

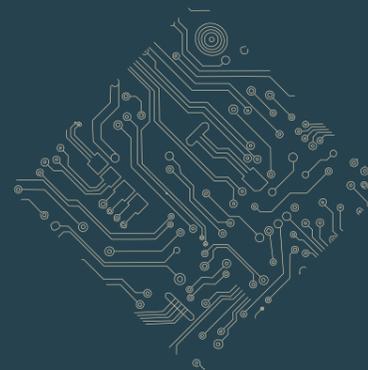
Humber Technology Park, on Land South of A160

DESIGN & ACCESS STATEMENT



“ 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

Since 2003, we've been solving planning and development problems for our clients successfully, and we're really proud of that. Even though our work is complex, what we deliver for our clients is very simple: we deliver results.

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.

Background	4
1. Introduction	7
2. Planning Policy	10
3. Site Context	14
4. Existing Environment	16
5. Developing The Design Concept	22
6. Design Overview	26
7. Conclusion	51

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



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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 an AI Data Centre?

Major tech companies are all seeking to develop new and improved AI models. These require large scale computing power to “train” these models. This is leading to extremely strong interest in “AI training data centre’s” which need to have the computing power to train and develop these models in a safe and secure environment.

Major tech companies are seeking to develop a series of strategically located “AI Giga Sites” that provide a major investment opportunities. These new type of data centres need to be on large scale to provide the concentrated computing power and will require a minimum of around 200MW of IT load.

This need is developing extremely rapidly and major tech firms have already embarked on The activity in AI training data centres can be carried out further from other data centre and so they are much more footloose in locational terms than many other types of data centres.

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; and
4. **Security:** Physical and virtual/Cyber secure environment.

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 data lies is a vital national interest. The Government's 2017 Digital Strategy recognised connectivity as a key driver in productivity, innovation, and economic growth.



HUMBER TECHNOLOGY PARK, ON LAND SOUTH OF A160

01 Introduction

- 1.1 This statement has been prepared by Pegasus Design (part of Pegasus Group) on behalf of Humber Tech Park Ltd and the wider consultant team, to accompany the Outline Planning Application for the mixed-use development of Humber Technology Park, comprising:

“Construction of a data centre of up to 309,000 sqm (GEA) delivered across up to 3no. buildings, including ancillary offices, internal plant and equipment and emergency back-up generators and associated fuel storage. Other works include internal roads and footpaths, cycle and car parking, hard and soft landscaping, security perimeter fence, lighting, drainage, an electricity substation, a district heating unit, horticultural glass house, 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 local design related Planning Policies relevant to the site;

Section 3: Site Context. Considers the site and its surroundings in terms of the local physical and social setting;

Section 4 Existing Environment. Overview of the sites technical and physical context;

Section 5: 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 6: Design Proposals. Presentation of the key design proposals including the Site Development strategy and supporting Parameter Plans; and

Section 7: Conclusion.

- 1.5 This Design and Access Statement should be read in conjunction with the Outline Planning Application and its accompanying supporting documents.



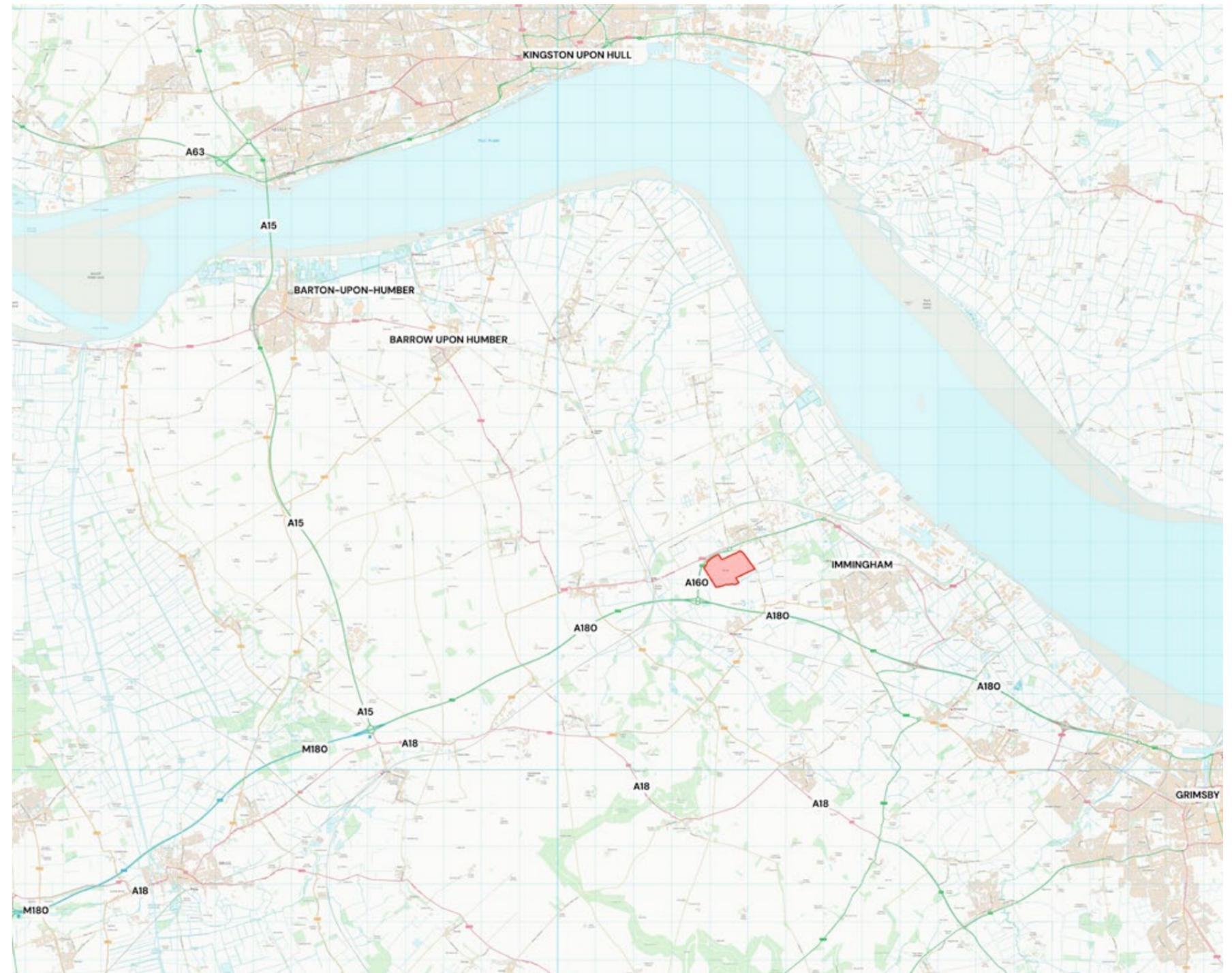
Key

 Site Boundary

23217.901 SITE LOCATION PLAN

The Site

- 1.6 The site covers circa. 75.8 hectares (Ha) and is located approximately 1 kilometre (km) south-west of the village of South Killingholme, North Lincolnshire. The site is currently in agricultural use and comprises two broadly rectangular fields.
- 1.7 The site is gently sloping from a high point of 17.5m Above Ordinance Data (AOD) in the centre of the site, falling to approximately 11.8m AOD at the southern and western site boundaries, 11.2m along the north-western boundary and 12.1m AOD on the eastern boundary.
- 1.8 The site is principally bound by ditches along the majority of the site's boundaries, as well as the following features:
- A post and rail fence with sporadic tree planting, and the A160 (Humber Road) dual-carriageway beyond to the north and west;
 - Sporadic scrub planting to the east, with a more open aspect at the southern section of the eastern boundary, with Habrough Road beyond; and
 - An existing gently meandering watercourse and tree planting to the south, with an arable field and the A180 dual carriageway beyond.
- 1.9 There are currently no structures, buildings, roads or Public Rights of Way (PRoW's) within the site boundary. There are no landscape, heritage or ecology designations within the site itself, and the entirety of the site is located within Flood Zone 1 (the zone with the lowest probability of flooding).
- 1.10 Immingham Docks are located approximately 5k kilometres (km) east of the site and Humberside Airport 9km south-west of the site. The villages of North Killingholme and Habrough are located approximately 2km north and south of the site respectively, with the bigger settlement of Immingham located approximately 4km to the east.



WIDER SITE LOCATION PLAN

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. 139. NPPF 2023)

- 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 (December 2023), National Design Guide (published in 2019, updated in January 2021), and the National Model Design Code (January 2021).
- 2.2 The following sections set out relevant sections of design related planning policy. The accompanying Planning Statement provides a more detailed assessment of the scheme against other planning policies.

National Planning Policy Framework

2.3 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.

2.4 There is a presumption in favour of sustainable development, as set out at Paragraph 11. Section 9 of the NPPF (Promoting Sustainable Transport) 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. 108(e) NPPF 2023)

2.5 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, to achieve “high quality, beautiful and sustainable buildings and places”. Detailed advice on how to achieve this objective is provided in Section 12: Achieving well-designed and beautiful places. The contribution which good design makes to sustainable development is set out in paragraph 131, 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.. 131, NPPF Dec 2023)

2.6 Furthermore, a new test was introduced in the 2021 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 139, 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 139, NPPF Dec 2023)

2.7 The NPPF is also clear at paragraphs 132 and 133 that Development Plans should set out a clear design vision to provide certainty to applicants, and that design policies should be prepared in conjunction with local communities to reflect local aspirations.

