



ARCHITECTURAL DESIGN STATEMENT

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1. INTRODUCTION

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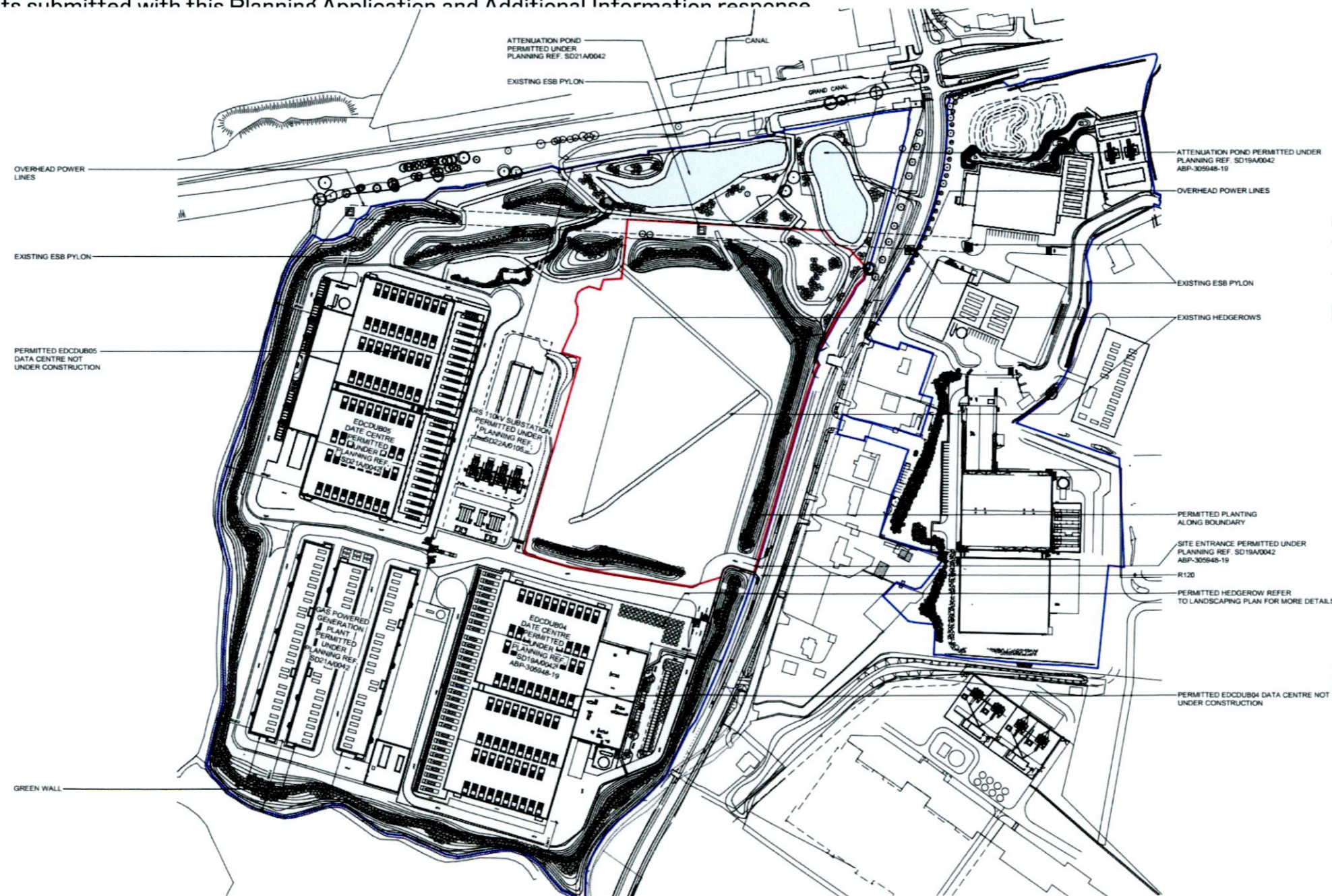
This document forms a design statement as a response to the Additional Information request (Point 5) from South Dublin County Council (SDCC) that was issued on the 10th October 2022. A Design Statement is required as part of this Additional information response under policy QDP8 Objective 1 as it forms a commercial development greater than 1000 sqm.

This application forms the third phase of development on this overall site of 22.1ha. on what is a greenfield site within the townland of Ballymakaily to the west of the Newcastle Road (R120), Lucan, Co. Dublin.

The initial phases were granted planning permission by SDCC and upheld by An Bord Pleanála. The planning references for this initial development was SD19A/0042 / ABP-305948-19, with a second phase being granted under SD21A/0042 (see drawing below).

The subject matter of this proposal relates to 5.14 hectares located to the north east of the overall 22.1 hectares. It will form the final phase of development within the overall site.. It was identified as such within the master plan submitted as part of the initial planning permission referenced above.

The purpose of this document is to provide an overview of the context, purpose and design rationale of this development. It should be read in conjunction with the balance of drawings and documents submitted with this Planning Application and Additional Information response.



2. BRIEF

2. BRIEF

The brief for this design statement is set by the need for a Design Statement as required by Policy QDP8, Objective 1; and the need to address the various other design policies of the South Dublin County Development Plan 2022-2028 as follows under Point 5 of the Additional Information request:

(a) The applicant is requested to demonstrate compliance with the following design policies of the SDCC County Development Plan 2022-2028:

- QDP2 Objective 1
- Policy QDP3: Neighbourhood Context and objective 1
- QDP4 Objective 2
- QDP7 Objective 6
- QDP7 Objective 7
- QDP7 Objective 8
- QDP8 Objective 1
- Policy QDP11: Materials, Colours and Textures and objectives 1 and 2

(b) The applicant is requested to provide details / photomontages of the visual impact without screening. The applicant is also requested to indicate the length of growing time required to achieve the desired landscape mitigation. Photomontages of the development from closer angles where the development would be most notable in the surrounding landscape are also requested.

(c) The applicant is requested to provide full details of fencing and signage.

The request for Addition Information was made by SDCC on the 12th October 2022. On the 23rd March 2023 SDCC granted an extension of time up to and including 19th July 2023 for a response by Edgeconnex to the request for Additional Information.

The nature of the proposed development as applied for has not materially altered under the Additional Information and remains:

2 adjoining single storey data centres with associated office and service areas with an overall gross floor area of 15,274sq.m comprising of the construction of 2 adjoining single storey data centres with a gross floor area of 12,859sq.m that will include a single storey goods receiving area / store and single storey office area (2,415sq.m) with PV panels above, located to the east of the data centres as well as associated water tower, sprinkler tank, pump house and other services; The data centres will also include plant at roof level; with 24 standby diesel generators with associated flues (each 25m high) that will be located within a generator yard to the west of the data centres; New internal access road and security gates to serve the proposed development that will provide access to 36 new car parking spaces (including 4 electric and 2 disabled spaces) and sheltered bicycle parking to serve the new data centres; New attenuation ponds to the north of the proposed data centres; Green walls are proposed to the south and east that will enclose the water tower and pump house compound; The development will also include ancillary site works.

The only material changes under the AI response are as follows:

- A new hedgerow to the west and south of the proposed data centre
- New bio-swale to the north connecting the two attenuation ponds proposed under the current application

3. SITE CONTEXT

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3.1 GENERAL DESCRIPTION OF THE SITE

The site area of the current proposal is 5.14 hectares and is located within an overall site area that extends to 22.1 hectares.

The overall 5.1 hectare site is a greenfield site of tillage and pasture land bounded by the recently realigned Newcastle Road to the east.

The realignment works included upgraded drainage and attenuation.

Planning permission has been granted for development to the south and west of the site under Planning Ref. SD19A/OO42 and SD21A/OO42.

The Grand Canal and its associated heritage zone is located to the north.

The 12th lock, recently altered lock bridge and a dormer cottage are located to the north-east and off the site.

Derelict farm buildings are also located off site ,along the Grand Canal corridor to the north and west of the site . Planning permission to remove the derelict and mostly demolished out buildings has been previously granted by way of Planning Ref. SD 21A/OO42.

Data centres occupied by Edge Connex and Microsoft and some individual dwellings are located to the east of the realigned R120/Newcastle Road

The site falls from the west to the east by approximately 5m.

