PROPOSED DATA CENTRE & COUNTRY PARK, LAND OFF BEDMOND ROAD, ABBOTS LANGLEY

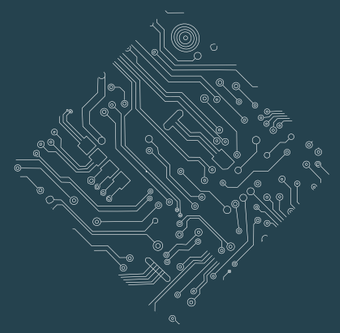
DESIGN & ACCESS STATEMENT

On behalf of Greystoke Land
P19-2063_03A | June 2023

Urban Design

> **“The creation of high quality, beautiful and sustainable buildings and places is fundamental to what the planning and development process should achieve. Good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable to communities…”**

(Para. 126, NPPF 2021)



Pegasus Design

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Expertly Done sums up our approach. We listen and learn from our clients, working as true partners who are passionate about delivering excellence and expertise on every step of the journey.

Everything we do is Expertly Done.

Expertly Done.

DESIGN | ECONOMICS | ENVIRONMENT | HERITAGE | LAND & PROPERTY | PLANNING | TRANSPORT & INFRASTRUCTURE

Contents.

NOTE: THIS DOCUMENT IS DESIGNED TO BE VIEWED AS A3 DOUBLE SIDED

PEGASUS GROUP

Pegasus Group
33 Sheep Street
Cirencester
Gloucestershire
GL7 1RQ

www.pegasusgroup.co.uk I T 01285 641717

Prepared by Pegasus Design on behalf of Greystoke Land

Pegasus Design is part of Pegasus Group Ltd

June 2023 Project code P19-2063

What is a Data Centre?

A Data Centre is a facility designed to securely house an organisations digital infrastructure. Simply put, it is a warehouse housing IT and telecom infrastructure in the form of racks of computer servers.

The amount of data being generated and that needs to be stored is growing rapidly, driven by the transformation in how people interact, and the role technology plays in personal, government and business activities. The roll out of technologies such as machine learning, artificial intelligence and the Internet of Things is continuing to drive this growth at record levels.

What is a Hyperscale Data Centre?

Hyperscale Data Centres are a very specific forms of data centre, generally used by large technology companies, major cloud and internet providers. Typically owned and operated by one company, size and scale is the key differentiator with other types of data centres. The following criteria are ways of measuring a hyperscale data facility:

- Power Capacity – a typical power consumption is defined as an average of 20-50 megawatts (MW) and often grow to above 100 MW;
- A minimum of 5,000 server racks, and often 50,000+ server racks;
- Scale of hyperscale data centres vary in configuration and lifecycle of development. The minimum size would typically start at circa 10,000sq.ft or 500 servers initially, often expanding to 100,000sq.ft and upwards of 5000 server racks;
- Energy consumption is significant, and a reflection of the workload.

What are the key features of a Data Centre?

1. Compute: The memory & processing power to run the applications;
2. Storage: Important enterprise/ personal data is housed in a data centre;
3. Networking: Interconnections between data centre components and to the outside world, including routes, switches, application-delivery controllers. Keeping us virtually connected;
4. Security: Physical and virtual/Cyber secure environment; and
5. Cloud Services: SaaS (Software as a Service).

What is the purpose of a Data Centre?

To provide the physical environment necessary to support digital infrastructure. The UK Government's National Data Strategy recognises the digital infrastructure (data centres) on which dates lies is a vital national interest. The Governments 2017 Digital Strategy recognised connectivity as a key driver in productivity, innovation, and economic growth.

01 Introduction

1.1 This statement has been prepared by Pegasus Design (part of Pegasus Group) on behalf of Greystoke Land and the wider consultant team, to accompany the Outline Planning Application for the development of land off Bedford Road, Abbots Langley to comprise:

"Demolition and clearance of existing buildings and hardstandings to allow for the construction of a data centre of up to 84,000 sqm (GEA) delivered across 2no. buildings, engineering operations and earthworks to create development platforms, site wide landscaping and the creation of a country park. The data centre buildings include ancillary offices, internal plant and equipment and emergency back-up generators and associated fuel storage. Other works include an ancillary innovation, education and training centre of up to 300 sqm, internal roads and footpaths, cycle and car parking, hard and soft landscaping, security perimeter fence, lighting, drainage, substation, and other associated works and infrastructure."

1.2 This statement has been prepared in accordance with Article 9 of the Town and Country Planning (Development Management Procedure) (England) Order 2015 (DMPO), which requires certain applications to be accompanied by a Design and Access Statement. The DMPO also states the following requirements:

"(2) An application for planning permission to which this paragraph applies must, except where paragraph (4) applies, be accompanied by a statement ("a design and access statement") about:

(a) the design principles and concepts that have been applied to the development; and

(b) how issues relating to access to the development have been dealt with.

(3) A design and access statement must:

(a) explain the design principles and concepts that have been applied to the development;

(b) demonstrate the steps taken to appraise the context of the development and how the design of the development takes that context into account;

(c) explain the policy adopted as to access, and how policies relating to access in relevant local development documents have been taken into account;

(d) state what, if any, consultation has been undertaken on issues relating to access to the development and what account has been taken of the outcome of any such consultation; and

(e) explain how specific issues which might affect access to the development have been addressed."

Purpose of the Statement

1.3 The purpose of this Design and Access Statement is:

"...to explain how the proposed development is a suitable response to the site and its setting, and demonstrate that it can be adequately accessed by prospective users."

(Para. 029, PPG, Reference ID: 14-029-20140306)

1.4 This document achieves this within the following sections:

Section 1: Introduction. Outlines the purpose of this document;

Section 2: Planning Policy. Presentation of the key Planning Policy requirements, derived from a combination of Local Authority and National Government Policy;

Section 3: Context. Considers the site and its surroundings in terms of the local physical, historical and social setting, as well as the technical and physical context;

Section 4: Developing the Design Concept. Presentation of the design principles that have been derived from a combination of Government Policy and site assessment outlines key stakeholder engagement undertaken, as well as its key findings and design evolution;

Section 5: Design Overview

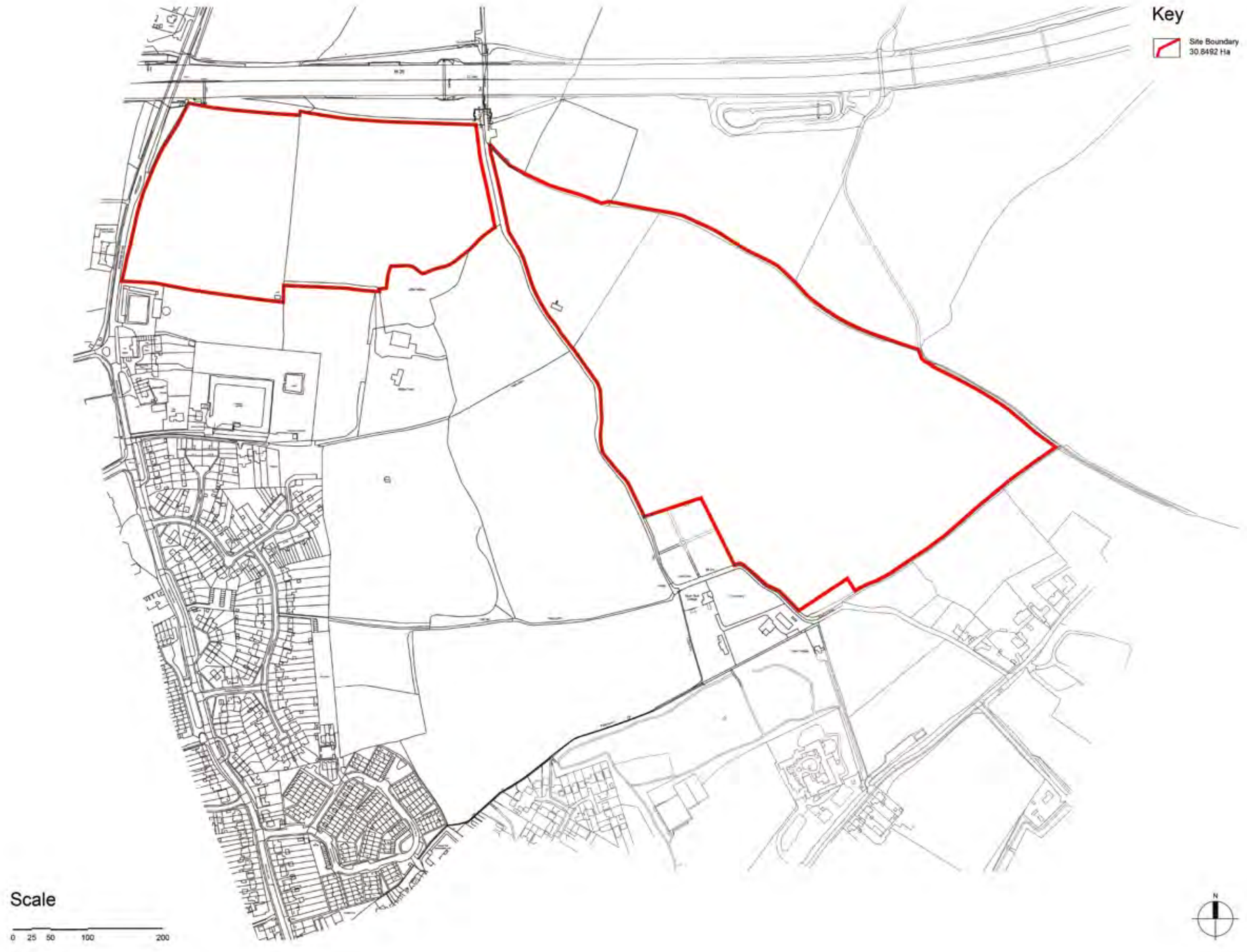
Section 6: Design Proposals. Presentation of the key design proposals; and

Section 7: Conclusion.

1.5 This Design and Access Statement has been written to respond to the Ministry of Housing, Communities and Local Government National Design Guide (NDG) ten characteristics of well-designed places. Whilst the application of the NDG is predominately related to residential led development, the fundamental principles of good design being "fit for purpose; durable; and brings delight" are applicable to all development.

1.6 This statement should be read in conjunction with the Outline Planning Application and its accompanying supporting documents.

NDG CRITERIA GUIDE
THE TEN CHARACTERISTICS OF WELL DESIGNED PLACES



Site Location Plan

The Site

1.7 Extending to circa 31ha in total and located on land adjoining the north eastern edge of Abbots Langley, Hertfordshire, the site is split into two parcels as shown opposite. Situated north of the Leavesden Country Park, east of Bedmond Road and south of the M25, the site comprises a number of fields which are gently sloping and in agricultural use. To the south west and west is the existing settlement of Abbots Langley.