2.8 Paragraph 135 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.”

Planning Practice Guidance

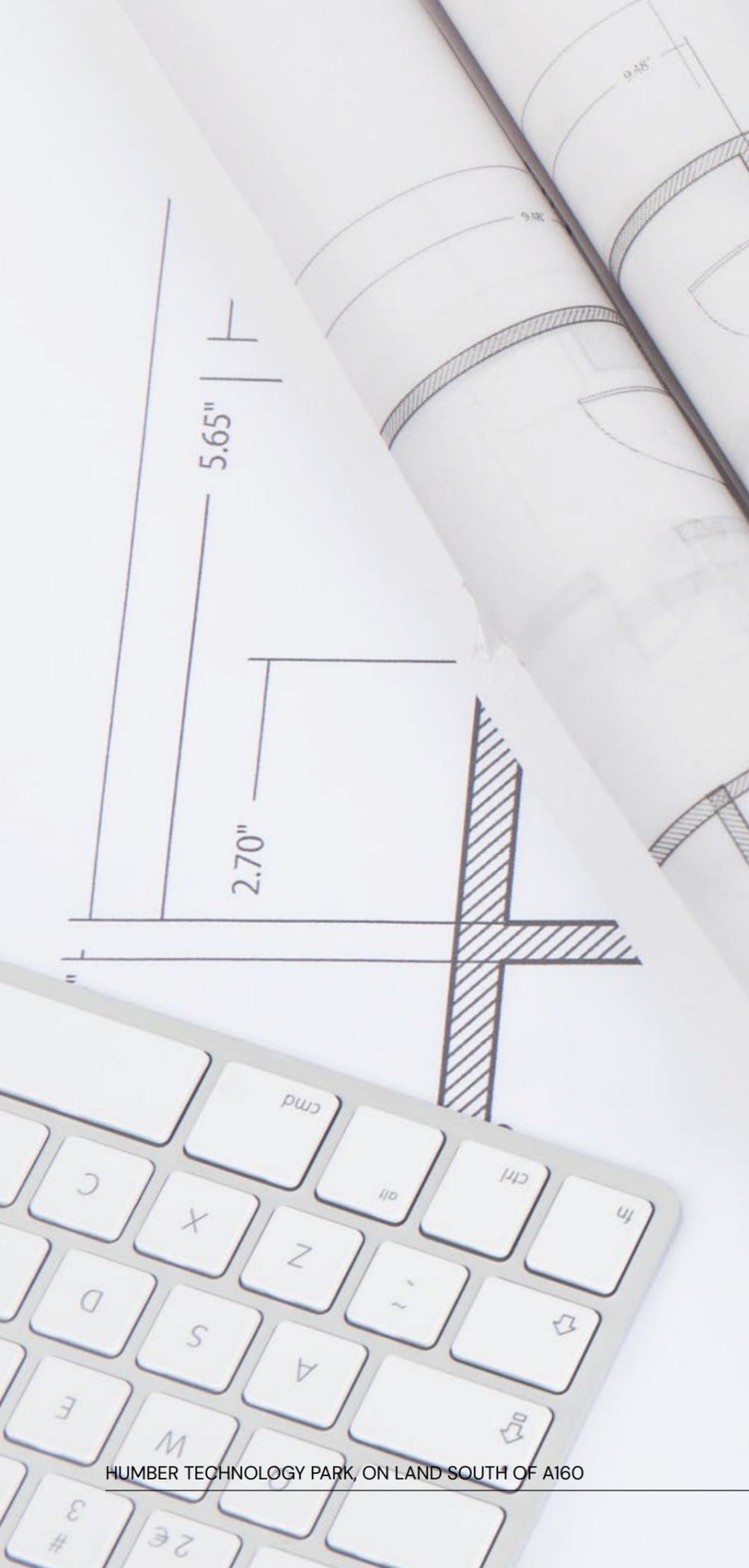
2.9 The NPPF is accompanied by the on-line Government resource Planning Practice Guidance (PPG). The Design: Process and Tools PPG provides guidance on the methods and processes available to both applicants and local authorities to ensure the delivery of well-designed and high-quality, long lasting places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

2.10 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

2.11 The National Design Guide (NDG) was 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)

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

2.13 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 address environmental issues affecting climate.

National Model Design Code

2.14 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)

2.15 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

2.16 The development proposals have been formulated having due regard to the North Lincolnshire Council (NLC) Local Development Plan comprising:

- The North Lincolnshire Core Strategy (adopted June 2011);
- The North Lincolnshire Housing and Employment Land Allocations DPD (adopted March 2016); and
- Saved Policies of the North Lincolnshire Local Plan (adopted May 2003).

Contained within the Core Strategy, Policy CS5: Delivering Quality Design in North Lincolnshire reflects the NPPF through the requirement of high-quality design. The policy sets out a series of expectations that all new development will seek to provide.

CS5: Delivering Quality Design in North Lincolnshire

All new development in North Lincolnshire should be well designed and appropriate for their context. It should contribute to creating a sense of place. The council will encourage contemporary design, provided that it is appropriate for its location and is informed by its surrounding context. Design which is inappropriate to the local area or fails to maximise opportunities for improving the character and quality of the area will not be acceptable.

New development in North Lincolnshire should:

- *Contribute towards creating a positive and strong identity for North Lincolnshire by enhancing and promoting the image of the area through the creation of high quality townscapes and streetscapes.*
- *Ensure it takes account of the existing built heritage from the earliest stages in the design process, in particular terms of scale, density, layout and access.*
- *Incorporate the principles of sustainable development throughout the whole design process. This will include site layout, minimising energy consumption, maximising use of on-site renewable forms of energy whilst mitigating against the impacts of climate change; for instance flood risk.*
- *Create safe and secure environments, which reduce the opportunities for crime and increase the sense of security for local residents through the use of Secured by Design guidance.*
- *Consider the relationship between any buildings and the spaces around them, and how they interact with each other as well as the surrounding area. The function of buildings should also be considered in terms of its appropriateness for the context in which it is located.*
- *Create attractive, accessible and easily distinguished public and private spaces that complement the built form.*
- *Support sustainable living and ensure that a mix of uses, which complement one another are incorporated.*
- *Provide flexibility in that new and existing buildings and spaces are able to respond to future social, technological, environmental and economic needs.*
- *Be easily accessible to all users via recognisable routes, interchanges and landmarks that are suitably connected to public transport links, community facilities and services and individual communities and neighbourhoods in North Lincolnshire. Buildings and spaces should be accessible by all sections of the community, and ensure that the principles of inclusive design are reflected.*
- *Incorporate appropriate landscaping and planting which enhances biodiversity or geological features whilst contributing to the creation of a network of linked greenspaces across the area. Tree planting and landscaping schemes can also assist in minimising the impacts of carbon emissions upon the environment.*
- *Integrate car parking provision within the existing public realm and other pedestrian and cycle routes.*

The Core Strategy also makes reference to further design information and advice being available in a Supplementary Planning Document (SPD). In the absence of an SPD regarding the design of employment spaces being made by NLC due regard of relevant design guidance contained within SPG2 Industrial Development will be considered at the appropriate detailed design stages.

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 connected to the surrounding urban area of South Killingholme and benefits from 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 Greengate Lane, South Killingholme, approximately 600m from the north-eastern site boundary. They are served by bus route 260 which provide a twice daily service to Barton-on-Humber and Immingham, as well as term-time school services. Within Immingham village (approximately 3.4km south-east of the site) direct buses to Grimsby, Stallingborough and Healing can be found.

3.4 Habrough railway station is located approximately 2km south of the site and provide direct trains to Leicester, Liverpool Lime Street, Cleethorpes, Grimsby, Lincoln, Nottingham and Barton-on-Humber. During peak time services operate approximately every 30 minutes to Liverpool Lime Street and every 15–60 minutes to Grimsby Town. The station is served by a free car park, cycle parking and accessibility for the mobility impaired.

3.5 Humberside Airport is approximately 9km south-west of the site and provides scheduled, charter and private flights to major European destinations.

Pedestrian and Cycle Connections

3.6 A signalised crossing is provided over the A160 (Humber Road) to the north-east of the site, providing pedestrian and cycle access to South Killingholme, via a shared use pedestrian cycle link from Habrough Road to Top Road, South Killingholme. There is also a short section of footway provided on the eastern side of Habrough road, to the north of the site. Beyond this there are no footways along Habrough Road and the A160 (Humber Road).

Highways

3.7 Habrough Road to the east of the site is single carriageway and subject to a 40 mph speed limit. The road turns into Killingholme Road just south of the site, on its journey south towards the village of Habrough.

3.8 The A160 (national speed limit) forms part of the sites northern boundary and provides links east to Immingham Docks and Immingham village as well as west to the A180. The A180 also provides wider strategic connections south-east to Grimsby and west to the M180 and Scunthorpe.

Local Facilities

- 3.9 The application site is well located close to the existing context of South Killingholme and Immingham for employees to make use of the existing retail and leisure facilities available.
- 3.10 Notwithstanding the high degree of access to existing facilities, the development proposals include the provision of areas of landscaped space for employees to use whilst on breaks from work.

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.”

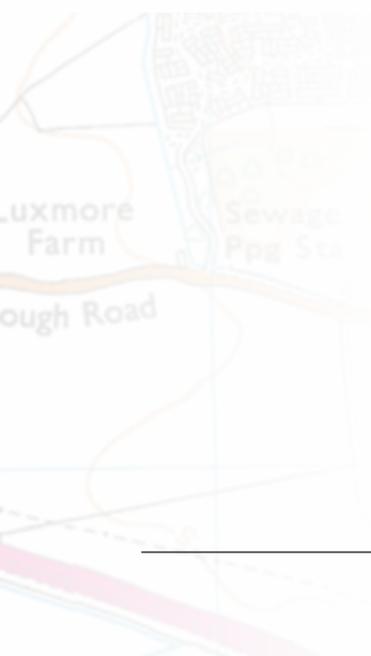
(Para. 52, NDG 2021)

- 3.11 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)*
- 3.12 An analysis of the existing built form of South Killingholme and Immingham 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.

- 3.13 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.”

- 3.14 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 should be combined with appropriate place making principles to ensure that a new, yet respectful character is created that reflects the proposed use.



04 Existing Environment

“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 Considerations

4.1 A Landscape and Visual Impact Assessment (LVIA) has been prepared by MHP Design Ltd to accompany the Outline Planning Application (OPA). The LVIA summarises that the immediate landscape contextual area is open and contains a mix of industrial, agricultural and settlement land uses. Power lines and pylons along with highway infrastructure are prominent features within the immediate landscape.

Landscape Setting and Character

4.2 The National Landscape of the Lincolnshire Wolds is located approximately 6.8 miles due south of the site. At this distance the site is not assessed to form any part of the wider setting of the National Landscape.

4.3 The site does not form part of an AONB/ National Landscape or have any other landscape designations associated with it or its immediate contextual area. The site is not recognised locally as forming part of a ‘valued’ landscape and when tested in accordance with LI Technical Guidance Note O2/21 it is not assessed to meet the requirements of a valued landscape.

4.4 The site and its contextual area fall within NCA 42 Lincolnshire Coast & Marshes national character area and within the Lincolnshire Drift – Open Undulating Farmland of the published Lincolnshire Drift Landscape Character Area. The site reflects the published characteristics and landscape condition.