3.2 ARCHAEOLOGY

Archaeological investigations and testing have been carried out by AMS under license from the Department of Culture, Heritage and the Gaeltacht . License 19E 0038 allowed testing and excavations to be completed in 2019 with outstanding monitoring in advance of construction carried out in 2022 Refer to Cultural Heritage Chapter 13 of the EIAR for details of the extensive works reported on by AMS.

3.3 ENVIRONMENT

An Environmental Impact Assessment Report has been prepared by Marston Planning Consultancy to accompany the planning application and has been reviewed and amended to address the AI request of SDCC. The EIAR takes account of the location and nature of the proposed development and its potential and cumulative impact upon all aspects of the environment and provides mitigation measures for addressing any potential impacts.

4. DEVELOPMENT PROPOSAL

4. DEVELOPMENT PROPOSAL

EDGECONNEX applied for planning permission on 16th August 2022 for:

Construction of 2 adjoined single storey data centres with associated office and service areas with an overall gross floor area of 15,274sq.m comprising of the construction of 2 adjoined single storey data centres with a gross floor area of 12,859sq.m that will include a single storey goods receiving area / store and single storey office area (2,415sq.m) with PV panels above, located to the east of the data centres as well as associated water tower, sprinkler tank, pump house and other services; The data centres will also include plant at roof level; with 24 standby diesel generators with associated flues (each 25m high) that will be located within a generator yard to the west of the data centres; New internal access road and security gates to serve the proposed development that will provide access to 36 new car parking spaces (including 4 electric and 2 disabled spaces) and sheltered bicycle parking to serve the new data centres; New attenuation ponds to the north of the proposed data centres; Green walls are proposed to the south and east that will enclose the water tower and pump house compound; The development will also include ancillary site works, connections to existing infrastructural services as well as fencing and signage; The development will include minor modifications to the permitted landscaping to the west of the site as granted under SDCC Planning Ref. SD19A/0042 / ABP Ref. PL06S.305948 and Ref. SD21A/0042; The site will remain enclosed by landscaping to all boundaries; The development will be accessed off the R120 via the permitted access granted under SDCC Planning Ref. SD19A/0042 / ABP Ref. PL06S.305948 and SD21A/0042; An Environmental Impact Assessment Report (EIAR) has been submitted with this application.

On 12th October 2022 SDCC issued a request for Additional information . A copy of this request is attached as appendix A of this document. On 23rd March 2023 SDCC granted an extension of time up to and including 19th July 2023 for a response by Edgeconnex to the request for Additional Information.

In response to the AI request from SDCC an internal review was undertaken by the project design team that concluded that in order to retain the western hedgerow, there would be a need to move the proposed development eastwards. This would require the removal of the berming and extensive planting permitted on the eastern side of the site, alongside the R120 that would make the proposed development and already permitted development far more visible.

This would be contrary to good planning principles established for the site under Planning Ref. SD19A/0042 and SD21A/0042; as well as the green infrastructure policies and objectives of the South Dublin County Development Plan 2022-2028. The implications of this is shown in the drawing below, with the relocated development outlined in pink, that indicates the clear conflict with the permitted green infrastructure on the eastern side of the site, and the western hedgerow shown in green.

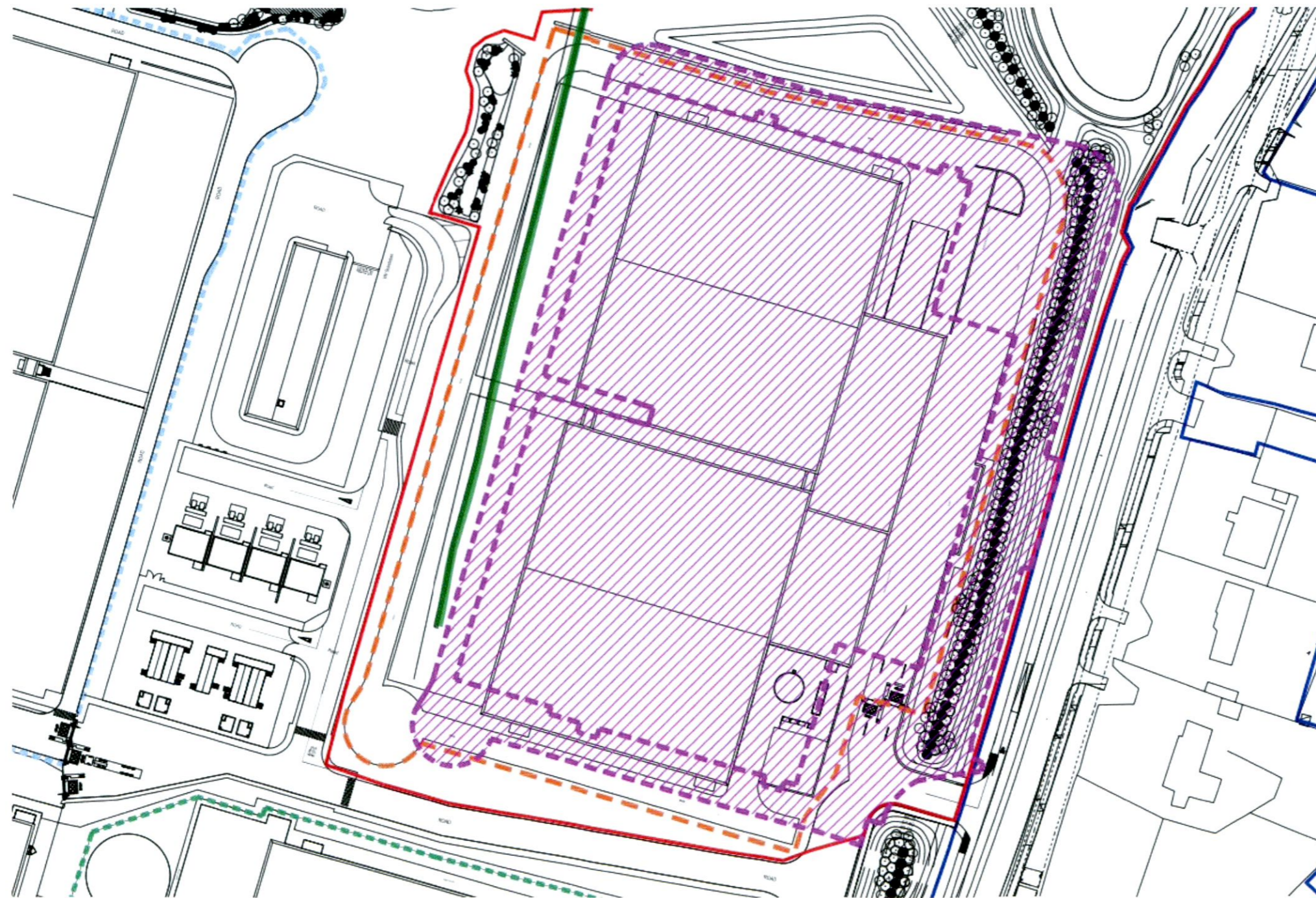
**5. DESIGN RESPONSES TO ADDITIONAL
INFORMATION REQUEST**

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This would be contrary to good planning principles established for the site under Planning Ref. SD19A/0042 and SD21A/0042; as well as the green infrastructure policies and objectives of the South Dublin County Development Plan 2022-2028. The implications of this is shown in the drawing below, with the relocated development outlined in pink, that indicates the clear conflict with the permitted green infrastructure on the eastern side of the site, and the western hedgerow shown in green.

A data centre such as this is designed to maximize the efficiency of the end user requirements and whilst it was discussed and assessed, it was concluded that it would not be possible to reduce the footprint of the proposed development. In order to mitigate this, the design response was to squeeze the external areas around the data centre that will enable the planting of new native hedgerow that would run parallel to the existing hedgerow, and which will also extend along the southern side of the data centre creating strong biodiversity links within the site, as well as around the periphery of the site, which were provided under the original 2019 application. A full and robust justification for this is provided as part of this AI response.



