Reg. Ref.:23/60047

Development:

- Demolition of existing Buildings No's 7, 8 and 9 (total gfa c. 84,838sqm).
- Existing Buildings No's 1 – 6 will be retained for deep tech and innovation related uses (total gfa c.42,862sqm)
- Construction of 2 no. new deep tech buildings and 4 no. new data centre buildings, all including ancillary office spaces. The deep tech buildings will have an overall maximum height of c.16m and vary in size from 30,945sqm – 41,190sqm with a combined total gfa of c. 72,135 sqm. The data centres will be c.15 m in height to parapet and c.16.5m in height to top of roof plant screening. The data centres will vary in size from 13,225 sqm – 21,000 sqm with a combined total gfa of c. 76,225sqm. All buildings will be provided with Solar PV panels at roof level and green walls along selected elevations.
- The new deep tech buildings (A1 & A2) will be provided with service yard areas, loading docks, car parking, access roads, security fencing/gates and landscaping. The deep tech buildings will include rainwater harvesting tanks and green roofs over office areas.
- Each data centre (B1, C1, C2 & C3) will include data halls, admin blocks (comprising offices, breakroom, loading dock, storage, and ancillary areas) and a variety of mechanical and electrical plant areas/structures including battery storage rooms and mechanical rooms. Car parking, access roads, security fencing/gates, gate houses and landscaping will also be provided.
- B1 will include 14 no. fuel oil generators, MV rooms and associated mechanical flues. C1 – C3 will each include 22 no. fuel oil generators, MV rooms and associated mechanical flues (each c.18.6m high). Car parking, access roads, security fencing/gates, gate houses and landscaping will also be provided.
- 2 no. district heating pump house areas and inground piping for district heating system.
- Construction of a Replacement 110kV Gas Insulated Switchgear (GIS) Substation adjacent to the existing 110kV Rinawade Substation. The current Air Insulated Switchgear (AIS) substation known as the Rinawade 110kV sub is fed by 2 x 110kV Overhead lines. The new substation will connect to these overhead lines via short runs of underground cable. The replacement 110kV substation will include 6 No. transformers, with client control building and a 2 storey GIS substation building within a 2.4m high fenced compound.

- Decommissioning and removal of the existing 110kV Rinawade substation.
- Construction of an on-site energy centre to provide to the national electrical grid. The Energy Centre will include 9 no. gas powered combustion turbine generators (CTG's) and 9 no. Flues with a maximum height of c.15 metres. The turbines will be enclosed by a screen wall 14m in height. The energy compound will include all required infrastructure including 2 no. back-up fuel oil (HVO) tanks, an administration building, pump house, fire water tank, access roads, 14 no. parking bays, security fencing etc.
- Provision of a Gas Networks Ireland (GNI) gas skid surrounded by a 2.4m high fence and access from Celbridge Road (R404). The GNI skid will replace the existing gas skid along Celbridge Road. Provision of a GNI AGI (Above Ground Installation) including 1 no. kiosk building, c.32m high surrounded by a 2.4m high fence.
- Closure of the existing main entrance to the campus on Celbridge Road and reinstatement of the boundary. Construction of a new signalised entrance/exit on Celbridge Road c.80meters north of the existing main entrance. Use of the existing secondary entrance/exit off Barnhall Road Roundabout in the south-east as a principal entry/exit.
- Construction of internal access roads, footpaths and cycle paths including a publicly accessible link road between Celbridge Road (R404) to the east and Barnhall Road (R449) to the west.
- Construction of a new pedestrian and cycle overpass across the M4 motorway and pedestrian/cycle path adjacent to lands known as the Wonderful Barn Allotments; the overpass will link the new publicly accessible link road within Kildare Innovation Campus to the entrance of Barnhall Meadows estate.
- Undergrounding and diversion of the existing overhead 10Kv/20kv overhead line adjacent to the M4 Motorway.
- The pedestrian and cycle route within the Kildare Innovation Campus will provide a link from the new public link road, along the protected view corridor (between Castletown Estate & Wonderful Barn) to the north-eastern boundary of Castletown Estate.
- The provision of a net increase of 678 new car spaces, resulting in a total of 2291 car spaces across the site (including a total of 244 EV car spaces).
- The provision of a new private EV Bus charging hub with parking for 10 no. electric buses.
- The provision of a net increase of 310 new bicycle spaces, resulting in a total of 350 bicycle spaces across the site.
- The diversion of the c.500 m stretch of an existing 1.5m culvert, located to the north of the site along the existing loop road, southwest by c.60m; the diverted culvert will be located along the proposed link.
- All associated site development works, drainage and services provision, landscaping, boundary treatments (including security fencing), and associated works.
- An Environmental Impact Assessment Report has been prepared in respect of and will be submitted with the planning application. The application relates to a development for the purposes of an activity requiring an industrial emissions licence.