4.5 The site has an agricultural character with simple and limited features. The site itself has limited vegetation with low trimmed hedges where present. The landform is undulating with a strong sense of openness contained in the distance by belts of vegetation which disguise the edges of settlement and industrial areas. The widespread presence of modern highway infrastructure and power transmission lines and pylons are strong visual detractors in the landscape. Overall, the landscape is rural but strongly influenced by urbanising highway features within a settled and partly industrial landscape.



Landscape and Visual Impact

- 4.6 In visual baseline terms the site is open allowing extensive views into and across the site from immediately adjoining highways. The distribution of settlement features and public rights of way limit sensitive visual receptors to an arc that extends from the east, south-east and north-east. There are limited visual receptors identified to the west, the south and to the north other than road users.
- 4.7 Although the site is open to views, it makes a limited contribution to the quality of local and middle-distance views due to limited landscape features and abundance of highway detractors which are also seen in these views. The introduction of new built form to the site is likely to be seen in local and middle-distance views due to the openness of the landscape. The site does have capacity to mitigate potential effects on both landscape character and views through extensive restoration of field hedgerows and new large scale tree planting. The strategy for landscape mitigation is therefore an important element of the development proposals which is confirmed in the landscape and visual assessment of effects of development.
- 4.8 The planting of new woodlands is identified as being beneficial within the published strategy for the Lincolnshire Drift Open Undulating Farmland LCT. The published guidance recognises that: 'Strategic woodland planting can enhance views, provide greater local variation, and integrate intrusive elements into the landscape.' As such the introduction of comprehensive woodland planting is not identified be detrimental to the published landscape character of the area.
- 4.9 Due to the extent of highway activity in the contextual landscape, construction phase effects on confirmed landscape and visual receptors identifies limited harm which is temporary and not assessed to be significant.
- 4.10 Landscape and visual harm at operational phase is identified to be greatest in the initial establishment period before mitigation landscaping has had sufficient time to establish. Once established, introduced built form will be predominately screened. This will result in a loss of open views across the site but will conserve the rural character of the present farmland.
- 4.11 Overall, no significant residual harm to landscape character is identified although the development proposals will result in a high magnitude of change to the site. This will reduce the openness of the landscape through predominately the introduction of the perimeter tree planting. Overall, a rural character is maintained to the character of the site, assisting with assimilating the development into the contextual landscape.
- 4.12 At early operational phase the new built form of the site will be visible and will have an urbanising effect on site character until mitigation planting has sufficiently established. This effect on character will diminish as perimeter woodland begins to establish height. As the woodland will be closer to potential visual receptors than the site buildings, screening will be achieved with planting at lower heights (predicted to require a 6m height after three or four years growth) rather than need a full 10 year + period of establishment.
- 4.13 Longer distance views experienced by residential receptors and from public rights of way will be changed through the introduction of extensive tree planting but built form will be predominately screened within the new green infrastructure framework when established. This will conserve the character of rural views presently experienced and has capacity to reduce open views of the active highway network.
- 4.14 In the early operation phase, new built form will be seen breaking the skyline predominantly at distance in local views. Roadside hedge restoration along the Habrough Road will rapidly screen views both from the road and from nearby public rights of way. Views from the A160 and A180 of new built form will remain open until new woodland planting begins to establish. Once established it is predicted that only parts of the flues are likely to be seen from the majority of confirmed visual receptors.
- 4.15 Overall, the development proposals, although large in scale, are not assessed to result in unacceptable harm to either landscape character or visual amenity. The proposals will create a high magnitude of change to the landscape of the site, but this change is not identified to have a significant detrimental effect when considered in the context of published guidance and requirements of local landscape policy. Beyond the site itself, the character of the rural landscape will be conserved and there is potential to improve local views through the proposed woodland planting.

Heritage and Archaeology

- 4.16 A Heritage Statement, prepared by Pegasus Group accompanies this application.
- 4.17 The geoarchaeological potential of the north-western part of the site is deemed to be low as it has been subject to use as a construction compound during the 20th-century and this is highly likely to have resulted in damage and disturbance to the deposits within this area.
- 4.18 The geoarchaeological potential of the higher parts of the site is deemed to be low as they do not have the requisite depth of deposits to provide extensive geoarchaeological or palaeoenvironmental sequences.
- 4.19 The south-western portion of the site contains the relict water channel that was active until at least the 1960s and the watercourse that defines the southern boundary of the site. These channels have moderate potential for suitable deposits to provide geoarchaeological or palaeoenvironmental sequences.
- 4.20 There is potential for Iron Age and Romano-British archaeological remains to be present within the site with evidence for six areas of settlement from these periods indicated by the geophysical survey. These remains are likely to be non-designated heritage assets.



- 4.21 Evidence of medieval ridge and furrow has been identified across the whole of the site although this has now been ploughed out. The evidence for ploughing indicates a low potential for evidence of settlement to be present within the site. Any medieval remains identified are unlikely to be considered to be heritage assets.
- 4.22 There is low potential for significant archaeological remains of post-medieval or modern date to be identified within the site. Any post-medieval or modern remains identified are unlikely to be considered to be heritage assets.
- 4.23 Discussions on intrusive archaeological evaluation are ongoing with the LPA archaeological officer.
- 4.24 Following appropriate assessment, including through site visits, reference to the Zone of Theoretical Influence and reference to Verified Views and Photomontages, no impact to the heritage significance of built heritage assets in the vicinity of the site is anticipated.



Arboriculture

- 4.25 An Arboricultural Impact Assessment (AIA) has been prepared by Barton Hyett to accompany the OPA and should be referred to for full details.
- 4.26 The survey recorded thirty three individual trees, ten groups of trees and six hedgerows. These are summarised in terms of quality in accordance with the recommendations of BS 5837 in the table below.
- 4.27 These are also shown in more detail, along with the extent of Root Protection Areas on the Tree Survey and Constraints Plan, the Tree Survey Schedule and within the Tree Survey Schedule (presented in the accompany in AIA).
- 4.28 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.
- 4.29 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.

	Total	A - High quality trees whose retention is most desirable.	B - Moderate quality trees whose retention is desirable.	C - Low quality trees which could be retained but should not significantly constrain the proposal.	U - Very poor quality trees that should be removed unless they have high conservation value.
Trees	33	-	16	17	-
Groups	10	-	4	6	-
Hedges	6	-	2	4	-
Total	49	0	22	27	0

Ecology and Biodiversity

- 4.30 The Ecological Impact Assessment (EIA) prepared by Bioscan UK Ltd, accompanies this application and should be referred to for full details.
- 4.31 The Site itself is not subject to any nature conservation designation, nor are there any such designations in the immediate vicinity of the Site. The Humber Estuary is located approximately 4km to the east of the Site, and is subject to overlapping international / European-level designations (namely the 'Humber Estuary' Special Protection Area, Special Area of Conservation, Ramsar site, and the underpinning Site of Special Scientific Interest). These designations relate primarily to the coastal and estuarine habitats of the Humber Estuary and the wintering birds that they support. The closest non-statutory Local Wildlife Site designations is nearly 1km distant from the Site.
- 4.32 The Site is dominated by intensively managed arable habitats. Trees and scrub are scattered at the western, north-eastern and south-eastern margins of the Site; whereas the southern boundary supports near-continuous shrub cover alongside a (dry) ditch channel that is aligned with the North Lincolnshire authority boundary.
- 4.33 The Site supports a relatively low baseline Biodiversity Metric value at present, due to the dominance of arable habitats.
- 4.34 Detailed species surveys are presented in the Ecological Impact Assessment accompanying the application. In summary, on the basis of current data there are not considered to be any overriding ecological constraints to development; and the proposal development presents the opportunity to deliver on-site habitat enhancement which have been designed to support a range of species.



Noise

- 4.35 An Acoustics Assessment has been undertaken by MEC consulting Group in accordance with BS4142.
- 4.36 An environmental sound survey has been undertaken to determine the prevailing background sound levels at the nearby existing residential receptors.
- 4.37 An acoustic model has been created and through the use of the Noise Advisory Council (NAC) Guide, historic measured library data and manufacturer's data, source levels have been defined to demonstrate a potential typical operating scenario.
- 4.38 For the typical operating scenario, initial estimates of impact in accordance with BS 4142 indicate a 'Low' impact at all of the Noise Sensitive Receptors (NSRs) during the daytime. However, during the night-time a combination of 'Significant Adverse' and 'Adverse' impacts are predicted at the NSRs. As such, mitigation measures in the form of 2.5m high acoustic screening were explored.
- 4.39 Model outputs with the inclusion of the mitigation measures showed a reduction to the Rating Levels at the NSRs, with two of the NSRs showing a reduction in the likely impact.

- 4.40 In addition to the typical operating scenario, an emergency/testing scenario was assessed which took into account the operation of the generators at the proposed data centres. Rating Levels were predicted to be partially higher when compared to the typical operating scenario. However, when taking into account the minimal operating times of the generators over the year, it is considered that the impact will be lower than what has been suggested. Nevertheless, in order to help minimise any potential impacts it has been recommended to keep generator testing to daytime periods and for communication to be made with local residents advising when testing is proposed.
- 4.41 When taking into account further contextual factors of the development, it has been demonstrated that the proposed data centres will unlikely yield an impact from an acoustics perspective on the nearest NSRs.
- 4.42 With regards to proposed fixed external plant associated with the Glass Houses, noise limits based on the measured daytime and night-time background sound levels, have been set in order to minimise any impacts on the NSRs.
- 4.43 It should be noted that due to some of the details being unknown at the time of the assessment, there are a number of uncertainties that are required to be further assessed at detailed design stage. Nevertheless, it is considered that this assessment is based on a robust assessment and therefore gives a good indication of the likely impact at the NSRs and the likely required mitigation measures.
- 4.44 Therefore, notwithstanding any future detailed assessments, the outcome of this assessment concludes that the Site is suitable for the intended development and from an acoustics perspective, outline planning permission should be granted with suitably worded conditions included where necessary.

Hydrology and Drainage

- 4.45 The site currently comprises wholly undeveloped land which is not formally drained and is therefore considered to be 100% permeable.

Flood Risk

- 4.46 The site is located within Flood Zone 1 on the Environment Agency (EA) 'Flood Map for Planning (Rivers and Sea)' – an area considered to have the lowest probability of fluvial and tidal flooding. Utilising available data, the risk of flooding from all sources has been assessed and the flood risk to the site is considered to be Low and Acceptable.

Other Considerations

- 4.47 Maintenance access to the local land drains should be retained. Maintenance access can be ensured by providing an 8 m buffer either side of main rivers and 9 m either side of IDB controlled watercourses. A minimum of 9 m buffer has been provided to all watercourses within or within close proximity of the site.