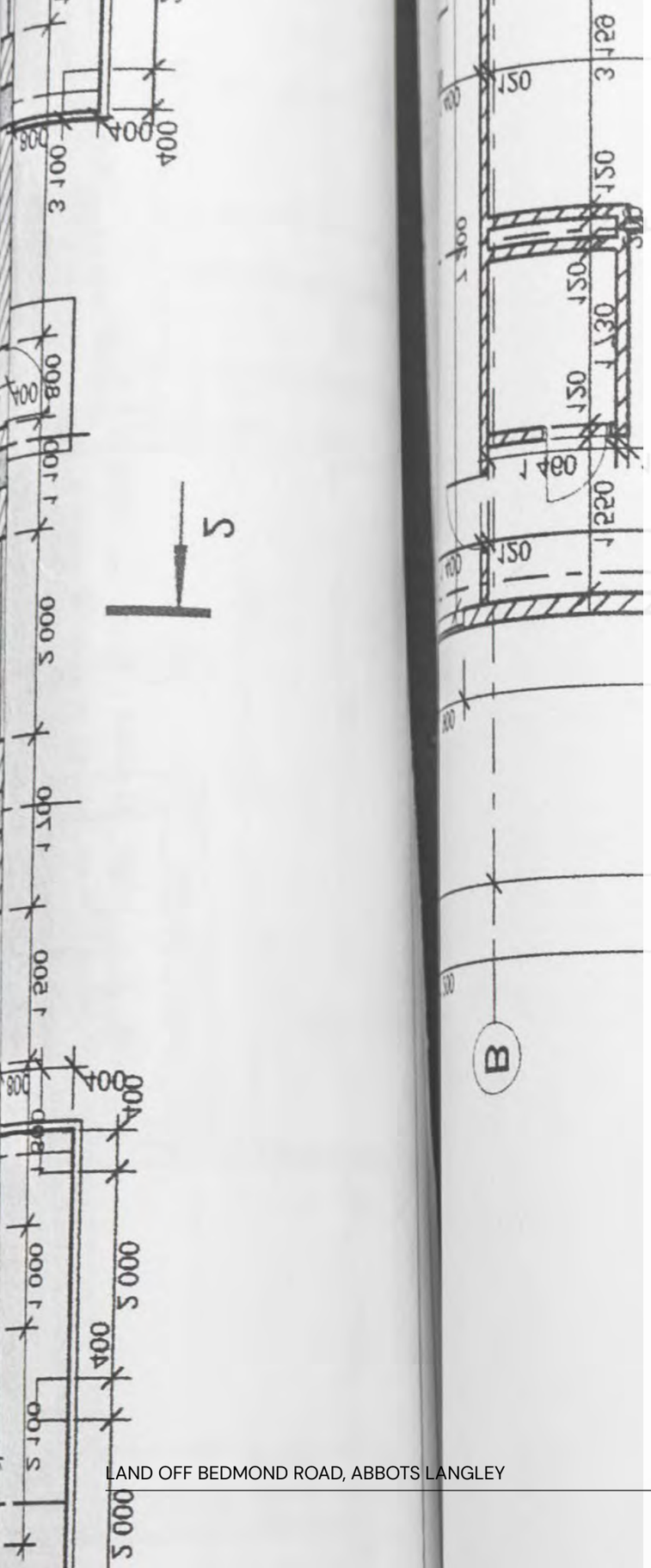
1.8 The smaller, northern field adjoins the M25, whilst the larger is located to the east. Both are generally open and undulating. Where they are enclosed they are so by a mix of hedgerows, small woodlands, trees and in part by settlement edge features. These are circa 10ha and circa 21ha respectively.

1.9 The centre of Watford is located approximately 5.4km south of the site, with the existing suburbs of Hemel Hempstead located approximately 3km to the north of the site.

1.10 Two Public Rights of Way (PRoW) are in close proximity to the site. Abbotts Langley footpath 031 runs to the north of Leavesden Country Park connecting East Lane to the built up area of Abbotts Langley. Footpath 029 bisects the site in a broadly east to west direction connecting to Love Lane in Abbotts Langley.

1.11 A private drive is located to the west of the site, providing access to areas of hardstanding and structures for a riding school with stables, training paddock and vehicle storage associated with Notley Farm.

1.12 The site is located within Green Belt. There are no other landscape, heritage or ecology designations within the site itself.



02 Planning Policy

"Development that is not well designed should be refused, especially where it fails to reflect local design policies and government guidance on design, taking into account any local design guidance and supplementary planning documents such as design guides and codes. Conversely, significant weight should be given to:

a) development which reflects local design policies and government guidance on design, taking into account any local design guidance and supplementary planning documents such as design guides and codes; and/or

b) outstanding or innovative designs which promote high levels of sustainability, or help raise the standard of design more generally in an area, so long as they fit in with the overall form and layout of their surroundings."

(Para. 134. NPPF 2021)

2.1 The development proposals will be formulated with due regard to the policies that make up the statutory Local Development Plan and Supplementary Planning Guidance, together with Government guidance contained within the National Planning Policy Framework (July 2021), National Design Guide (published in 2019 and updated in January 2021) and the National Model Design Code (January 2021).

National Planning Policy Framework

2.2 Government guidance in the form of the National Planning Policy Framework (NPPF) sets out the Government's planning policies and how these should be applied. The NPPF states at Paragraph 8 that the planning system has 3 interdependent key objectives, which when pursued in a mutually supportive way, can achieve sustainable development. The three key objectives are:

- An **economic** objective;
- A **social** objective; and
- An **environmental** objective.

2.3 There is a presumption in favour of sustainable development, as set out at Paragraph 11. Section 9: Promoting sustainable transport (para. 104) of the NPPF points to the role that design has to play in ensuring that transport issues are considered at the earliest stages of development proposals, and the role that design can play to ensure that development maximizes opportunities for sustainable transport options.

"...patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places."

(Para. 104(e) NPPF 2021)

2.4 The Government also continues to place a high emphasis on design and the NPPF expands on the principles of good design, to define what is expected of well-designed places. It also explains how policies and decision-making processes should support the inclusion of good design, providing detailed advice at Section 12: Achieving well-designed places. The contribution that good design makes to sustainable development is set out in paragraph 126, as follows:

"The creation of high quality, beautiful and sustainable buildings and places is fundamental to what the planning and development process should achieve. Good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable to communities…"

(Para. 126, NPPF 2021)

2.5 Furthermore, a new test is being introduced in the latest edition of the NPPF, to ensure that developments are well-designed, placing an emphasis on fostering of "beautiful" places among the overarching objectives of the planning system. In paragraph 134, the NPPF states that:

"Development that is not well designed should be refused, especially where it fails to reflect local design policies and government guidance on design, taking into account any local design guidance and supplementary planning documents such as design guides and codes".

(Para 134, NPPF 2021)

2.6 Paragraph 130 of the NPPF states that with regard to design planning policy and decision making should ensure that developments;

"a) will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development;

b) are visually attractive as a result of good architecture, layout and appropriate and effective landscaping;

c) are sympathetic to the local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities);

d) establish or maintain a strong sense of place, using the arrangement of streets, spaces, building types and materials to create attractive, welcoming and distinctive places to live, work and visit;

e) optimise the potential of the site to accommodate and sustain an appropriate amount and mix of development (including green and other public space) and support local facilities and transport networks; and

f) create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users, and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion and resilience." At paragraph 135 Local Planning Authorities are encourages to ensure that design quality and commitment are carried through from principle to delivery:

"Local planning authorities should seek to ensure that the quality of approved development is not materially diminished between permission and completion, as a result of changes being made tot he permitted scheme…"

Planning Practice Guidance

2.7 The NPPF is accompanied by the on-line Government resource Planning Practice Guidance (PPG). The Design: Process and Tools PPG provides guidance on the methods and processes available to both applicants and local authorities to ensure the delivery of well-designed and high-quality, long lasting places with considered design solutions, under the following headings:

- Planning for well-designed places;
- Making decisions about design;
- Tools for assessing and improving design quality; and
- Effective community engagement on design.

2.8 Paragraph 1 of the Design PPG reinforces the Government and NPPFs commitment to requiring the creation of well-designed places and the role that early engagement can play in this.

"Well-designed places can be achieved by taking a proactive and collaborative approach at all stages of the planning process, from policy and plan formulation through to the determination of planning applications and the post approval stage"

(para. 001, PPG, ID: 26-001-20191001, October 2019)

National Design Guide

2.9 The National Design Guide (NDG) published by the Ministry of Housing, Communities and Local Government (MHCLG) in 2019 and updated in January 2021 further reinforces the way in which the design process can be used to ensure the delivery of quality places:

"In a well-designed place, an integrated design process brings the ten characteristics together in a mutually supporting way. They interact to create an overall character of place."

(Para. 13, NDG 2021)

2.10 The NDG outlines and illustrates the Governments priorities for well-designed place in the form of ten characteristics, based on national planning policy, planning guidance and objectives for good design.

2.11 The ten characteristics contribute towards the cross-discipline themes for good design set out in the NPPF and fall under three broad aims:

- To create physical character;
- To help to nurture and sustain a sense of community; and
- To positively addresses environmental issues affecting climate.

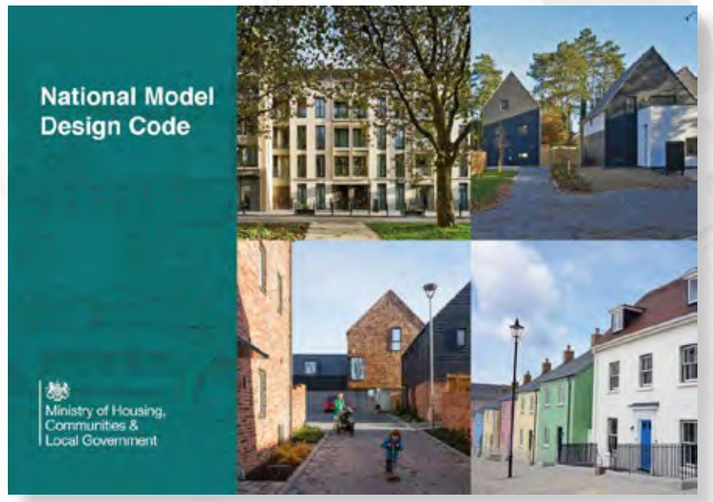
National Model Design Code

2.12 The National Model Design Code (NMDC) was published in January 2021 by the Ministry of Housing, Communities and Local Government. The purpose of this document is to:

"... provide detailed guidance on the production of design codes, guides and policies to promote successful design. It expands on the ten characteristics of good design set out in the National Design Guide, which reflects the government's priorities and provides a common overarching framework for design."

(Para 1, National Design Code 2021)

2.13 The NMDC document draws upon the NPPF's commitment to ensure that local planning authorities are utilising visual tools, such as design codes and guides, to inform development proposals, which will consequently provide a framework for creating high-quality places, with a consistent and high-quality standard of design.



Local Planning and Design Guidance

2.14 The development proposals have been formulated having due regard to the Development Plan for the area, which comprises:

- Three Rivers Core Strategy 2011 – 2026
- Site Allocations Local Development Document
- Development Management Policies

2.15 Contained within the Development Plan, Policy CP11 Design of Development reflects the NPPF through the requirement of high quality design. The policy sets out a series of expectations that new development will seek to provide. These criteria being:

a. Have regard to the local context and conserve or enhance the character, amenities and quality of an area

b. Conserve and enhance natural and heritage assets

c. Protect residential amenities by taking into account the need for adequate levels disposition of privacy, prospect, amenity and garden space

d. Make efficient use of land whilst respecting the distinctiveness of the surrounding area in terms of density, character, layout and spacing, amenity, scale, height, massing and use of materials

e. Build resilience into a site's design taking into account climate change (for example flood resistant design)

f. Use innovative design to reduce energy and waste and optimise the potential of the site

g. Ensure buildings and spaces are, wherever possible, orientated to gain benefit from sunlight and passive solar energy

h. Design out opportunities for crime and anti-social behaviour through the incorporation of appropriate measures to minimise the risk of crime and create safe and attractive places

i. Incorporate visually attractive frontages to adjoining streets and public spaces

j. Ensure all appropriate frontages contain windows and doors that assist informal surveillance of the public realm

k. Use high standards of building materials, finishes and landscaping; also provide/contribute towards street furniture and public art where appropriate

l. Ensure the development is adequately landscaped and is designed to retain, enhance or improve important existing natural features; landscaping should reflect the surrounding landscape of the area and where appropriate integrate with adjoining networks of green open spaces

