

ENVIRONMENTAL STATEMENT NON-TECHNICAL SUMMARY

CATALYST BICESTER

Quod Ltd

Ingeni Building | 17 Broadwick Street, London, W1F 0DE

AUGUST 2019

Contents

1	Introduction	3
2	Site and Setting	6
3	EIA Methodology	9
4	Alternatives	12
5	Description of the Development	14
6	Construction	19
7	Biodiversity	20
8	Water Resources and Flood Risk	23
9	Transport and Access	27
10	Effect Interactions	31
11	Mitigation, Monitoring and Residual Effects	32
Арре	endix 1: Application 1 Parameter Plans and Detailed Drawings	33
Арре	endix 2: Application 2 Parameter Plans	34
Refe	rences	35

1 Introduction

- 1.1 This Non-Technical Summary presents a summary of the findings of an Environmental Statement (ES) that has been prepared on behalf of Albion Land Ltd (the 'Applicant'). The ES reports the environmental effects of proposed development on land at Promised Land Farm, Wendlebury Road, Bicester.
- 1.2 The ES reports the findings of an Environmental Impact Assessment (EIA) process in respect of the proposed development which is subject to two planning applications ('Application 1' and 'Application 2') across two overlapping application sites (collectively referred to as the 'Site'). The ES accompanies both planning applications.
- 1.3 The Site is located approximately 1.65 kilometres ('km') to the south west of Bicester town centre, within the administrative area of Cherwell District Council ('CDC'). Part of the Site forms part of the Bicester 10: Bicester Gateway strategic allocation for employment floorspace in the adopted Cherwell Local Plan 2011-2031¹ (Policy Bicester 10). Figure 1.1 shows the location of the Site.



Figure 1.1: Site location shown by redline

1.4 Together, Applications 1 and 2 would provide up to 33,600 square metres ('sqm') of employment floorspace and would comprise a mix of uses falling within Use Class B1, together with a health and racquet club, open space, landscaping, drainage features, highway works, vehicular access, parking, servicing and delivery areas and associated infrastructure. The planning application boundaries are shown in Figure 1.2.



Figure 1.2: Application Site boundaries (as shown by redlines)

- 1.5 Application 1 is submitted as a hybrid planning application (part detail and part outline). This application seeks outline planning permission for up to 23,400 sqm of employment floorspace (Use Classes B1a and/or B1b and/or B1c) and detailed planning permission for a health and racquet club (Use Class D2) (which is intended to be operated by David Lloyd Leisure).
- 1.6 The Application 1 planning application effectively "layers" the health and racquet club (detail) on top of the employment floorspace (outline), i.e. outline planning permission for employment floorspace is sought across the whole of the Application 1 site, with the health and racquet club presented as an alternative use for some of the employment floorspace.
- 1.7 Application 2 is submitted as an outline planning application. The Application 2 site area includes an area of overlap with the Application 1 site to accommodate a connection to the public highway. This application seeks planning permission for up to 10,200sqm of employment floorspace (Use Classes B1a and/or B1b and/or B1c). The Application 2 development could not come forward unless the Application 1 development is delivered.
- 1.8 The Application 1 and Application 2 proposals are collectively referred to as the 'Development'. A detailed description of the Development is provided in Section 5.
- 1.9 The ES describes the Development, the baseline conditions and effects of the Development on the environment. The ES has been prepared in line with relevant UK legal requirements^{2,3} and good practice. The purpose of the ES is to inform decision making by identifying the likely significant effects that the Development may have on the environment and setting out how they can be avoided or reduced. The ES comprises:

- Volume I: Main document provides the full text of the ES along with figures.
- Volume II: Appendices contains technical surveys, reports and supporting documents to Volume I.
- 1.10 The ES and the planning application can be viewed at the offices of CDC. Electronic copies of the planning application and ES are available to view on the Council's website at https://planningregister.cherwell.gov.uk/. Copies of the ES can also be purchased from Quod. Please email reception@quod.com quoting 'Q090560' for further details or telephone 020 3597 1000.

2 Site and Setting

Site Description

2.1 The Site extends to 20.34ha hectares and is located to the east of the A41 and west of the London Marylebone to Bicester Village railway line, approximately 1.65km south of Bicester town centre (See Figures 1.1 and 1.2).

Application 1 Site

- 2.2 The Application 1 site extends to 15.76ha and comprises agricultural fields separated by low, maintained hedgerows with occasional mature trees. The site is relatively level and open (See Figure 2.1). Langford Brook forms the eastern boundary of the Application 1 site and a small pond is located in the south. Wendlebury Road forms the western boundary of the site. Overhead power lines run along the eastern and western boundaries and traverse the north western corner of the Application 1 site.
- 2.3 The Application 1 site is accessible for agricultural use from Wendlebury Road via a gated entrance. There are no public rights of way across the Application 1 site.







PHOTOGRAPH 2 - VIEW OF SITE ENTRANCE FROM WENDLEBURY ROAD





PHOTOGRAPH 3 - VIEW OF SITE FROM WENDLEBURY ROAD FIELD GATE

PHOTOGRAPH 4 - SITE ACCESS VIA FIELD GATE

Application 2 Site

2.4 The Application 2 site extends to 4.58ha comprises an operational poultry farm. Poultry sheds occupy the eastern portion of the Application 2 site, farm buildings occupy the south west extent of the site and a pond lined with trees is located in the north west of the site. The southern and western boundaries are formed by hedgerows and trees. Wendlebury Road provides access to the site and forms the western boundary. A shallow seasonal drain runs from the west corner, along the length of the southern boundary, and adjoins a drain at the south west corner of the Application 1 site which joins Langford Brook.

Surrounding Context

2.5 An unnamed road forms the northern boundary of Application site 1 which provides access to the Thames Water Bicester Sewage Treatment Works. Beyond this unnamed road is the Bicester Avenue Retail Park.

The Bicester Wetland Reserve Local Wildlife Site is adjacent to the eastern boundary of the Site, beyond which lies the London Marylebone to Bicester Village railway line. Adjacent to the railway is the former Graven Hill Depot which was a Ministry of Defence (MoD) storage and distribution centre dating back to the Second World War. This depot consisted of a complex of sites clustered around two hills - Graven Hill and Arncott Hill - to the south east of Bicester. In 2014, a mixed-use development ('Graven Hill') was approved for redevelopment of the site for 1,900 residential dwellings whilst retaining the St. David's Barracks.