Drainage Strategy

- 4.48 The proposed development will introduce impermeable drainage area in the form of buildings and access. This will result in an increase in surface water runoff. In order to ensure the increase in surface water runoff will not increase flood risk elsewhere, flow control will be used, and attenuation provided on site to accommodate storm events up to and including the 1 in 100 year plus 25% climate change event.
- 4.49 All methods of surface water discharge have been assessed. Where soakaways are not possible, discharge of surface water to the land drain leading to Habrough Marsh Drain Branch 4 at a rate of 268.6 l/s (3.5 l/s/ha) appears to be the most practical option. This should be confirmed with the LLFA and the IDB in due course.
- 4.50 Adequate arrangements can be made to accommodate foul water discharge to the existing public Anglian Water Foul Sewer.

Existing Utilities

- 4.51 All necessary infrastructure required to service the site is available within the vicinity, or can be made available.
- 4.52 There are a number of high pressure (HP) gas pipelines crossing the site, these will be retained in-situ within the proposals.

HSE consultation zones

- 4.53 Due to the size and pressure of the gas pipelines crossing (or adjacent the site) there are a number of Health and Safety Executive (HSE) consultation zones crossing the site. These have been taken into account when masterplanning the site.

Lighting Assessment

- 4.54 MEC has undertaken an External Lighting Impact Assessment. With the proposed development in place, lighting from the site will not exceed the recommended Institute of Lighting Professional (ILP) pre- and post-curfew criteria.
- 4.55 Lux levels along the light sensitive ecological areas surrounding the development will be below 1 lux therefore lighting is not anticipated to have a significant impact on any light-sensitive species using this space.
- 4.56 The proposed lighting scheme will comply with all relevant British Standards and the Institution of Lighting Professionals lighting guidelines, and will serve to ensure safety and security of all areas of the development can be effectively maintained. This can all be controlled through appropriate planning conditions.



05 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. 137, NPPF 2023)

Sustainable Structuring

5.1 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.

5.2 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 2023)

5.3 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.

5.4 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. 135(a), NPPF 2023)

- 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 (SuDs) 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 re-use of waste energy to facilitate sustainable development.

Visually Attractive

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

(Para. 135(b), NPPF 2023)

- 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. 135(c), NPPF 2023)

- Integration of the development into the existing surrounding built form of South Killingholme and Immingham and the local area, the intention at detailed design stages will not to hide the data centre or create a pastiche of local 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, with regards to the NLCS SPG2;
- 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 and technical constraints.

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. 135(d), NPPF 2023)

- 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 ancillary glasshouse to support the local employment offering, and maximise the use of waste heat and energy generation;
- 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. 135(e), NPPF 2023)

- 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 assisting in dispersing both vehicular and pedestrian traffic;
- Maximisation of the opportunities for alternative modes of transport to the car particularly walking, cycling and bus travel; and
- 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.

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. 135(f), NPPF 2023)

- Provision of open spaces and recreation areas for employees, meeting the needs of the local community whilst encouraging social activity within the constraints of the site;
- 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.





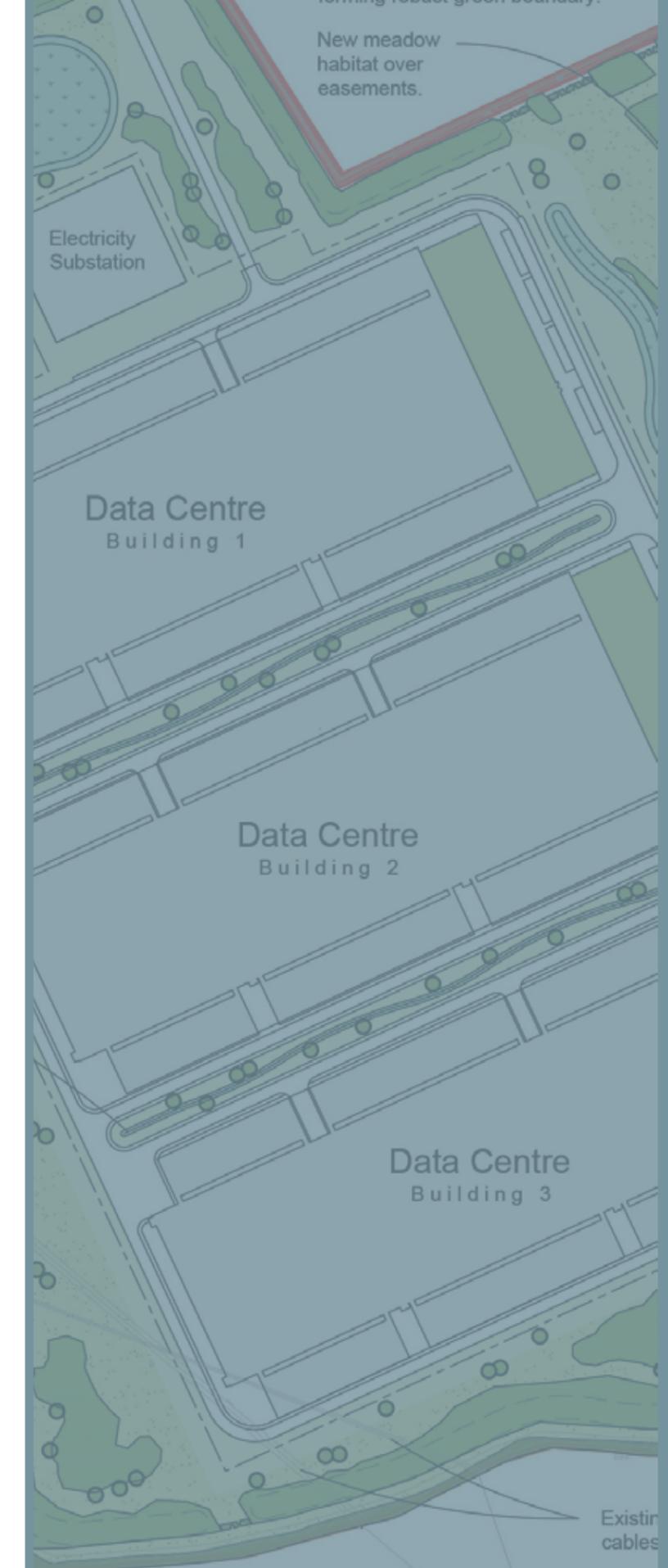
Site Development Strategy (23217.101 Rev F)

Public Consultation

- 5.5 The proposals for Humber Technology Park have evolved throughout the design process. The public consultation process has included a number of key stakeholder meetings, with the local parish councils, local politicians, local officials, local universities and local technical colleges to understand their views and suggestions for the scheme.
- 5.6 The indicative plans were presented to the local parish councils as follows:
- South Killingholme Parish Council were consulted and presented with the indicative plans for comments at a meeting held on 4th March 2024;
 - North Killingholme Parish Council were consulted and presented with the indicative plans for comments at a meeting held on 11th March 2024; and
 - Ulceby Parish Council were consulted and presented with the indicative plans for comments at a meeting held on 18th March 2024.
- 5.7 During the meetings with the local parish councils, a range of potential issues and opportunities resulting from the proposed scheme were discussed, including:
- Support for investment in the local area
 - Strong support for alternatives to heavy industry for their children and the future of the area
 - Desire for highly paid jobs to go to local people
 - Local Bus Network is poor (infrequent services)
 - Concerns about HGV vehicle movements and road safety
- 5.8 The full list of potential issues and opportunities are presented in the accompanying Statement of Community Involvement.

Summary Of Changes Made To The Masterplan

- 5.9 The design of the proposed development has been an iterative process, informed by the consultation process, as well as emerging technical information. The following changes have been made to the initial masterplan presented at the pre-app advice meetings:
- Removal of the swimming pool from the north-east of the site, following confirmation of HSE major hazards within the local vicinity, and the extent of HSE consultation zones crossing the site identified via the HSE Planning Advice Web App;
 - Green roofs provided to the eastern end of the three data centre buildings to help mitigate the visual impact and provide biodiversity benefits;
 - Extent of secure data centre compound reduced, and area of meadow habitat added in lieu of amenity grass;
 - Additional woodland planting along the northern site boundary, providing areas for habitat creation on-site;
 - Area of wetland planting added to the attenuation basins, aiding biodiversity net gain and increasing the variety of habitats provided on-site.
 -



06 Design Overview

6.1 The outline proposals seek to deliver:

- A hyperscale data centre that will contribute the technological and industrial advancement of the economy at a local and national level within the west of the site;
- Commercial glasshouses, maintaining the traditional Lincolnshire agricultural industry and making best use of the waste heat generated by the data centre in the east of the site, whilst also mitigating the loss of agricultural land;
- 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 uses 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 ability to support a variety of local employment needs with the data centre and glasshouse catering to different employment skill sets within the local populations
- Vehicular access to the site from Habrough Road to the east and an new emergency access to the north of the site;
- The provision and enhancement of a strong landscaped network within the site for the benefit of the future employees; and
- Provision of new habitats and areas of ecology improvement to aid Biodiversity Net Gain.

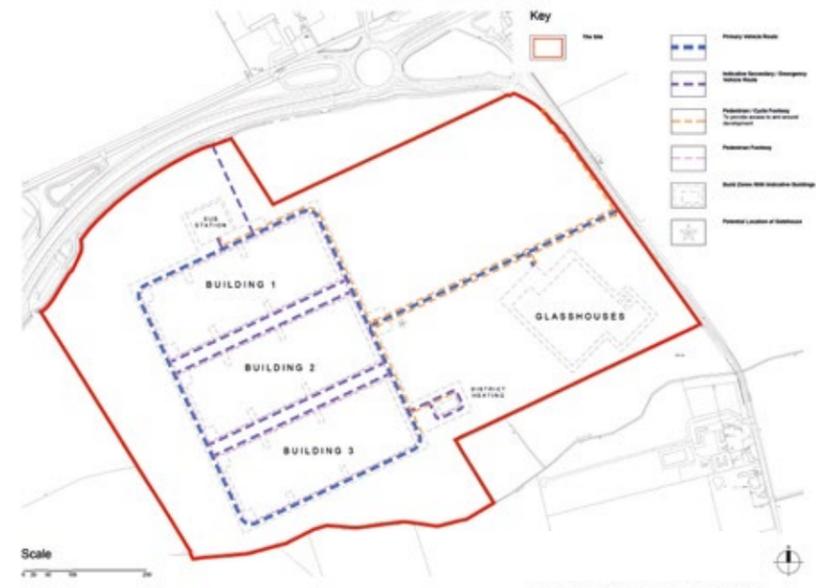


Design Proposals

- 6.2 The Parameter Plans and associated wording set out here are to be 'fixed' as part of the Outline Planning Permission (OPA). The supporting suite of technical reports have been based on these parameter plans.
- 6.3 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.
- Land Use Parameter Plan
 - Access and Movement Parameter Plan
 - Building Heights Parameter Plan
 - Building Line Parameter Plan
 - Development Zones Parameter Plan
- 6.4 The Parameter Plans should be read in conjunction with all other information contained within this DAS, and the other submission documents forming part of the OPA. The plans, when read together 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. The accompanying Site Development Strategy Plan (presented earlier in this DAS) shows one way in which the development could be laid out in accordance with these parameters.
- 6.5 The outline application formal submission 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:
- Site Development Strategy Plan; and
 - Landscape Strategy.
- 6.6 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.