5. DESIGN RESPONSES TO ADDITIONAL INFORMATION REQUEST

5.1 SDCC DEVELOPMENT PLAN 2022-2028

QDP2 Objective 1

To ensure that applications for new development are accompanied by a statement from a suitably qualified person detailing how 'The Plan Approach' has been taken into consideration and incorporated into the design of the development including the materials and finishes proposed and demonstrating how the overarching principles for the achievement of successful and sustainable neighbourhoods have been integrated as part of the design proposal

The site design has emphasized the sense of space and adjacency to the Grand Canal heritage zone to the north of the site by providing an extensive open space accessible to the public and providing for pathway routes acting as an extension to the Canal corridor and towpath. The landscaping expands to provide continuous ecological perimeter to the complete site allowing additional wildlife, flora and fauna corridors.

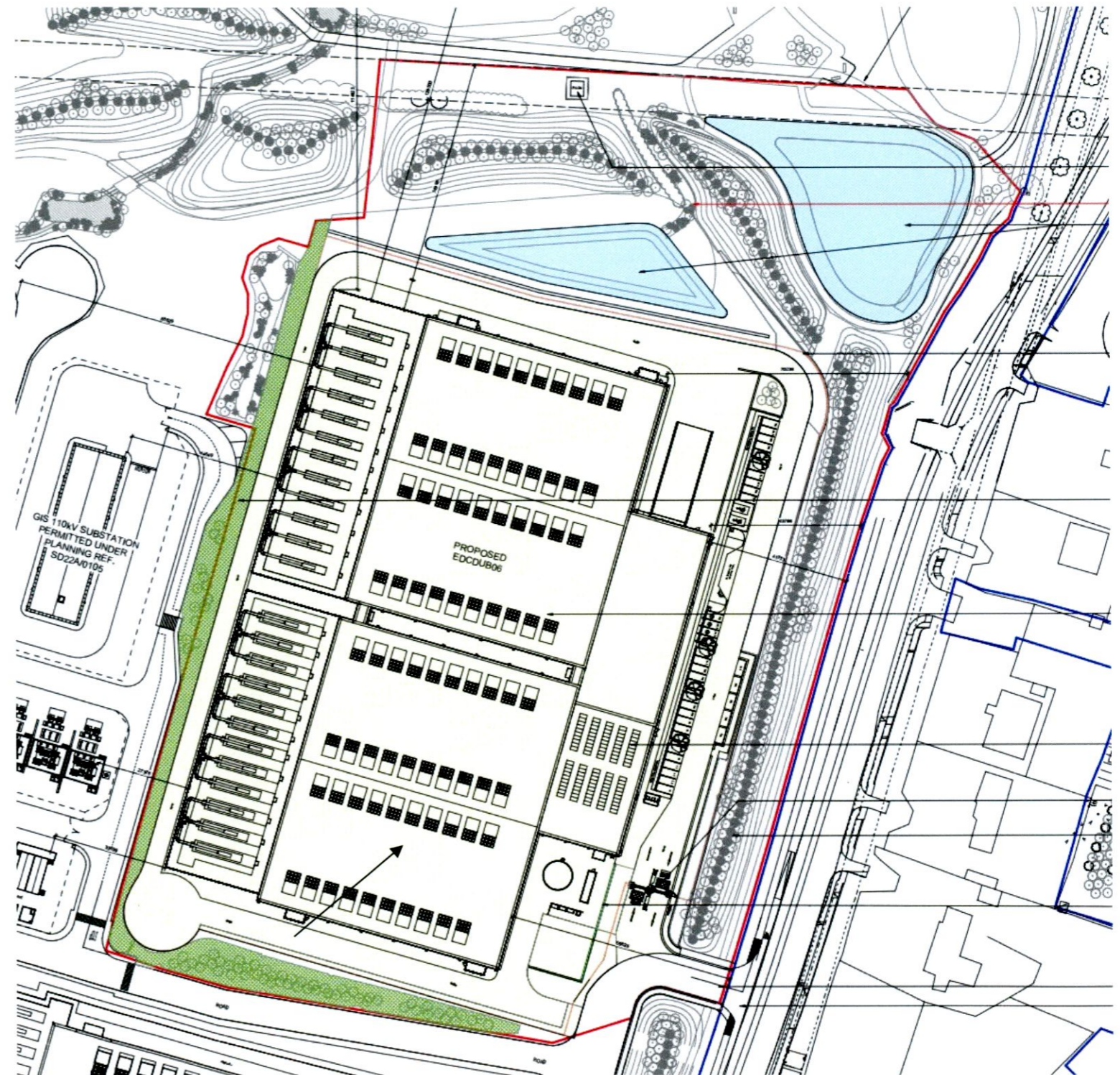
In addition to employment created directly on site, as confirmed in the EIAR already issued as part of the planning submission the proposed facility will support employment in the maintenance of the building, site and installations. This is in addition to employment in providing services to site based employees.

The facility, that is the building and its immediate perimeter site and circulation network, will remain private due to the high-level security requirements of a data centre. The landscaped open space along the north boundary will be open to and accessible to the public.

The accessible landscaped lands to the north of the site will link to extensive public open space already approved to provide continuous landscaping and ecological perimeter to the complete site allowing additional wildlife, flora and fauna corridors. Landscaped ponds, berms and seating spaces are included in the accessible space.

The facility constitutes one building with a variety of external finishes and parapet levels. The parapet has been lowered on the face nearest the regional public road. The quality of finishes are dealt with in more detail in section 5.7 of this design statement.

This internal review concluded that in order to retain the western hedgerow, there would be a need to move the proposed development eastwards. This would require the removal of the berming and extensive planting permitted on the eastern side of the site, alongside the R120 and to make the proposed development and already permitted development far more visible. This would be in our considered opinion contrary to good planning principles established for the site under Planning Ref. SD19A/0042 and SD21A/0042; as well as the green infrastructure policies and objectives of the South Dublin County Development Plan 2022-2028.



5. DESIGN RESPONSES TO ADDITIONAL INFORMATION REQUEST

5.2 SDCC DEVELOPMENT PLAN 2022-2028

QDP3 Objective 1

To ensure new development contributes in a positive manner to the character and setting of the immediate area in which a proposed development is located taking into consideration the provisions set out in Chapters 3 and 4 of this Plan and having regard to the requirements set out in Chapter 12: Implementation and Monitoring in relation to design statements.

The overall site within ownership of Edgeconnex Ireland Limited, extends to c. 22.1 hectares.

The site is bounded by the recently realigned Newcastle Road [R120] to the east, The Grand Canal to the north and pasture and tillage lands to the west and south.

A number of planning permissions have been obtained for this extended site as follows:

- SD18A/0298
- SD19A/0042
- SD21A/0042
- SD22A/0105
- SD22A/0333

The initial planning permission noted above Planning Ref. SD19A/0042 / ABP-305948-19 included a master plan for the eventual development of the c. 22.1hectares including the site of the current planning application [Register Reference SD 22A/0333].

The inclusion of the master plan was as a result of pre-submission consultations with the planning authority at the time and forms part of the documents on foot of which planning permission was granted under Planning Ref. SD19A/0042 and SD21A/0042. It required that the landscape master planning of the overall site formed phase 1 of the permitted development of the overall site in contributing positively to the character and setting of the site