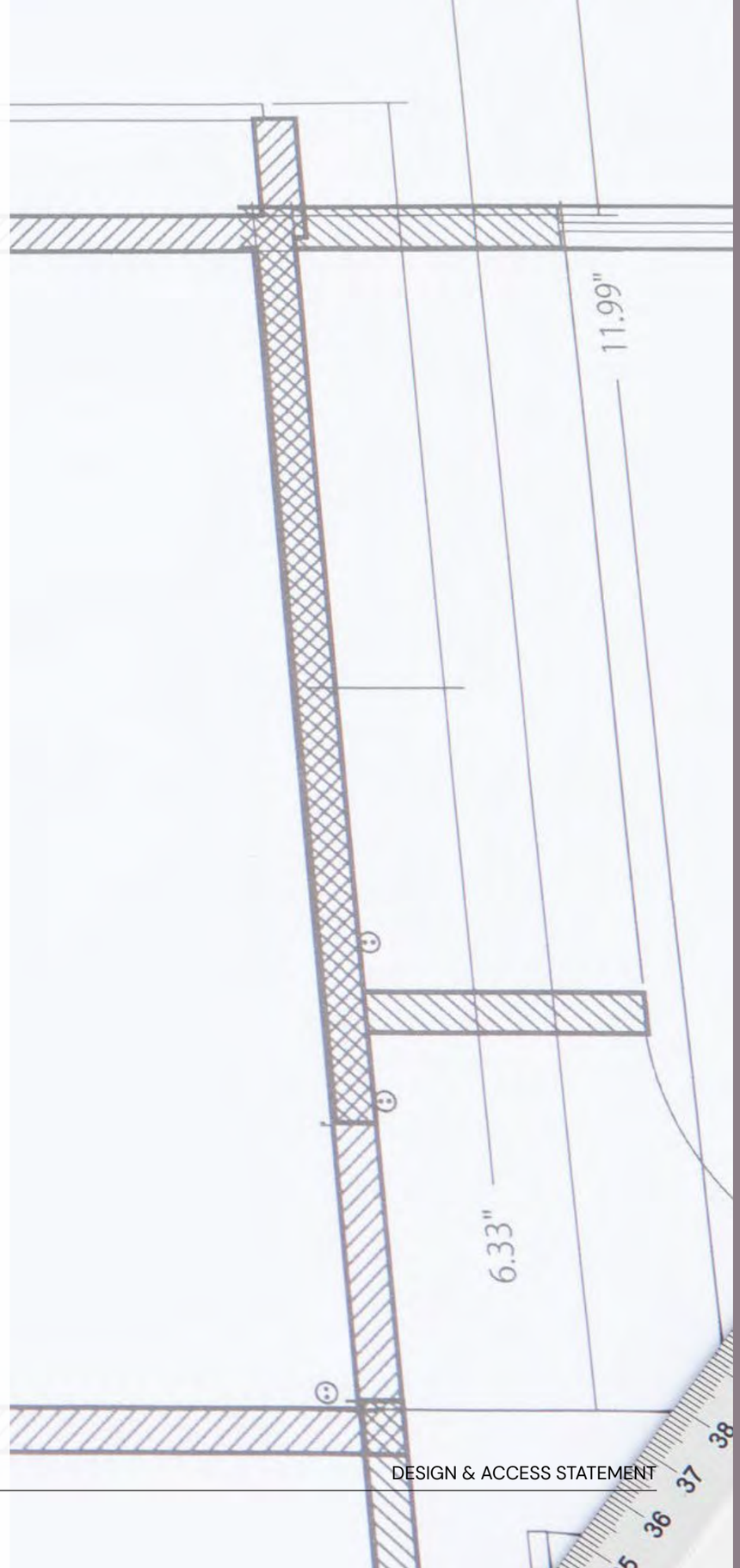
m. Make a clear distinction between public and private spaces and enhance the public realm

n. Ensure that places, spaces and buildings are accessible to all potential users, including those with mobility difficulties

o. Provide convenient, safe and visually attractive areas for the parking of vehicles and cycles without dominating the development or its surroundings

p. Be durable and, where practical, buildings should be capable of adapting to other uses and functions in order to ensure their long-life.

2.16 CP11 makes reference to local design SPD, including the Three Rivers Design Guide Supplementary Planning Document. Due regard of relevant design guidance will be considered at the appropriate detailed design stages.



Site Location Aerial Photograph

03 Context

NATIONAL PLANNING POLICY FRAMEWORK CHAPTERS 8, 12, 14, 15, 16

> ***"An understanding of the context, history and the cultural characteristics of a site, neighbourhood and region influences the location, siting and design of new developments. It means they are well grounded in their locality and more likely to be acceptable to existing communities. Creating a positive sense of place helps to foster a sense of belonging and contributes to well-being, inclusion and community cohesion."***
>
> ***(Para. 39, NDG 2021)***

3.1 This section provides a summary of the assessment of the site and its surroundings that has been undertaken.

Street pattern and connectivity

3.2 The site is well connected to the surrounding urban area of Abbots Langley and surrounding areas, and benefits from easy access to public transport and strategic highway links within close proximity of the site.

Public Transport

3.3 The nearest bus stops are located on the Tibbs Hill Road approximately 450m from the site access. It is served by bus routes 10, 20 and R9 which provide routes locally and towards North Watford. Services vary between 30 minute and 60 minute frequencies.

3.4 King's Langley is the nearest railway station to the site located approximately 2km to the south-west. The station provides services between Tring and London Euston via Watford Junction. During peak time services operate approximately every 15-40 minutes to London Euston and every 15-30 minutes to Tring.

3.5 The station is served by a car park, cycle parking, ticket office and machines, toilets and refreshment facilities and accessibility for the mobility impaired.

Pedestrian and Cycle Connections

3.6 A footpath is provided on the western side of Bedmond Road. At the Bedmond Road/ Diary Way roundabout a footpath is provided on the eastern side of Bedmond Road. A zebra crossing is provided on Tibbs Hill Road at the High Street/ Tibbs Hill Road roundabout. Footway provision is provided on both sides of the carriageway along the High Street.

3.7 Cycle signage is located on Bedmond Road directing cyclists to the High Street and Leavesden Country Park.

Highways

3.8 Bedmond Road is a single carriageway and subject to a 30mph speed limit. The speed limit changes to 40mph on approach to the bridge over the M25 towards the village of Bedmond. There is an existing traffic calming feature, consisting of a kerbed hardstanding within the centre of the carriageway that seeks to deflect southbound vehicle movements, forcing them to slow down. This is supported by dragons' teeth road marking north of the hardstanding at the 30/40mph speed limit change.

3.9 Bedmond Road connects onto Tibbs Hill Road and High Street via a mini roundabout. Tibbs Hill Road is subject to a 30mph speed limit with signalised crossing points, street lighting, footpaths and speed cameras.

Local Facilities

3.10 The application site is well located to the existing context of Abbots Langley and Watford for employees to make use of the existing retail and leisure facilities available.

3.11 Notwithstanding the high degree of access to existing facilities, the development proposals include the provision of a significant Country Park. Access for employees towards the Country Park will be facilitated through pedestrian connections that extend to the existing PRoW network.

Local Character

> ***"Local identity is made up of typical characteristics such as the pattern of housing, and special features that are distinct from their surroundings. These special features can be distinguished by their uses and activity, their social and cultural importance, and/or their physical form and design. Most places have some positive elements of character, particularly for their users. These can help to inform the character of a new development."***
>
> ***(Para. 52, NDG 2021)***

3.12 The National Design Guide states that well-designed new development is influenced by:

> ***"...an appreciation and understanding of vernacular, local or regional character, including existing built form, landscape and local architectural precedents;"***
>
> ***(Para. 53, NDG 2021)***

3.13 An analysis of the existing built form of Abbots Langley can help identify patterns of development and key design components. However, the immediate site context is predominantly residential, where a range of architectural styles, detailing, materials and thereby character is evident.

3.14 To create a residential character for what is clearly a non-residential use would be pastiche. As such, a new character reflective of the modern use proposed is to be created, an approach supported by the NDG at paragraph 58:

> ***"Where the scale or density of new development is very different to the existing place, it may be more appropriate to create a new identity rather than to scale up the character of an existing place in its context. New character may also arise from a response to how today's lifestyles could evolve in the future, or to the proposed method of development and construction."***

3.15 A landscape led approach to establishing appropriate development zones is taken, thus ensuring the proposals will 'fit' the local character in landscape terms. From an urban design standpoint, high quality architectural frontages combined with appropriate place making principles will ensure that a new, yet respectful character is created that reflects the proposed use.

Site studies

> *"Well-designed new development is integrated into its wider surroundings, physically, socially and visually. It is carefully sited and designed, and is demonstrably based on an understanding of the existing situation..."*
>
> *(Para. 43, NDG 2021)*

Landscape and Visual Impact

3.16 Accompanying this application the LVIA, prepared by MHP Chartered sets out that other than the PRoW that run through the site and the TPO, the site is not covered by landscape designations at national or local level and are not a constraint to the development of the site.

3.17 The site is formed of a number of fields, located on the north-eastern edge of the village of Abbots Langley. The site fields form part of a wider network of fields in agricultural use and as Paddock, and are laid to grass. The study site areas are well treed, part enclosed by natural features such as hedgerows and trees, as well as residential built form, and urban boundary treatments. To the north of the site, lies the dominant urban feature of the M25 travel corridor.

3.18 The site falls within Green Belt and has two public rights of way that traverse the site fields. There is no public access to the northern field. Green Belt is not a landscape policy so has not been taken into consideration in evaluation of landscape and visual effects undertaken in this landscape and visual impact assessment. The site and contextual landscape do not form part of a nationally designated landscape which implies greater value when evaluating landscape and visual effects. There are no other landscape designations within the site. The site reflects some identifiable elements from within the local landscape character areas, with the predominant site features worthy of retention limited to a number of existing mature trees, and boundary hedgerows.

3.19 The site is influenced by both its edge of settlement location, with residential built form and a number of dominant urbanising features adjacent to the site, as well as the more rural landscape beyond. Although semi-rural in character, settlement features are dominant in local views, with residential built form adjoining the northernmost part of the site, and the M25 travel corridor to the north. This surrounding urban context creates an established settled character to the setting of the northern study site fields and forms the context for built development in the proposed field parcels. The built form within the development proposals is proposed within the northern portion of the site where there is some existing built form, and where the site adjoins the M25 corridor and Bedmond Road. Further south, the sites character is formed of open fields, and with a limited relationship with the more urbanised character elements to the north.

3.20 Development will result in landscape and visual change to the site and immediate environs to a limited geographic area. The receiving landscape has capacity to accommodate built form, in part, due to the surrounding context of the site encompassing Bedmond Road, the M25 corridor, and residential built form. The features attributed with value such as the surrounding established trees are retained and meaningfully incorporated into the landscape strategy. The strategy seeks to enhance and extend these features to both mitigate landscape and visual effects of development.

3.21 Views towards the northern area are generally limited to short distance views in close proximity to the site. The most direct potential views are afforded from the M25 corridor, Bedmond Road that runs along the western boundary, walkers along East Lane, and limited views from Notley Court adjacent to the study site. Where views are afforded, these in-part encompass or are generally experienced in close relationship with the existing residential edge of Abbots Langley, and the features of the M25 corridor. There may be direct views afforded from a small number of the adjoining residential properties although these will likely be predominantly limited to upper storeys and filtered in part by existing and proposed planting. In medium/long distance views from the north the site is entirely obscured.

3.22 The eastern parcel is proposed to change land use from agricultural to parkland, affording a low degree of contrast to views, with the site maintained as an open, grassed area. The planting of extensive new green infrastructure has been evaluated to achieve further reduction of both landscape and visual effects and provide local enhancement.

3.23 The assessment within the accompanying LVIA concludes that the site has capacity in landscape and visual terms to accommodate the proposed development.

Heritage and Archaeology

3.24 A Heritage Statement, prepared by Pegasus Group accompanies this application. As explained within, no heritage assets lie within the site itself.

3.25 Following a detailed assessment, it is anticipated that the proposed development within the site would result in less than substantial harm at the lowermost end of the spectrum to the heritage significance of the Grade II* Tithe Barn, via a change of setting and less than substantial harm at the lowermost end of the spectrum to the heritage significance of the Grade II Listed Mansion House Farmhouse.

3.26 Under paragraph 202 of the NPPF, this level of harm to designated heritage assets should be weighed against the public benefits of the scheme. It will also be weighed in the VSC test.

3.27 The proposed development within the site will also result in minor harm to the heritage significance of the non-designated Ovaltine Dairy Farm Buildings, via a change in setting. This will need to be assessed in accordance with NPPF paragraph 203.

Arboriculture

3.28 Prepared by Barton Hyett Associates, an AIA accompanies this application and should be referred to for full details.