Applicant: The Davy Platform IC for and on behalf of the Liffey Sub-Fund

Site Location: Kildare Innovation Campus (KIC), Barnhall Meadows, Leixlip, Co. Kildare

1. Chapter 1 Introduction

1.1 Submission of EIAR

An Environmental Impact Assessment Report (EIAR) has been submitted to the Planning Authority with the application. The chapter has been prepared in consultation with DECLG '*Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (2018*)', and namely Section 8 of same titled 'Outline and Guide to Key Sections of the Act' as well as the EPA document '*Guidelines on the Information to be contained in Environmental Impact Assessment Reports*' (EPA 2022) Advice Notes for Preparing Environmental Impact Assessment of Projects: Guidance on preparation of Environmental Impact Assessment Report.

1.2 Objective of EIAR

The aim of this EIA is to identify and assess the effects of the proposed development on various environmental factors in order to assist in considering whether it is consistent with the proper planning and sustainable development of the area. An assessment of the information contained in the planning application and Environmental Impact Assessment Report (EIAR) is therefore set out in this report to identify the adequacy of the information presented by the Applicant.

1.3 Methodology of EIAR

The methodology of the EIAR is outlined along with the structure of the EIAR, scoping undertaken and contributors to the EIAR.

1.4 Structure of EIAR

In the interest of clarity and legibility for the reader it is proposed to structure this section of the report in line with the sequencing of the information contained in the EIAR. It is not the intention of this report to summarise the content of the EIAR as this is provided in the non-technical summary, but rather to address the information contained therein in a direct and succinct manner.

1.5 Qualifications of Contributors

All chapters contained in the EIAR appear to have been drafted by named qualified and competent persons. This is set out in Chapter 1: Introduction and tabulated at the start.

KCC Transportation, Environment, Heritage Officer, MD Area Engineer, Water Services and CFO have all made contributions to assessment of the EIAR.

The application was also referred to prescribed bodies including Department of Housing, Local Government and Heritage, Irish Water, Transport Infrastructure Ireland, National Roads Office, who again all made contributions to assessment.

1.6 Non Technical Summary

A non-technical summary was also received as part of EIAR which is considered adequate.

1.7 Site Location, Description and Need for Development

The site is known as the Kildare Innovation Campus, formerly the Hwelett Packard Campus, south of the M4 and Leixlip Town. The campus is accessed off the R404 to the east of the site and Barnhall Road to the north west of the site. Weston Primary school and Barnhall RFC are located to the south of the site. Leixlip Reservoir is located to the south east of the site. The western edge of the site is zoned F – Open Space and Amenity and is currently in use for agricultural purposes.

The campus currently comprises of 9 no. buildings accessed by an internal road network. There are 8 no. car parks within the site along with soft landscaping around the buildings and hardstanding areas. There are two existing surface water retention ponds located on the eastern site boundary, with an additional fire water retention pond also existing at this point.

There is an existing 110kV substation (Rinawade Substation), located to the north west of the site.

Chapter 2 gives a detailed description of development and details of existing development on site.

Fig: Aerial View of Site

Fig: OS Map

1.8 Relevant Planning History

22/1096 – Permission granted to The Davy Platform ICAV for development of 4 No. 20 kV ESB double substations at four sites of c. 591 sqm in total (Site 1, c. 138 sqm adjacent to Building 4; Site 2, c. 138 sqm adjacent to Building 2 and Building 5; Site 3, c. 138 sqm adjacent to Building 5; and Site 4, c. 177 sqm partially within Building 9, at the Kildare Innovation Campus (formerly known as the Hewlett Packard Campus) Barnhall Road, Leixlip, Co. Kildare. The wider Kildare Innovation Campus is c. 80 hectares. The wider Campus is principally bounded by: Barnhall Road to the north; Celbridge Road to the east; Barnhall Rugby Football Club to the south; and grounds associated with Castletown House to the west. The proposed development will consist of: the construction of 3 No. standalone ESB double substations and associated LV switch rooms (Substations No. 1-3) of c. 3m in height, c. 4.8m in depth, and c. 17.8m in width, with an individual gross floor area of 57.5 sqm; and all associated works above and below ground. Substation No. 4 (gross floor area of 57.5 sqm) will include: internal alterations to the existing Campus Building No. 9; associated LV switch rooms; the removal of existing louvre and replacement with substation access doors on the southeast elevation; access path; and all associated works above and below ground. The cumulative gross floor area of the development will be 230 sqm