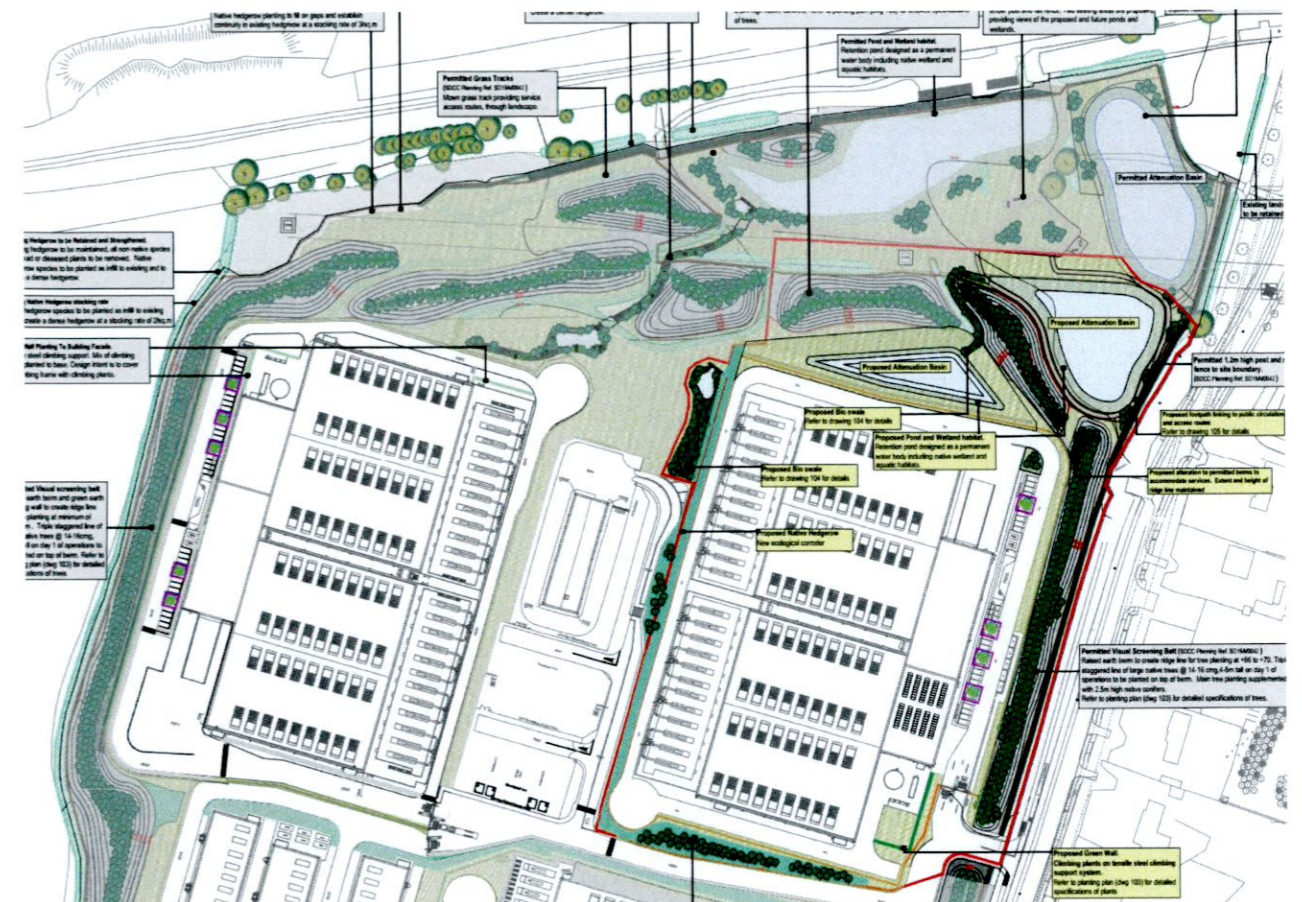
The site of the proposed development is zoned EE-“to provide for enterprise and employment related uses”.

A portion of the site , approximate 3.2ha in area, to the north adjoining the Grand Canal is zoned RU. The proposed use as a data centre is located within the land zoned EE and public and accessible open space is located within the land zoned RU.

The boundary to the east is defined by the afore mentioned Newcastle Road, to the north by the Grand Canal, to the west by a power generation complex under construction and south by a data centre under construction.

There are a number of residential properties located on the east side of the Newcastle Road. These properties back on to existing data centres occupied by Edgeconnex and Microsoft. There is a single residence located to the north of the proposed site adjoining the canal and Seventh Lock.

Archaeological studies and site investigations have been completed under licence and reported upon within the EIAR already submitted. License 19E 0038 allowed testing and excavations to be completed in 2019 with outstanding monitoring in advance of construction carried out in 2022 Refer to Cultural Heritage Chapter 13 of the EIAR for details of the extensive works reported on by AMS.



Master Plan that responds to the setting of the site adjacent to the Grand Canal

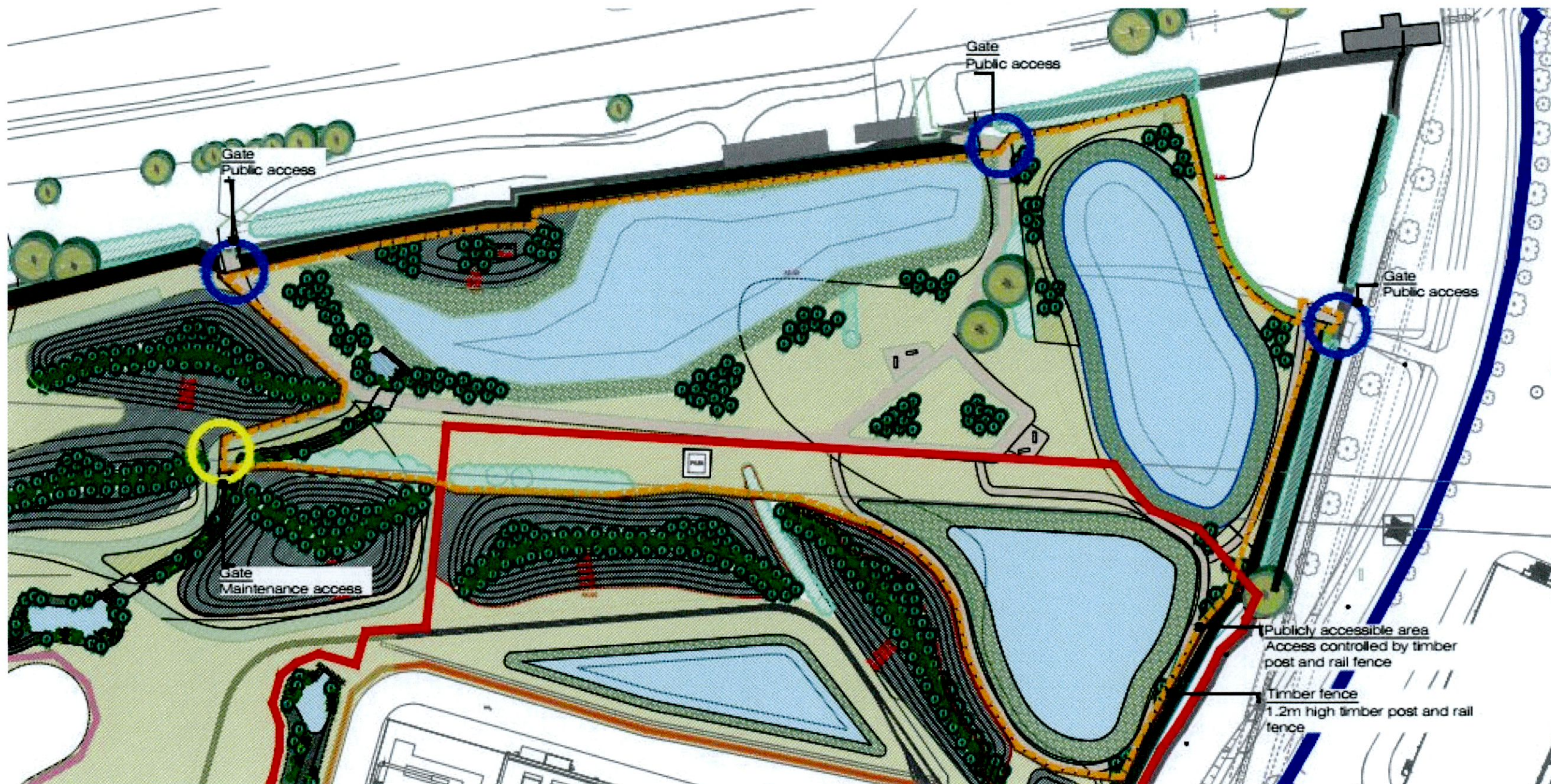
The south-eastern corner of the new suburb of Adamstown is located c. 700m to the north with its new suburban station, which is connected to the site by an off carriageway cycle path, with the quality of the permitted and proposed development that includes a permitted new public park to the north, with connections from the canal and from the R120, will create and delivery a development that is accessible by sustainable travel and will deliver a high quality workplace for local residents within the above two developing areas, as well as being well connected through the cycle paths along the New Nangor Road and the R120 with the existing population of Clondalkin to the east.

This connectivity will be further increased by the greenway along the Grand Canal. When these factors are considered in the context of the permitted and proposed development of this site, it is clear that the level of landscaping and planting will deliver a place of work that will encourage local employees in a location that is accessible by sustainable modes of transport fully in accordance with Policy EDE3, Objective 5.