3.29 In summary, the AIA finds the proposals to be feasible in terms of tree/hedgerow loss and impacts on retained trees. Where there are unavoidable impacts on existing trees, appropriate mitigation will be provided.

3.30 Furthermore, new planting associated with the built form and the provision of the country park will provide improved connectivity around the site and significant enhancement opportunities through increased net gain tree canopy cover and tree species diversity.

Ecology and Biodiversity

3.31 The Ecological Impact Assessment (EIA) prepared by BioScan (UK) Ltd, accompanys this application and should be referred to for full details.

3.32 The EIA demonstrates there are no statutory or non-statutory nature conservation designations which will impinge on the development of the application site. The closest non-statutory nature conservation designations are Great Notley Local Wildlife Site and the Tenements Farm Area Local Wildlife Site, both of which are approximately 150m north of the site and separated by the M25.

3.33 Broadleaved secondary woodland, veteran trees and hedgerows have been indentified as important habitats within the study site and are to be retained.

3.34 With respect to protected species, the full details of the surveys are contained within the EIA. In summary it details:

- Badgers to be present within the site;
- Medium or high bat roosting potential was identified within woodlands and individual trees;
- A single pond within the site and further 3 ponds outside of the site boundaries are confirmed to support Great Crested Newts;
- Pockets of the site area assessed to have greater suitability to support reptile populations at certain times of the year.

3.35 Ecology and associated ecological enhancements have been careful considered during the development of the design proposals. With opportunities to maximize biodiversity gains presented through the provision of the Country Park and a landscape led development approach.

3.36 At the appropriate detailed design stages, a careful considered, sensitive lighting strategy will be employed to minimise impacts from lighting on bat activity.

3.37 Enhanced landscaping and additional elements such as bird, bat and insect boxes also present positive ecological opportunities.

3.38 As a result of the above, the proposed development is anticipated to be a positive effect at Parish level, with an associated biodiversity net gain of circa 135%.

Hydrology and Drainage

3.39 Flood Risk Assessment accompanying this application shows the site to be wholly located within Flood Zone 1 and demonstrates the proposed development presents a negligible to low risk of flooding from all sources.

3.40 The proposed development will introduce impermeable drainage area which will increase in surface water runoff. To ensure the increased runoff does not increase flood risk elsewhere attenuation features will be provided on site to accommodate storm events up to and including the 1 in 100 year plus 40% climate change event.

3.41 Foul flows are proposed to discharge to the existing public foul sewer network.

Overview of site and context

3.42 A landscape led approach has been taken to establish areas within the site most suitable and capable of being developed whilst respecting the locality.

04 Developing the Design Concept

> ***"Design quality should be considered throughout the evolution and assessment of individual proposals. Early discussion between applicants, the local planning authority and local community about the design and style of emerging schemes is important for clarifying expectations and reconciling local and commercial interests. Applicants should work closely with those affected by their proposals to evolve designs that take account of the views of the community. Applications that can demonstrate early, proactive and effective engagement with the community should be looked on more favourably than those that cannot."***
>
> ***(Para. 132, NPPF 2021)***

Sustainable Structuring

4.1 In line with National and Local Government Guidance and Policy, considerable importance has been placed on achieving a high standard of design across the site. Successful urban design is dependent upon achieving an appropriate relationship between community needs, development principles, development form and a positive response to local conditions.

4.2 Plan-makers, as well as decision makers should apply a presumption in favour of sustainable development, which will mean that:

> ***"All plans should promote a sustainable pattern of development that seeks to: meet the development needs of their area; align growth and infrastructure; improve the environment; mitigate climate change (including by making effective use of land in urban areas) and adapt to its effects".***
>
> ***(Para 11(a), NPPF 2021)***

4.3 The application of key urban design objectives will ensure a high-quality layout is achieved, whilst the early identification of the sites features will ensure that the proposals are sensitively assimilated into the landscape and urban fabric.

4.4 The principles which have been developed provide a framework by which to create a distinctive place, with a consistent and high-quality standard of design. These principles have been derived from the site assessment, in conjunction with the delivery of a high-quality development which achieves the criteria set out within the NPPF, namely:

Function and Quality

"...will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development"

(Para. 130(a), NPPF 2021)

- New development provides the opportunity to establish a distinctive identity to a place which, whilst having its own character, integrates with the surrounding built form and landscape context. The opportunity to provide modern day infrastructure, that whilst is a utilitarian function can support the emphasis on high quality design supported and emphasised by Government;
- Retention and enhancement of the existing landscape features on the site where possible with the appropriate use of cut and fill to enable to built form to be positioned within the landscape;
- Provision of Sustainable Drainage systems to ensure that the development does not increase the risk from flooding in the area; and
- Make efficient use of the site and the appropriate release of Green Belt land through proposing a development contained within a landscape led development zone.

Visually Attractive

"...are visually attractive as a result of good architecture, layout and appropriate and effective landscaping"

(Para. 130(b), NPPF 2021)

- Provision of a clear hierarchy of connected spaces and places, including streets, accessible by a variety of users, which consider the design of the space as well as its function as a movement corridor;
- Integration of existing and proposed landscape features will help to soften the built form;
- Minimise the impact of the development on the open countryside and surrounding context through the identification of appropriate development zones; and
- New development will be set within a considered and attractive landscape setting.

Response to Context

"...are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities)"

(Para. 130(c), NPPF 2021)

- Integration of the development into the existing surrounding built form of Abbots Langley and the local area, the intention at detailed design stages will not to hide the data centre or create pastiche residential forms, but to create a high quality design for a modern use that sits respectfully with its neighbouring uses;
- Consider carefully the specification of materials that respect/enhance the local vernacular;
- Respond to the existing site topography including the consideration of key views in and out of the site;
- Retention and enhancement of the existing landscape features and habitats on the site; and

- Built form which is created within landscape led development zones. These zones will not stifle future detailed design, but encourage its considered placement within areas of the site most suitable for development when balancing the site characteristics.

Strong Sense of Place

"...establish or maintain a strong sense of place, using the arrangement of streets, spaces, building types and materials to create attractive, welcoming and distinctive places to live, work and visit"

(Para. 130(d), NPPF 2021)

- Position key spaces & focal points where movement corridors converge to encourage activity and vitality;
- Creation of a development which allows ease of movement for all types of users and provides equal employment opportunities for all;
- Provision of an ancillary Innovation, Training and Education Centre to support the continued professional development of the Data Centres employees.
- Incorporate existing and proposed landscape features into the proposals, so as to enhance the richness and attractiveness of the streetscape; and
- Careful consideration of texture, colour, pattern and durability of materials and how they are used.

Accessibility

"...optimise the potential of the site to accommodate and sustain an appropriate amount and mix of development (including green and other public space) and support local facilities and transport networks"

(Para. 130 (e), NPPF 2021)

- Integration of the proposed development into the existing movement network of footpaths, cycleways, bus routes and vehicular routes;
- Provision of a single vehicular access point into the development forming part of a permeable network of streets which assists in dispersing traffic (vehicular and pedestrian);
- Maximisation of the opportunities for alternative modes of transport to the car particularly walking, cycling and bus travel;
- Creation of a legible and permeable development, that is easy to navigate for all users, with a clear movement hierarchy providing easily recognisable routes, balancing the street as a space alongside its function as a movement corridor; and
- Enhancement and extension of the existing public rights of way network as an integral part of the development, particularly facilitating sustainable access to the Town Centre and existing employment areas.

Safe, Inclusive and Accessible Places

"...create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users; and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion and resilience"

(Para. 130 (f), NPPF 2021)

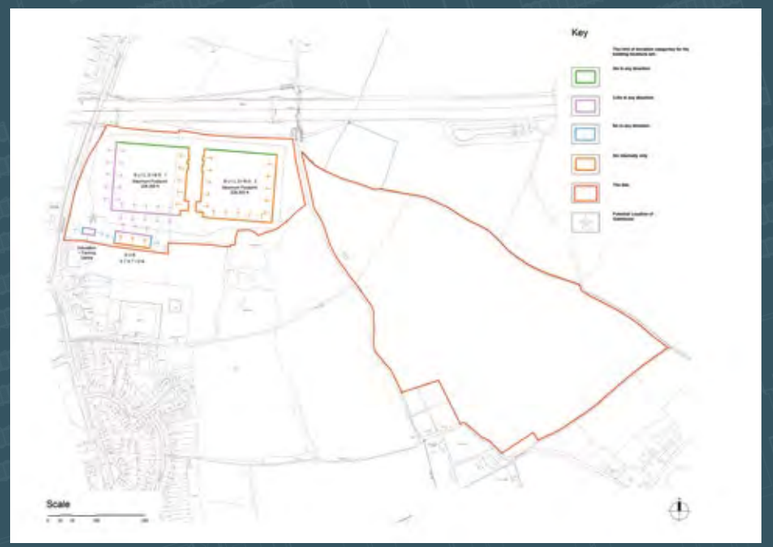
- Provision of accessible public open spaces and recreation areas to meet the needs of the local community whilst encouraging social activity;
- Creation of a clearly defined public realm through the provision of continuous building frontage lines;
- Consideration of the proposals in relation to the location of the buildings on the site, gradients, and the relationship between various uses and transport infrastructure, particularly for those with disabilities; and
- Control of access to private areas.

05 Design Overview

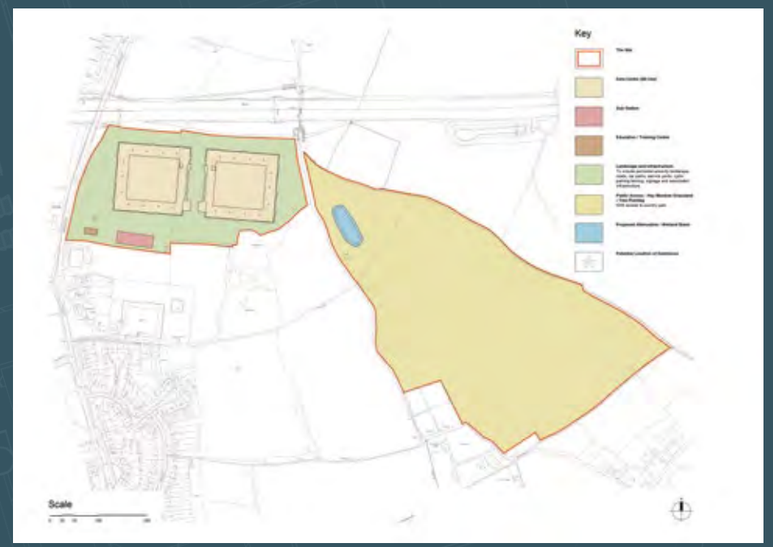
5.1 The outline proposals seek to deliver:

- A hyperscale centre that will contribute the technological and industrial advancement of the economy at a local and national level;
- Built development parameters that carefully consider and balance the proposals against the local context; character (urban & landscape) and existing land uses
- In support of the Building Better, Building Beautiful Commission, the commitment to high quality design and place making solutions at the appropriate detailed design stages that are reflective of the non-residential use but considerate of its context is established at this outline stage. The proposals represent a modern day infrastructure use whereby form follows function; but the detailed design will create a high quality aesthetic;
- The provision and enhancement of a strong landscaped network within the site and as part of the proposed Country Park; and
- The ability to support the education and future professional development of employees associated with the Data Centre.

