camp Road site; and
- **Tranche 3** - The Paragon (now BCA) car processing area on land including and to the south of the Southern Taxiway; Southern Bomb Stores; Christmas Tree Area; and Victor Alert Area.

4.4.14 An area between the southern taxiway and the southern edge of the runway was also proposed as a core visitor destination and public park.

Options A1 to A4

4.4.15 The proposals for the Land South of Camp Road element of Tranche 1 and the whole of Tranche 2 remained consistent for each of the Options A1 – A4 (see **Figure 4.6**), with alternatives presented in part for the Southern Bomb Stores element of Tranche 1, for the all Tranche 3 elements, and the core visitor destination and public park.

4.4.16 Differences between Options A1 to A4 can be summarised as:

- Option A1:
    - Identifies the core heritage area and opportunity for a significant new public park;
    - Identifies employment areas and Southern Bomb Stores Phase 1 and Phase 2 to accommodate 1,500 jobs as per LDA suggested approach;
    - Paragon largely within existing position, but moved slightly westwards to provide a cohesive area;
    - Potential future residential within 'Christmas Tree' area;
    - Security requirements and opportunity for bunding particular areas similar to elsewhere on the Flying Field;
    - Potential Viewing Tower central to runway toward northeast corner of Destination Park;
    - Potential burial ground at southwest corner of runway (subsequently rejected due to unsuitable ground conditions);
    - Ecology issues to be addressed through a review of the Environmental Management Plan (EMP); and
    - Wider green infrastructure opportunities, including those associated with reinstatement of Portway and Aves Ditch.

- Option A2:
    - Relocates the Paragon area further to the southwest, to make better use of existing hardstanding;
    - Public park area increased/more of the public park area opened up to residential;

  - Additional bunding of hard standings to provide screening may be appropriate; and
  - Reduction on common residential and commercial interface.

- Option A3:
  - Employment proposed within the Christmas Tree HAS structures;
  - Residential located within the Southern Bomb Stores; and
  - Paragon largely within existing position, but moved slightly westwards to provide a cohesive area (as per Option A1).

- Option A4:
  - Similar approach to Option 3, but with Paragon relocated further southwest (as per Option A2).

Option B

4.4.17 As with options A1 – A4, the proposals for Tranche 1 and Tranche 2 remained the same for Option B. Option B (see **Figure 4.7**) presented an alternative for the Paragon car processing to be relocated to the north of the Flying Field, noting the potential for residential development within the existing Paragon area which is drawn eastward along the southern taxiway.

4.4.18 Employment development within the western half of the Southern Bomb Stores is shown as phased between Tranche 1 and Tranche 2.

Stakeholder Feedback

4.4.19 Feedback from the Stakeholder Workshop crystallised development principles, primarily:

- Focus new development south of the Flying Field and on limited greenfield land south of Camp Road;
- Principle of public access was welcomed but the 'stark, functional character' should be retained;
- Principle of Observation Tower understood, but should not be on the runway;
- Re-use of the Control Tower was welcomed;
- Re-use of the Christmas Tree HAS welcomed, subject to safeguarding of their character and relationship;
- Option B rejected upon heritage, landscape and visual grounds;
- Southern Bomb Stores could be retained and adapted to provide for a range of small businesses; and
- Reinstatement of public rights of way (Portway and Aves Ditch) was welcomed.

Concept Master Plan

4.4.20 The principles emerging from the Stakeholder Workshop were incorporated into a Concept Masterplan (**Figure 4.9**). This Concept Masterplan was presented at the Heyford Masterplan Exhibition in late September and early October 2017 (see **Report of Community Engagement** for further detail). As a result of feedback from the consultation the following changes were made to the masterplan:

- Revised open space strategy to allow dogs into the Public Park and provision of a 1km pedestrian route;
- A circular pedestrian 'Upper Heyford Trail' is proposed around the whole site;
- New strategically located bus stops are proposed to minimise walking distances;
- Increased pedestrian connectivity around Heyford Park; and
- Landscape buffers and community orchard/allotments proposed to soften the development on countryside edges.

Composite Parameter Plan

4.4.21 A Composite Parameter Plan has been prepared for the Proposed Development based upon the Concept Masterplan, to guide the EIA. The Composite Parameter Plan draws together information regarding proposed land use parcels, green infrastructure, and vehicular and pedestrian/cycle movement and access. The Composite Parameter Plan has been subject extensive consultation and revision responding to environmental and technical constraints emerging from the EIA and other studies, and ongoing consultation with the statutory bodies (see **Planning Statement**). The Composite Parameter Plan drawing no. P16-0631_08, Revision Y forms the Preferred Option as presented at **Figure 4.2** that has been subject to EIA.

Figure 4.1

Demolition and Change of Use Plan

Figure 4.2

Composite Parameter Plan

Figure 4.3

Building Heights Parameter Plan

Figure 4.4

Green Infrastructure Plan

Figure 4.5

Existing and Proposed Fence Plan

Figure 4.6

Heyford Masterplan
Stakeholder Workshop Options A1 – A4

Figure 4.7

Heyford Masterplan
Stakeholder Workshop Option B

Figure 4.8

Tower Test Locations

Figure 4.9

Heyford Concept Masterplan