5. DESIGN RESPONSES TO ADDITIONAL INFORMATION REQUEST

As noted elsewhere the extensive amenity area accessible to the public will be landscaped to the highest standard. The area will include berms to create an undulating terrain. This will surround landscaped attenuation ponds. Pedestrian routes will link the Canal corridor and provide rest/seating / viewing areas. In addition, this proposal will link with a similar approach to that included in the permitted planning development register reference for development of the site to the west. In this way the extensive and continuous ecological corridor surrounding the complete site of 22 hectares will be achieved.

Green wall are also integrated into the building design and connecting the building into the site landscape design.



Key Map indicating Landscape/Ecology Corridor and public park and connectivity as granted under Planning Ref. SD21A/0042

5. DESIGN RESPONSES TO ADDITIONAL INFORMATION REQUEST

5.3 SDCC DEVELOPMENT PLAN 2022-2028

QDP4 Objective 2

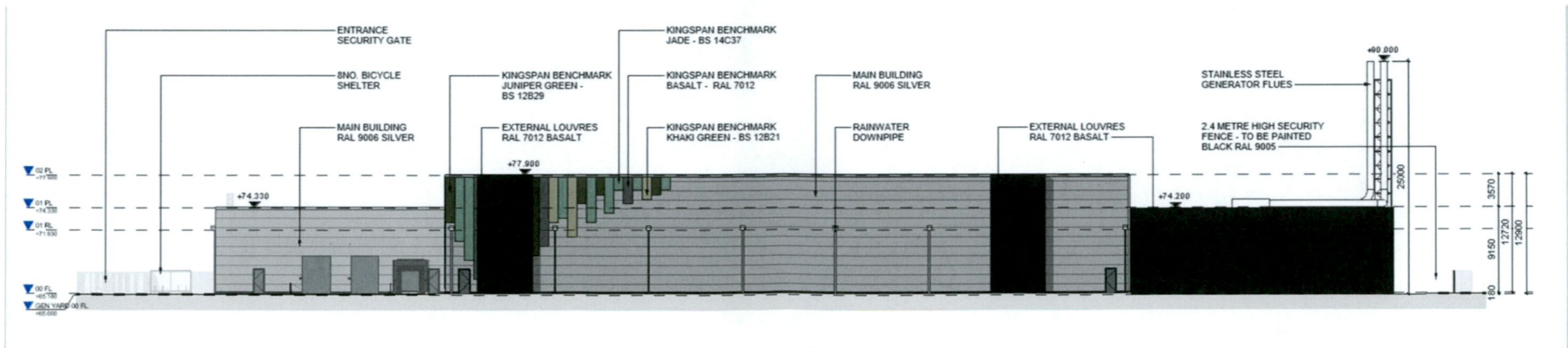
To promote a high standard of building and urban design, creating public spaces that are distinctive, safe, universally accessible and facilitate social and cultural diversity and interaction.

The site strategy indicated on the masterplan included within Planning Register Reference SD19A/0042 and SD21A/0042 and relating to the site of the proposed development has been retained and augmented as noted in section 3 of this document. Site levels have been increased adjoining the Newcastle Road frontage to afford increased height of landscaping. This landscaping will be a foil for the administration and office function of the proposed building when viewed from the public road. The eastern building elevation will provide variety through changes of materials and building levels. The administration and office use will look out to the public road network. External wall finishes include curtain walling, green walls and highly insulated low maintenance cladding panels

As noted previously the treatment of the universally accessible open space to the north of site is both unique and distinct. The building façades to the north, east and south includes variegated green cladding that augments landscaping. The generators and service yard, located on the west side of building are hidden from the public road.

A planted strip is proposed along the western and southern boundaries. This will not only screen the service yard but provide another north south ecological hedgerow.

Further details of building materials and finishes are shown in section 5.7 of this document.



North Elevation

5. DESIGN RESPONSES TO ADDITIONAL INFORMATION REQUEST

5.4 SDCC DEVELOPMENT PLAN 2022-2028

QDP7 Objective 6

To ensure that development provides an integrated and balanced approach to movement, healthy placemaking and streetscape design in accordance with the requirements of the Design Manual for Urban Roads and Streets, DTTAS and DEHLG (2019)

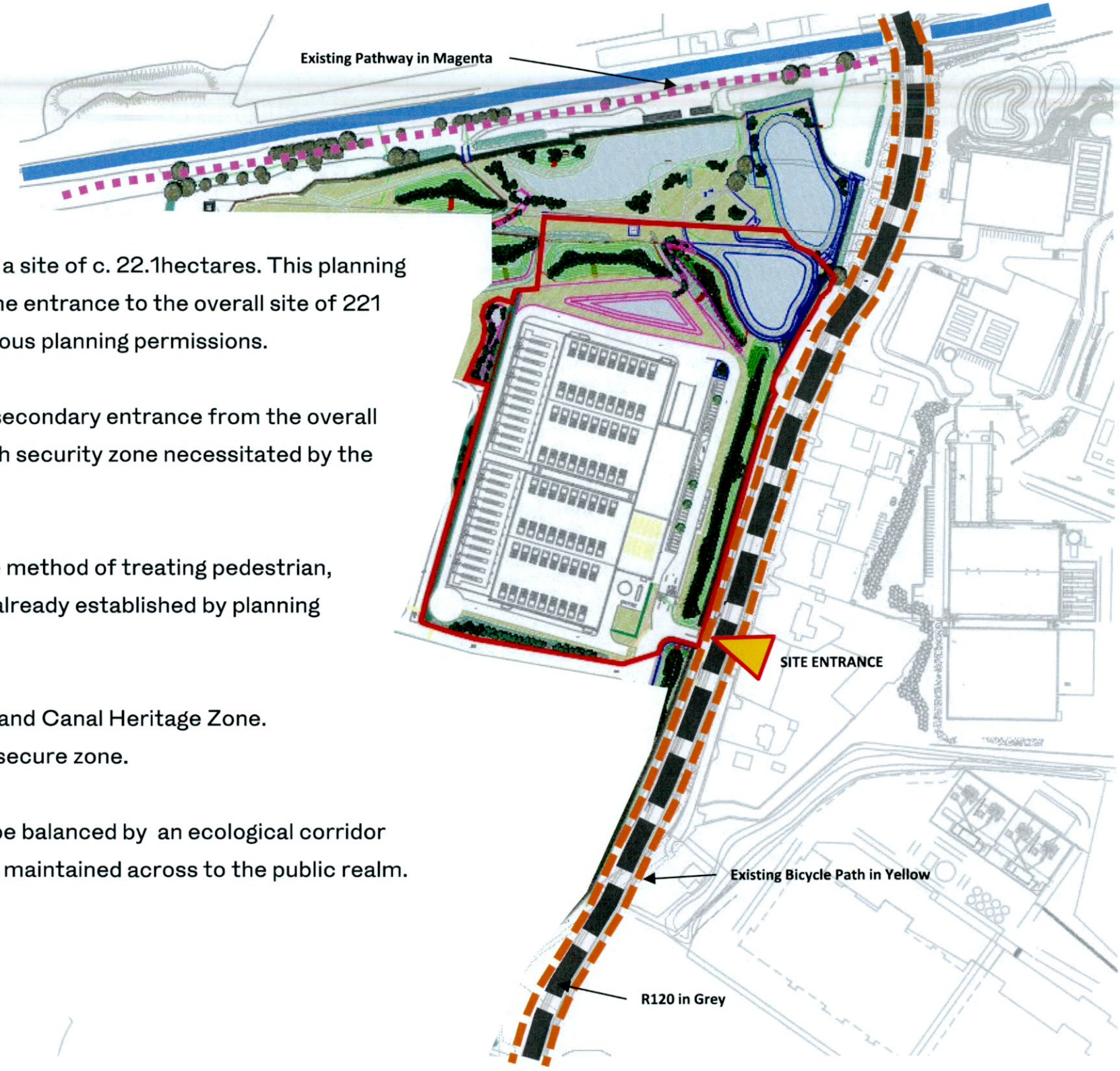
As identified previously this planning submission is one of a series relating to a site of c. 22.1hectares. This planning application relates to the final portion of this overall site to be developed. The entrance to the overall site of 221 hectares from the Newcastle Road has been established by way of the previous planning permissions.

The entrance to the data centre which is the subject of this application is a secondary entrance from the overall larger site . The circulation for pedestrian, bicycle and car will be within a high security zone necessitated by the function of the development as a data centre.