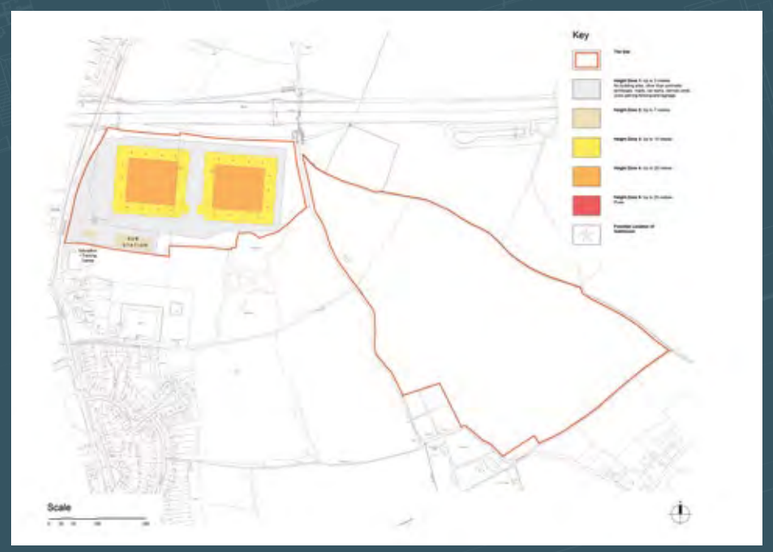
Green Infrastructure Parameter Plan



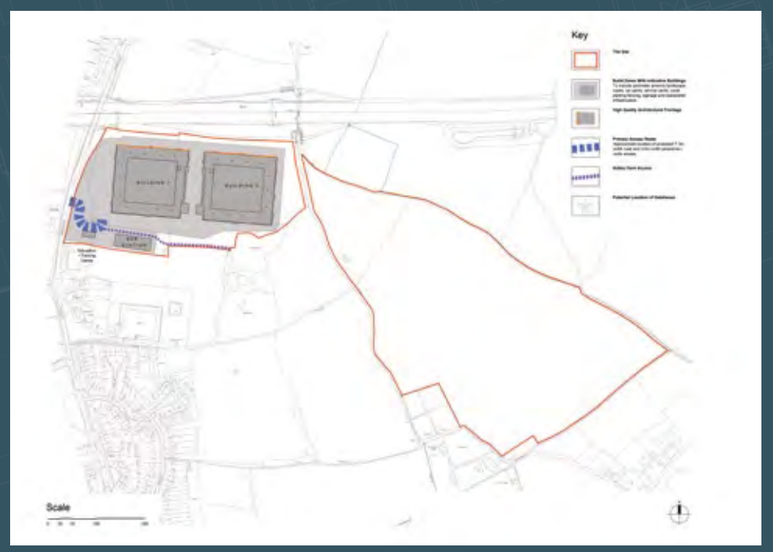
Building Lines Parameter Plan



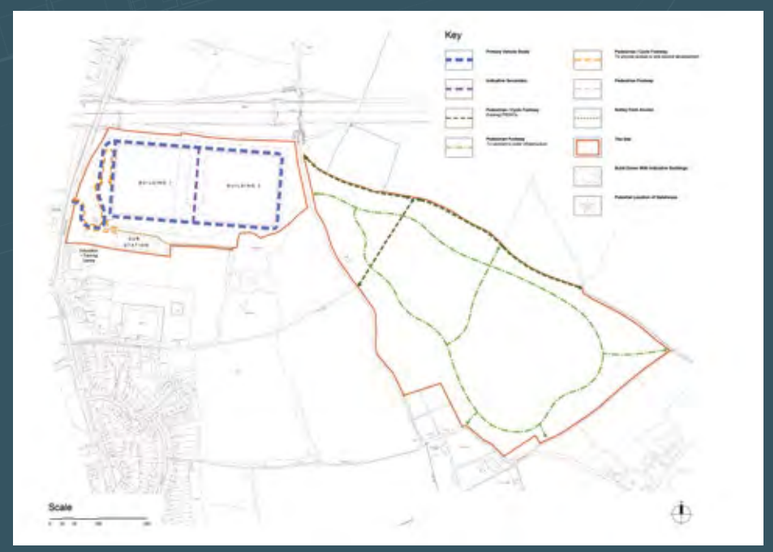
Land Use Parameter Plan



Building Heights Parameter Plan



Development Zones Parameter Plan



Access and Movement Parameter Plan

Indicative Green Infrastructure Parameter Plan

06 Design Proposals

Indicative Green Infrastructure Parameter Plan

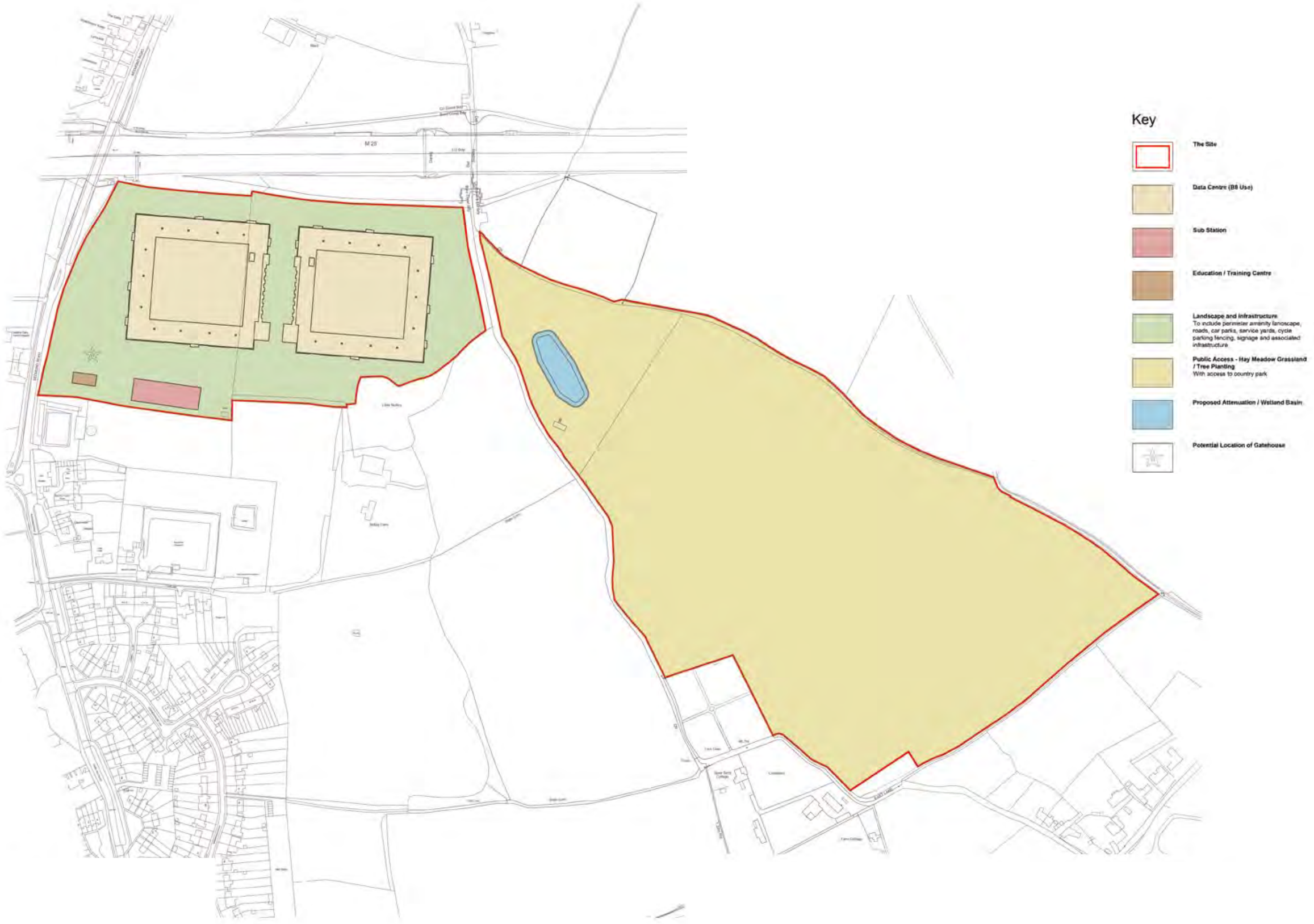
5.1 A landscape led approach to the development proposals places a strong emphasis on the conservation and enhancement of notable green infrastructure and habitats.

5.2 Being informed by the LVIA, Ecological Assessment and Arboricultural Survey, the Indicative Green Infrastructure Parameter Plan shows the major areas of public open space within the proposals and the associated land uses. It is not intended to be fixed as part of the Outline Planning Permission, as is the case with the remaining Parameter Plans, but guide the detailed interpretation of the landscape strategy.

5.3 Key features to be taken forward include:

- Buildings, roads and ancillary features to be positioned and designed to avoid loss of existing notable green infrastructure features;
- The two proposed buildings to incorporate green roofs and walls to maximise ecological habitat and opportunities for visual mitigation;
- A third, ancillary building to provide the innovation, education & training centre associated with the Data Centre. This buiding will be located to the south of the site and act as part of the transition from the existing context to the wider development proposals. It will also provide a focal point within the development area. Where appropriate, cut and fill of the existing landform will be untilised to create a level platform for built development. This will enable the buildings to sink into and sit within the existing landscape and landforms;
- Maximise opportunities to enhance the biodiversity of the site through the provision of a number of varied habitats where appropriate; and
- Provision of the extension to Leavesden Country Park

5.4 A total of 20.82ha of Country Park will be provided as part of the development proposals across the site. It will include existing tree and hedgerow planting, proposed strategic planting, areas habitat creation, surface water attenuation and walking and cycling routes (existing and proposed).



Land Use Parameter Plan

USES. Mixed and integrated

NPPF CHAPTERS: 2, 5, 6, 7, 8, 12

> ***"Well-designed neighbourhoods need to include an integrated mix of tenures and housing types that reflect local housing need and market demand. They are designed to be inclusive and to meet the changing needs of people of different ages and abilities. New development reinforces existing places by enhancing local transport, facilities and community services, and maximising their potential use."***
>
> ***(Para. 109, NDG 2021)***

5.5 The following parameter plans and associated wording set out are to be 'fixed' as part of the Outline Planning Permission (OPA).

5.6 The parameters plans will provide a framework for future, more detailed designs, and will define the type of development that can be bought forward at the Reserved Matters stage.

5.7 The Parameter Plans should be read in conjunction with all documents submitted as part of the OPA package. The accompanying Illustrative Masterplan (presented later in this DAS) shows one way in which the development could be laid out in accordance with these parameters.

5.8 The outline application plans are also accompanied by a set of Supporting Design Strategies that illustrate how the development could be realised, in accordance with outline application. The supporting design strategies include:

- Illustrative Proposal Masterplan; and
- Landscape Strategy.

5.9 The abovementioned strategies set out are for illustrative purposes only, and do not form part of the formal outline submission. They are therefore subject to interpretation and discussion and should be read in conjunction with the parameter plans.

Land Use Parameter Plan

5.10 The development proposals include the following;

Data Centre – up to 84,000 sqm(GEA)

5.11 The development proposals will provide an up to 84,000 sqm (GEA) Data Centre split between 2 buildings. The buildings and associated landscape and infrastructure are contained within the northern parcel of the application site.

Innovation, Education & Training Centre - up to 300sqm (GEA)

5.12 An ancillary building that will provide innovation, education and training for employees associated with the Data Centre will be provide at the site access. This building will provide a transition from the existing context to the proposed Data Centre buildings and will act as a focal building to the site access..

Public Open Space

5.13 Circa 21ha of accessible public open space has been provided within the proposals through the provision of the Country Park and within the principal development parcel.

5.14 The large area of open space will provide an extension to Leavesden Country Park, enable habitat creation and increase pedestrian access and a choice of recreational routes through.


New northern boundary planting
M25 Motorway
Boundary fence
Ramp down 1 in 19.25
New western boundary planting
New T junction to be formed off Bedmond Road
Locally listed buildings
Education / Training Centre
Building 1
Building 2
Sub Station
Attenuation pond
New hedgerow with supporting woodland for form robust site boundary
Mown grass pathways
New eastern boundary reinforcement planting
New western boundary reinforcement planting
COUNTRY PARK
Wetland area with boardwalks

Indicative Proposal Masterplan

5.15 Built development in the form of the two Data Centre buildings and Landscape and Infrastructure are contained to the northern portion of the site where the urbanised character of built form and the M25 corridor prevail.

5.16 The proposed Innovation, Education & Training Building will be located at the site access and provide a focal point to the access road.

5.17 The larger, eastern parcel of the site will provide publicly accessible Country Park with further access to Leavesden Country Park. Provision of Attenuation/Wetland Basin could be included as part of this area of open space.

