



Oxford University Development

Begbroke Innovation District

Design and Access Statement

July 2023

Hawkins\Brown
With
OKRA
RCKa
OOZE

Document history

Version	Date	Description
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Cultivating a place ...In which a community can change the world



Our vision is for a successful innovation district, taking advantage of the site's peri-urban qualities and delivering homes for Oxfordshire.

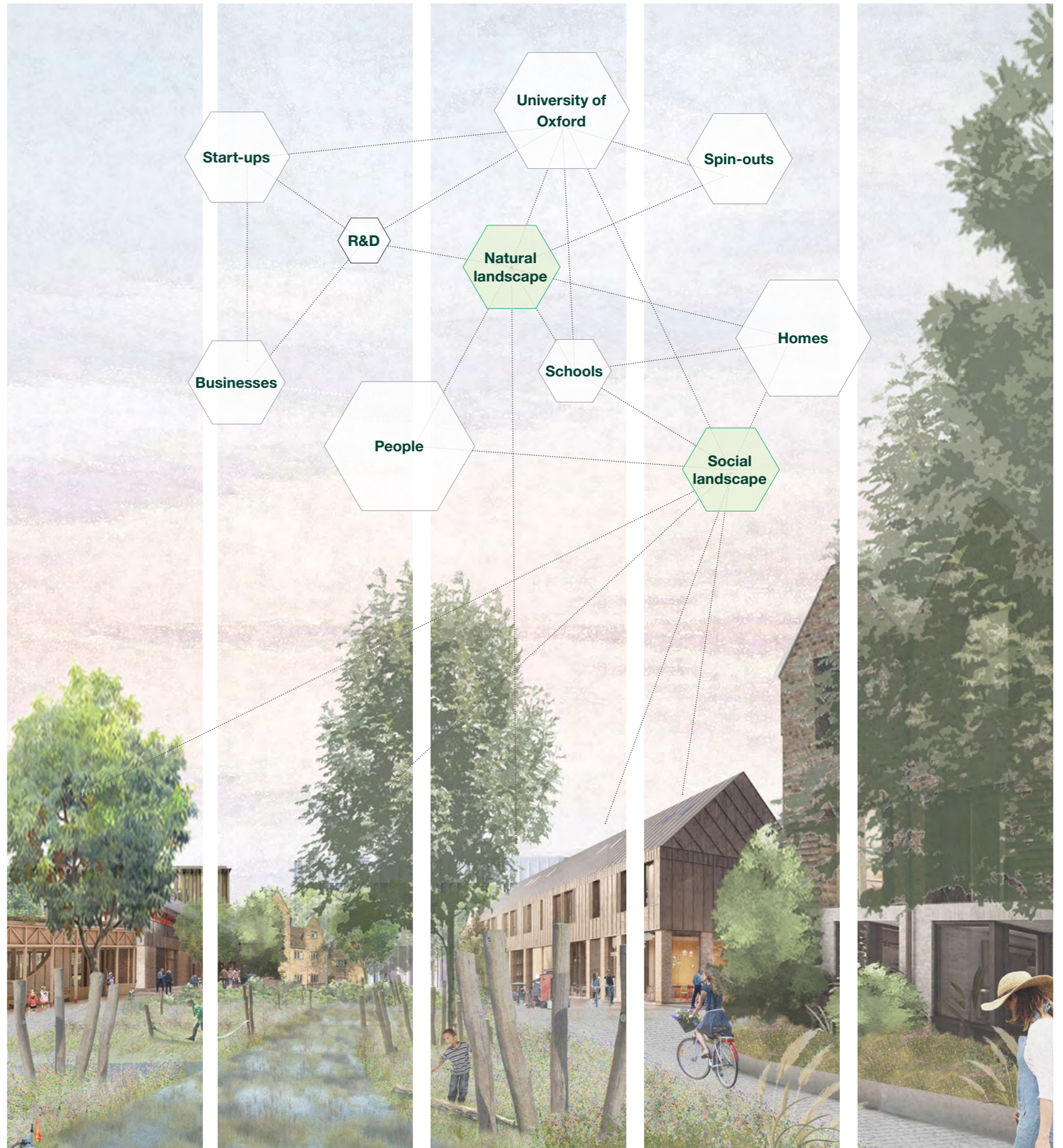
An innovation district is a mixed-use environment where the combination of academic researchers, start-ups, established companies, residents and visitors provides the critical mass and ecosystem services to support the growth of knowledge-based enterprises and the provision of social amenities that is attractive to a wide audience.

An innovation district enables enterprises to grow from inception through incubation to maturity, as well as provide an environment attractive to established commercial organisations.

The site, client and brief provide the opportunity to pursue a development that moves the dial on development norms in their pursuit of the exemplary. Innovation refers to both the activity of the commercial/R&D space, as well as the way in which the development is designed and delivered.

The proposal establishes

- A framework for social restorative landscapes across more than half the site area;
- A fundamental rebalancing of streets for active travel and landscape through 'living streets'; and
- Accommodation of cultural and social amenity delivered from the outset to 'engineer serendipity'.



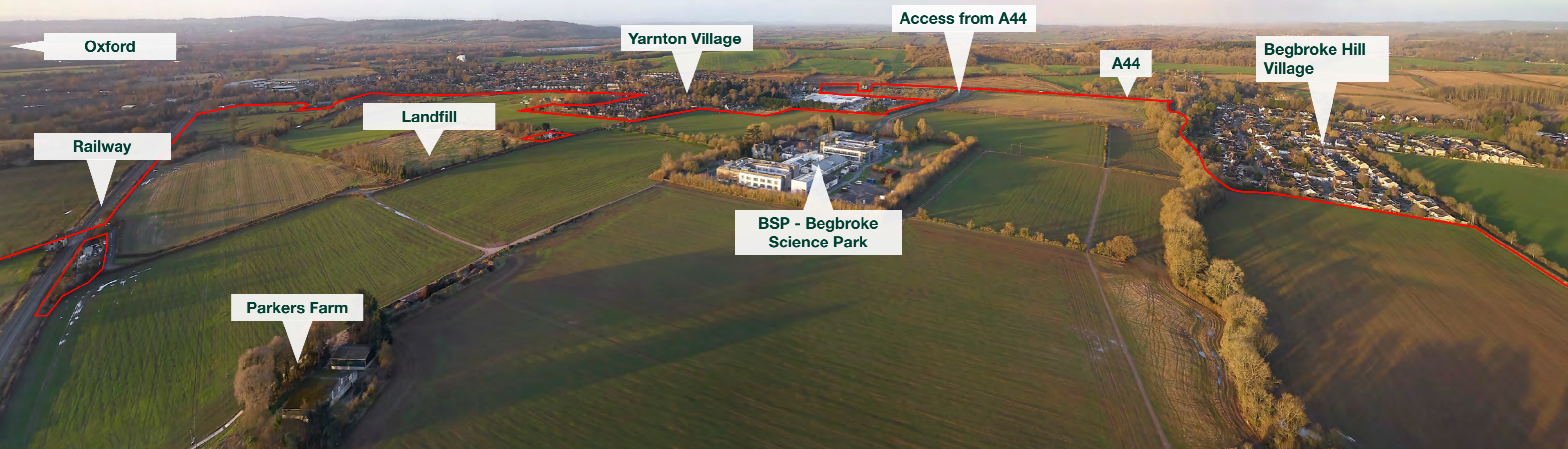
And outstanding site including...

An outstanding site for a perhaps once in a lifetime opportunity including,

- Connection to Oxford via car, cycling or public transport
- A successful existing science park,
- Three neighbouring villages with thousands of years of history and consolidated communities,
- Unique environmental and heritage assets including a Jacobean farmhouse,
- Trees and planting of different ages and qualities,
- The Oxford canal and the opportunity to contribute to wider ecological networks,
- Access to Oxford
- Challenges such as a landfill site in need of re mediation
- Or mono-cultural agriculture tenants.



Application site boundary



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1. Introduction

**An innovation district
taking advantage of unique
environmental qualities.**

1.1. Team

The Begbroke Innovation District team is led by Oxford University Development and brings together expertise from UK and Europe.

Masterplan Design team



Hawkins\Brown
Architects and urban designers, design lead



OKRA
Landscape, design strategy, and placemaking



RCKa
Neighbourhood design and character



OOZE
Urban design, placemaking and landscape strategy



Murray Twohig
Vision



KMC Transport Planning
Transport consultants and placemaking

Other members of the masterplan team



Turner & Townsend
Project management



Quod
Planning, Housing, Environmental Planning and Socio-economic



Buro Happold
Engineering



Kevin Murray Associates
Community engagement



King Technical Consultant
Site surveys



AECOM
Cost control

1.2. Executive summary

The Begbroke Innovation District is an ambitious project stemming from different needs. Its proposal sits at the intersection of Oxford's unmet housing needs and the desire to expand Oxford's university research and development facilities at Begbroke Science Park. In doing so, it opens the site to offer its great environmental assets to Oxfordshire, it fosters crossovers between existing communities and the university's research activities, it brings nature to people's doorstep, and it shifts development models to more sustainable, climate-change conscious, health and well-being focused models, through place making.

This Design and Access Statement has been led by Hawkins Brown and prepared by the design team on behalf of Oxford University Development. The area of the site covered by this application is 170.4 hectares. The document has been prepared in support of an Outline Planning Application for the Begbroke Innovation District, seeking Outline permission with all matters reserved.

Outline application, with all matters reserved, for a phased (severable), comprehensive residential-led mixed use development comprising:

Up to 215,000 square metres gross external area of residential floorspace within Use Class C3/C4 and large houses of multiple occupation (Sui Generis); Supporting social infrastructure including secondary school/primary school(s) (Use Class F1); health, indoor sport and recreation, emergency and nursery facilities (Class E(d)-(f)) Supporting retail, leisure and community uses, including retail (Class E(a)), cafes and restaurants (Class E(b)), commercial and professional services (Class E(c)), local community uses (Class F2), and other local centre uses within a Sui Generis use including public houses, bars and drinking establishments (including with expanded food provision), hot food takeaways, venues for live music performance, theatre, and cinema. Up to 155,000 net additional square metres (gross external area) of flexible employment uses including research and development, office and workspace and associated uses (Use E(g)), industrial (Use Class B2) and storage (Use Class B8) in connection with the expansion of Begbroke Science Park; Highway works, including new vehicular, cyclist and pedestrian roads and paths, improvements to the existing Sandy Lane and Begbroke Hill road, a bridge over the Oxford Canal, safeguarded land for a rail halt, and car and cycle parking with associated electric vehicle charging infrastructure; Landscape and public realm, including areas for sustainable urban drainage systems, allotments, biodiversity areas, outdoor play and sports facilities (Use Class F2(c)); Utility, energy, water, and waste water facilities and infrastructure; together with enabling, site clearance, demolition and associated works, including temporary meanwhile uses.