This part of the circulation will be kept in private ownership .It will mirror the method of treating pedestrian, bicycle, car and delivery circulation which is now under construction and as already established by planning permissions Register Reference SD19A/0042 and SD21A/0042.

The access to the pathways of the public amenity space will be from the Grand Canal Heritage Zone. Security requirements necessitate that roadway serving building is within a secure zone.

The resulting development on one side of internal private road network will be balanced by an ecological corridor being developed on the opposing side of the street to the building with views maintained across to the public realm.



Key Plan showing Site Boundary, Road, Bicycle Path, Walking Path

5. DESIGN RESPONSES TO ADDITIONAL INFORMATION REQUEST

5.5 SDCC DEVELOPMENT PLAN 2022-2028

QDP7 Objective 7

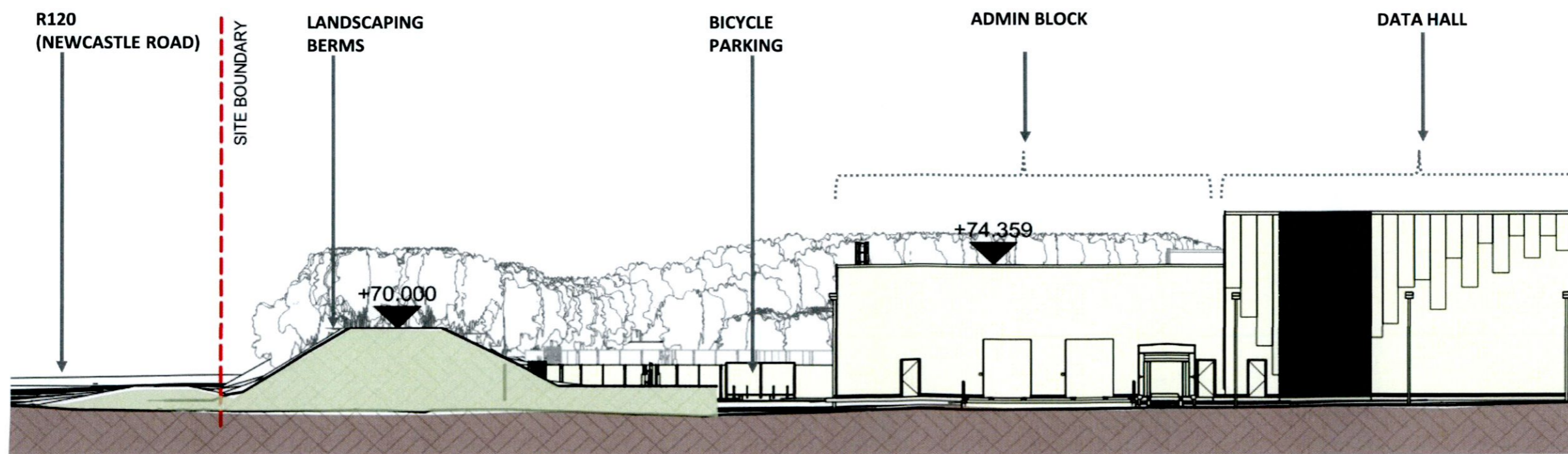
To ensure that all proposals for development contribute positively to providing a coherent enclosure of streets and public spaces, taking into consideration the proportions and activities of buildings on both sides of a street or surrounding a public space, providing for good standards of daylight and sunlight, and micro climatic conditions and having regard to the guidance and principles set out in the South Dublin County's Building Height and Density Guide and the Design Manual for Urban Streets and Roads (DMURS) (2019).

Security requirements necessitate that circulation routes around the building perimeter are within a secure zone. The resulting streetscape with building on one side of these circulation routes will be balanced by the opposing side of the street/circulation route being enclosed by a landscaped ecological corridor.

The circulation routes on the west side of the building will have views through the landscaped berms to the public realm of the Newcastle Road. The perimeter circulation route on the north face of the building faces the extensive landscaping of the public accessible space adjoining the canal. The perimeter circulation route to the west of the service yard and south of the building also face landscaped corridors. Green walls are included to align with southern and eastern elevations.

When viewed from Newcastle Road the changes in level of the parapet set the administration and office element of the building forward from the higher mass of the data halls. The wall cladding includes a variety of colours that interplay with the landscaping. When viewed from the Grand Canal the view of the proposed development across the accessible public open space is screened by raised landscaping on berms.

The overall scheme, as now amended, will incorporate further biodiversity measures within the scheme that will include a new hedgerow to the west of the proposed development that will link from the planting within the RU zone to the north, and will extend to the south of the proposed development also in close proximity to the east to west permitted hedgerow as well as the boundary planting to the east. In addition, it is noteworthy that in accordance with best practice all security fencing is proposed internally to the landscaping with only post and rail fences to the boundaries. The permitted and proposed landscaping and green infrastructure will create improved green infrastructure connectivity within and through the site. Additional bird boxes and bat boxes can be provided, by condition if it is deemed appropriate.



Key Plan showing Site Section

Site Section through Eastern Entrance

5. DESIGN RESPONSES TO ADDITIONAL INFORMATION REQUEST

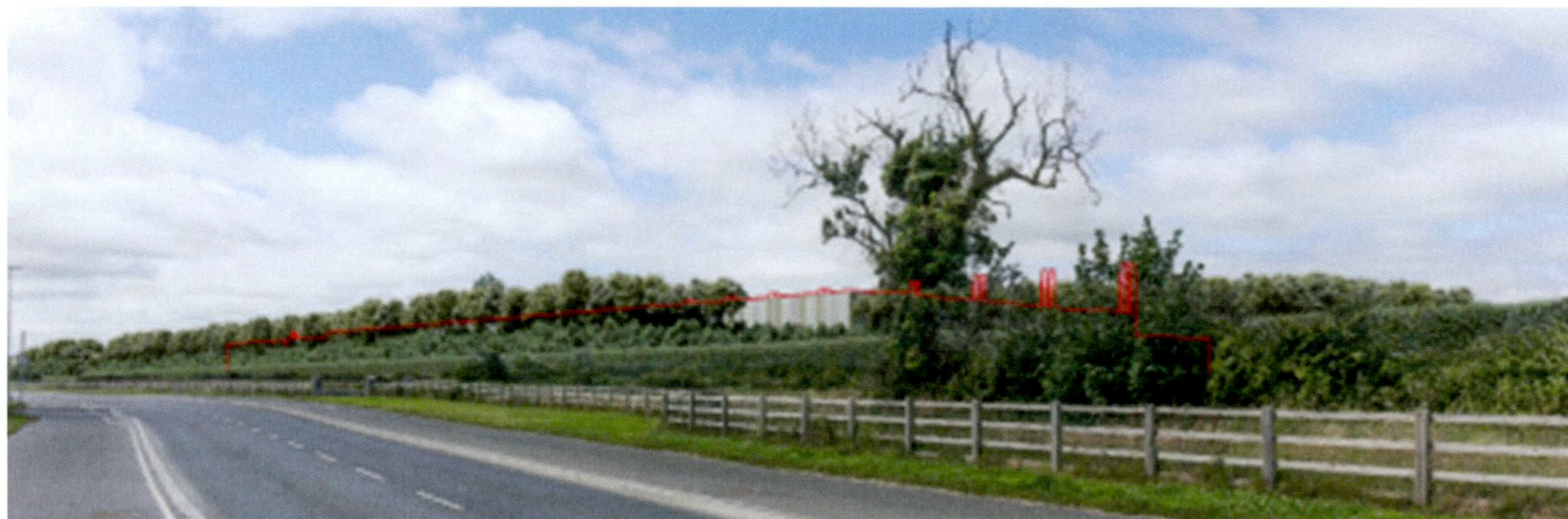
The views of the development from the west and south are from sites of previously permitted data centres. The proposed elevations are integrated in overall design of these previously permitted developments by use of similar building materials and palette of colours.