Access and Movement Parameter Plan

MOVEMENT. Accessible and easy to move around

NPPF CHAPTERS: 8, 9, 12

> ***"Patterns of movement for people are integral to well-designed places. They include walking and cycling, access to facilities, employment and servicing, parking and the convenience of public transport. They contribute to making high quality places for people to enjoy. They also form a crucial component of urban character. Their success is measured by how they contribute to the quality and character of the place, not only how well they function."***
>
> ***Para. 75, NDG 2021)***

5.18 The Indicative Masterplan shows the disposition of land uses and the proposed structure for movement within the development. A well-connected movement network, accessible by all users, is proposed which helps to ensure that all areas of the development will be accessible, easy to navigate, safe and secure. The proposed access and movement strategy will focus on the delivery of the following elements which are in accordance with the objectives of national and local planning policy:

- Proposed access points;
- Proposed pedestrian and cycle movement network;
- Street hierarchy;
- Street typologies; and
- Parking strategy.

5.19 The location of the development, adjacent to the existing and established community of Abbots Langley is a positive characteristic which has been maximised through the provision of direct and attractive pedestrian routes.

5.20 The proposed access strategies set out here clearly define the main routes and help to achieve a permeable layout. The Access and Movement Parameters Plan, presented opposite, shows the proposed structure for movement within the development

Access and Movement Parameter Plan

5.21 Access is to be taken directly from Bedmond Road in the form of a T-junction with the appropriate visibility splays. The proposed site access is detailed withint the accompanying Site Access drawing prepared by DTA.

5.22 Once within the site the primary access route will provide a circular loop around the buildings, with secondary access connecting between. This will allow full functional, vehicular permeability.

5.23 Within the built zones, pedestrian/cyclist access will follow vehicular access routes.

5.24 Notley Farm Access is provided within the site with its own access road taken off Primary Vehicular routes.

Pedestrian and Cycle Access Strategy

5.25 The development of an integrated pedestrian/cycle network within the site is seen as a key part of the transport infrastructure for the site. Pedestrians are led into the site from the site access and the PRoWs that cross the site.

5.26 Cycle use is encouraged through the high degree of permeability within the layout.

5.27 The following mea ures to provide accessibility by foot and cycle are proposed and illustrated, where appropriate, on the Access and Movement Parameter Plan:

- Provision of an off-road shared use formal foot/cycleway (minimum 3m width) running adjacent to the site access and principal access road;
- Provision of circulatory pedestrian routes (minimum 2m width) through the site, offering pedestrians easy access to development and a choice of routes;
- Provision of circulatory pedestrian routes (minimum 2m width) within the public open space, offering pedestrians easy access to the recreational routes and Leavesdon Country Park whilst offering a choice of routes;
- Provision of key new pedestrian/cycle link across the public open space, linking the existing PRoW with the Data Centre and improving access towards Leavesdon Country Park;
- Where possible pedestrian links will be suitable for use by disabled people;
- Particular attention will be paid to ensure surface material quality and sufficient active overlooking, to provide a sense of safety and security for users; and
- To ensure that vehicular movement corridors do not become a barrier to pedestrian/cyclist movements crossing points will be defined where appropriate, to enable all users to cross safely.

Street Hierarchy

5.28 A clear hierarchy of streets is proposed creating an integrated movement network. Variation in the street types proposed aids in the creation of a legible and permeable development, whilst also providing for, and encouraging pedestrian and cycle movement, and delivering necessary vehicular connections.

5.29 Streets will be designed as key aspects of the public space, the nature and form of which will vary according to their connectivity, function and location within the development proposals. The development proposals have been influenced by "Manual for Streets 1 & 2", which encourages designers to move away from standardised prescriptive measures and to adopt a more innovative approach, in order to create high-quality places for all users, ages and abilities.

5.30 Incorporating nature, particularly tree planting, within the streets is a key principle in the design of new developments. Tree-lined streets have been given a priority in the latest edition of the NPPF, stating that:

"Trees make an important contribution to the character and quality of urban environments, and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are tree-lined, that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newly-planted trees, and that existing trees are retained wherever possible. Applicants and local planning authorities should work with highways officers and tree officers to ensure that the right trees are planted in the right places, and solutions are found that are compatible with highways standards and the needs of different users".

(Para 131, NPPF 2021)

5.31 The development and internal road network at detailed design stages will be designed encourage low vehicular speeds (circa 20mph) and streets will be defined by the building layout, so that buildings and spaces, instead of roads, dominate the street scene. The design will promote safe walking and high permeability through the site.

5.32 The proposed street typologies recognise the need to combine the function of the street as a movement corridor, alongside its placemaking function. The importance of each of the street types in terms of its movement and place function varies within the hierarchy.

5.33 Street lighting will be designed in conjunction with street tree planting to ensure safe and acceptable levels of lighting throughout the development.

Car and Cycle Parking Strategy

5.34 Precise calculations for car and cycle parking quantum have not been undertaken at this outline stage. However, they will be provided in accordance with relevant standards and the expected employee demand whilst having regard to expected shift patterns.

Building Heights Parameter Plan

BUILT FORM. A coherent pattern of development

NPPF CHAPTERS: 8, 9, 11, 12

> ***"Built form is the three-dimensional pattern or arrangement of development blocks, streets, buildings and open spaces. It is the interrelationship between all these elements that creates an attractive place to live, work and visit, rather than their individual characteristics. Together they create the built environment and contribute to its character and sense of place."***
>
> ***(Para. 61, NDG 2021)***

5.35 The design solution for the site balances the functional requirements for the Data Centre against place making objectives. The landscape led design approach establishes appropriate area for built development, be it buildings or associated infrastructure.

5.36 The arrangement of the built form creates a network of street and spaces which include:

- A wider principal street corridor emphasising the primary vehicular access taken from the Bedmond Road;
- A secondary vehicular access running between the two proposed building areas to increase site permeability for all users;
- Provision of additional informal pedestrian and cycle routes, enhancing the existing PRoW network and access towards Leavesdon Country Park;
- Access to development blocks will be provided via a legible network of streets with a clear hierarchy;
- The design of the development proposals sites buildings and associated infrastructure within areas that are most capable of accepting built form. This process has been landscape-led;
- Green infrastructure is a key organising element of the masterplan, aiming to ensure a site-specific identity is created;
- Existing tree and hedgerow planting have been retained wherever possible within the proposals; and
- The provision of wider key green infrastructure links will help to improve existing habitats on-site, as well as catering for biodiversity enhancements.

Building Heights Parameter Plan

5.37 Development will vary in height across the development. In summary:

- The ancillary buildings and sub station will be up to 7m
- The outer extents of data centre buildings will be up to 15m;
- Central areas of the data centre buildings will be up to 20m to accommodate associated plant; and
- Flues will be required to punctuate the roofscape, these will be up to 25m. It should be noted that the heights proposed are upper maximums.

5.38 Height zones established reflect the functional requirements of the Data Centre in respect of the data storage, cooling facilities, office facilities and emergency generator and fuel storage.

Building Lines Parameter Plan

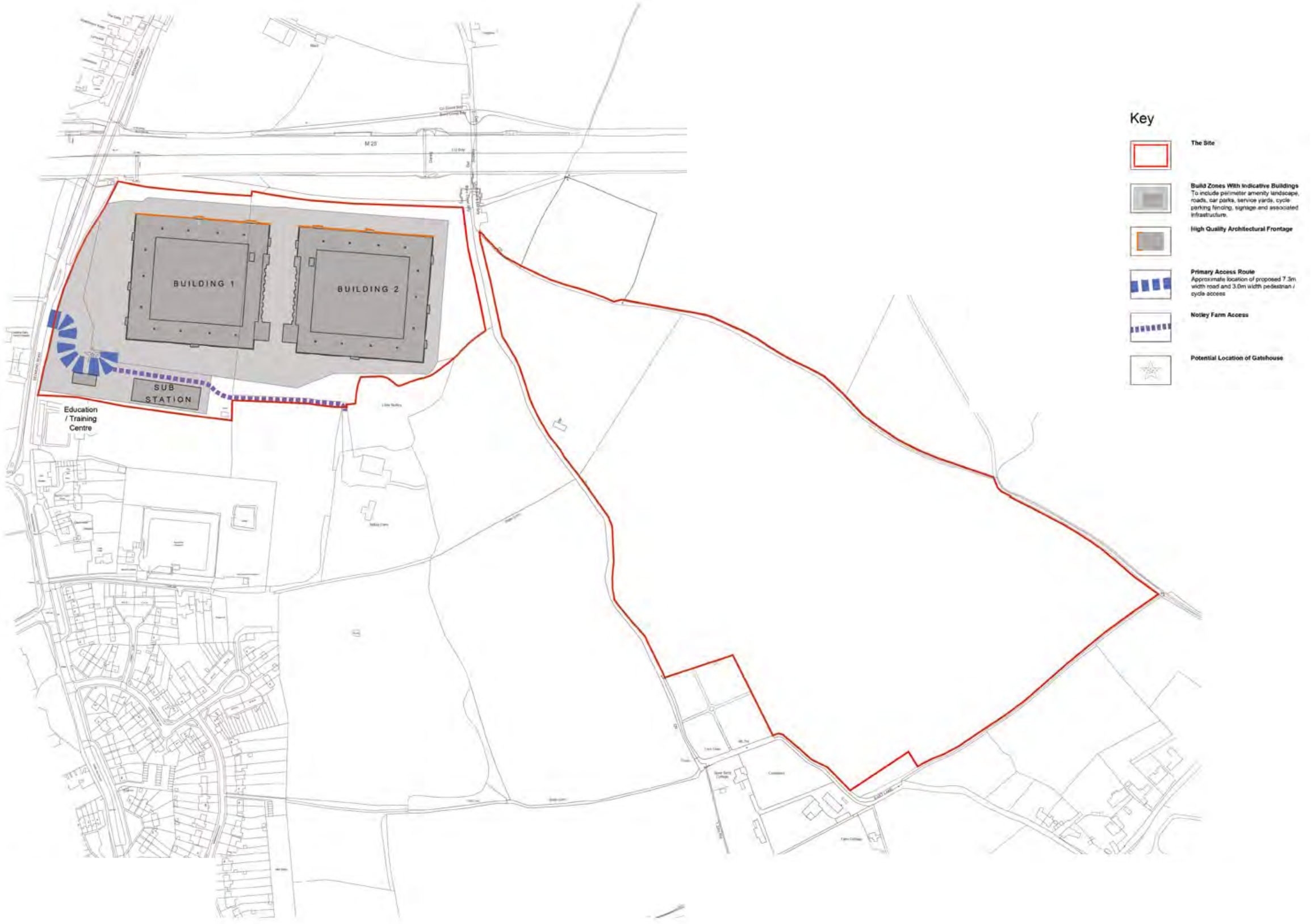
Continuity and massing

5.39 Key development frontages are critical to the appearance of the development and will need careful consideration at detailed design stages. However, they present a design opportunity to create an architectural response that contributes positively to the quality and character of the area.

5.40 A Building Lines Parameters Plan accompanies the application and establishes areas of flexibility within which building lines are either fixed or flexible, these include:

- The northern most building lines are fixed. They cannot deviate any further north or south;
- Eastern elevations and those internally within the built zone are capable of moving 5m internally i.e. to make the building extent smaller;
- Elevations closest to existing built form i.e. the western elevations have a minimal zone of flexibility in both area; and
- The substation and ancillary building to the south of the development area are flexible in location, but will not exceed the maximum footprints established.

5.41 The extents shown on the Building Lines Parameter Plan demonstrate the maximum area and footprint proposed.



Development Zones Parameter Plan

BUILDINGS & IDENTITY. Functional, Attractive, healthy and sustainable

NPPF CHAPTERS: 8, 12, 15, 16

> ***"Well-designed homes and buildings are functional, accessible and sustainable. They provide internal environments and associated external spaces that support the health and well-being of their users and all who experience them."***
>
> ***(Para. 120, NDG 2021)***

> ***"The identity or character of a place comes from the way that buildings, streets and spaces, landscape and infrastructure combine together and how people experience them. It is not just about the buildings or how a place looks, but how it engages with all of the senses."***
>
> ***(Para. 50, NDG 2021)***

5.42 The proposals will comprise a distinctive character and a strong sense of place, informed by important site features and the functional requirements of the intended use.