1.3. Purpose and structure of this document

This Design and Access Statement has been prepared to support the Outline Planning Application for the Begbroke Innovation District.

This document also describes the approach to realising the vision for and the character of the Begbroke Innovation District. These 'Place Principles' are captured in the Development Specification, Parameter Plans and the Strategic Design Guide - all of which are Control Documents

A masterplan has been prepared to test the parameters and guidance submitted for approval. This Design and Access Statement describes the Illustrative Masterplan, as well as the context analysis and resulting Place Principles leading to it. This Design and Access Statement has been organised as follows:

- The masterplan proposal has emerged from an understanding of the site context described in the Chapter 2 of this document.

- Throughout the pre-application process, comments and feedback have been taken into account through the design of the masterplan. This process, and the evolution of the masterplan are described in the Chapter 3 of this document.
- The Place Principles guiding all stages of design are described in the Chapter 4 of this document.
- The Illustrative masterplan is described in Chapters 4 to 12.

The format and content of the Design And Access Statement

- Explains the evolutionary process of the development and the thinking behind the final design
- Shows how the design of the proposal has taken into account the nature of the surrounding area and how it helps improve the environment
- Shows that the Applicant has considered how everyone, including disabled people with pushchairs and older people can use the buildings

The Design and Access Statement sets out an explanation of the Proposed Development and how design has influenced the Outline Planning Application. The diagrams, images and text contained within this document are intended to illustrate the design intent. The commitments in respect of the design are set out within the Strategic Design Guide. Any details within the Design and Access Statement should therefore be treated as illustrative and are not for approval.

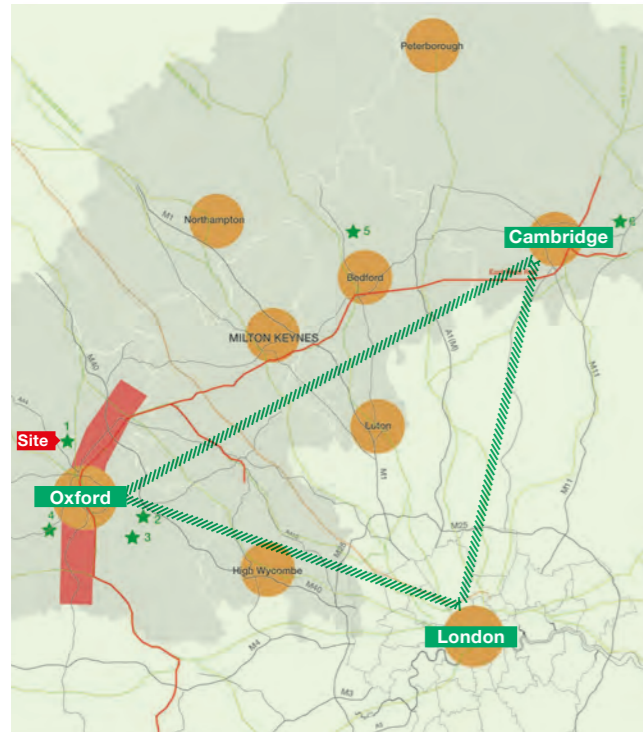
2. Understanding the site

**A proposal emerging from the
environmental, landscape,
character, history, connectivity and
planning context**

2.1. Part of a wider network

The Oxfordshire knowledge clusters

Oxford-Cambridge Arch

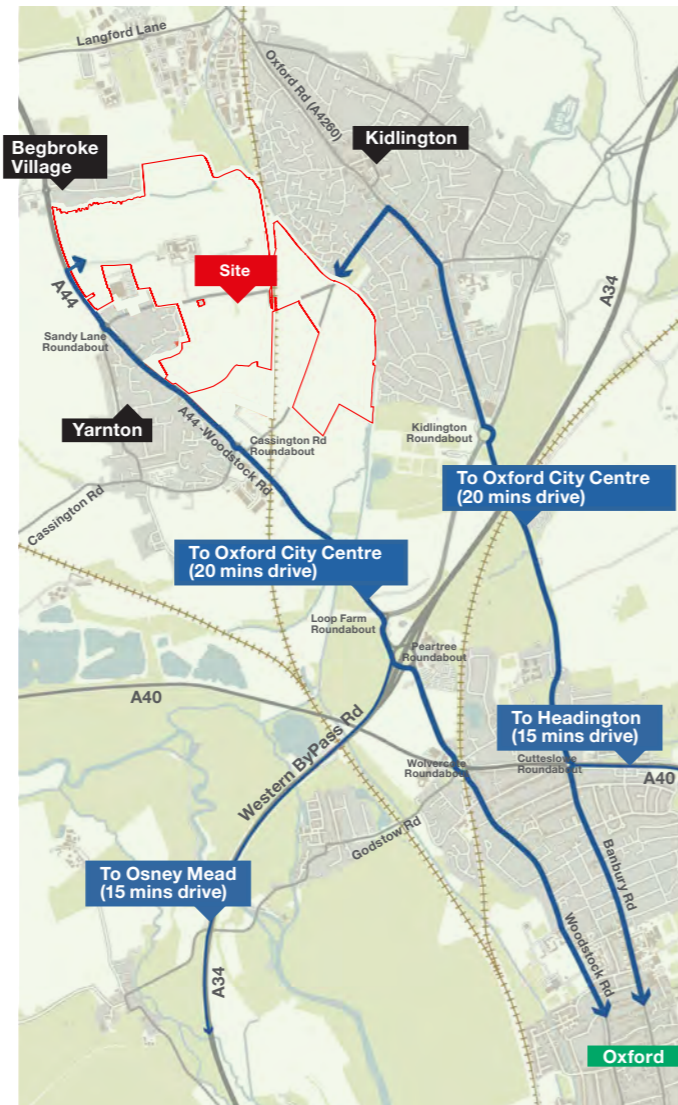


Situated within the Oxford-Cambridge Arc, the site is connected to world-leading science and innovation hubs.

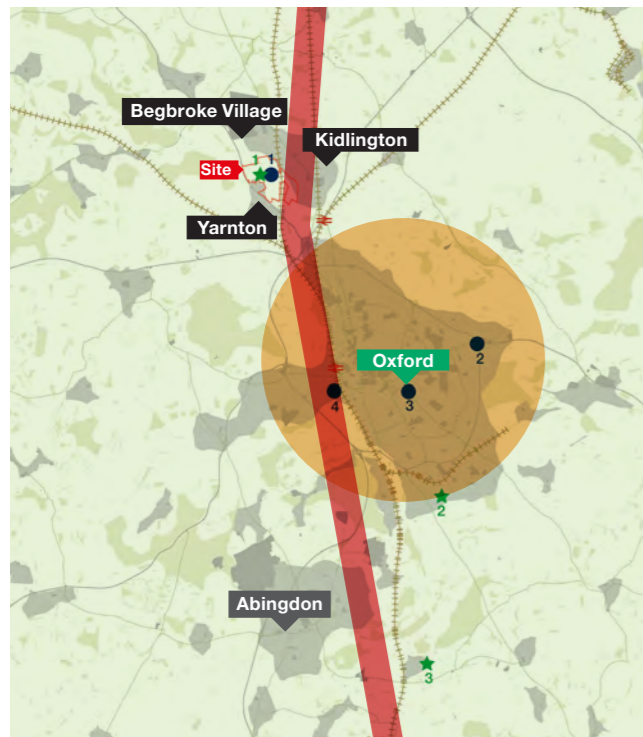
Begbroke benefits from direct connections to a number of science parks and innovation centres.

Transport infrastructure of different types provide links to key areas clustering other centres of knowledge economy including London and Cambridge and the multiple centres between them.