- 2.6 Agricultural land is located to the south of the Site together with associated farm buildings, located approximately 200m south, along Wendlebury Road. The Alchester Roman Scheduled Monument is also located immediately south of the Site and covers an area of approximately 45 hectares (see Figure 2.3).
- 2.7 The Site is bound by Wendlebury Road to the west. Beyond Wendlebury Road are two areas of open land which, in turn, are adjacent to the southbound A41 dual carriageway and roundabout with Vendee Drive. These parcels of land are subject to planning permission for up to 14,972 sqm (Gross External Area) of B1 employment based buildings, plus a hotel (up to 149 bedrooms), with associated infrastructure, car parking and marketing boards (Ref. No. 16/02586/OUT) known as 'Bicester Gateway'. Beyond Wendlebury Road, to the south of the Bicester Gateway development, is the Bicester Park Home Estate; a gated residential development.
- 2.8 The wider surrounding area of the Site is characterised by residential areas around the outskirts of Bicester to the north, agricultural fields to the south and west and the M40 to the south of the Site. The villages of Wendlebury and Chesterton are located within 2km of the Site (Wendlebury 1.7km south west and Chesterton 1.4km west of the Site).
- 2.9 Bicester Village train station is located approximately 1.2km north east of the Site boundary and provides frequent rail services to Oxford and London Marylebone.
- 2.10 The Site is not subject to any heritage designations (Figure 2.3), however the Alchester Roman Town Scheduled Monument is immediately to the south of the Site. The closest listed building is a Grade II listed bridge approximately 200m north east of Lodge Farmhouse, approximately 460m south west of the Site. The closest conversation area is over 600m to the west within Chesterton (Figure 2.3).
- 2.11 The closest Site of Special Scientific Interest is Wendlebury Meads and Mansmoor Closes SSSI, approximately 3.2km south of the Site. The closest Local Nature Reserve (LNR), Bure Park LNR, is located approximately 2.3km north of the Site. Bicester Wetland Reserve LWS is adjacent to the eastern boundary of the Site (wetland habitats and wintering bird assemblage) and Graven Hill LWS is located approximately 850m south east of the Site (ancient semi-natural woodland). The Site is not subject to any Tree Preservation Orders and does not support ancient woodland or veteran trees.
- 2.12 The majority of the Site lies within Flood Zone 3 meaning it is at high risk of flooding (Figure 8.2).
- 2.13 The Site is not located within an Air Quality Management Area ('AQMA'), an area identified as having poor air quality. The closest AQMA is approximately 1km north from the Site and incorporates sections of Kings End, Queens Avenue, Field Street, St. Johns Street in Bicester.

Figure 2.3: Policy Designation Map



3 EIA Methodology

- 3.1 The EIA has been undertaken in line with relevant legislation, namely the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended) (the 'EIA Regulations'). EIA is a formal process that must be followed for certain types and scales of development projects, where the significant environmental effects of a project are systematically assessed and reported. The purpose of the EIA process is to identify how people and the environment could be affected by the Development and to ensure that information about the environmental effects of a project is available for relevant decision makers and the public to consider before the planning application is determined. The EIA process also identifies ways in which the project can minimise or offset negative effects and to enhance beneficial effects.
- 3.2 An EIA scoping study was undertaken to establish the 'scope' or focus of the EIA and identify the issues which required detailed consideration in the ES. An informal Scoping Note was prepared by Quod which summarised the findings of the EIA scoping study and was provided to CDC for comment on 7th December 2018. A formal scoping opinion on the issues to be considered in the ES was not requested from CDC.
- 3.3 The scoping study was informed by reviewing finalised studies and surveys for the Site and concluded that the Development is not likely to give rise to significant environmental effects in respect of these topics: Built Heritage, Archaeology, Landscape and Visual, Air Quality and Odour, Noise and Vibration, Ground Conditions and Contamination, Wind, Daylight, Sunlight and Overshadowing, Soil and Agricultural Land, Light Pollution and Solar Glare, Waste, Climate Change and Greenhouse Gases, Socio-economics, Human Health, Vulnerability to Major Accidents or Disasters. These topics were therefore not considered further in the ES.
- 3.4 The ES considers the likely effects of the Development on its neighbours, local environment, local and regional economy, as well as the wider area. The environmental effects of the Development are predicted in relation to sensitive receptors, which include existing and future residents and businesses, designated nature conservation sites, habitats and species, pedestrians, cyclists and road users.
- 3.5 Effects are identified and assessed using a variety of methods, including modelling and calculations. Each assessment attaches a level of 'significance' to the effects which have been identified, i.e. either major, moderate, minor or negligible. Short and long-term (temporary and permanent), direct and indirect effects have been assessed. The nature of the effects are expressed as being either adverse (negative), negligible or beneficial (positive). The significance of effects has been determined using best practice and published standards. Professional judgment has also been applied by technical specialists undertaking the assessments in situations/circumstances where no legislation, definitive standards or/and industry guidance is available. Where adverse effects are identified, mitigation measures are stated to reduce the significance of the effect. 'Residual effects' are those that remain after mitigation measures have been implemented.
- 3.6 Each of the Applications can be determined independently. The development proposed by Application 2 however can only come forward if Application 1 was approved. The Applications therefore result in four potential development scenarios (Figure 3.1) which have been tested by the EIA. The EIA has been based on the detailed planning application drawings for the health and racquet club and access for Application 1, together with the Parameter Plans and Development Specification for the outline elements of both Application 1 and 2.
- 3.7 The EIA Regulations require that 'cumulative' effects are considered in the ES. Cumulative effects can arise from individual effects of the Development interacting (e.g. traffic, noise and air quality). These interactions

are considered in Section 10 of this NTS. Cumulative effects which may result from the Development in combination with other development schemes in the vicinity of the Site are considered in each technical section of the NTS (sections 7-9). The development schemes considered in the cumulative assessment are shown in Figure 3.2.