5.43 The proposals aim to create a place that has a healthy, comfortable and safe internal and external environment.

5.44 Supporting the Land Use Parameter Plan and being reflective of the landscape led development approach, this Development Zones parameter plan focuses where build zones are located.

5.45 Build zones are contained within the northern portion of the site, set back from the site boundaries in order to create strategic landscape corridors. These corridors will help achieve mitigation objectives and provide opportunities for biodiversity enhancements.

5.46 A general location for the primary access route and access to Notley Farm are established.

Creating **a future place.**


Aerial View from M25


View from Bedmond Road


Precedent Image


Precedent Image

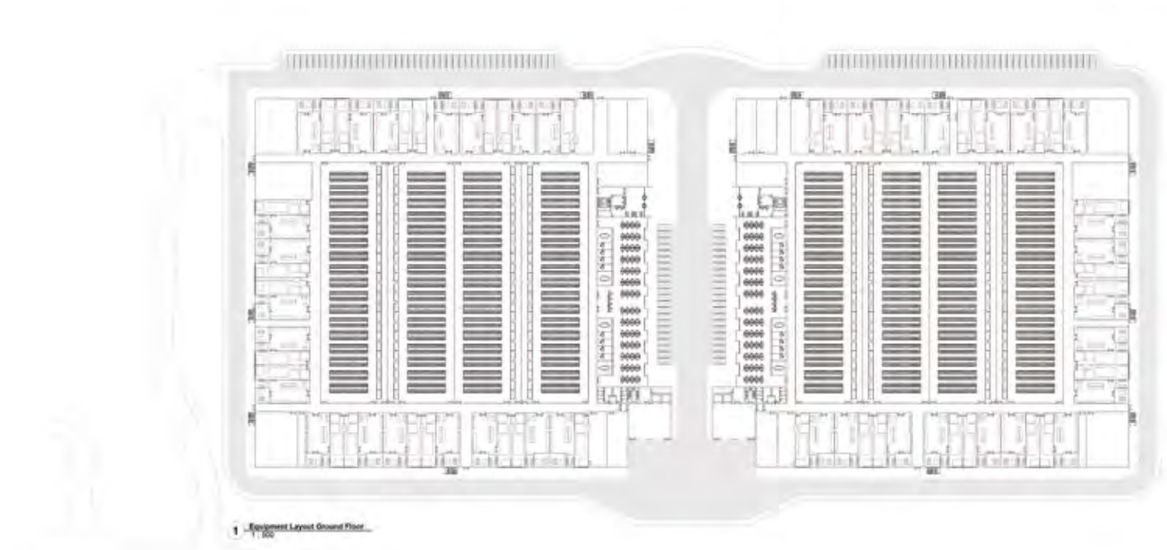

View from M25


Elevation

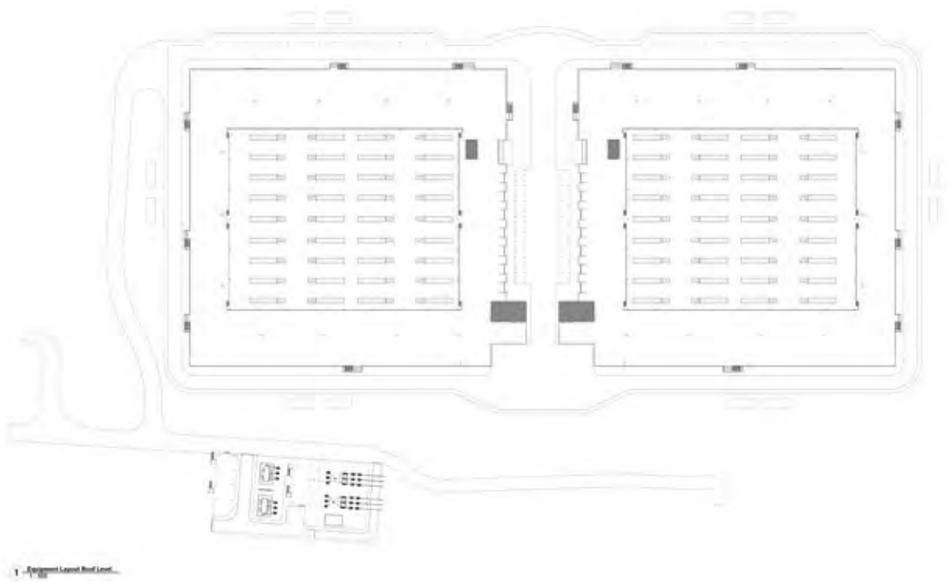
5.47 In order to establish a clear commitment and intent to detailed design that moves away from utilitarian infrastructure buildings, indicative floor plans for the Data Centre have been prepared and provide the basis for indicative visuals provided.

5.48 High quality architectural frontages are established on the northern elevations of the indicative buildings.

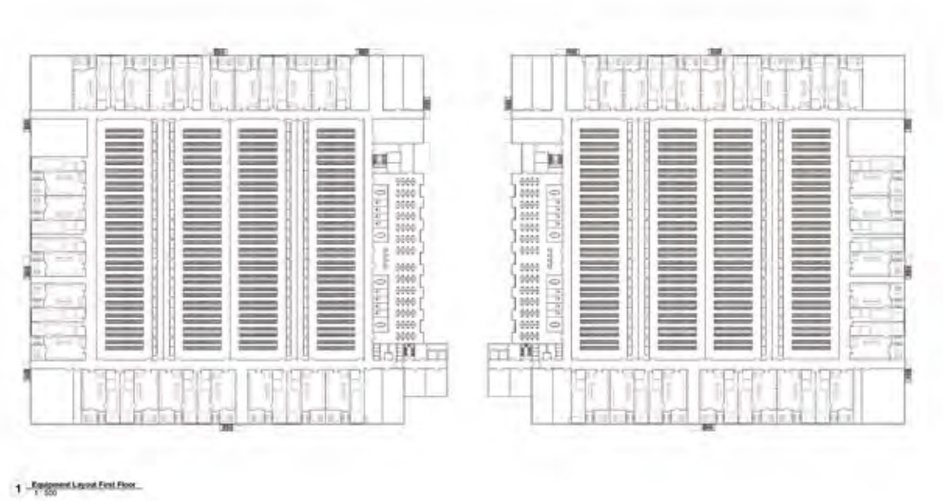
5.49 Components of character creation include the built form elements alongside the consideration of changes in building height, building setbacks, landscape treatments, architectural detailing and materials. The aim of character creation for the site at detailed design stages will be to integrate the Data Centre into surroundings, but to create an area of infrastructure that can also contribute positively to the area. The development proposals are a purely modern use, that represent an opportunity to add positively to the development history of the area, where functional development forms add to the sense of place as much as other development uses.



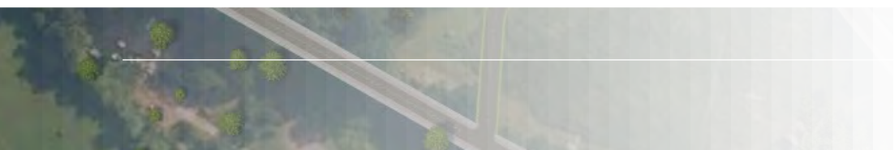
Equipment Layout Ground Floor



Equipment Layout Roof Level



Equipment Layout First Floor



Strategy Notes

A **Species Rich Neutral Grassland Cut for Hay**
To be established through long term management of existing arable fields.

B **Neutral Grassland**
To comprise a mix of retained and newly seeded grassland managed as a single area for species diversity in accordance with ecological objectives.

C **Reed Beds**
To be planted as part of the construction of new wetland habitat. Tall grass/herb margins to be associated with the drier adjoining margins.

D **Species Rich Neutral Grassland with Associated Wetland Mosaic**
Wetland mosaic to be created through management of existing lowland and construction of wet pond habitats and associated tall herb margins.

E **Existing Deciduous Woodland**
To be conserved to maintain existing green infrastructure. Most site woodland is well established and will require management to retain a dynamic structure (with understorey to assist winter screening qualities) and greater species diversity for long term resilience.

F **Scrub Edge**
New scrub edge planting for habitat diversity and strengthening of screening qualities to main tree framework.

G **Wet Pond**
New pond construction with associated opportunities for marginal aquatic/ wetland tall herb margins.

H **Native Mixed Hedgerow**
New and existing native hedgerows. Existing species poor hedgerows to be restored through restorative planting and long term management to encourage strong form and emerging tree species. Newly planted hedges to reflect species diversity of existing local hedges and may be planted to front new woodland blocks.

I **New Deciduous Mixed Woodland**
New deciduous mixed woodland planting to be undertaken to strengthen existing green infrastructure to achieve mitigation objectives. Woodlands to comprise mixed native species with understorey species for long term screen enhancement. Tall herb margins to woodlands to be encouraged at transition to open grassland areas.

Landscape Strategy Plan

PUBLIC SPACES. Safe, social and inclusive

NATIONAL PLANNING POLICY FRAMEWORK CHAPTERS 8, 9, 12

> ***"The quality of the spaces between buildings is as important as the buildings themselves. Public spaces are streets, squares, and other spaces that are open to all. They are the setting for most movement. The design of a public space encompasses its siting and integration into the wider network of routes as well as its various elements. These include areas allocated to different users – cars, cyclists and pedestrians – for different purposes such as movement or parking, hard and soft surfaces, street furniture, lighting, signage and public art."***
>
> ***(Para. 99, NDG 2021)***

5.50 The delivery of well-designed accessible and inclusive public spaces will offer residents spaces to socialise and engage with each other, encouraging interaction and opportunities to benefit from healthy lifestyle choices

Landscape Strategy

5.51 Landscape design is a key component for creating successful development. The proposed multi-functional green infrastructure will be an integral part of the scheme and will create a strong landscape structure across the site, focussed around the retention and enhancement off existing landscape assets wherever possible.

5.52 Successful public spaces help create more attractive places to live and provide safer routes for users. From an ecological perspective the delivery of green spaces alongside development can increase flood protection and sustainable drainage, as well as providing better microclimates and enhancing biodiversity.

5.53 Mitigation measures incorporated into the development proposals could include:

- Existing boundary vegetation to be retained and enhanced where possible which will provide inherent mitigation;
- Proposals sited adjacent to dominant urbanising influences of the M25 corridor, as well as Bedmond Road, with this part of the study site having a lower susceptibility to change, and able to accommodate new built form
- Introduction of tree planting throughout development in order to break up views of development from local receptors, softening development, and assisting with assimilating new built form into local views
- New soft landscaping will extend surrounding green infrastructure affording a net gain of biodiversity
- New native shrub, hedge and tree planting within the site in order to offset losses of existing vegetation with proposed new development around the proposed data centre
- Site Data Centre Structures cut into landscape, to reduce overall visual prominence, with the landform lowered to reduce overall height of new structures
- Living green walls on the external (west, north and east) elevations to reduce visual prominence, and assist with assimilating built form into views
- Enhance the existing ecological habitats across the site, extending the existing Leavesden Country Park


New hedgerow with supporting woodland for form robust site boundary.
uation pond
Mown grass pathways
New eastern boundary reinforcement planting
New western boundary reinforcement planting
COUNTRY PARK
Wetland area with boardwalks

Country Park

5.1 A key component of the development proposals is the circa 21ha Country Park within the eastern parcel of the application site.

5.2 This Country Park provides opportunities to extend the existing Leavesdon Country Park to the west of East Lane. The provision of new pedestrian links and routes through the proposed Country Park, which in turn connect to the existing PRoW network provide further leisure and recreation routes.