21/730 – Permission granted to MU Barnhall Rugby Club for Development at a site of c. 0.516 hectares at Liffey Business Campus (formerly known as the Hewlett Packard Campus). The proposed development will consist of the construction of a new vehicle access to the rugby club inclusive of associated pedestrian footpaths; modification to the rugby club's existing

vehicle access to replace it with a shared pedestrian and cycle access and the provision of a raised pedestrian/cycle crossing on Barnhall Road; the expansion of the existing car park for the rugby club to accommodate 38 No. surface car parking spaces as well as hard and soft landscaping and all ancillary works including boundary treatments, site excavation and development works above and below ground

20/60 – Retention permission and permission granted to EFIV Irish Property ICAV. The proposed development specifically relates to Building No. 3 and Building No. 4 located to the north-east of the centre of the site. (No alteration to the balance of the development is sought by this Application). The development for which retention permission is sought consists of: the change of use of Building No. 3 from its permitted warehouse use (Reg. Ref. 95/923) to manufacturing use (4,421 sq. m gross floor area including ancillary offices at ground floor and first floor level); and the change of use of part of Building No. 4 from its permitted manufacturing use (Reg. Ref. 95/923) to office use (9,002 sq. m gross floor area). The development for which retention permission is sought also consists of: the provision of ancillary office space at first floor level within Building No. 4 (246 sq. m gross floor area); and all other associated site development works above and below ground. The site is principally bounded by; Barnhall Road to the north; Celbridge Road to the east; Barnhall Rugby Football Club to the south; and by grounds associated with Castletown House to the west

13/975 – Permission granted to MGS Manufacturing Group Ltd for the erection of four 3m.diameter x 10m. high raw material storage silos in the open yard to the rear of Buildings 2,3 and 4, to include all associated site works

12/708 – Permission granted to Intel Ireland Ltd for re-use and extension of a temporary car park (Park & Ride facility) for construction staff engaged in construction activities at the Intel Site, Collinstown Industrial Park, Leixlip, Co. Kildare. This permission is requested for the use of the car park for a period of 4 years. Access to the car park will be via the existing site entrance off the R404 road. The details are as outlined hereunder: (a) 735 temporary car parking spaces 2.5m x 5m, on an existing hard surfaced parking area of 1.27 hectare and and extension of 0.74 hectare parking area, with 6m high lamps and a temporary berm; (b) Dark green security chain link fence to surround the car gates; (c) 2 no. bus set down areas to accommodate 3 buses each; (d) 2 no. bus shelters (6.3m long x 2.1 m wide x 2.5m high) and (e) 2 no. Security Huts (3m x 3.2m x 2.5m high) and 2 security barriers. This applications consists of a variation to a previously permitted development for an activity for which a licence under Part IV of the Environmental Protection Agency Act 1992 (as amended for the Protection of the Environment Act 2003) is required and full details of the proposed development and its anticipated environmental impacts will be notified to the Environmental Protection Agency. An Environmental Impact Statement accompanies this application

02/1030 – Permission granted to Hewlett Packard Ltd for a new site entrance and roadway to connect the campus to public road, which forms part of the Celbridge interchange, 1 no. security kiosk with a total area of 20m2, including security barriers, connection into existing water/gas supply, surface water drainage; site development and landscape works; entrance gates; security fencing and site lighting; and estate signage

99/1602 – Permission granted to Hewlett Packard Manufacturing Ltd for the erection of one high level external sign to the northwest elevation of Office Building 1 and one high level external sign to the northeast elevation of Office Building 1, at Liffey Park, Leixlip, Co. Kildare. The signs shall be lit by flood lighting mounted to the top of each sign

98/171 – Permission granted to Hewlett Packard (Ireland) Ltd for alterations of previously approved plans for a manufacturing facility and development of overall site for industrial purposes with erection of roof-mounted satellite dish and roof-mounted antenna and associated equipment

97/1552 – Permission granted to Hewlett Packard (Ireland) Ltd for construction of an extension 771 sq.m. (8300 sq. ft) in size to the existing Staff Cafeteria with new service compound at roof, associated drainage works & site works and construction of new, ETC