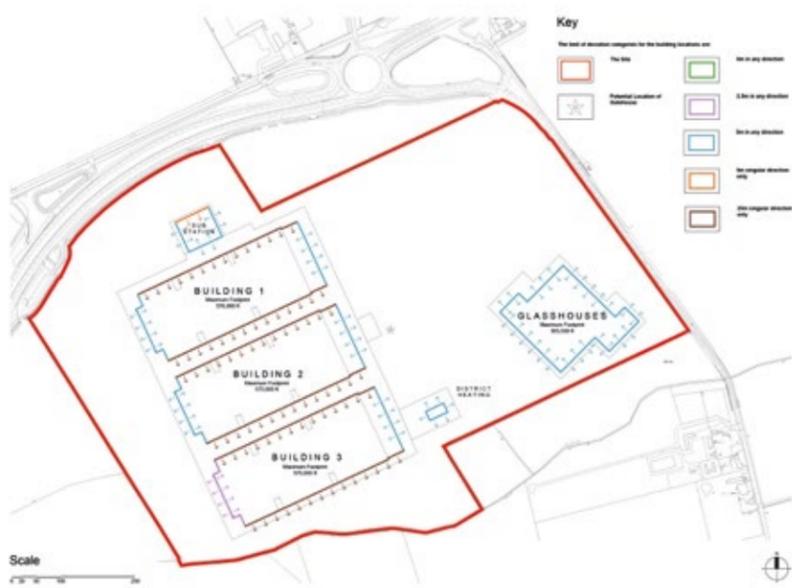
LAND USE PARAMETER PLAN 23217.301 REV B



ACCESS AND MOVEMENT PARAMETER PLAN 23217.306 REV B



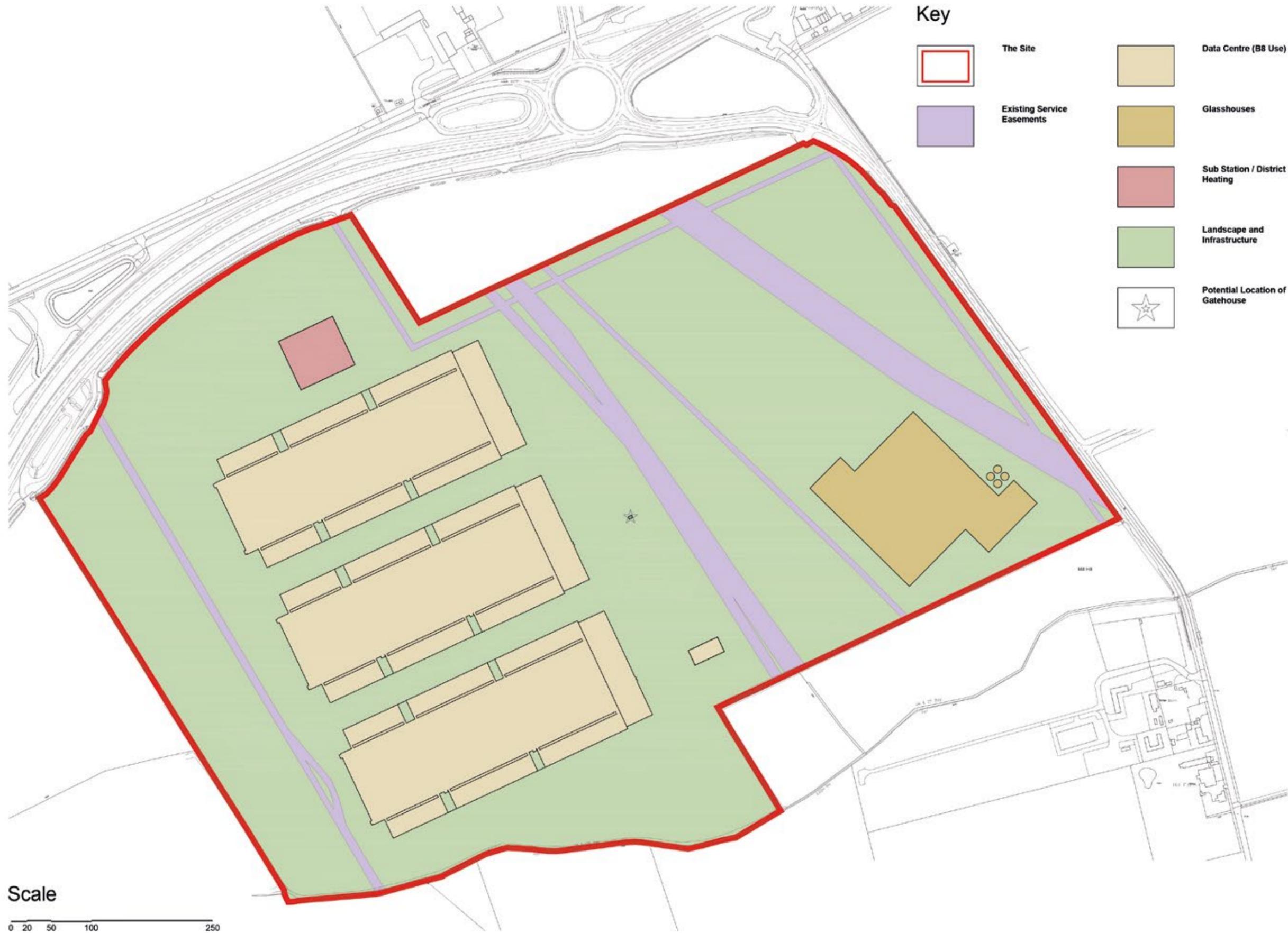
BUILDING HEIGHTS PARAMETER PLAN 23217.303 REV A



BUILDING LINES PARAMETER PLAN 23217.304 REV A

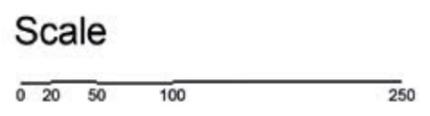


DEVELOPMENT ZONES PARAMETER PLAN 23217.302 REV A



Key

	The Site		Data Centre (B8 Use)
	Existing Service Easements		Glasshouses
			Sub Station / District Heating
			Landscape and Infrastructure
			Potential Location of Gatehouse



USES. Mixed and integrated

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

“Where there is rapid social and economic change, such as sustainable growth or diversification in rural communities or town centres, well-designed buildings and places are able to accommodate a variety of uses over time.”

(Para. 110, NDG 2021)

Land Use Parameter Plan

6.7 The development proposals include the following;

Data Centre – up to 309,000 sqm (GEA)

6.8 The development proposals will provide an up to 309,000 sqm (GEA) Data Centre split between three buildings in the west of the site. The buildings and associated landscaping and infrastructure, including an electrical substation and district heating centre, are will be situated within a secure boundary.

Glasshouses

6.9 Within the south-east of the site space has been allocated for the provision of commercial glasshouses. The Glasshouses will be heated via the waste heat generated by the data centre, providing the opportunity to grow crops using (low carbon) waste heat.

Open Space

6.10 Open space has been provided within the proposals for the use of those employed on the site, as well as providing biodiversity and ecology benefits.