5.3 The Country Park will provide an area of land that is currently in agriculturlal use into a community area that is attractive, accessible and connected place where people want to visit and where biodiversity thrives. The site could deliver a cohesive and high quality Green Infrastructure network that:

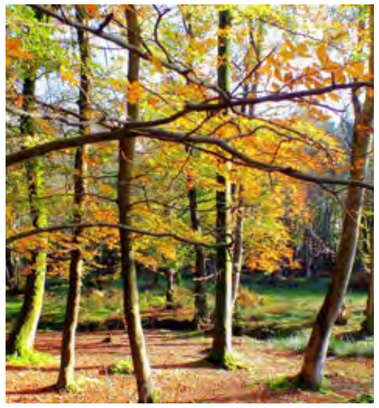
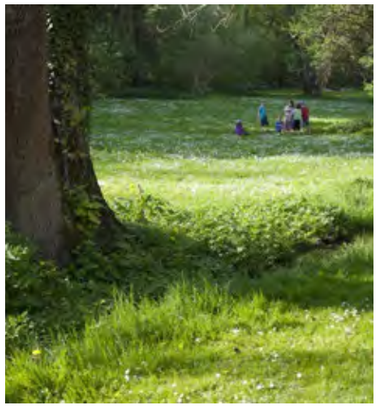
- Encourages and promotes healthy active lifestyles through the provision of high quality, safe and accessible open space for leisure, recreation and play;
- Supports local landscape character to provide an attractive sense of place whilst considering visual amenity;
- Creates and supports inclusive, safe and cohesive communities;
- Protects and enhances existing green infrastructure assets to be enjoyed and valued by everyone for future generations;
- Protects, creates and supports habitats that enable biodiversity, habitats and species to survive and thrive;
- Enhances connectivity within the existing PRoW network; and
- Is resilient and adaptive in the face of climate change.

Hard Landscape Materials

5.1 In accordance with the commitment to deliver a high quality detailed design, the materials used for the construction of the external works will be considered carefully to aid in the definition of spaces. The selection of paving materials within the public realm, will be utilised to assist in place making and create identity within the development. Along with the elevational treatments of the buildings, the landscape materials will reinforce the different character of the scheme and establish a suitable movement hierarchy within the public realm.

5.2 Where possible permeable paving will be utilised to driveways and parking areas to assist in source control of storm water run- off as part of source control within the SuDs management system.

5.3 Within the public open space pedestrian and cycle routes will primarily comprise of a compacted gravel path to create defined but informal routes around the site. As a means to integrate fully within the green/blue infrastructure, these pathways will be interspersed with timber bridges and boardwalks to allow closer interaction with both the water features and associated wildlife.




Creating Safe Places

5.4 One of the design objectives of the National Planning Policy Framework (NPPF) states that developments should:

"...create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users, and where crime and fear of crime, do not undermine the quality of life or community cohesion and resilience"

(Para. 130 (f), NPPF 2021)

5.5 The design proposals are based on an understanding of best practice guidance and reference has been made to the relevant documents including "Safer Places: The Planning System" and "Manual for Streets as well as ACPO "New Homes" guidance.

5.6 Well-designed public lighting increases the opportunity for surveillance at night and will be integrated into future reserved matters applications.

5.7 In forming the design proposals, the following key attributes have been included:

- All routes are necessary and serve a specific function or destination;
- The primary movement route/internal street network forms a connected loop within the site; and
- The ownerships and responsibilities for external spaces will be clearly identified and the proposals facilitate ease of maintenance and management.

NATURE. Enhanced and optimised

NPPF CHAPTERS: 8, 12, 14, 15

> ***"Nature contributes to the quality of a place, and to people's quality of life, and it is a critical component of well-designed places. Natural features are integrated into well-designed development. They include natural and designed landscapes, high quality public open spaces, street trees, and other trees, grass, planting and water."***
>
> ***(Para 90, NDG 2021)***

5.8 Alongside well-designed public spaces the proposed water management and planting strategies offer the opportunity to enhance and optimise the development proposals, providing resilience to climate change and supporting biodiversity.

New Structure of Planting

5.9 Planting within the scheme will be utilised to enrich biodiversity, assist in place making and create identity within the development.

5.10 The proposed new structure of planting forms important links as part of the green infrastructure network connecting into the existing landscape, hedgerows and tree belts. The range of planting provided will incorporate a number of ecological enhancements to improve the biodiversity of the site overall.

5.11 Particular attention will be given to the definition of the road network within the development zone through suitable provision of street trees. This will draw attention away from the roads. Specimen tree planting will be used to accentuate key nodal points and junctures, creating a distinctive street scene and aiding orientation/identity within the site.

5.12 The importance of incorporating street trees, as well as tree planting within other components of the green infrastructure, is reiterated in para 131 of the NPPF 2021:

"Trees make an important contribution to the character and quality of urban environments, and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are tree-lined, that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newly-planted trees, and that existing trees are retained wherever possible. Applicants and local planning authorities should work with highways officers and tree officers to ensure that the right trees are planted in the right places, and solutions are found that are compatible with highways standards and the needs of different users".

(Para 131, NPPF 2021)

Sustainable Drainage (SuDs)

5.13 The integration of a comprehensive Sustainable Drainage System (SuDs) has been considered from the outset and shaped the parameter plan development. The aim of SuDs is to maximise the existing potential of the site to attenuate and clean water, while providing valuable amenity by creating and integrating well designed landscaped features and promoting a greater diversity of flora and fauna. SuDs manage surface water run-off rates by mimicking natural drainage characteristics to achieve a sustainable drainage solution that balances water quality, water quantity, amenity and biodiversity.

5.14 Well-designed SuDs also provide opportunities for communities to enjoy the dynamic nature of the water environment and the different habitats that may be sustained by it. The site SuDs has therefore been considered at the outset, with the water management strategy being an integral part of the overall masterplan for the development.

5.15 Ponds and wetlands will provide areas for surface water from more severe storms to be accommodated and released at a controlled rate, to the adjacent existing water course. Ponds and wetlands are features with a permanent pool of water that provide both attenuation and treatment of surface water run-off. Attenuation storage is provided above the permanent pool of water, where it is retained for a short period, usually 1-2 days, until it is either taken up by plants, evaporated or slowly released into subsequent features. This will provide an opportunity for the creation of new wildlife habitats and the enhancement of existing ones on site, whilst also presenting recreation and amenity opportunities.

5.16 SuDs also include consideration of exceedance of this design standard by accommodating more severe events within the road and landscape areas, and thus preventing flooding of properties and access routes.

5.17 The management of all storm water flows up to a 1 in 100-year storm event + 40% (for climate change) will be accommodated within the site, whilst restricting flows to greenfield rates.

5.18 For further information regarding the proposed drainage strategy please refer to the supporting application documentation.

RESOURCES. Efficient and resilient

NATIONAL PLANNING POLICY FRAMEWORK CHAPTERS 12, 14

> ***"Well-designed places and buildings conserve natural resources including land, water, energy and materials. Their design responds to the impacts of climate change by being energy efficient and minimising carbon emissions to meet net zero by 2050."***
>
> ***(Para. 135 NDG, 2021)***

5.19 The NPPF states at para. 8 that the planning system has three interdependent and overarching objectives:

- An **economic** objective – to build a strong, responsive and competitive economy;
- A **social** objective – to support strong, vibrant and healthy communities; and
- An **environmental** objective – protecting and enhancing the natural, built and historic environment

5.20 To achieve a sustainable development, that reduces reliance on natural resources and offers a long-term solution for the area the development proposals have been designed with these three key objectives in mind.

5.21 At a very high level, the objective of sustainable development can be summarised as meeting the needs of the present without compromising the ability of future generations to meet their own needs. The presumption in favour of sustainable development is at the heart of the planning system, as set out in Para. 11 of the NPPF, and within the Local Development Plan.

Sustainable Building Techniques

5.22 The proposals will be delivered in line with current building regulations, and where appropriate, will be built with sustainable building construction techniques. Sustainable construction measures could comprise a combination of the following measures:

- Improved energy efficiency through careful building siting, design and orientation;
- Sustainable Drainage systems (SuDs);
- Considering fabric efficiency in the design of buildings;
- Use of building materials capable of being recycled; and
- An element of construction waste reduction or recycling.

Building Regulations

5.23 The proposed development will accord with the very latest building regulation requirements, that emphasise the high levels of building fabric insulation and other materials required to reduce energy and resource requirements. Detailed information regarding the proposed construction methods proposed to achieve buildings regulation compliance will be submitted at the detailed design stage.

Materials and Waste Recycling

5.24 Materials selected for construction, including hard and soft landscaping elements, will be carefully chosen to ensure that they are high-quality, durable and that 'whole life costs' are manageable. Sustainable choices will reduce initial manufacturing environmental impacts, long-term maintenance costs and waste from construction, whilst maximising resilience and buildings lifespans.

Landscape Design and Microclimate

5.25 The strategic use of tree planting can mitigate against some of the impact of colder northerly winds. Where possible the development has been designed to be self-sheltering, with arcs of tree planting included to the north-west of the development, to minimise the 'wind chill effect' and the potential heat loss from dwellings as a result of strong winds.

Sustainable Drainage Systems

5.26 Development has been located away from areas of surface water and fluvial flooding. Surface water run-off rates will be managed by the use of Sustainable Drainage systems (SuDs) on-site, to ensure that the development does not impact on the surrounding area. Details of which are contained within the accompanying FRA and Drainage Strategy.

LIFESPAN. Made to last

NATIONAL PLANNING POLICY FRAMEWORK CHAPTERS 8, 12, 14, 15, 16

> *"Well-designed places sustain their beauty over the long term. They add to the quality of life of their users and as a result, people are more likely to care for them over their lifespan."*
>
> *(Para. 151, NDG 2021)*

A sense of ownership

5.27 The proposals create areas that are attractive and with clearly defined public and private areas that relate well with one another to help promote a sense of identity. The development enables users to take pride in their surroundings, which in turn will help create a sense of shared ownership and social responsibility.

Aerial View from M25

07 Conclusion

> ***"Well-designed places and buildings come about when there is a clearly expressed 'story' for the design concept and how it has evolved into a design proposal. This explains how the concept influences the layout, form, appearance and details of the proposed development. It may draw its inspiration from the site, its surroundings or a wider context. It may also introduce new approaches to contrast with, or complement, its context. This 'story' will inform and address all ten characteristics. It is set out in a Design and Access Statement that accompanies a planning application."***
>
> ***(Para. 16, NDG 2021)***

7.1 This Design and Access Statement has set out a clear explanation of the design process, which has alsoalso included a comprehensive and thorough assessment of the site and its immediate context and the development of a clear set of principles to guide the design of the site.

7.2 The plans and design approach together with the supporting illustrative strategies demonstrate how the proposals can be delivered to meet the three key NPPF objectives of sustainable design

- A **social** objective;
- An **economic** objective
- An **environmental** objective.

7.3 The development proposals provide a unique opportunity to create a new Data Centre which supports future infrastructure growth and creates a distinctive character to the site. The proposals will improve public access across the site and the wider pedestrian network, particularly towards Leavesdon Country Park.

7.4 The masterplan is founded on best practice urban design principles, community integration and sustainable development, with strong links to the wider area. Identification of appropriate building zones has been landscape-led from the outset.

7.5 Detailed design of the development will accord with the principles of high-quality design and best practice to create an area that is both varied, and yet sympathetic to its environment. The aim is to achieve a development with a strong identity and distinct sense of place, whilst at the same time integrating with the existing community.

7.6 The development proposals will offer the following main benefits:

- The delivery of up to 84,000 sqm (GEA) data centre which will support required technological infrastructure;
- The creation of an integrated and sustainable development with a sensitive relationship to the existing settlement;
- Delivery of new open spaces or the benefit of both new and existing users in the area;
- Providing a development that is well connected, readily understood and easily navigated, with the delivery of a new access from Bedmond Road;
- The creation of legible routes through the development;
- The creation of a strong landscape structure, focused around the retained vegetation and provision of an extension to Leavesdon Country Park,; and
- Promoting the objectives of sustainable development through layout and design.

Office Location
33 Sheep Street
Cirencester
GL7 1RQ
T 01285 641717
cirencester@pegasusgroup.co.uk

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