Figure 3.1: Potential Development Scenarios

Figure 3.2: Cumulative Schemes



4 Alternatives

- 4.1 The ES is required to present a description of the reasonable alternatives studied by the Applicant and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.
- 4.2 No alternative sites or land uses were considered by the Applicant, due to the Site being within the ownership of the Applicant and the Application 1 site being allocated for employment development within the adopted Cherwell Local Plan⁴.
- 4.3 If the Site was not developed, the Site would remain in agricultural use in the short term, and localised disruption from construction would not arise, e.g. construction traffic, noise and vibration, habitat loss / disruption. The effects associated with the completed Development would also not arise. These effects include additional traffic, flood risk and water resources and habitat loss (albeit of low value). If the Development were not brought forward, the beneficial effects of employment creation (i.e. jobs) and environmental benefits, including biodiversity net-gain through the creation of wetlands would also not be realised.
- 4.4 The 'No Development' alternative, which would mean no development taking place, is not considered a realistic prospect given that Application 1 is allocated for employment development within the Cherwell Local Plan.
- 4.5 During the design process, constraints and opportunities identified by the project team were considered and addressed by the detailed drawings, Parameter Plans and Development Specification Document, where possible. This iterative design approach meant that no design alternatives were considered by the project team. A summary of the main design considerations and constraints and how the design of the Development has responded to them are discussed below.

Building Scale and Massing

- 4.6 The Development is located to the south of the Bicester Avenue Retail Park and east of the Bicester Gateway development (hotel element currently under construction), these developments range in height from 7.8m to 18.5m. The overall massing of the Development has sought to respect the surrounding built form with the maximum height proposed for buildings across the Site being 11-12m in height. The Development is slightly taller than the Bicester Avenue Retail Park and smaller than the Bicester Gateway development.
- 4.7 The relationship of the proposed building scale and massing with these surrounding developments was a key influence in the siting and scale of developable areas, access into the Development, and the provision of landscaping along the western and northern Site boundaries.

Water Resources and Flood Risk

- 4.8 Much of the Site lies within Flood Zone 3 (Figure 8.2), with a small proportion in Flood Zone 2 and the remainder in Flood Zone 1. This presents a major design constraint to development on the Site and has therefore been subject to detailed analysis. The proposed layout of the Development takes into account flood risk and as a result only a portion (approximately 8.5ha) of the Site is proposed to be developed.
- 4.9 The eastern area of the Site would be used to compensate for development in the flood zone and would provide wetlands, swales and open space. Surface water run-off would also be managed through the use of sustainable urban drainage systems designed to accommodate water from storm events and climate change.

Transportation and Access

- 4.10 Access for vehicles and the principal pedestrian/cycle access to the Development would be off Wendlebury Road via a new 4-arm roundabout. Wendlebury Road is a national cycle route (NCN51), so ensuring this route is not disrupted was an important design consideration.
- 4.11 The Development will provide a new pedestrian and cycle link across the adjacent Bicester Gateway development, within land controlled by Oxfordshire Country Council (OCC), which will connect to another route. As the pedestrian and cycle strategy for the Bicester Gateway development had already been agreed with OCC and CDC, no other locations for this infrastructure were considered.

Biodiversity

4.12 Planning policy requires that floodplain land within the Site adjacent to Langford Brook provides a natural wetland buffer between any built development and the adjacent Bicester Wetland Reserve LWS. This was a key design consideration from the outset with approximately 10ha of the Site proposed to be set aside for this purpose and flood compensation.

Archaeology

4.13 The developable areas along the southern edge of the Site were set back from the boundary of the Alchester Roman Scheduled Monument and a green corridor proposed to act as a landscaped buffer to this below ground heritage asset.

5 Description of the Development

Application 1

5.1 Application 1 is submitted in hybrid form with the detailed element and outline components described below.

Detailed Component

- 5.2 Full planning permission is sought for a health and racquets club, which is intended to be operated by David Lloyd Leisure, and extends over 1.66ha in the north eastern corner of the Site as shown in Figure 5.1. The proposed layout of the health and racquets club is shown in Figure 5.2. The key elements of the health and racquet club include:
 - Clubhouse building, incorporating: sports hall, providing indoor tennis courts; fitness studios; gym; indoor swimming pool; café/restaurant and member lounge areas; changing facilities; spa; and ancillary offices and staff facilities;
 - Two outdoor tennis courts and a further three tennis courts within a permanent air dome;
 - Outdoor swimming pool;
 - Access from Wendlebury Road; and,
 - Car parking (246 spaces), external plant and servicing areas.

Figure 5.1: Health and racquet club location

Figure 5.2: Proposed health and racquet club layout

Outline Component

- 5.3 The Applicant is seeking outline planning permission (all matters reserved except for access) for the following across the Application 1 site:
 - Up to 23,400 sqm of employment floorspace (Use Classes B1a and/or B1b and/or B1c);
 - Creation of an ecological wetland, comprising species-rich grassland adjacent to Langford Brook;
 - Sustainable urban drainage systems incorporating landscaped areas with balancing ponds, swales and flood compensation works;
 - New internal road and pedestrian footpath network; and,
 - Associated utilities and infrastructure (including vehicle parking).
- 5.4 The proposed means of access to the Site from the A41/Vendee Drive is submitted in detail as part of the outline component and comprises a new 4 arm roundabout and minor widening works to Wendlebury Road.
- 5.5 The outline elements of Application 1 have been defined by a series of Parameter Plans and detailed access drawings as listed in Table 5.1. The Parameter Plans set out the development zones, maximum building heights, the location of principal open space areas, landscaping, and access through the Site.