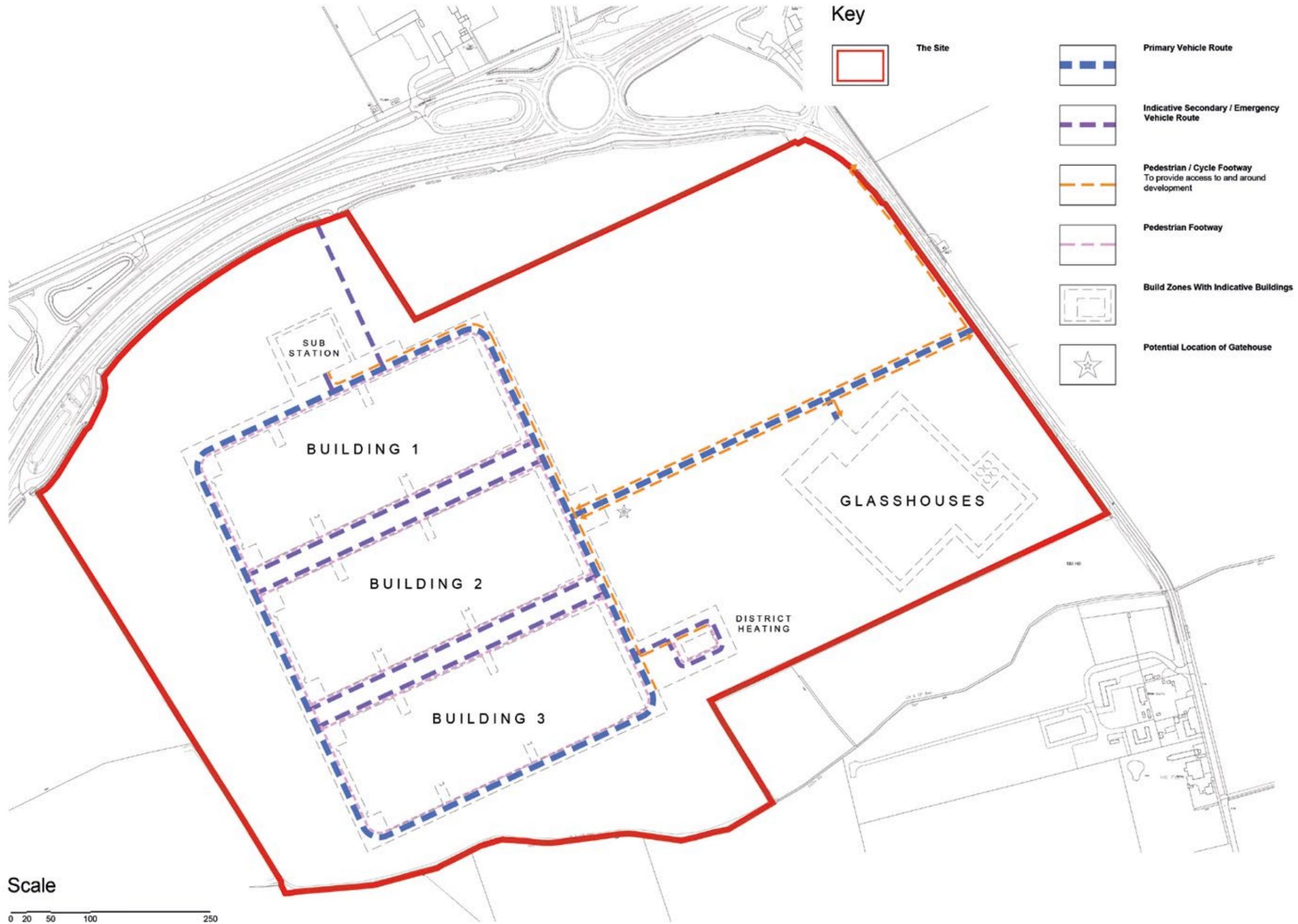
Glasshouses

6.11 The glasshouses will provide an alternative form of employment on the site, helping to maintain the traditional Lincolnshire agricultural industry, whilst also mitigating the loss of agricultural land. Expanding intensive, horticultural crops, of the type grown in a greenhouse or vertical farm, is well aligned with regional and national government policy, as well as being supported by many industry bodies.

- The greenhouse production will allow a large area of the site to be dedicated to trees, hedges, wildflower meadows and open water or wetland areas. This will create new habitats and enhanced bio-diversity benefits when compared to the baseline arable production.
- The greenhouse will utilise ‘waste heat’ from the data centre, offsetting the carbon emissions from greenhouse crops grown in the Netherlands (primarily using natural gas);
- Production of food within the UK will help to reduce reliance of food imports from countries more affected by water stress. Compared to for example Spain, a lettuce grown in Lincolnshire only uses circa 25% of the irrigation needed in Spain. The use of glasshouses and Controlled Environment Agriculture substantially improve further on this, in some cases by reducing water demand by more than 90%;

- Increasing the production of UK intensive greenhouse crops will also bring benefits through developing increased supplies of UK grown fresh produce in a sector which is currently very dependent on imports. This will help to increase the supply of local ‘healthy’ foods which can help contribute to an improvement in the UK diet;
- Reducing imports of fresh produce will help to deliver economic benefits and shorten supply chains, leading to longer shelf life;
- Increasing the production of UK intensive greenhouse crops is supported by policy at multiple levels, because of the potential to deliver more sustainable production, increase supply chain resilience and grow the economy. Key policies supported include: the Devolution Deal (2023) and UK Food Valley programme in Greater Lincolnshire; the Midlands Engine Food White Paper (2024); the Government Food Strategy (2022), all of which champion growth of the fresh crop sector; and
- The fresh produce sector, including salads, vegetables and fruit, is also promoted as part of health and dietary policy through the long standing 5-a-day campaign. Through this increasing fresh produce consumption is seen as a public good due to the potential to impact health and wellbeing.





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)

6.12 The Site Development Strategy Plan 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 (as detailed on the Access and Movement Parameter plan opposite) 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; and
- Street hierarchy and typologies.

6.13 The location of the development, adjacent to the existing and established community of South Killingholme and Immingham is a positive characteristic which has been maximised through the provision of direct and attractive pedestrian routes.

6.14 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.

Vehicular Access

6.15 Access is to be taken directly from Habrough Road in the form of a T-junction with the appropriate visibility splays. The proposed site access subject to detailed design at the reserved matters application stage.

6.16 Once within the site the primary access route will provide a direct route west towards the data centre and its secure compound, with access connecting between. This will allow full functional, vehicular permeability.

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

6.18 A secondary/emergency vehicular access will be provided in the north of the site onto the A160 (Humber Road). The access could also provide pedestrian and cycle access as well.

Pedestrian and Cycle Access Strategy

6.19 The development of an integrated pedestrian/cycle network, for the use of employees, within the site is seen as a key part of the transport infrastructure for the site. Pedestrians are led into the site from the main vehicular access to east of the site, and a potential pedestrian and cycle access point located along the northern site boundary. Cycle use is encouraged through the high degree of permeability within the layout.

6.20 The following measures 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 running adjacent to the site access and principal access road;
- Provision of circulatory pedestrian routes through the site, offering employees easy access to the development and a choice of routes;
- 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

- 6.21 A clear hierarchy of streets is proposed creating an integrated movement network, whilst also providing for, and encouraging pedestrian and cycle movement, and delivering necessary vehicular connections.
- 6.22 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.
- 6.23 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:

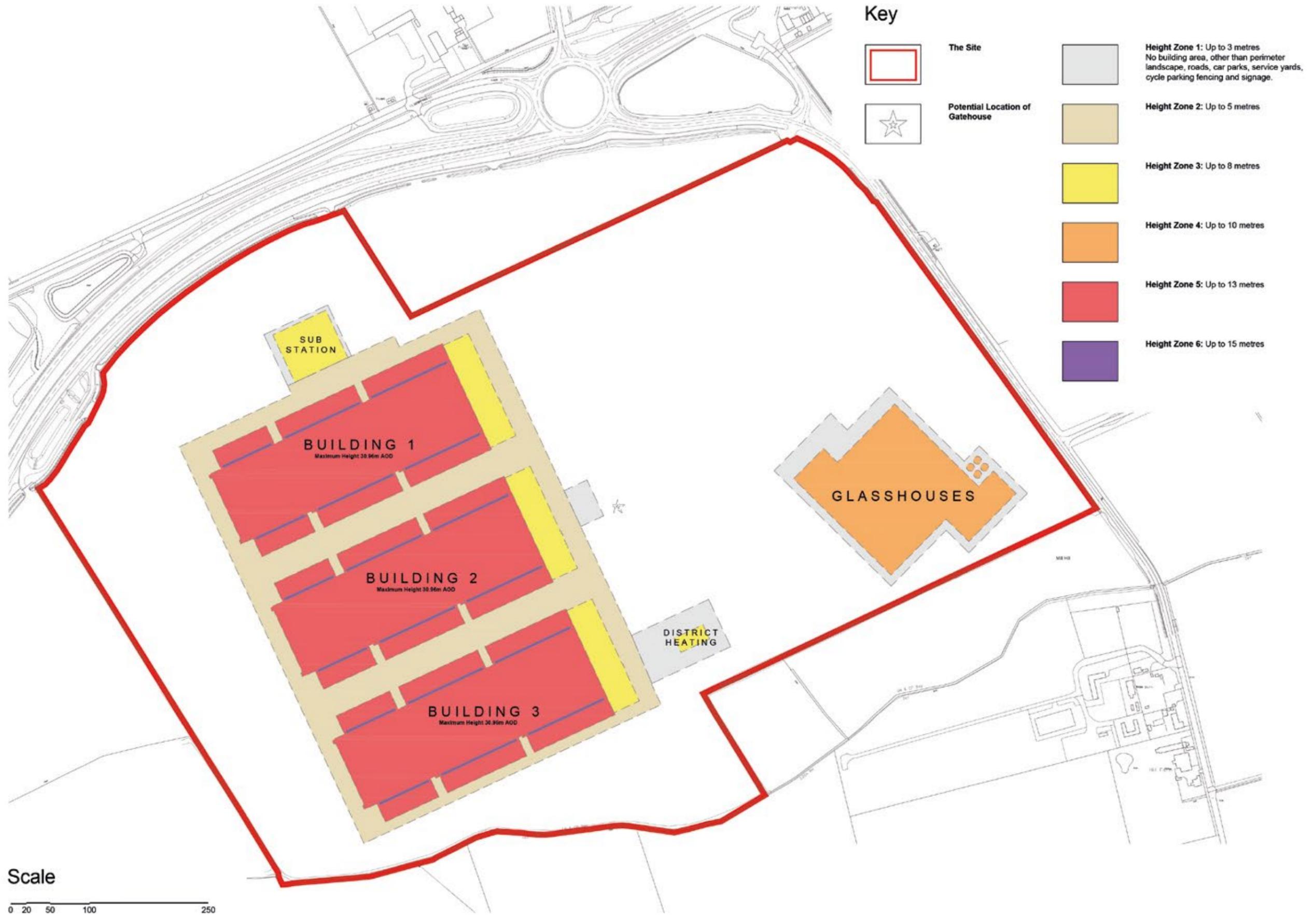
“Trees make an important contribution to the character and quality of urban environments, and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are tree-lined, that opportunities are taken to incorporate trees elsewhere in developments (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 136, NPPF 2023)

- 6.24 The development and internal road network are to be fully resolved at the detailed design stage and will be designed encourage low vehicular speeds (circa 20mph). 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.
- 6.25 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.
- 6.26 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

- 6.27 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 PARAMETERS PLAN 23217.303 REV A

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.”