Proximity to Oxford



Oxfordshire Knowledge Spine

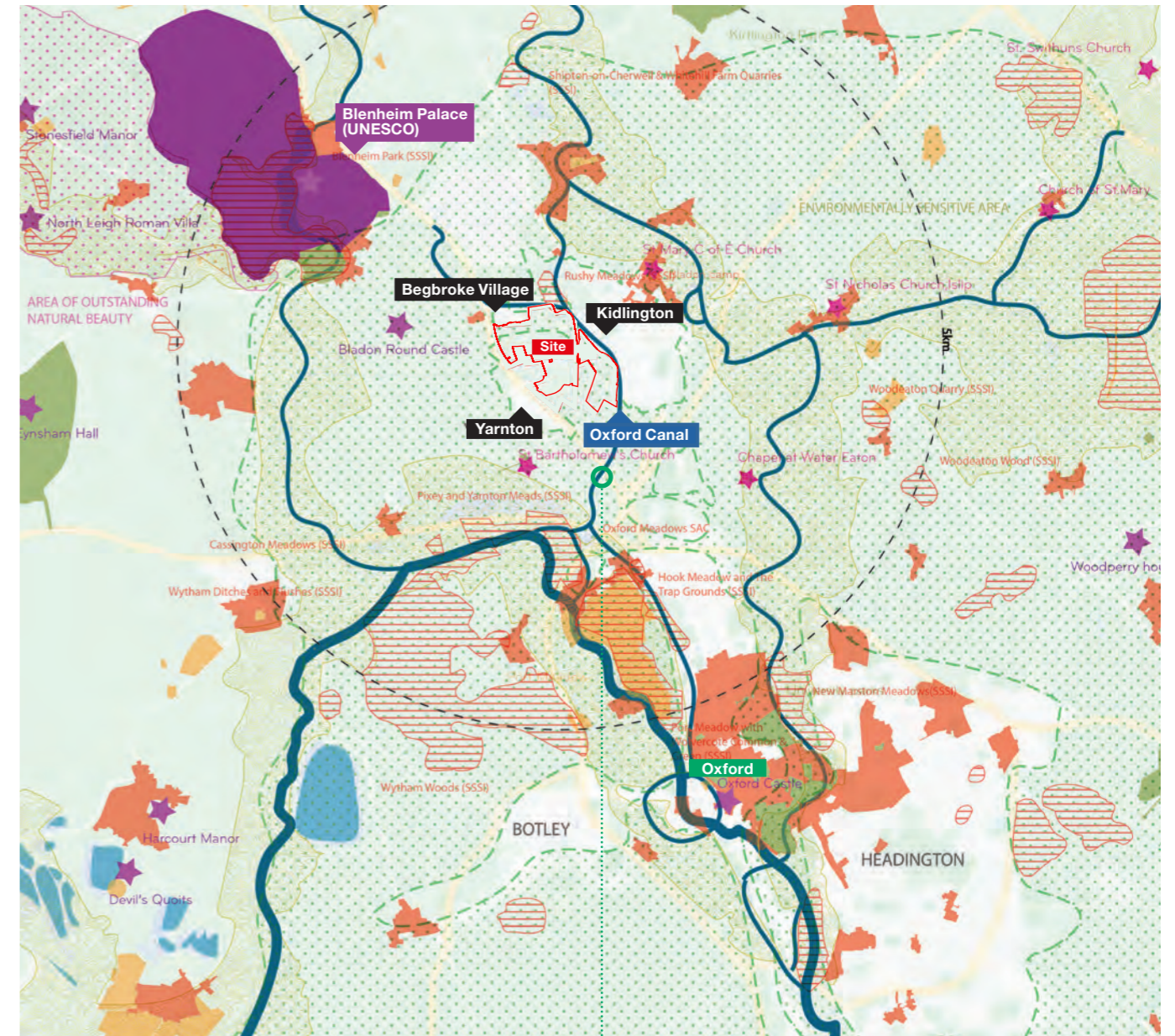


- ★ **Science Parks**
 1. Begbroke Science Park
 2. Oxford Business Park
 3. Culham Science Centre
 4. Oxford Science Park
 5. Colworth Science Park
 6. Cambridge Science Park

- **University of Oxford Innovation Hubs**
 1. Begbroke Science Park
 2. Oxford University Headington
 3. Oxford University Science Area
 4. Osney Mead Industrial Estate

Regional heritage setting & environmental networks

The revised Green Belt & regional context



- ★ Local Heritage
- ★ Grade I Listed buildings: buildings of exceptional interest.
- Conservation Areas
- Scheduled Monuments
- Parks and Gardens
- Oxford Green Belt
- Sites of Special Scientific Interest SSSI
- Area of outstanding natural beauty
- Environmentally sensitive area
- 5km radius

Oxford canal conservation area

The Oxford Canal running to the east of the site is part of the Lower Cherwell Valley Conservation Target Area (CTA).

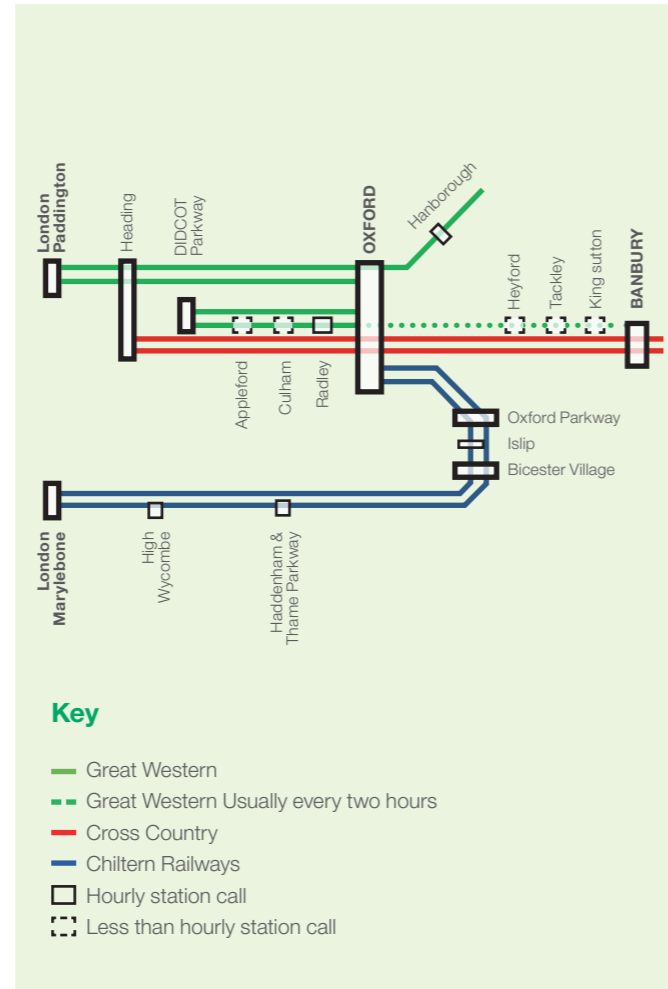
- The Oxford Canal Conservation Target Area (CTA) is part of the Nature Recovery Network (NRN).
- Its objectives include the creation and restoration of the water vole habitat.

Transport network

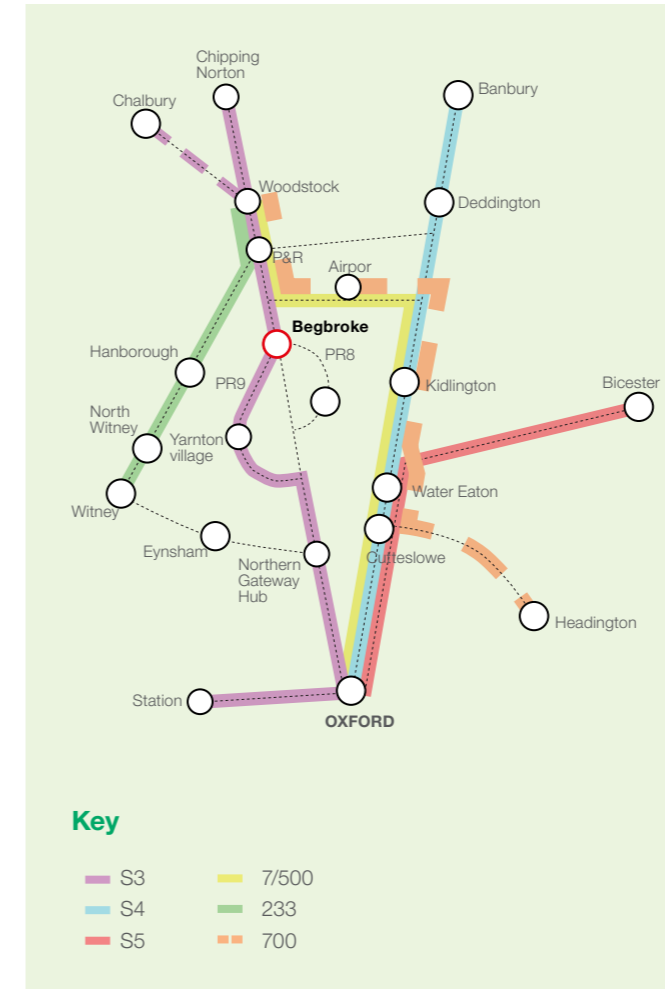
Roads



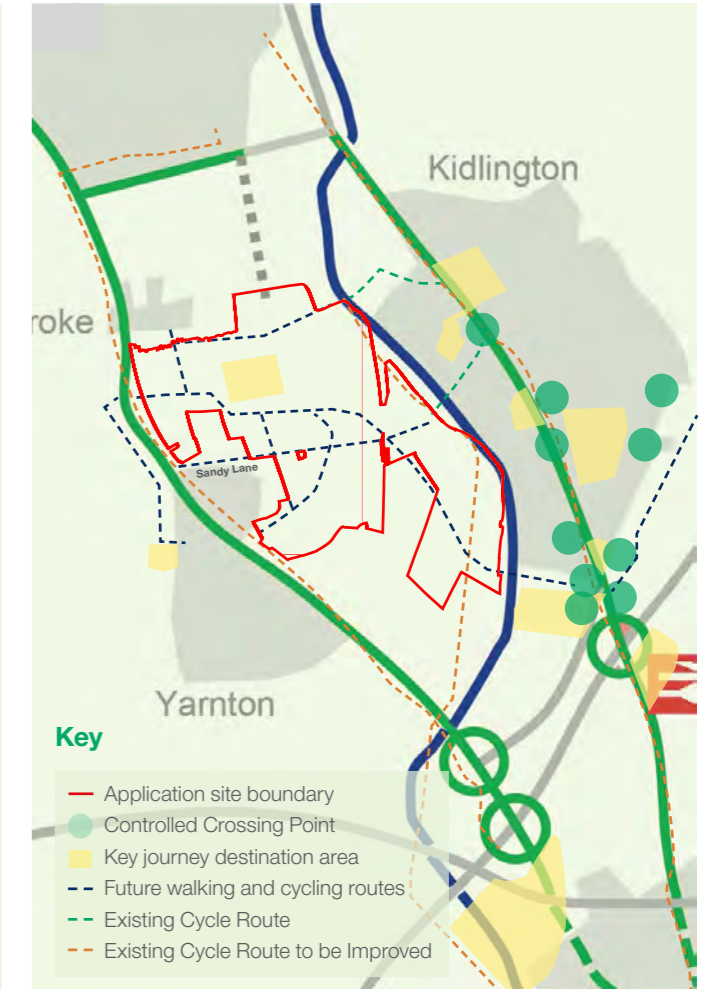
Railway



Buses



Walking & cycling



The site is accessed via a signal controlled junction on the A44.

- The A44 in the vicinity of the site access junction is a street lit dual carriageway which is subject to a speed limit of 50mph.
- To the south-east of the Sandy Lane roundabout, the A44 Woodstock Road connects to Cassington Road at a three-arm roundabout.
- The A44 southbound dual carriageway approach to the roundabout maintains two-lanes all the way to the give-way to the roundabout.
- To the south of the Cassington Road roundabout the A44 Woodstock Road becomes a single carriageway, crossing both the railway line and Oxford Canal, and joins the A4260 Frieze Way at the Loop Farm roundabout.

The railway line running north to south through the site.

- Local Plan policy PR8 requires land to be reserved for a potential railway station at Begbroke.
- Oxford Parkway is the closest station to the site.

The site is currently served by Route S3, a half-hourly bus service operating between Oxford and Chipping Norton.

- Several bus routes, including S4, 700, and 7, serve the A4260 Kidlington corridor, but they are outside the 400m walking distance catchment area for the site.

The Oxford County Council transport strategy is to upgrade the A4260 through Kidlington as a 'cycle superhighway' and provide pedestrian/cycle routes along both sides of the A44.

- A network of walk/cycle routes will be provided through development sites to connect into the wider network, and
- Sandy Lane is planned to be closed to general traffic and provided as an active travel corridor to support walking and cycling in the area.