Table 5.1: Application 1 Parameter Plans

Plan Title	Drawing Number
Parameter Plan 1 - Land Use Plan	18022/TP/102
Parameter Plan 2 - Building Heights Plan	18022/TP/103
Parameter Plan 3 – Vegetation Retention and Removal Plan	18022/TP/104
Parameter Plan 4 – Site Access Plan	18022/TP/105
Access Drawings	
Foot/Cylcepath Enhancement with Health and Racquets Club	19539-12-01
Site Access Roundabout	19539-12-02
Site Access Roundabout Vehicle Tracking	19539-12-03
Foot/Cylcepath Enhancement Employment Only Scenarios	19539-13-01

- 5.6 Parameter Plan 1 Land Use Plan defines the developable areas within the Application 1 site. Parameter Plan 1 also defines the strategic green infrastructure within the site which includes locations for natural and semi-natural space, green corridors, buffer zones and structural edge planting. Open space will be provided for a variety of functions including informal and formal recreation, strategic landscaping, surface water drainage features and biodiversity enhancements.
- 5.7 Maximum building heights within the developable area are defined by Parameter Plan 2 Building Heights Plan and would be between 76.25m AOD and 76.5m AOD. Development platforms will be created at the Site, with the exact level of these confirmed at detailed design stage (anticipated to be in the range of 64.45m AOD and 65.5m AOD (the latter of which is the approximate level of Wendlebury Road)). This would equate to a maximum ridge height of circa 11-12m from the development platform level.
- 5.8 Parameter Plan 3 Vegetation Retention and Removal Plan defines the vegetation to be retained and removed as part of the Application 1. Where possible, trees, planting and level changes have been incorporated into the overall landscaping strategy for the Development. Existing hedgerows and field boundaries are to be retained and where possible, enhanced to maintain/improve these ecological features.
- 5.9 Parameter Plan 4 Site Access Plan identifies a zone within which internal vehicular, pedestrian and cycle access will be formed within the Site. This zone is shown to be wider than the internal access routes will be, to enable some flexibility in the final location of estate roads.
- 5.10 Details are submitted for the a new 4-arm roundabout on Wendlebury Road which will provide vehicle and pedestrian/cycle access to the employment use. The new roundabout would serve the Wendlebury Road (north and south arms), the Application 1 and Application 2 site access and the Vendee Drive roundabout link will form the east and west arms respectively (Figure 5.3).

Figure 5.3: Site access roundabout (drawing - 19539-12-02).

Application 2

- 5.11 The Applicant is seeking outline planning permission at the poultry farm for the following:
 - Up to 10,200 sqm of employment (Use Classes B1a and/or B1b and/or B1c); and,
 - Provision of associated utilities and infrastructure.
- 5.12 Titles for Parameter Plans for Application 2 are the same as those listed above for Application 1 and are listed in Table 5.2

Table 5.2: Application 2 Parameter Plans (Appendix 2).

Plan Title	Drawing Number
Parameter Plan 1 - Land Use Plan	18022/TP/112

Plan Title	Drawing Number
Parameter Plan 2 - Building Heights Plan	18022/TP/113
Parameter Plan 3 – Vegetation Retention and Removal Plan	18022/TP/114
Parameter Plan 4 – Site Access Plan	18022/TP/115

- 5.13 Parameter Plan 1 Land Use Plan defines the developable areas within Application Site 1. Parameter Plan 1 also defines the strategic green infrastructure within the Site which includes locations for natural and semi-natural space, green corridors, buffer zones and structural edge planting.
- 5.14 Maximum building heights for Application 2 would be the same as those for Application 1 (11-12m from development platform level).
- 5.15 Parameter Plan 3 Vegetation Retention and Removal Plan defines the vegetation to be retained and removed as part of the Application 2 development. Where possible, existing trees, planting and level changes have been incorporated into the overall landscaping strategy. Existing hedgerows and field boundaries are to be retained and where possible, enhanced to maintain/improve these ecological features.
- 5.16 Parameter Plan 4 Site Access Plan identifies the pedestrian, cycle, and vehicular access works for Application 2. Access to Application 2 will be via the 4-arm roundabout details of which are submitted as part of Application 1. Application 2 would therefore not come forward without Application 1.

Flood Compensation and Drainage

- 5.17 Where ground levels are elevated to raise the Development out of the floodplain, compensatory floodplain storage within areas that currently lie outside the floodplain will be provided to ensure that the total volume of the floodplain storage is not reduced. An outline Flood Compensation Scheme is provided within the Flood Risk Assessment and details would be developed as part of reserved matters.
- 5.18 The Development is likely to use a combination of below ground drainage systems and sustainable urban drainage systems, attention swales, which will collect and store storm water run-off and allow it to drain to Langford Brook to the east of the Site. The current surface drainage proposals allow for the following surface water storage volumes:
 - Swale 1 Approximately 2,000m³;
 - Swale 2 Approximately 4,500m³; and,
 - Subgrade Attenuation Approximately 1,200m³.

6 Construction

- 6.1 Details of the construction programme and methods are not available at this stage of the project and these would come forward once contractors have been appointed. It is expected that the Development would come forward over an approximate 3-year construction period, with construction expected to commence in 2020 (subject to achieving planning permission) and the Development completed by 2023.
- 6.2 The Applicant has committed to implementing a Construction Environmental Management Plan (CEMP) which will be agreed with CDC and would be in place during the works. The CEMP will provide management procedures and protocols for avoiding, minimising or otherwise dealing with effects on the environment and local community during construction.
- 6.3 A Construction Traffic Management Plan (CTMP) would also be prepared to minimise traffic related disruption associated with the construction works and would be agreed with CDC. The CTMP would ensure lorries are not routed through local villages and would seek to minimise disruption to local residents through careful planning of works.
- 6.4 Likely significant environmental issues associated with the enabling and construction works, and measures identified to mitigate these effects are discussed within each technical section (sections 7-9).
- 6.5 The Development will seek to reuse materials and minimise waste production, including that of energy and water, wherever possible.

7 **Biodiversity**

- 7.1 A biodiversity assessment has been undertaken, which considers potential effects of the Development on designated sites as well as habitats and species within and around the Site. The assessment was undertaken with reference to the Chartered Institute of Ecological and Environmental Management ('CIEEM') Guidelines for Ecological Impact Assessment.
- 7.2 Data to inform the assessment has been collected from desk studies and ecology surveys which have been undertaken in 2019. The habitat types within the Site are shown in Figure 7.1.