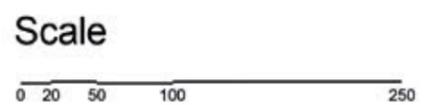
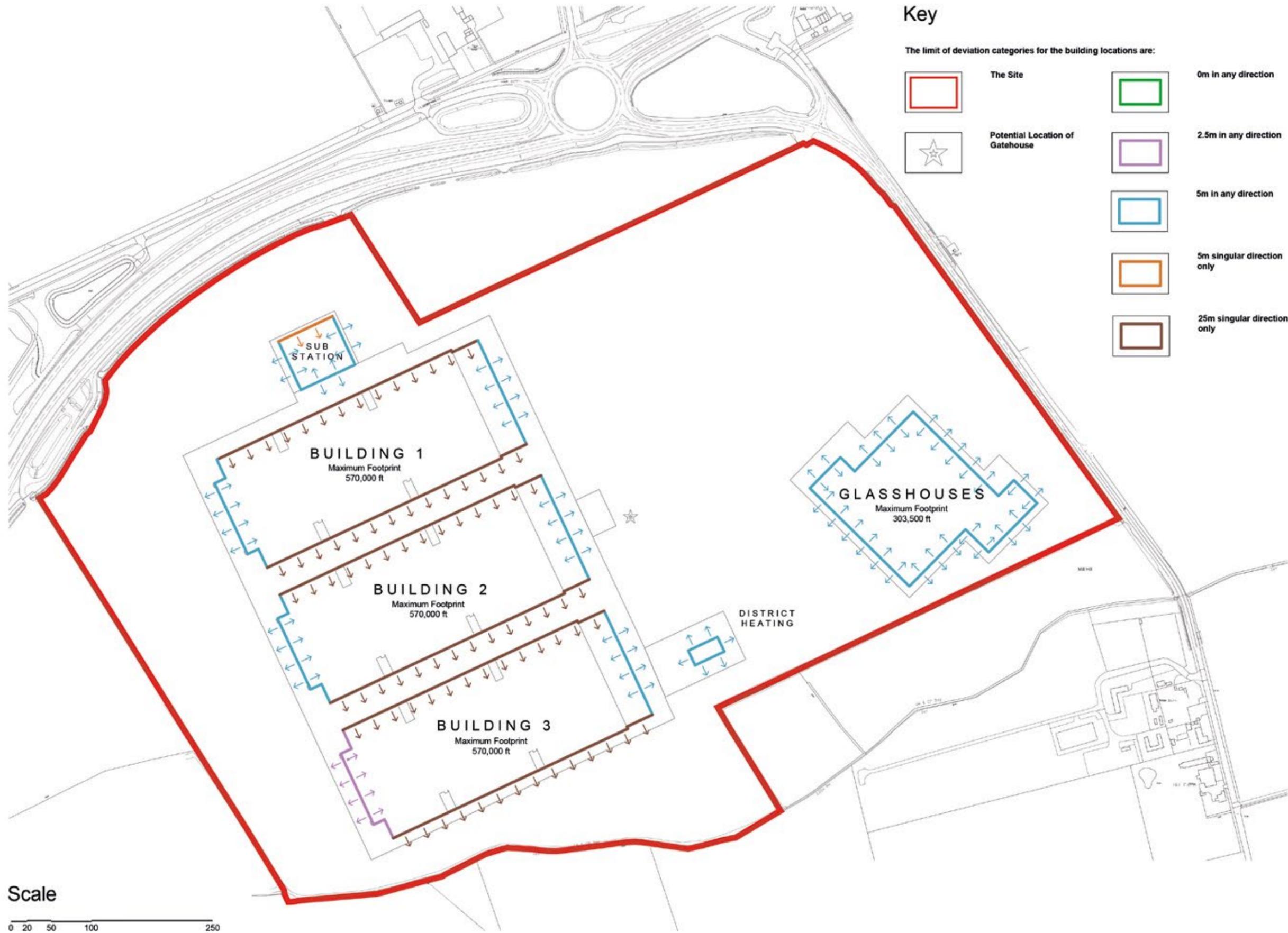
(Para. 61, NDG 2021)

- 6.28 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.
- 6.29 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 Habrough 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 for use by employees only through areas of landscaping and open space;

- Access to the development will be provided via a legible network of streets with a clear hierarchy;
- The design of the development situates the buildings and associated infrastructure within areas that are most capable of accepting built form. This process has been landscape and utilities constraints 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.

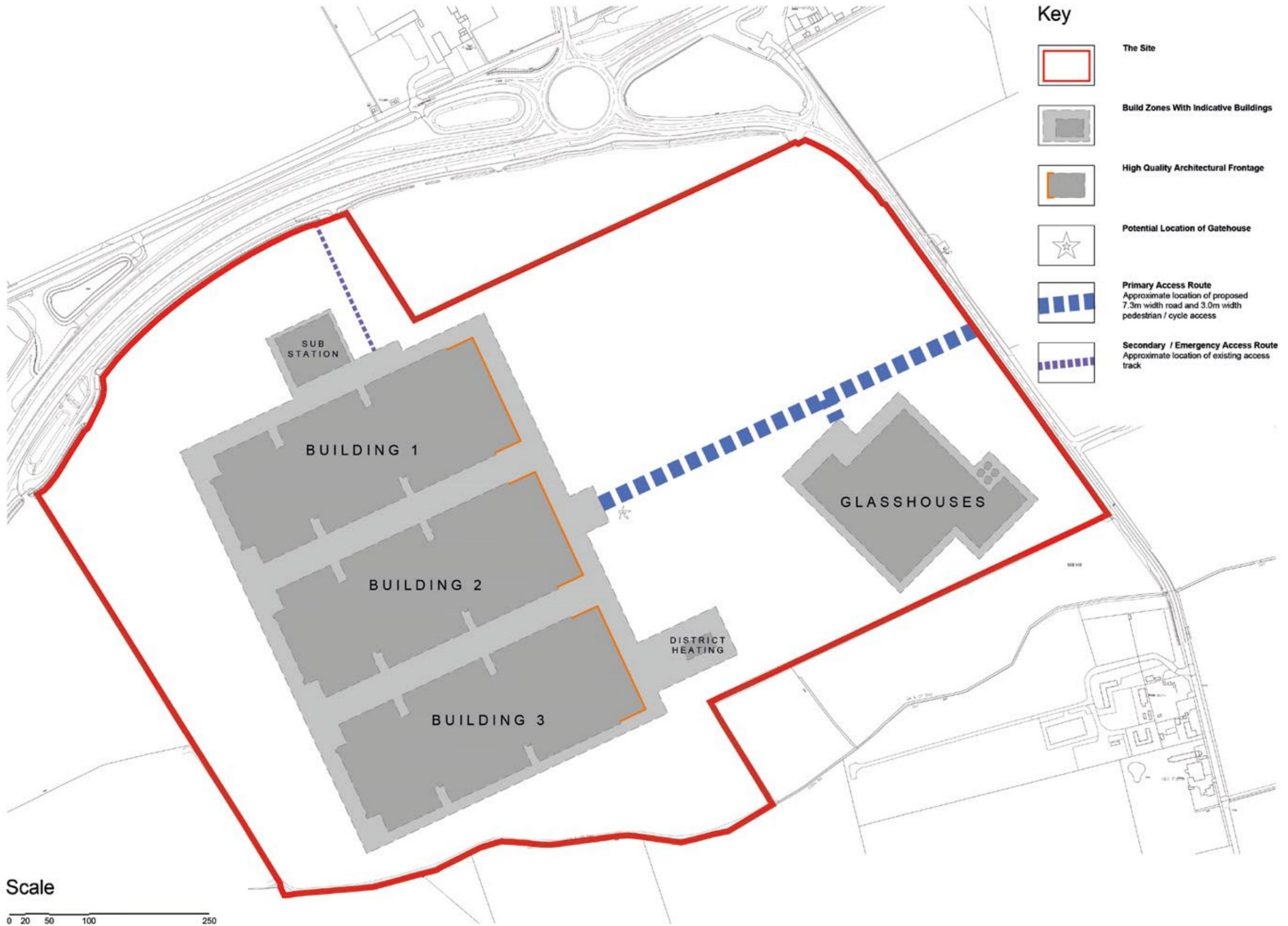
Building Heights Parameter Plan

- 6.30 Development will vary in height across the development. In summary:
- The outer extents of data centre buildings will be up to 5m;
 - Central areas of the data centre buildings will be up to 13m to accommodate associated plant;
 - Flues will be required to punctuate the roofscape, these will be up to 30m It should be noted that the heights proposed are upper maximums;
 - The ancillary data centre buildings, including the district heating centre and electrical sub station will be up to 8m;
 - The glasshouses will be up to 10m. Flues will be required to punctuate the roofscape, these will be up to **XXM**. It should be noted that the heights proposed are upper maximums; and
 - The ancillary glasshouses buildings will be up to 3m.
- 6.31 The height zones established reflect the functional requirements of the glasshouse and the data centre in respect of the data storage, cooling facilities, office facilities and emergency generator and fuel storage.



Continuity and massing

- 6.32 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.
- 6.33 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 data centre building lines are fixed. They cannot deviate any further north but have a degree of flexibility to the south (up to 25m);
 - The eastern and western data centre elevations and glasshouses are capable of moving 5m in any direction;
 - The sub station to the north of the data centre development area is flexible in location (with the exception of the northern boundary which can only move up to 5m in a southerly direction) but will not exceed the maximum footprints established;
 - The district heating building to east of the data centre development area is flexible in location, but will not exceed the maximum footprints established.
 - The electrical substation and district heating building to the north and east of the data centre development area are flexible in location, but will not exceed the maximum footprints established.
- 6.34 The extents shown on the Building Lines Parameter Plan demonstrate the maximum area and footprint proposed.



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)

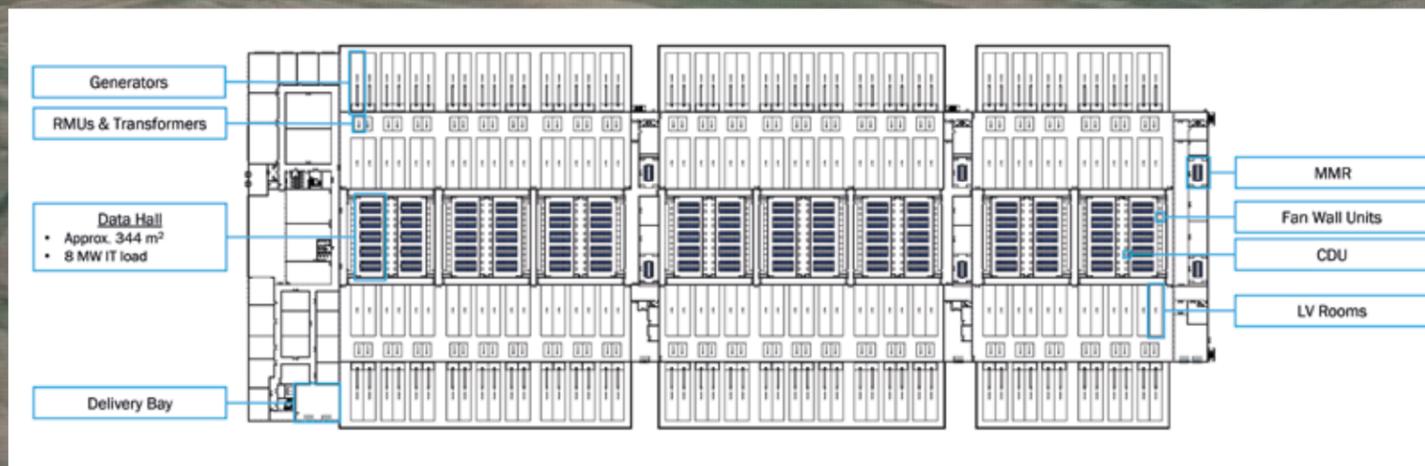
“The identity or character of a place comes from the way that buildings, streets and spaces, landscape and infrastructure combine together and how people experience them. It is not just about the buildings or how a place looks, but how it engages with all of the senses.”