2.2. Local needs

The Site comprises part of the land allocated by Policy PR8 of the Cherwell District Council Local Plan Part 1 Partial Review. The allocation's objective is to deliver housing to address Oxford's unmet housing need.

Policy and guidance



A The Cherwell Local Plan 2011-2031 (Part 1) Cherwell District Council North Oxfordshire

B The Cherwell Local Plan 2011-2031 (Part 1) Partial Review: Oxford Unmet Housing Need- Adapted 7 Sept 2020- Cherwell District Council North Oxfordshire

C Oxford Canal Conservation Area Appraisal- October 2012 (Part 1 & Part 3): South Northamptonshire Council & Cherwell District Council North Oxfordshire

D Local Nature Reserves in England: A guide to their selection and declaration, Natural England

Strategic housing sites

The Local Plan identifies a series of sites in order to address current housing needs.

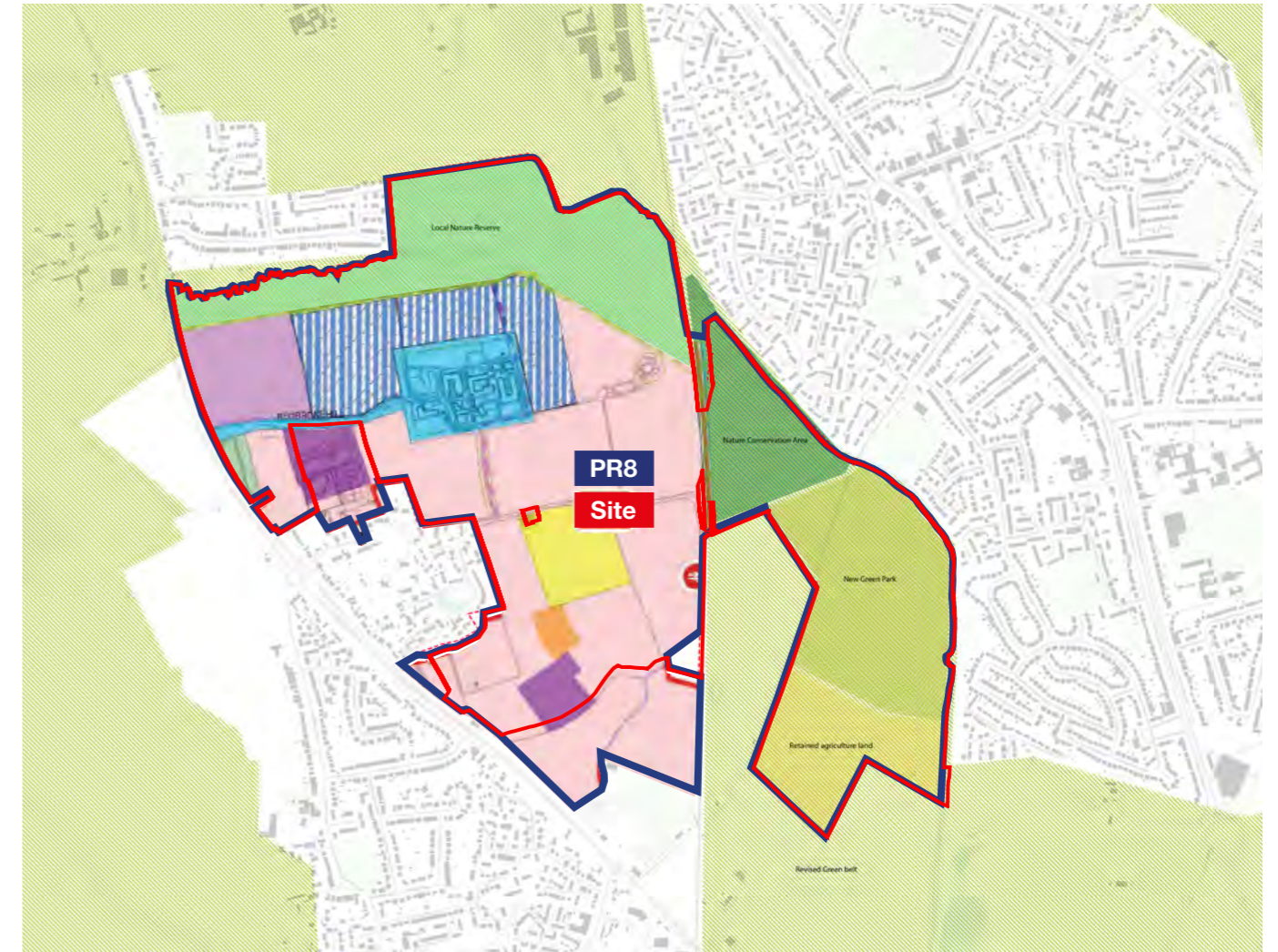
PR8 accounts for almost half of the 4,400 homes marked for delivery across six of the seven strategic sites in Cherwell.

PR9	Land West of Yarnton
PR8	Land East of the A44
PR7a	Land South East of Kidlington
PR7b	Land at Stratfield Farm
PR6a	Land East of Oxford Road
PR6b	Land West of Oxford Road
PR6c	Land at Frieze Farm



4,400 homes in total

Site allocation



[Red outline]	Application site boundary
[Blue outline]	PR8 Boundary
[Blue area]	Existing Begbroke Science Park
[Orange area]	Local Centre
[Pink area]	Residential (66ha, 50% affordable)
[Blue grid area]	Land Reserved for Employment
[Purple area]	Primary School Use (3.2ha and 2.2ha)
[Light purple area]	Secondary School Use (8.2ha)
[Yellow area]	Former Landfill Site
[Grey grid area]	Existing Allotments
[Red circle with cross]	Reserved Land for Railway Halt
[Green area]	Local Nature Reserve (29.2ha)
[Light green area]	Nature Conservation Area
[Light green area]	Nature Conservation Area: Oxford Canal
[Yellow-green area]	Canal side park
[Dark green area]	Retained agricultural land
[Light green area]	Greenbelt

2.3. Our Neighbours



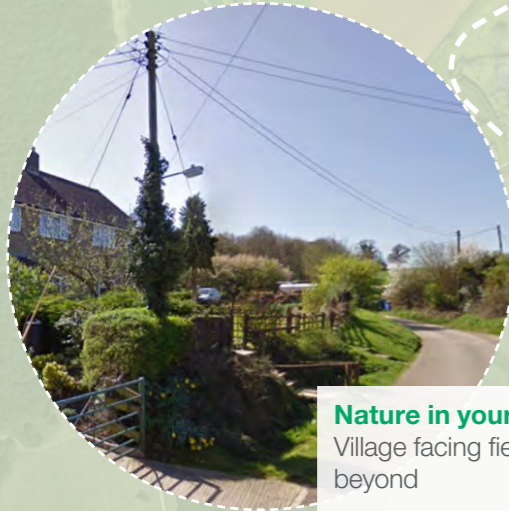
Green roads: Historic fabric and wooded setting of Begbroke village west, Spring Hill Road



Accessible heritage: St Mary's Church featuring Our Lady's Needle, 13th-15thC



Community: Market stalls & Community life on Gala Day



Nature in your front door: Village facing fields and Worton Heath beyond

Site



Landscape: View from Begbroke Lane towards Begbroke village east

Kidlington



Landmarks as 'way finding': The clock tower on the High Street and Oxford Road



Destination: Yarnton Home and Garden, pan-parish catchment

Yarnton



Promenade: Picturesque culs-de-sac on Yarnton east



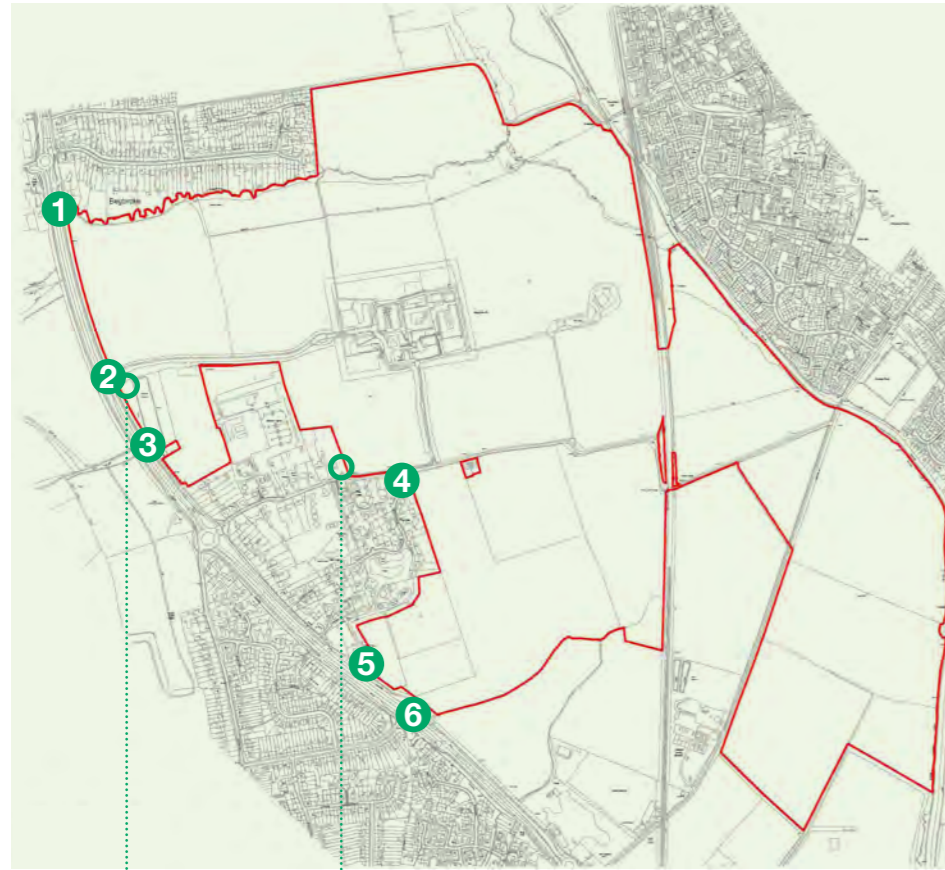
Natural Playgrounds: A secluded pond and playground, Yarnton east



Scale: Heritage character along Church Street with tighter spacing of houses

2.4. Site Edges

East Side Edges



- A number of conditions can be found on the western edge including, the main entrance to the site, access to existing allotments, Sandy Lane and Yarnton access and a series of vehicular entrances towards the southernmost section.
- The main entrance to the site is visible and vehicular-traffic dominated.