The creation of strong green buffers in the form of bunding and higher quality finishes, including green walls and variegated green vertical cladding from the parapet of the main data centre building, will provide a high-quality finish in accordance with Policy QDP4, Objective 2 of the County Development Plan

We note the provisions of Policy QDP7 Objective 6, 7 and 8 of the County Development Plan. The proposal includes no public roads or paths but will integrate with existing excellent road, footpath and cycling infrastructure that connects from the permitted entrance into the site to the north and south. This includes connecting to the strategic cycle-path along the Grand Canal. The landscaping bunds and planting along the public road will contribute positively to the street and ensure that the cycle and footpaths along the R120 are maintained as set out under the Design Manual for Urban Streets and road (DMURS (2019))



Excerpt from view 7 from east on R120



Excerpt from view 10 from north-east on R120

5. DESIGN RESPONSES TO ADDITIONAL INFORMATION REQUEST

5.6 SDCC DEVELOPMENT PLAN 2022-2028

QDP7 Objective 8

To promote and support a Universal Design Approach to residential and non residential development – having regard in particular to the universal design principles and guidance in relation to Buildings for Everyone, Housing and Shared Space as promoted by the Centre for Excellence in Universal Design at the National Disability Authority – ensuring that all environments are inclusive and can be used to the fullest extent possible by all users regardless of age, ability or disability consistent with RPO 9.12 and 9.13 of the RSES. (See also Chapter 8: Community Infrastructure and Open Space)

The design of the proposed development , as is the case with the design of the previously permitted developments on adjoining sites forming part of the overall 22 hectares, has incorporated universal design principles from the outset.

All environments, internal and external, in the private and public domain, are designed to be inclusive and for used by persons of all ages, ability or disability as appropriate.

A Disability Access Certificate has been obtained/will be applied for the proposed development.

The design of the proposed development includes the following :

EXTERNAL MATTERS

Security Gates - Accessible communications and accessible pedestrian entrance gate

Paths - Suitable for universal use ,avoidance of steps and obstacles including any obstructions caused by information signage and service posts. Design of path at crossings to have tactile finishes

Roads - The number of crossings for pedestrian and bicycle users is kept to a minimum. The interaction of service vehicles with other modes of circulation and reversing movements for delivery vehicles through positioning and design of shipping areas is kept to a minimum.

Circulation Widths - Provide adequate widths for pedestrians, bicycles and vehicles.

Parking - Provision of adequate disabled parking space including access to EV charging

Building Entrance - Provision of a safe set down/lay by space adjacent building entrance

Public Open Space - Provide safety barriers at water features together with safety equipment and signage.

INTERNAL MATTERS

Entrance - Ease of access into building, access at doors and reception desk

Reception - Ease of circulation thru building, hearing loops, Restrooms- Universal access to toilets and showers Kitchen-Kitchen storage, worktops, under counter space and fittings

Contrasting Colours - Signage, control panels and walls, doors and walls, electrical controls and walls, sanitary fittings and walls ,floor finishes, floors at steps, change of levels.

5. DESIGN RESPONSES TO ADDITIONAL INFORMATION REQUEST

5.7 SDCC DEVELOPMENT PLAN 2022-2028

QDP8 Objective 1

To assess development proposals in accordance with the Building Height and Density Guide set out in Appendix 10 of this Development Plan and associated planning guidelines. In this regard, all medium to large scale and complex planning applications (30 + residential units, commercial development over 1,000 sq m or as otherwise required by the Planning Authority) shall be accompanied by a 'Design Statement'. The Design Statement shall include, inter alia, a detailed analysis of the proposal and statement based on the guidance, principles and performance-based design criteria set out in South Dublin County's Height and Density Guide. Any departures within the proposed development from the guidance set out in the Building Height and Density Guide for South Dublin County (Appendix 10) shall be clearly highlighted in the Design Statement. (See Chapter 12: Implementation and Monitoring).

INTRODUCTION:

This document forms a design statement as required under policy qdp8 objective 1 as it forms a commercial development greater than 1000 sqm.

HIGH QUALITY DESIGN

The design of the data center is predicated on the experience and precedent that was accepted under SDCC Planning Ref. SD19A/0042 and SD21A/0042. The nature of the overall design has been informed by a site analysis of environmental issues prior to the original application on the overall site in 2019; and the enhancement and creation of new bio-diversity corridors to fully integrate the scheme into the surrounding environment to ensure that direct and cumulative effects on biodiversity are addressed in the overall design. Suitable attenuation and sustainable drainage systems have also informed the design. This mitigation of design as already permitted, also significantly increases native tree planting within the site from its current position. The design incorporates SUDS fully in accordance with policies of the Plan. The permitted landscaping around the site will be in place prior to the commencement of construction of the Proposed Development.

The scale and form of this single storey data centre was informed by the site position. The highest element of the Proposed Development are the flues that are associated with the back-up generators that are located to the west of the data centre, and will therefore only be visible from distant views. A parapet is proposed around any plant at roof level so that the majority of the building will read as being 12.9m in height, with the office element to the east being 9.33m in height, and the generator screen being 9.2m in height.

The highest element is set-back by over 65m; with the lower office admin element being set-back by 41.77m from the eastern boundary along the R120. These significant set-backs help to reduce the visual scale and massing of the building, which is further aided by the permitted planting that includes low tree and other planting either side of a row of triple staggered semi-mature trees planted along the top of the 4-5m berms (see below). This provides a high degree of visual screening of the proposed development from local and medium distance views. The removal of this visual screening, by retaining the western hedgerow would be untenable and wholly unjustified as outlined within this response.

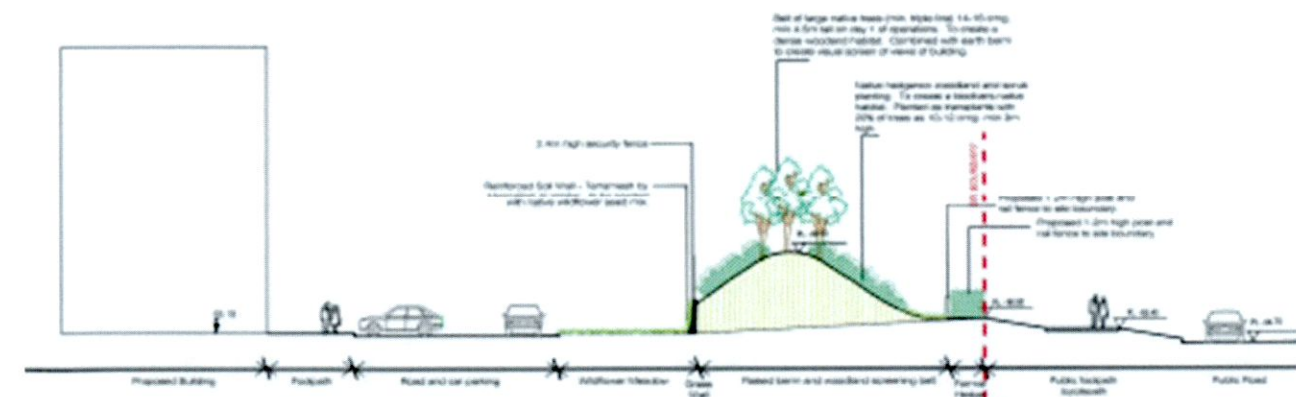
The proposed facility will be located within the land zoned EE.
Apart from landscaping to support the accessible public open space no building development is proposed within the RU zoned land.
The total site area is 5.14 hectares
The proposed floor area is 15 274sq m
The site coverage will be .297
The plot ratio will be .297
The maximum parapet height [at Data Hall]above ground level is 12900
The maximum height of flues of standby generators , located in service yard will be 25000

The permitted development within the 22 hectare site and located to the west and south of the current proposals have comparable parapet heights above ground of 12.700 and flue heights of 15.000 and 17.000 and 25.000

The massing and density of permitted development is similar to the proposal.
The adjoining developments to the east at Grangecastle Business Park are single and multistorey in height.

There are a number of dwellings to the east of Newcastle Road adjoining EdgeConnex and Microsoft Data Centres.

These roof ridge heights vary from 6630mm to 10870mm.



Section through Berm and R120



Excerpt from view 7 from east on R120

5. DESIGN RESPONSES TO ADDITIONAL INFORMATION REQUEST

5.7 SDCC DEVELOPMENT PLAN 2022-2028

QDP11 Objective 1

To require the use of high quality and durable materials and finishes that make a positive contribution to placemaking.

QDP11 Objective 2

To promote the use of structural materials that have low to zero embodied energy and CO2 emissions and ensure a wood-first policy on public buildings funded or part-funded by the Council.