Figure 7.1: Phase 1 Habitat Survey

- 7.3 The Application 1 site comprises three arable fields with a network of native hedgerows, ditches and occasional trees. Buildings are only present within the Application 2 site. These include a two-storey brick dwelling (Building B1) and eight buildings associated with the poultry farm.
- 7.4 The habitats on the Site have been found to support a range of breeding birds and low levels of bats were found to be using the Site for foraging and commuting. A maternity (breeding) roost for common pipistrelle bats was found in Building B1 within Application 2 site. No other protected species such as otters, water voles, badgers, dormouse, amphibians or reptiles have been recorded at the Site. Great Crested Newts were not found to be present and the Site does not support habitats likely to be of exceptional interest for invertebrates.
- 7.5 There are no international or European level designated sites within 10km of the Site and no national designated sites (SSSIs) within 2km of the Site. There are two LWSs within 2km of the Site. The Bicester

Wetland Reserve LWS is directly east of the Site and is designated for its wetland habitats and value for wintering birds. The Graven Hill LWS is located 0.85km south east of the Site and is designated for the presence of ancient semi-natural woodland.

- 7.6 The Development retains and protects those features identified across the Site as being of highest ecological value, where possible. The Development proposals also seek to improve the overall biodiversity value of the Site in the long-term. Key measures integrated into the Development for wildlife include:
 - Retention of the majority of existing ditches, trees and hedgerows;
 - Creation of approximately 5.4ha of grassland/wet meadow will be created as part of the works required for flood compensation and water storage; and,
 - An artificial bat roost would be provided, to mitigate the loss of roost in Building B1, at a suitable location nearby to the retained vegetation in the southern section of the Application 1 site to ensure that the bat population can access the adjacent commuting and foraging habitat.

Construction Phase

- 7.7 Effects to habitats during construction include the loss of on-site grassland, partial loss of field margins, the loss of trees, ditches, ponds, increase in lighting levels and the partial loss of hedgerows. Effects to species during construction include the loss of a maternity roost for common pipistrelle bats in Building B1, habitats for farmland birds, disturbance to foraging/commuting species, and the marginal loss of habitats for other species.
- 7.8 The ecological survey and assessment work confirmed that no statutory or non-statutory designated areas would be affected by construction works, and that no effects on receptors of district value or higher would be expected to arise. All remaining ecological receptors identified within the Site are of no more than local interest and are not significant. Measures would be in place to avoid and/or minimise impacts on breeding birds and bats. As such, no significant effects on the ecology of the Site or its surrounds would be expected to arise during construction.
- 7.9 A Landscape and Habitats Management Plan (LHMP) would be prepared to identify how habitats of nature conservation interest within the Site will be established and managed to ensure the long-term nature conservation interest of retained, enhanced and newly created habitats during the construction and operational phases of the Development. A CEMP would also be in place which would include measures for habitat and species protection during construction and would ensure compliance with nature conservation legislation afforded to protected species such as bats and breeding birds. With such mitigation measures in place, the residual significance of construction effects would be negligible.

Completed Development

- 7.10 Potential impacts from the completed Development include impacts on designated sites, lighting effects on bats and disturbance to their habitats from the increase in the number of people and vehicles using the Site, disturbance of nesting birds, increased noise, light and human disturbance to wildlife, and establishment of new green infrastructure trees and habitats.
- 7.11 It is considered unlikely that the Bicester Wetland Reserve LWS or Graven Hill LWS nor other designated areas would be affected by an increase in recreational pressure arising from the Development as access into these areas in not permitted to the general public. The residual significance of effects would be negligible.

- 7.12 To mitigate potential adverse effects associated with disturbance from lighting on bats, a lighting scheme would be sensitively designed with input from an ecologist to ensure areas of value to bats are not lit. These areas would include retained and newly created habitat as well as artificial roost site. The residual significance of lighting disturbance effects would be negligible.
- 7.13 The Development would provide new habitat as described above (paragraph 7.6) and would result in an overall gain in biodiversity and beneficial effects for a number of important ecological receptors. Some of these habitats would take time to mature, but in time, the Development would result in a beneficial effect of local level significance through habitat creation works and management. The residual significance of effects would be negligible beneficial.

Cumulative Effects

7.14 It is not expected that cumulative effects would arise from the Development in combination with other cumulative schemes on ecological receptors relevant to the Site, subject to the employment of standard measures in accordance planning policy, guidance and nature conservation legislation. It is expected that each cumulative scheme would be required to implement measures to ensure that there would be no significant negative effects on features of nature conservation interest. Residual effects on ecological receptors would therefore be expected to be negligible.

8 Water Resources and Flood Risk

- 8.1 An assessment has been undertaken of the likely effects of the Development on water resources, drainage and flood risk. A Flood Risk Assessment (FRA) and surface water drainage strategy have been prepared and form part of the ES.
- 8.2 Surface water features relevant to the assessment shown in Figure 8.1 are:
 - Langford Brook which forms the eastern boundary of the Site;
 - Bicester Wetlands Reserve (a LWS) to the east;
 - Two small ponds and ditches within the Site; and,
 - Drainage ditch forming the southern boundary.

Figure 8.1: Surface water features

8.3 A topographical survey indicates the Site is broadly level with a slight slope to the east towards Langford Brook. As shown in Figure 8.2 the eastern part of the Site is not at risk of flooding although much of the rest of the Site is within areas of medium and higher risk Flood Zones 2 and 3 associated with Langford Brook, although the Site does not have any history of flooding. The Site is at a low risk of flooding from other sources such as rainwater, drains, sewers, water mains and groundwater.

Figure 8.2: Flood Risk Map

Construction Phase

- 8.4 During construction, there is a risk of pollution and sediment from general construction activity to the surface water drainage system through the runoff of soil, contaminants or spillages of contaminants such as oils or chemicals. A CEMP will include measures to control runoff from the construction works and thereby minimising the risk of sediment and pollution entering drainage ditches. Procedures will be adopted to avoid and remediate any spillages and storage of materials will ensure that any risk of blockage of the local ditches or Langford Brook will be minimised.
- 8.5 The Site is located within Flood Zones 1, 2 and 3 and therefore some ground levels will be raised to ensure that the developable areas are no longer at risk of flooding. Ground raising in the western part of the Site would be undertaken in conjunction with excavation which will provide flood compensation areas to mitigate the risk of flooding across the Site and to flood risk elsewhere. The risk of flooding during construction is considered to be low as the Site does not have a history of flooding. Measures would be taken to protect construction workers and other people visiting the Site including a flood emergency and contingency plan as part of the CEMP and implementation of a CTMP.
- 8.6 With mitigation measures in place the residual significance of construction during construction would be negligible.