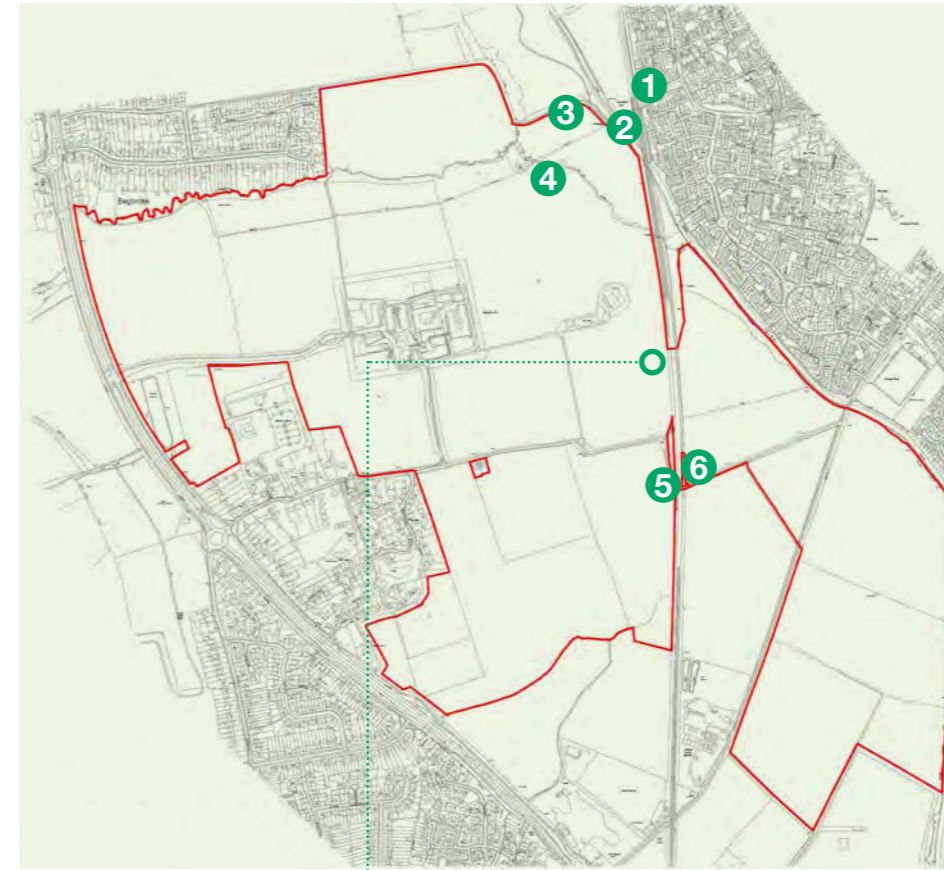
- 1 Woodstock Road
- 2 Begbroke Hill junction
- 3 Allotments (Begbroke and Yarnton Allotment Association)
- 4 Boundary with Yarnton east
- 5 Entrance to Oxford Poultry
- 6 Boundary with Hallam land ownership

Main entrance to the site

Access to Sandy Lane



West Side Edges

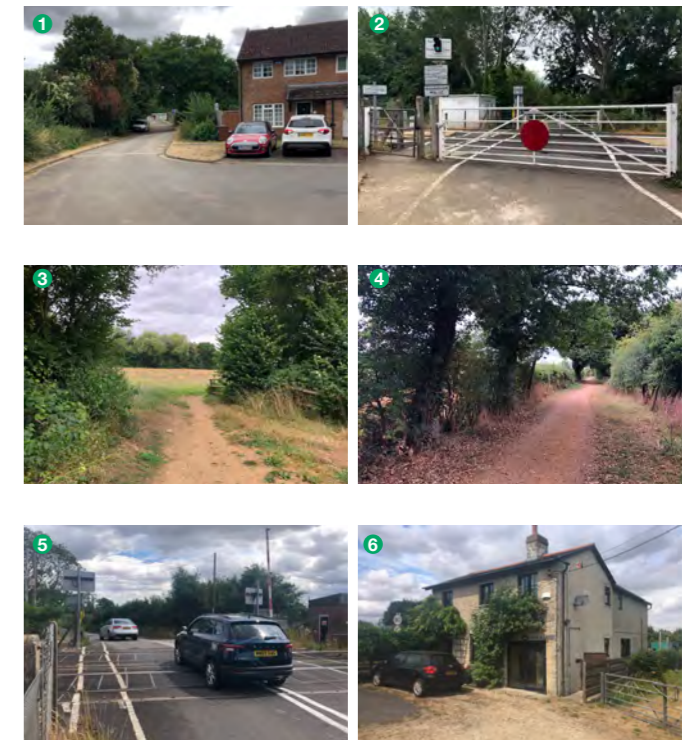


The railway running through the site constitutes a physical barrier.

- Two railway crossings currently make access from Kidlington possible, one at the north and one at the centre of the site along Sandy Lane.
- There is a proposal to close the at-grade crossing and replace it with a new bridge currently designed by Network Rail. A series of meetings have been held for the design team to influence or lead the design of the new bridge.

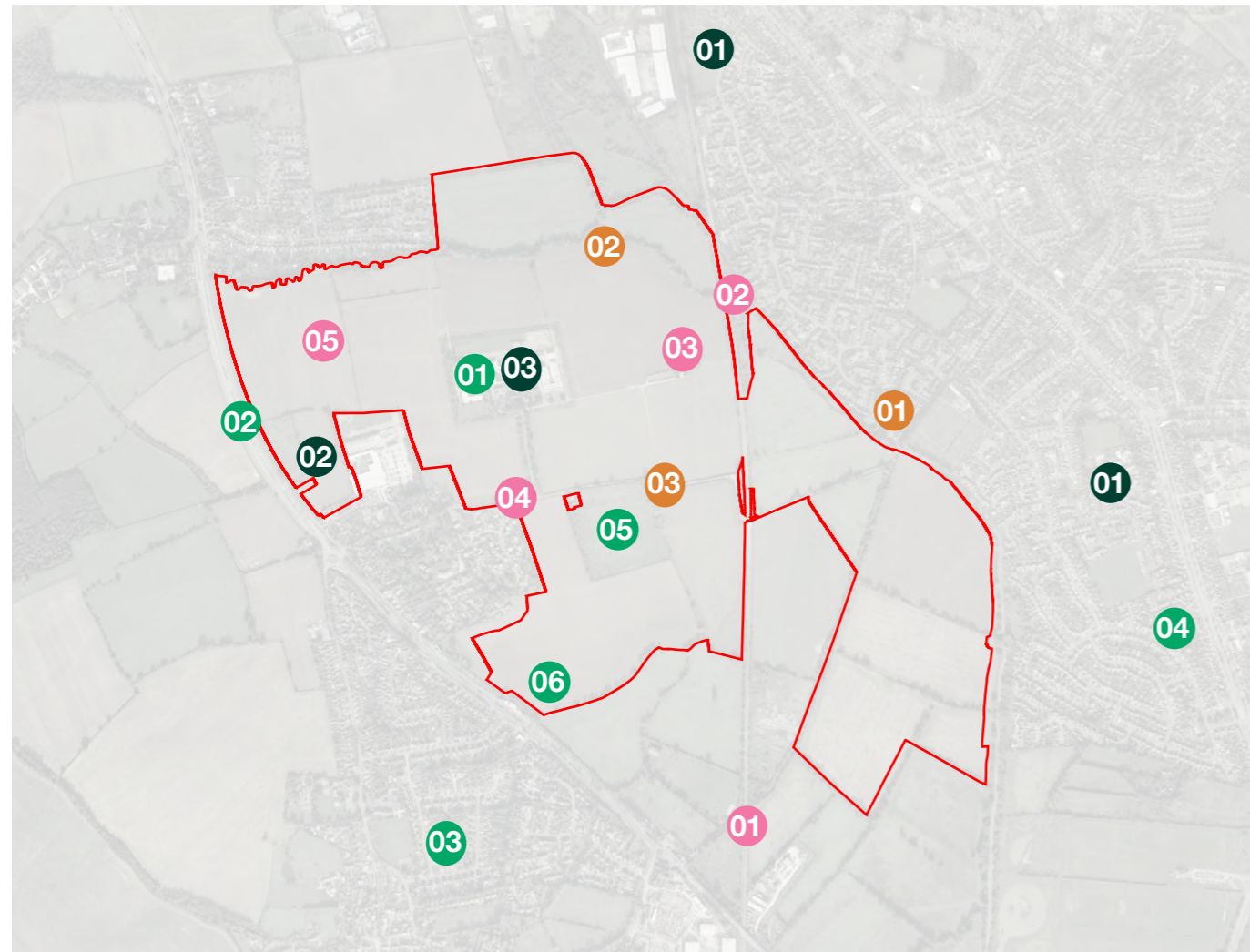
- 1 Approach from Partridge Place Kidlington
- 2 Crossing at Roundham Lock
- 3 Bridge over Rowel Brook
- 4 Begbroke Lane
- 5 Sandy Lane crossing
- 6 House at Sandy Lane crossing