The high quality design and plan approach is reflected and outlined in the Design Statement that accompanies this AI Response. This outlines the context of the area, and how the Proposed Development will connect into the existing public realm and is being undertaken at an appropriate building height (similar to that already granted permission on the overall site), as well as including detail on materials, colours and textures that were accepted by the Planning Authority under the 2019 and 2021 application fully in accordance with section 12.5.2 of the County Development Plan.

The architects have also taken a universal design approach as required under section 12.5.1 of the County Development Plan. This ensures adequate disabled car parking spaces, and a level of access into the site, and the Proposed Development that caters for all

The function of the building as a data centre requires data halls with large structural uninterrupted spans . The roofs are required to support loads applied by service equipment located by necessity thereon. The options of wood , concrete and steel have been examined for primary structure A steel structure has been chosen that will provide an efficient structure for proposed function, ease of adaptability during the life of the building and eventually, at end of building life, will be recyclable.



SCHEDULE OF FINISHES	
Office Block	
Façade	Architectural Wall Panel Micro Rib KS1000. Finish RAL 9006 Silver
Doors	Hollow Metal doors, RAL 7012 Basalt
Rain Screen Cladding (Vertical Cladding Feature)	Kingspan Vertical Benchmark Metallica Hook-on cassette in various colours Finish – RAL 100 60 20 Khaki Green RAL 160 20 10 Juniper Green BS 14C37 Jade Green
Louvres	Powder coated metal louvres. Colour RAL 7012 Basalt
Glazing	Double glazed, powder coated aluminium frames, Colour RAL 7012 Basalt
Parapet Capping	Powder Coated Pressed Metal Flashing - RAL 9006 Silver
Data Halls	
Background Façade (Horizontal Cladding)	Horizontal Kingspan Benchmark Karrier Insulated Wall Panel. Finish - RAL 9006 Silver
Louvres	Powder coated metal louvres. Colour RAL 7012 Basalt
Rain Screen Cladding (Vertical Cladding Feature)	Kingspan Vertical Benchmark Metallica Hook-on cassette in various colours Finish – RAL 100 60 20 Khaki Green RAL 160 20 10 Juniper Green BS 14C37 Jade Green
Handrails	Galvanized steel
Doors	Hollow Metal doors, Colour RAL 7012 Basalt
Plinths	22mm Acrylic Render to Plinth
Parapet capping	Powder Coated Pressed Metal Flashing - RAL 9006 Silver
External Staircores	
Façade	Powder coated metal louvres. Colour RAL 7012 Basalt
Parapet capping	Powder Coated Pressed Metal Flashing - RAL 7012 Basalt
Gas Generation Plant	
Façade	Hoesch Bausysteme GmbH - Soundtec Acoustic Panel – Finish - RAL 9006
Doors	Hollow Metal doors, Colour RAL 7012 Basalt



Image showing Timber Fencing



Image showing Security Fencing

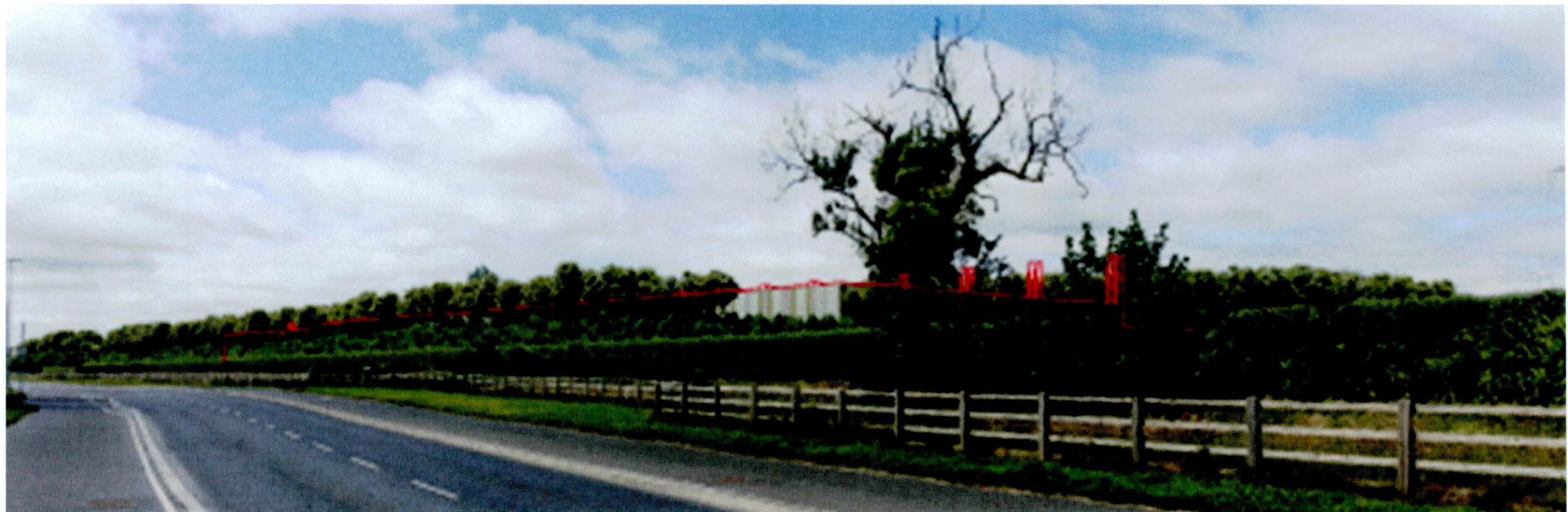
5. DESIGN RESPONSES TO ADDITIONAL INFORMATION REQUEST

5.10 VISUAL IMPACT

Best LVIA practice requires that the visual impact assessment of the proposed development is assessed on day one of operation. However, given the above request, an additional set of photomontages indicating the proposed development without screening is included separately for the information of the Planning Authority. These photomontages are not reflective of the impact of the proposed development or best practice, and we would request that they be dismissed by the Planning Authority.

All bunds will be extensively planted with rows of mature planting that will be between 4.5m and 5.5m in height on day of planting, with younger trees to be planted on the slopes of the berms. The desired landscape mitigation is designed to provide a significant level of screening on day one of operations (within the first year after planting).

A review of the position of the ten photomontages was also undertaken that were focussed on nearside views from the canal to the north, and from the R120 to the east; as well as medium distance views to the west along the canal and from the south. It was concluded that View 7 provided the view where the proposed development would be most notable in the surrounding landscape, and that any views along the R120 to the north of this view would not provide any views of the proposed development due to proximity to landscape berming and planting, and height of the nearest element of the proposed data centres



Excerpt from view 10 from north-east on R120

6. OTHER DESIGN CONSIDERATIONS

FIRE SAFETY

Part B of the Building Regulations will be observed in respect of the works proposed.

The development will be carried out in compliance with a Fire Safety Certificate which will be applied for.

Fire Safety Certificates have previously been obtained for EDCDUB04 – FSC3001185 and EDCDUB05 FSC2300469SD, 3010842

BUILDING SERVICES

The engineering, fabrication, construction, installation, inspection, testing and commissioning of building services installations shall be carried out in accordance with current Irish and European regulations, codes, standards and any relevant manufacturers' instructions and guidelines.

Refer to Engineering Report by Ethos Engineering.

DESIGN REFERENCE, STANDARDS AND GUIDELINES

The development has been designed in accordance with the Planning and Development Acts 2000 (as amended), the Planning and Development Regulations 2001 to 2020, South Dublin County Council Development Plan 2016-2022 and shall fully comply with the detail contained in permissions, approvals or consents issued by the Planning Authority.

The design shall fully comply with the Building Regulations 1997-2019, the Building Control Acts 1990-2014, and the Building Control Regulations 1997-2018, Irish/British and European Standards and Codes of Practice.

Notwithstanding full compliance with Building Regulations and local codes, the International Building Code (IBC) 2018 shall serve as a reference for minimum building standards in alignment with the Client's global policy.

The design shall fully comply with the Safety, Health and Welfare at Work Act 2005 and with the Safety, Health and Welfare at Work (General Application) Regulations 2007 as amended, the Safety, Health and Welfare at Work (Construction) Regulations 2013, and in particular with the General Principles of Prevention.

Henry J Lyons

Thank you

HJL