Completed Development

- 8.7 Flood risk associated with the completed Development has been assessed using computer modelling which takes into account proposed ground levels, storm events and climate change. Once constructed, the health and racquet club and developable areas defined by the outline elements of the both applications would not be at risk of flooding and would be in Flood Zone 1. This will be achieved by raising ground levels in the western part of the Site to achieve a suitable platform for development which is above the flood risk level. In order to compensate for the loss of storage capacity in the floodplain resulting from the ground being raised, flood compensation would be created in the eastern part of the Site through the excavations and scrapes which when flooded will form wetland habitats.
- 8.8 The Development would use sustainable urban drainage systems (SUDS), such as swales and attenuation areas, to ensure that levels of surface water drainage run-off are restricted to ensure they do not adversely affect existing watercourses or increase flood risk elsewhere. With these drainage systems in place and the flood compensation measures, the residual effects on of flood risk and on water resources would be negligible.
- 8.9 Surface water run-off from building roofs and external areas will be directed to a below ground drainage network. This water would be generally clean so could be discharged directly to the new drainage infrastructure via the SuDs to the Langford Brook. Silt would be prevented from entering the drainage system by the use of trapped gullies, channels with silt or by the use of SUDS. Oil separators will be fitted to the surface water drainage systems to prevent oil from entering watercourses. Subject to good management and monitoring to ensure that the SUDS continue to operate efficiently, the residual effect of surface water discharges on the water quality is considered to be low adverse (not significant) to negligible.
- 8.10 The Development will lead to additional demand for sewage treatment from foul water. Bicester Sewage Treatment Works is approximately 150m from the Site and Thames Water Utilities Ltd (TWUL) have indicated that capacity is limited to deal with the additional demand from this Development. It is anticipated that TWUL will ensure that sewerage infrastructure and the sewage treatment plant are upgraded to be able to manage predicted flows. There would be an increase in water demand, TWUL would also be required to meet the demands of the Development and would implement upgrades as required in line with the progression of the Development. The Applicant would also put in place measures to limit potable water demand. Assuming this is carried out, the impact on foul water and water demand is deemed to be non-significant.

Cumulative Effects

Construction phase

8.11 A CEMP and flood protection measures/plans will be implemented at the Site during construction to avoid potential effects. Emergency pollution plans will also be in place to deal with accidental spillages. As a consequence, no significant effects are expected. It can reasonably be expected that similar measures would also be in place for other cumulative schemes which would manage risks associated with accidental spillages, which could affect water quality, through standard management practices and measures. Consequently, there are not considered to be any significant cumulative effects to water resources, drainage network, or flood risk as a result of construction processes and effects are negligible.

Completed Development

8.12 Due to the design measures being undertaken, including the use of SUDS, control of discharges into the Langford Brook, ground raising and flood compensation features, there is unlikely to be any cumulative effect on flood risk from the Development in combination with the cumulative schemes.

- 8.13 It is anticipated that all cumulative schemes would be required to control surface run-off through the use of SUDS and to include measures to minimise water consumption, in line with planning policy. The cumulative effect on surface water drainage would therefore be negligible.
- 8.14 It is anticipated TWUL will ensure that sewerage infrastructure and the sewage treatment plant would be upgraded to be able to manage predicted flows. Assuming this is carried out, the impact on foul water and sewerage infrastructure is not significant.

9 Transport and Access

- 9.1 A detailed study of the effects of the Development on local highways, pedestrians and cyclists has been undertaken. This study is presented in a Transport Assessment which accompanies the ES. The ES draws on the findings of the Transport Assessment which predicts and assesses the likely traffic effects from the Development and uses using computer modelling which takes account of future growth in traffic and committed developments.
- 9.2 The scope of the Transport Assessment has been discussed and agreed with highways officers at OCC during extensive pre-application discussions. The assessment uses the OCC Bicester Transport Model, a computer modelling tool, which takes account of future growth in traffic and committed developments in the Development's locality.
- 9.3 Future traffic flow forecasts were provided by OCC for the following assessment years:
 - 2026;
 - 2031 Without South East Perimeter Road (SEPR) (SEPR is a road scheme promoted by OCC and is referred to support development within Bicester, see Figure 3.2); and,
 - 2031 With SEPR.
- 9.4 The assessment focuses upon the effects of severance (which is the perceived division that can occur within a community when it becomes separated by increases traffic on the road network), driver delay, pedestrian and cyclist amenity; pedestrian and cyclist delay; fear and intimidation; and accidents and safety.
- 9.5 Personal injury accident data obtained from OCC (2014-2018) shows that there was a total of 70 reported incidents within the study area. Of these, 62 collisions were recorded as 'slight', eight were recorded as 'serious' and there were no fatal collisions. Analysis of this data did not show any abnormal trends or specific highway safety issues in the vicinity of the Site.

Construction Phase

- 9.6 Access to the Site during construction would be gained directly via the A41 and Wendlebury Road. Based on experience of similar sized projects and taking into account the project programme, it is expected that there would be no greater than 28 two-way heavy goods vehicle (HGV) movements per day across the full construction programme for the Development, with construction worker vehicles amounting to approximately 10-30 movements per day.
- 9.7 The small changes in traffic associated with the construction phase of the Development are such that severance effects as well as effects on driver delay, cyclist and pedestrian amenity, accidents and safety, and pedestrian and cyclist amenity (including fear and intimidation) are considered negligible. There are existing HGV restrictions on vehicle routeing through Wendlebury. A CTMP will be in place which will be used to prohibit HGV movements from arriving and leaving via Wendlebury Road to the south and deter movements to the north.

Completed Development

9.8 The main vehicular, pedestrian and cyclist access to the Site (i.e. both Application 1 and Application 2 will use the same access) would be via a new roundabout junction on the Wendlebury Road (Figure 5.3). The heath and racquet club would be accessed via a separate T-junction on Wendlebury Road (Figure 5.2).