New bridge proposal



2.5. The Site

History

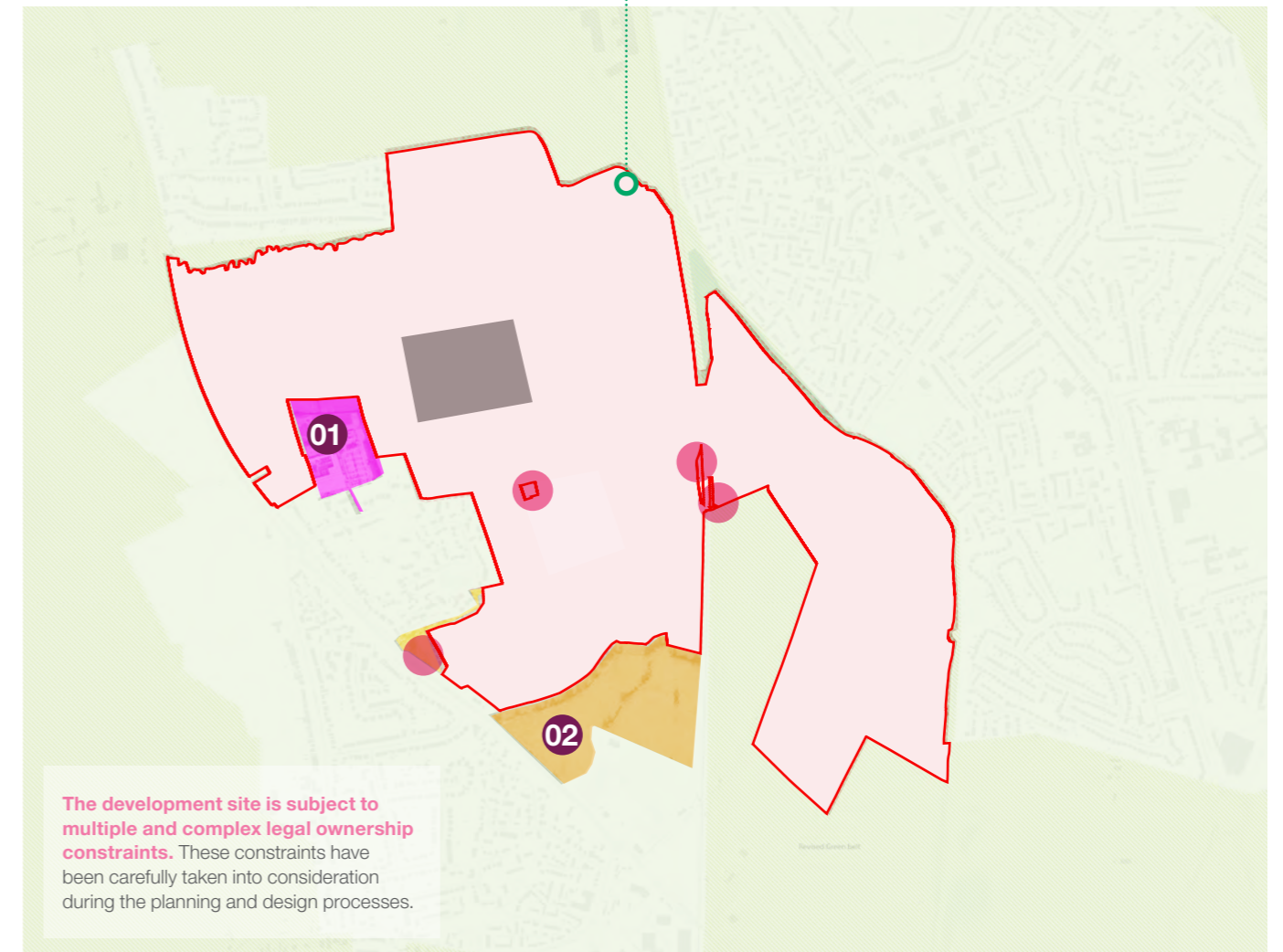


- | | | | |
|--|--|-------------------------------------|---|
| 1833 | 1896 | 1949-1970 | 2004 |
| 01 Canal already existing (constructed 1769-1790) | 01 Birmingham and Oxford Junction Railway constructed (1850) | 01 Suburban expansion of Kidlington | 01 Begbroke Science Park established (2000) |
| 02 Rowel Brook runs along perimeter of Begbroke Hill | 02 Rowel Brook cut off by railway | 02 Allotment gardens from the 1970s | 02 Begbroke Hill entrance road |
| 03 Kidlington Lane to Yarnton and Sandy Lane existed close to current form | 03 Parkers Farm | 03 Begbroke Farm | 03 Residential expansion of Yarnton |
| | 04 Sandy Lane normalised | | 04 Residential expansion of Kidlington |
| | 05 Approximate current parcel sizes | | 05 Landfill site within red line closed and backfilled by 1980s |
| | | | 06 Filling station since early 1980s |

Ownership

The PR8 site.

- The emerging proposal will be informed and have to work and address and where possible integrate proposals with its neighbours.

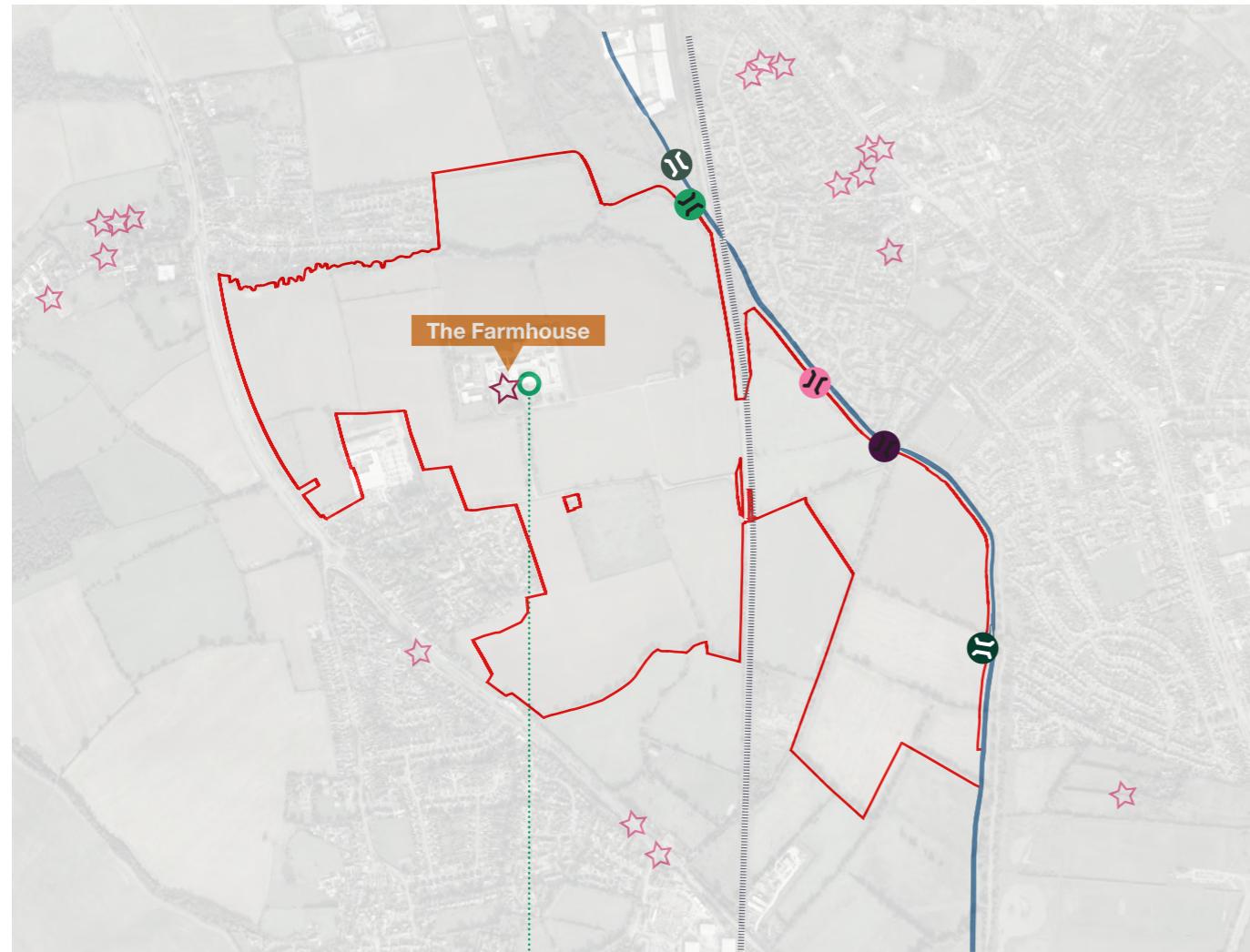


- 01 **The Newcore**
- 02 **Mr Smith and Mr Smith Land**
- Other third party land owners



- Application site boundary
- Begbroke Science Park, owned by the University
- Former landfill, owned by the University
- Third Party land
- Third Party land
- University of Oxford Land

Heritage



Begbroke Hill Farmhouse

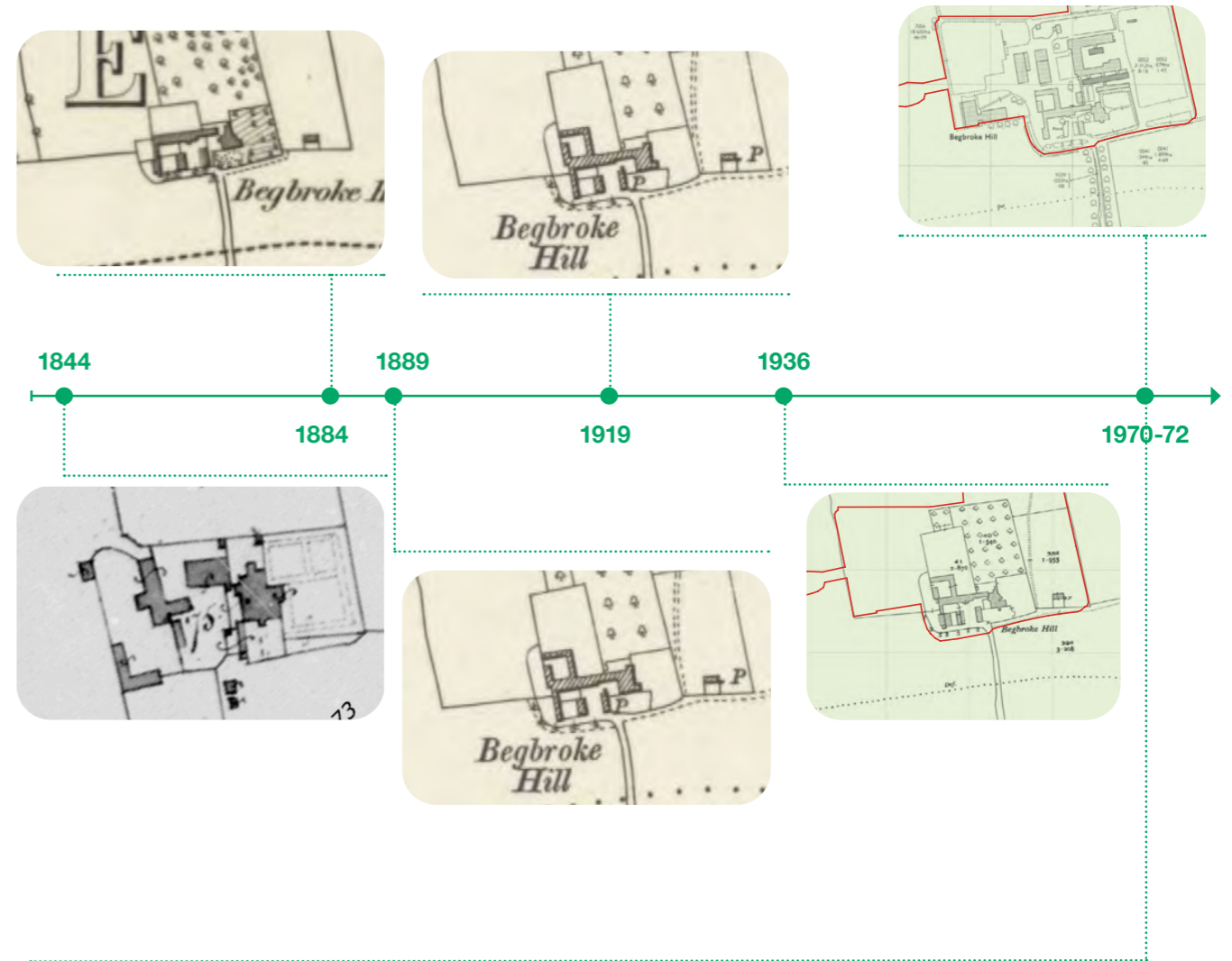


Yarnton Bridge

Key assets

- The Jacobean Farmhouse is a grade II listed building on site.
- Bridges over the Oxford Canal are also historical features.
- Beyond the site, the surrounding villages include a series of historical buildings such as St Mary's church in Kidlington.