(Para. 50, NDG 2021)

- 6.35 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. The proposals aim to create a place that has a healthy, comfortable and safe internal and external environment.
- 6.36 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. The development zones have taken into consideration the relevant HSE consultation zones and the proposal have been developed accordingly.

- 6.37 Build zones are contained within the east and west of the site 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.
- 6.38 A general location for the primary access route and internal access to the glasshouse and data centre are also established included on the Development Zones Parameter Plan.
- 6.39 Parking for employees will be provided within the lighter grey build zones, surrounding the three data centre buildings and the glasshouses.

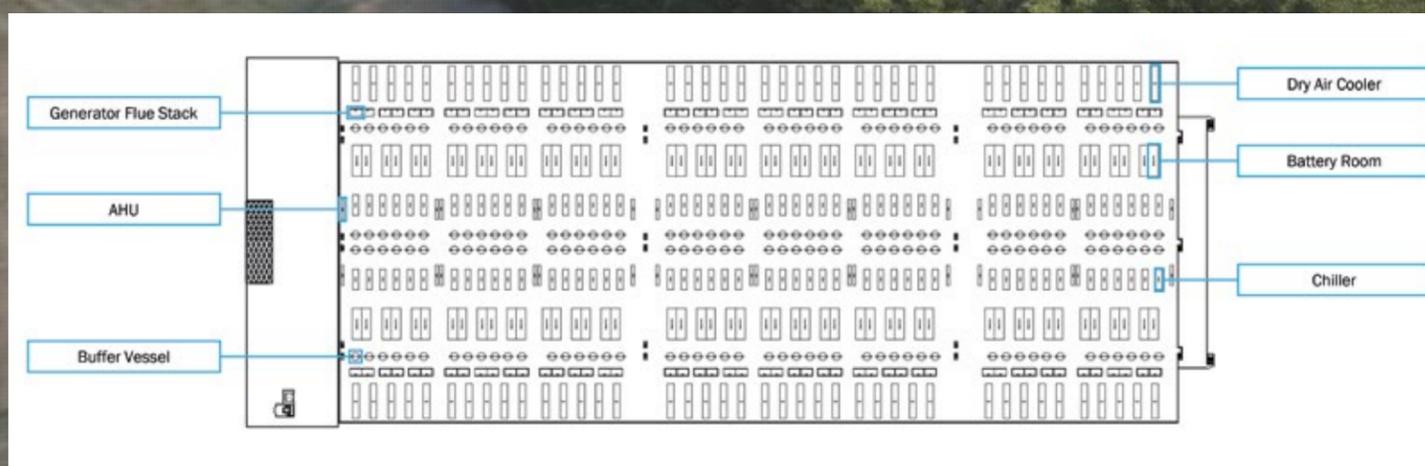
Creating a future place.



INDICATIVE DATA CENTRE UNIT GROUND FLOOR PLAN



INDICATIVE DATA CENTRE UNIT FIRST FLOOR OFFICE PLAN

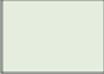


INDICATIVE DATA CENTRE UNIT GANTRY LEVEL PLAN

- 6.40 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 the indicative visuals provided.
- 6.41 High-quality architectural frontages are to be established on all elevations of the indicative buildings visible from the public highway.
- 6.42 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.
- 6.43 The development proposals provide modern employment alongside traditional glasshouses with agricultural employment opportunities, 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. The detailed design proposals should be design with due regard to the design principles contained with the NLC SPG2 Industrial Development.



Key

-  **The Site**
 -  **Green / Brown Roof Opportunities**
 -  **Proposed Attenuation / Wetland Ponds**
 -  **Existing Vegetation Retained**
To include scrub, field hedges and trees retained
 -  **Ecological Benefits**
Tern islands and apiaries
 -  **Building Zone Area**
To include perimeter amenity landscape, roads, car parks, service yards, cycle parking fencing, signage and associated infrastructure.
 -  **Informal Green Space**
To include site access and infrastructure, to achieve bio-diversity net gain.
 -  **Proposed Buffer Planting**
 -  **Potential Location of Gatehouse**
- Please see accompany Development Specification and Design and Access Statement for more details



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. 103, NDG 2021)

6.44 The delivery of well-designed accessible and inclusive open space will offer employees space to socialise and engage with each other, encouraging interaction and opportunities to benefit from healthy lifestyle choices.

Landscape Strategy

6.45 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 of existing landscape assets wherever possible.

6.46 Successful open space design helps to create more attractive places to work and can 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.

6.47 Mitigation measures incorporated into the development proposals could include:

- Existing boundary vegetation to be retained and enhanced wherever possible which will provide inherent mitigation;
- Introduction of tree planting throughout the 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 aiding biodiversity net gain;
- New native shrub, hedge and tree planting within the site in order to offset the minimal losses of existing vegetation, with proposed new structural planting around the proposed data centre site;
- The data centre structure could be cut into the landscape (subject to detailed design of engineering and technical constraints), helping to reduce the overall visual prominence of the scheme, with the landform lowered to reduce overall height of new structures; and
- Living green walls on key external elevations could be utilised, assisting in reducing the visual prominence and assist with assimilating built form into views.

Hard Landscape Materials

6.48 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 across the site 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.

6.49 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.

6.50 Within the landscaped 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

6.51 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. 135 (f), NPPF 2023)

6.52 The design proposals are based on an understanding of best practice and reference has been made to relevant documents including Manual for Streets, Safer Places: the Planning System, Secured by Design, Commercial Guide 2023 and NLC SPG2 Industrial Development.

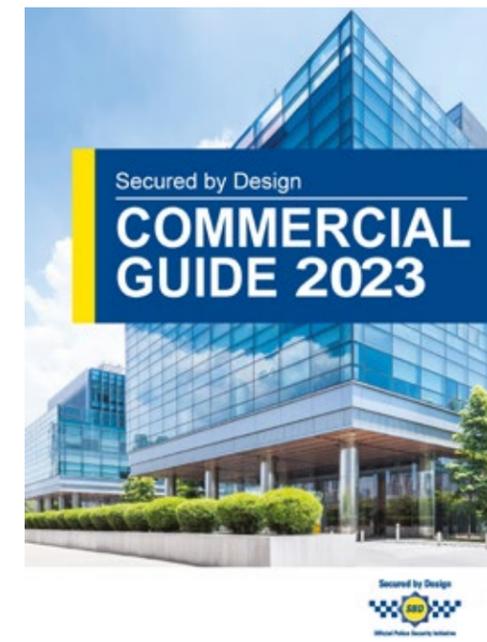
6.53 The development is designed to create an environment which is well designed, attractive, clearly legible and well maintained. People should be able to take pride in their surroundings and feel comfortable and safe and have a sense of shared ownership and responsibility. The development will be clearly defined with no ambiguity as to which areas are private and which are accessible by employees, and how the two relate to one another.

6.54 The development has followed the following principles:

- Routes lead directly to where people want to go;
- All routes are necessary, serving a specific defined function of destination;
- Well-designed public lighting should provide opportunities for surveillance at night and will be integrated into future reserved matters applications;
- The majority of cars are parked within the curtilage of the buildings to provide optimum surveillance; and
- The ownerships and responsibilities for external space will be clearly identified and the proposals will facilitate ease of maintenance and management.

6.55 Landscape design is essential to achieve an environment that creates a sense of place and community identity. Landscape design in this context encompasses the planning, design and management of external spaces.

6.56 Natural surveillance in the form of doors and windows overlooking streets and pedestrian routes and therefore creating activity throughout the day and evening will be essential in creating safe and comfortable routes for the user and discourage criminal activity by increasing the risk of detection.



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)

6.57 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

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

6.59 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. The importance of incorporating street trees, as well as tree planting within other components of the green infrastructure, is reiterated in para 136 of the NPPF as previously mentioned in this DAS.

Sustainable Drainage (SuDs)

6.60 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.

6.61 Ponds and wetlands will provide areas for surface water attenuation from more severe storms to be accommodated and released at a controlled rate. Ponds and wetlands are features with a permanent pool of water that can provide both attenuation and treatment of surface water run-off. Attenuation storage is provided above the permanent water level, 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. At the detailed design stage the proposals for the SuDs should consider opportunities for the creation of and integration of new wildlife habitats, whilst also providing visual amenity benefits.

6.62 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. The management of all storm water flows up to a 1 in 100 year, plus 25% Climate Change event, will be accommodated within the site, whilst restricting flows to greenfield rates.

6.63 Soakways will be used where practical, where these are not feasible surface water runoff will be discharged to Habrough Marsh Drain Branch 4 located to the south-east of the site. A second optional discharge location is located in the north-western boundary to the second drainage ditch which can be considered at detailed design if split discharge is required.

6.64 For further information regarding the proposed drainage strategy please refer to the supporting OPA 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)

- 6.65 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
- 6.66 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. 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

- 6.67 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

- 6.68 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

- 6.69 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

- 6.70 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 buildings as a result of strong winds.

Sustainable Drainage Systems

- 6.71 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

6.72 The proposals create areas that are attractive and with clearly defined accessible 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.





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 also 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, and the creation of new glasshouses supporting the agricultural industry in North Lincolnshire.
- 7.4 The masterplan is founded on best practice urban design and sustainable development principles, with strong links to the wider area. Identification of appropriate building zones has been landscape-led from the outset, whilst also considering the technical constraints present on site.
- 7.5 The 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 309,000 sqm (GEA) hyperscale data centre that will contribute the technological and industrial advancement of the economy at a local and national level;
 - The delivery of Commercial Glasshouses, maintaining the traditional Lincolnshire agricultural industry and making best use of the waste heat generated by the data centre;
 - The creation of an integrated and sustainable development with a sensitive relationship to the existing settlement;
 - Delivery of new open spaces for the benefit employees;
 - Providing a development that is well connected, readily understood and easily navigated, with the delivery of a new access from Habrough Road;
 - The creation of legible routes through the development;
 - The creation of a strong landscape structure, with the provision of new habitats and areas of ecology improvement to aid Biodiversity Net Gain; and
 - Promoting the objectives of sustainable development through layout and design.



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