- 9.9 Four different development scenarios were used in the Transport Assessment to assess the levels of traffic associated with the planning applications as follows:
 - Scenario 1: Application 1 Employment Development;
 - Scenario 2: Application 1 Employment and heath and racquet club;
 - Scenario 3: Application 1 Employment and Application 2; and,
 - Scenario 4: Application 1 Employment and heath and racquet club and Application 2.
- 9.10 The predicted number of vehicles travelling to and from the Site in the morning (AM) and evening (PM) peak hours and daily trips when the Development is expected to be fully complete and operational within the four scenarios are outlined in tables 9.1 and 9.2 below:

Table 9.1: Development Traffic Generation – Peak Hours

	AM Peak			PM Peak			
	Ins	Outs	Total	Ins	Outs	Total	
Scenario 1	196	24	220	18	157	175	
Scenario 2	184	48	232	86	157	243	
Scenario 3	281	35	316	26	226	252	
Scenario 4	269	59	328	94	225	319	

Table 9.2: Development Traffic Generation – Daily

	Ins	Outs	Total
Scenario 1	655	675	1330
Scenario 2	1117	1161	2278
Scenario 3	940	969	1909
Scenario 4	1403	1455	2858

- 9.11 Within the guidance used for the assessment, two broad rules are suggested in respect of changes in the volume and composition of traffic to facilitate a subjective judgement of traffic impact and significance:
 - Rule 1: include highway links where traffic flows will increase by more than 30% (or the number of HGVs will increase by more than 30%); and
 - Rule 2: include any other specifically sensitive areas where traffic flows have increased by 10% or more.
- 9.12 Analysis of the effects of Development generated traffic on the highway network show that the following links (or junctions), in all four scenarios, are expected to experience increase traffic flows which will exceed Rule 1 and therefore were subject to further consideration within the assessment.
 - Vendee Drive Link;
 - Wendlebury Road (North of Development); and;
 - A41 roundabout junction of Wendlebury Road and Vendee Drive Link.

9.13 No further links (or junctions) exceed the Rule 2 threshold, the threshold relevant to links with sensitive interest. Therefore, there is no further requirement for further assessment on these links as the percentage thresholds in Rule 2 is not surpassed and the overall effect on these links would be negligible.

Scenario 1: Application 1 – Employment Development

- 9.14 The highest increases in traffic flows during 2026 and 2031 (With and Without SEPR) in either the AM/PM Peak on the Vendee Drive link are predicted to be 76% and 37% on Wendlebury Road (north). The forecast future traffic flows were well within the practical link capacity for both year 2026 and 2031 (With and Without SEPR) with the Development in place; and within the practical junction capacity of the new Site access at the junction of Wendlebury Road/Vendee Drive.
- 9.15 The demand to cross these links by road users is liable to stem from committed development on the employment element of Bicester Gateway and possibly the Development. The percentage increase in traffic constitutes a low to medium magnitude of impact on these links, however a low to medium impact on a receptor of medium/low sensitivity would result in a negligible to minor adverse (not significant) effect. As a result, effects of the completed Development on severance are considered not significant for the 2026, 2031 (With and Without SEPR) assessment years.
- 9.16 Traffic and junction modelling has been undertaken to understand how the Development would affect driver delay and queuing. The results show the capacity in the road network is sufficient to accommodate Development traffic on links for both year 2026 and 2031 (With and Without SEPR). The expected vehicle movements generated as a result of the Development would be minor adverse (not significant).
- 9.17 Traffic generated by the Development for both 2026 and 2031 (With and Without SEPR) is not considered to be significant. Access arrangements for the Development include the provision of new facilities to improve pedestrian and cycle movement through this part of the network which include pedestrian crossings at the Site access junction on Wendlebury Road, and pedestrian and cycle linkages from the Site to the existing infrastructure. As such, it is considered that effects on pedestrian and cyclist delay and amenity in the vicinity of the Site would be minor adverse (not significant).
- 9.18 The level of traffic flow and HGV flow on links is significantly below any level at which fear and intimidation becomes a factor. As such, it is considered that effects on fear and intimidation is negligible for both 2026 and 2031 (With and Without SEPR).
- 9.19 The Development is not expected to result in an increase in safety risk or accidents and therefore the effect would be minor adverse (not significant) for both 2026 and 2031 (With and Without SEPR).
- 9.20 The Applicant has prepared a Framework Travel Plan for the employment uses across both the Application 1 and Application 2 sites and a draft Travel Plan for the health and racquets club which accompany the planning application which would be in place for all elements of the Development to encourage sustainable travel patterns by staff and visitors. These include measures to encourage walking and cycling, car sharing and parking priority for car sharers.

Scenario 2: Application 1 – Employment and Health and Racquet Club

9.21 The highest predicted increase in traffic flows during the 2026 and 2031 (With and Without SEPR) in either the AM/PM Peak assessments on the Vendee Drive link was 94% and 37% on Wendlebury Road (north). The forecast future traffic flows are well within the practical link capacity for both year 2026 and 2031 (With and Without SEPR) with the Development in place; and within the practical junction capacity of the new Site access at the junction of Wendlebury Road/Vendee Drive.

9.22 The significance of effects for Scenario 2 are equivalent to effects identified in Scenario 1 for severance, drivers delay, pedestrian and cyclist delay and amenity, fear and intimidation, and accidents and safety.

Scenario 3: Application 1 – Employment and Application 2

- 9.23 The highest increase in traffic flows during the 2026 and 2031 (With and Without SEPR) in either the AM/PM Peak assessments on the Vendee Drive link was 109% and 53% on Wendlebury Road. The forecast future traffic flows are well within the practical link capacity for both year 2026 and 2031 (With and Without SEPR) with the Development in place; and within the practical junction capacity of the new Site access at the junction of Wendlebury Road/Vendee Drive.
- 9.24 The significance of effects for Scenario 3 are equivalent to effects identified in Scenario 1 for severance, drivers delay, pedestrian and cyclist delay and amenity, fear and intimidation, and accidents and safety.