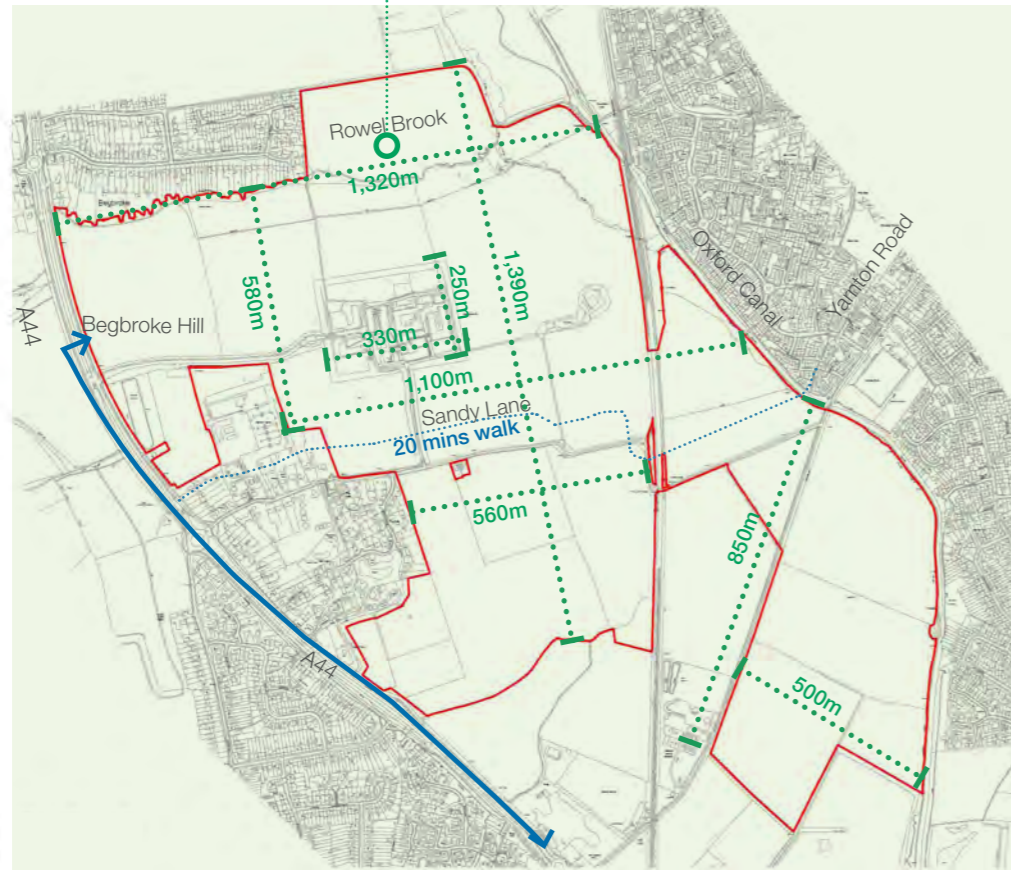
- ▭ Application site boundary
- ★ The Farmstead Grade I Listed Features
- ☆ Landmarks
- Ⓜ Roundham Lock
- Ⓜ Roundham Bridge
- Ⓜ Kidlington Lock
- Ⓜ Bullers Bridge
- Ⓜ Yarnton Bridge
- Oxford canal



Scale and dimensions

The site area is approximately 170 ha

- It takes approximately 20 minutes to walk and 6 minutes to cycle through the site east to west.



Scale comparison

Innovation Districts



170 ha



Giant, Grenoble
136 ha

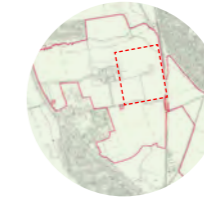


Eddington, Cambridge
162 ha



Eindhoven University of
Technology
75 ha

Innovation Districts R&D only



22.8 ha
(Including existing BSP 8.2 ha)



North Oxford
27 ha



CB1, Cambridge
12 ha



Kendall Square, MIT Cambridge
14 ha



Innovation Quarter, Kings
Cross, London
28 ha

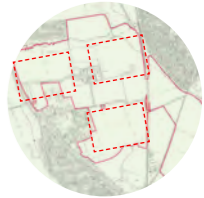


Granta Park
58 ha



Babraham Park
61 ha

Residential-led Developments



55 ha
1800 homes



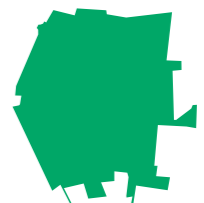
Barton Park, Oxford
39 ha
8885 homes



Bicester Village, Kingsmere
133 ha
1585 homes

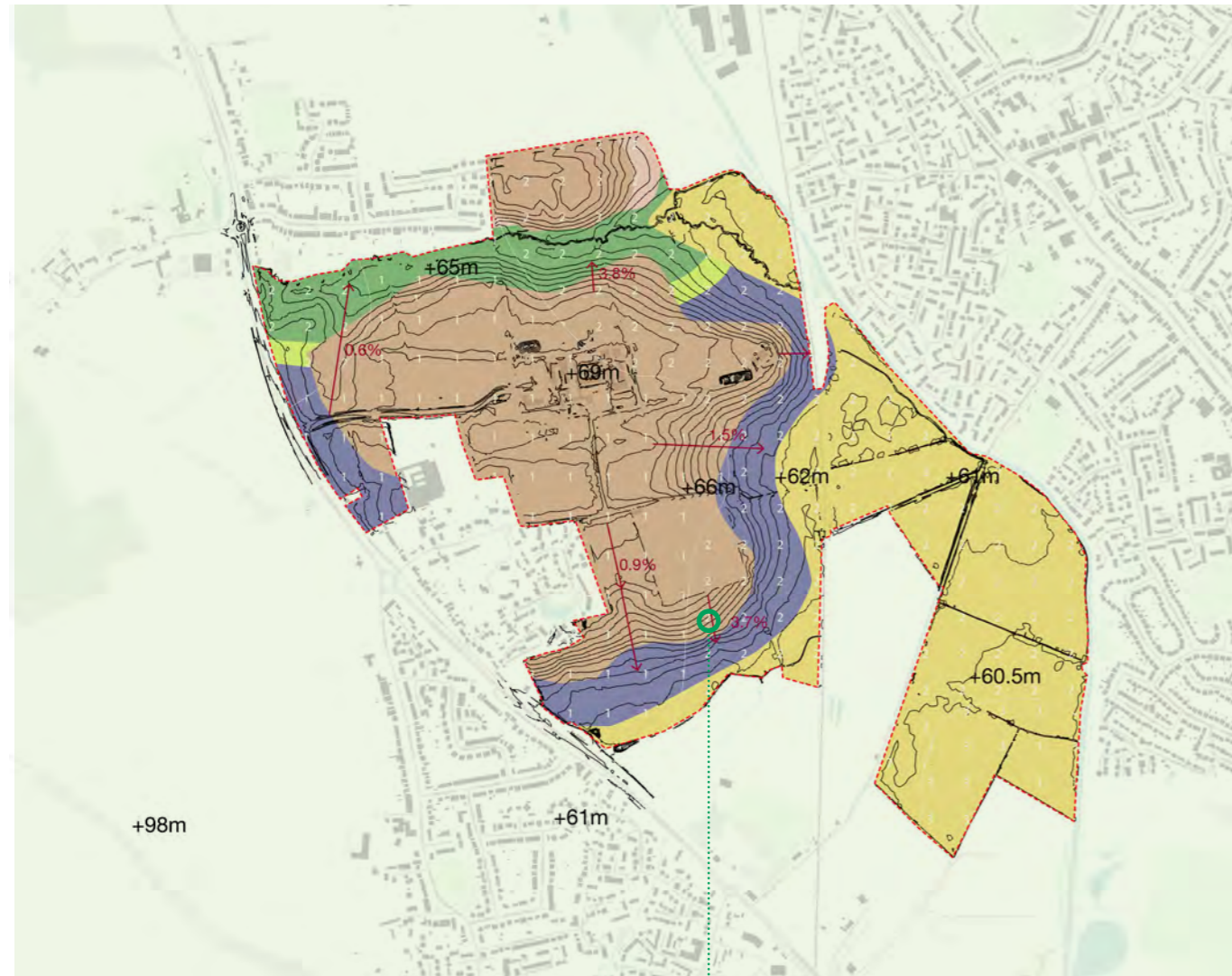


North East Didcot
146 ha
1880 homes



Waterbeach, Cambridge
298 ha
6500 homes

Geology



Soil type (British Geological Survey)

■	Sand & Gravel
■	Alluvium
■	Oxford Clay Fm
■	Kellaways Clay
■	Cornbrash Formation
■	Kellaways Sand

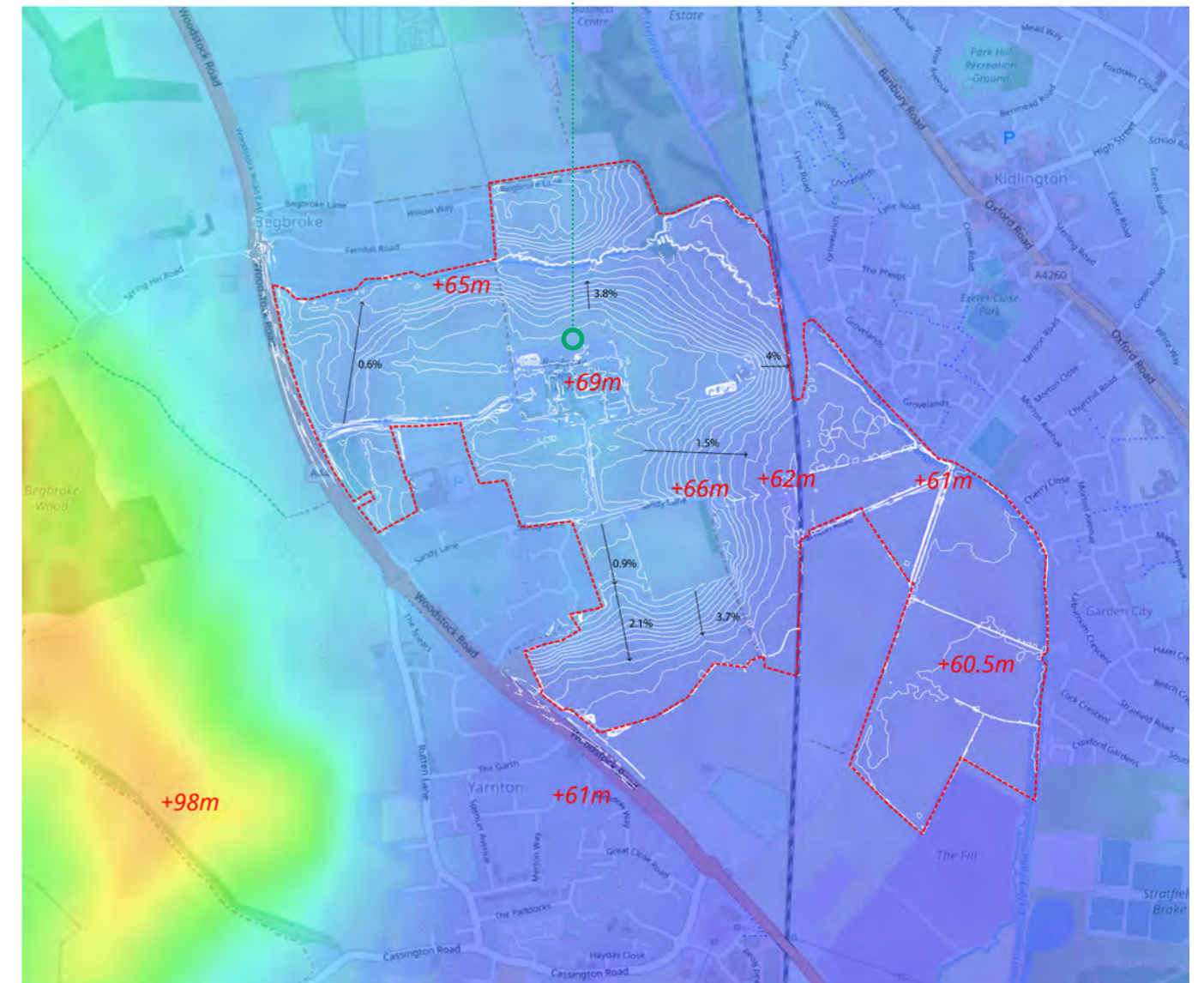
The site's geology reveals the history of the region shaped by the river and floodplains.

- Agricultural topsoil comprising of gravelly sand and clay soils. Alluvial deposits in low-lying areas close to the streams in the north and south of the site as well as the area between the railway line and the Oxford Canal and river terrace deposits in the higher areas of the site. Underlying solid geology and sub-croppings of Oxford Clay Formation, Kellaways Sand, Kellways Clay and Corbush limestone formation. Made ground in the former Sandy Lane landfill, consisting of ash with a variety of man-made waste.

Topography

The site is situated to the east of the hilly Blenheim Park, and it contains a natural plateau at approximately +69m at its centre.

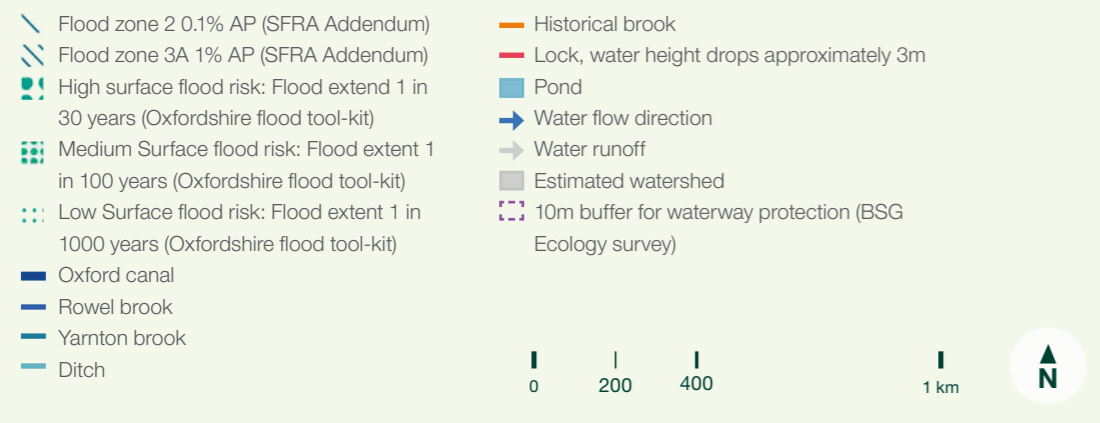
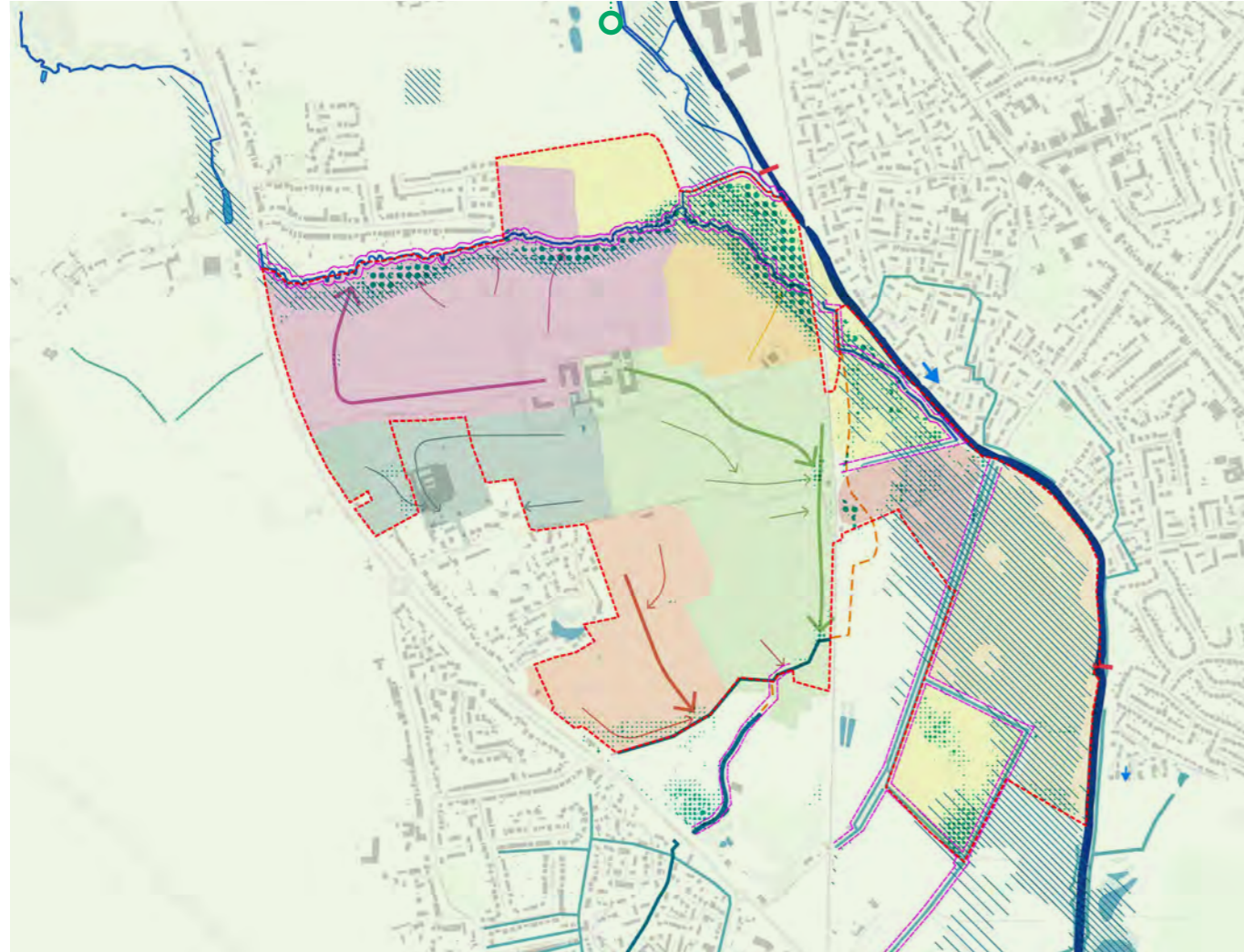
- This plateau is where the existing cluster of Science Park buildings is located. The slopes around the plateau gradually slope downwards towards the Oxford Canal, which has an elevation of +61m.



Hydrology

Existing watercourses and flooding

- The majority of the Site is located within Flood Zone 1 and at low risk of flooding. Areas located in Flood Zone 2 and 3, which are at medium to high flood risk are located along the length of Rowel Brook, the parcel of land to the west of the Oxford Canal, in the North-West of the Site and around the Southern drainage ditch.
- Oxford Canal serves mainly as a waterway but historically has over-topped causing flooding.



Ecology



The Oxford Canal and Rowel Brook form a green-blue network on a larger scale, while hedgerows provide ecological connectivity on a smaller scale.

- The site has valuable ecological features and six main habitats: arable land, grassland, woodland, hedgerow, streams, and ditches. Only specific areas are considered HPI (Habitat of Principal Importance), including hedgerows, the Science Park pond, and semi-natural woodland along Rowel Brook. The former landfill site contains semi-improved grassland, scrub, and ruderal vegetation.