Scenario 4: Application 1 – Employment and Heath and racquet club and Application 2

- 9.25 The highest increase in traffic flows during the 2026 and 2031 (With and Without SEPR) in either the AM/PM Peak assessments on the Vendee Drive link was 127% and 53% on Wendlebury Road. The forecasted future traffic flows are well within the practical link capacity for both year 2026 and 2031 (With and Without SEPR) with the Development in place; and within the practical junction capacity of the new Site access at the junction of Wendlebury Road/Vendee Drive.
- 9.26 The significance of effects for Scenario 4 are equivalent to effects identified in Scenario 1 for severance, drivers delay, pedestrian and cyclist delay and amenity, fear and intimidation, and accidents and safety.

Cumulative Effect

Construction Phase

9.27 It is anticipated that each cumulative development (Figure 3.1) would adopt appropriate construction methods, which would be clearly set out in a CTMP. On this basis and subject to the implementation of best practice construction traffic management measures, the residual cumulative effects on the pedestrian, cycle and road users would be temporary and not significant.

Completed Development

9.28 The cumulative effect with other developments (Figure 3.1) has been considered and has been taken into account in the data used to assess the completed Development. It is considered that there would be minor adverse effects on severance, driver, pedestrian and cyclist delay and accidents and safety and a negligible effect on all other environmental impact criteria for all four scenarios assessed. Overall, the cumulative effect of the Development with cumulative developments is not significant.

10 Effect Interactions

Introduction

- 10.1 An assessment has been carried out to assess the potential for cumulative effects, known as 'effect interactions', based on the effects identified in the ES (i.e. those after mitigation). Effect interactions can arise where individual effects from the Development combine to effect particularly sensitive receptors. Only residual effects classified as being of minor/moderate/major and of beneficial or adverse significance have been considered in relation to the potential for the combined effects of individual receptors.
- 10.2 For some environmental effects, no interaction with other effects will occur and so no cumulative effect could arise. For example, effects on daylight and sunlight do not interact with transport effects.

Construction Phase

10.3 For the construction assessment, no residual effects classified as being Minor, Moderate and Major or Significant (Biodiversity) have been identified in relation to the Transport and Access, Biodiversity and Water Resources and Flood Risk. As a result, there is no potential for interaction of effects to occur between these technical topics.

Operational Phase

- 10.4 For the operational phase of the completed Development, no residual effects have been identified for Biodiversity and Water Resources and Flood Risk. As a result, there is no potential for interaction with other effects to occur with these technical topics.
- 10.5 Transport effects resulting from the operational phase are generally adverse (although not significant), long term in duration and are applicable throughout the life span of the Development and relate only to the slight increase in traffic flows on Wendlebury Road and the Vendee Drive Link as a result of the Development. When these effects are combined, they could potentially create combined adverse amenity/well-being effects. The implementation of a Travel Plan for land uses on the Site should result in a modal shift away from private car use to more sustainable transport modes. As a result, the potential incombination effect is deemed not significant.

11 Mitigation, Monitoring and Residual Effects

11.1 Volume I of the ES includes a summary of the proposed mitigation measures and significant residual effects for all the topics considered. A thorough assessment has been undertaken of the likely significant environmental effects of the Development.

Construction Phase

11.2 During the three-year programme of construction works, some adverse effects (not significant in EIA terms) would occur, although these effects are temporary, and would be managed through a CTMP and CEMP which are expected could be secured by planning conditions.

Completed Development

- 11.3 Mitigation measures have been designed into the Development where possible, and once constructed and occupied, the EIA has identified the following beneficial effects:
 - Provision of up to 33,600 sqm of employment floorspace;
 - Provision of up to health and racquet club;
 - Improvements to pedestrian and cycle movement in the area and Site;
 - Improvements to surface water drainage at the Site; and,
 - Creation of new habitat and biodiversity features within the Site.
- 11.4 The only adverse effects once the Development is complete are predicted to be in relation to the slight increase in traffic flows on Wendlebury Road and the Vendee Drive Link as a result of the Development, although these effects are not significant.

Appendix 1: Application 1 Parameter Plans and Detailed Drawings

,	Description	(Chk	Date	
		Peer 8 -14 Verulam London WC:	r Ho 1 Sti 1X	ouse reet 8LZ	iects
		tel +44(0)20 740)0 2	120	chit
		enquiries@cornisharchited www.cornisharchited	cts.o	com	shar
		RIBA Chartered F	ר ע Pract	tice	corni
jeo	t Title.				

 	5/112	DRAWING STATUS		DATE		_
			ВТ			
					dta	
					aca	
					1	

Warwickshire	B95 5AW
Tel: +44(0)156	54 793598
Fax: +44(0)156	54 793983
www.dtatranspor	tation.co.uk

							R.	ر مر
/	NAV. HT 1m					G 0 Hr 1.0	\rightarrow	
E VE	SET ATON				ÞG	16m		
	, , , , , , , , , , , , , , , , , , ,	13 m		/	HT 1.4 20m			
ىر		Access,			,	Ĵ ⁽		
				CG 0.8	HT 1000			
/				PIN FER				
1								
	N. HT 108	/ /						
	/ / //							
/		/	See Filler		\ \			
ſ	40.00 HT 0.00 HAWD	5	Č,					
X	$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \end{array}\\ \end{array}\\ \end{array}\\ \begin{array}{c} \end{array}\\ \end{array}\\ \end{array}\\ \begin{array}{c} \end{array}\\ $	P						
/ `	John J	1		کر	findfor	m		- 17 -
				(N
Y-f-					A A			
/			N		-N -			
	N	NN				$\left\{ \left \right\rangle \right \right\}$		
						L L		
						r /		
						7	\`</p	
							L'	
								$\left \left\langle $
								Ľ
™.4 :ulo	- 232 ated Vehicle (16.5m) 16.500m							
	2.550m 3.681m 0.411m 2.500m							
5	6.00s 6.530m							
]					
	JOB TITLE	ALYST BI	CESTER	C	LIENT	ALBION	LAND	
	DRAWING TITLE							
		ç	WENDLEBU	JRY F ROUN	idarou	т		
		3	VEHICLE	TRAC	KING	I		
	SCALE 1・25への人1		DATE	DRAWING	No 10570) 7	
	I. ZUWAI				19022	9-12-L	J.J.	

Appendix 2: Application 2 Parameter Plans