97/893 - Permission granted to Hewlett Packard Ltd for extension to their existing manufacturing facility comprising of a new manufacturing building incorporating production spaces and offices , a new Energy Centre , service and pedestrian links between proposed and existing buildings all of total floor

96/1704 - Permission granted to Hewlett Packard Ltd for alterations to previously approved plans for a manufacturing facility and development of an overall site for industrial purposes, etc

96/1287 - Permission granted to Hewlett Packard Ltd for extension to existing manufacturing facility comprising a new building of 29,144 sq metres etc etc

96/1006 – Permission granted to Hewlett Packard Manufacturing Ltd for Alterations to previously approved plans for a manufacturing facility & dev. of an overall site for ind. purposes as follows: Erect 4 roof mounted ETC

96/411 – Permission granted to Hewlett Packad Manufacturing Ltd for Alterations to previously approved plans for a manufacturing facility & development of an oversite for industrial purposes as follows: 1. Exts. ETC..

95/923 – Permission granted to Hewlett Packard Manufacturing Ltd for A manufacturing facility of 42,460 sq m and development of an overall site of 80.56 hectares for industrial purposes incorporating site development works and including: site entrances and roadways; car parking; water supply; foul sewer drainage; surface water drainage; balancing ponds; sprinkler ponds and pumphouses; landscaping; fencing; levelling and mounding; truck manoeuvring areas; and a 110kv ESB compound and substation

Pre-Planning Consultation

Pre-Planning Number: PP5201

Development: Proposed expansion of the former HP Campus including Life Sciences and Data Centre development

Attended by:

KCC: Kehinde Oluwatosin (KO) – Senior Executive Planner Eoghan Lynch (EL) - Senior Executive Planner Elaine Donohoe (ED) – Executive Planner George Willoughby (GW) Roads - Senior Executive Engineer Ruth Kidney (RK) – Executive Architectural Conservation Officer Siobhan O'Dwyer (SOD) – Roads Design – Executive Engineer Deirdre Egan – Clerical Officer

Applicants: Brian Minogue (BM) – Tom Philips & Associates (Agent) Gavin Lawlor (GL) – Tom Philips & Associates (Agent) Toby Cooper (TC) – Ioxwood Capital (Agent for Investment Company) Iwan Iwanow (IIw) – Agent for Investment Company Derek Meehan (DM) – RKD

Architects Kevin Maguire (KM) – RKD Architects Hubert Ferenan (HF) – Director CSEA Zvonimir Salkic (ZS) – Civil Engineer CSEA Keith Smith (KS)

Notes:

- Castletown House & Wonderful Barn as protected structures and the protected view is nationally important. Further though required regarding architectural conservation.
- Concerns about building C3 encroaching on avenue, Building A1 area seems less developed and to look at developing other areas like this
- The required buffer threshold for power station on site might impact plans for site
- 2 locations noted for rainwater harvesting – slight concern re closeness to Leixlip reservoir – Applicant to discuss with Water Services
- TIA required taking into account overall Masterplan, Intel development, nearby SHD's/LRDs and other developments
- Transportation were satisfied with the pedestrian bridge and are happy to discuss further with TII and the Applicants.

Please note that these are general points taken from the meeting notes. For full details, please see the full pre-planning file.

1.10 Consultation

Submissions/Observations/Representations

3 no. submissions were received and can be summarised as follows;

- Proposed development would help to sustain the growth of the Kildare's workforce given the rise in population from 2016.
- Proposed development will attract companies and bring employment to the area.
- Proposed development represents focused strategic investment which is vital for the county's continued growth.
- Support the principle of the development of the Kildare innovation Campus, however there are concerns regarding the proposed uprate works to the 110kV lines and in particular, concerns regarding the impacts, including the environmental impacts, of the proposed uprate works as a whole.
- Concerns that the EIAR has not adequately addressed the uprate and proposed development as a whole. Outlines that the requirement of separate consent for the uprate works is project splitting.

Referrals

This application was referred to the following(Internal and External(Prescribed Bodies), reports received as indicated below. Please refer to the specific report on file should further details be required. Summarised below:

Internal Reports

Environment	No objections subject to conditions

EHO	No response at the time of writing
Area Engineer	No response at the time of writing
Transportation	No objections subject to conditions
Chief Fire Officer	Further information requested
ACO	No response at the time of writing
Water Services	No objections subject to conditions
Heritage Officer	No objections subject to conditions

External Reports: Prescribed Bodies

Irish Water	No objections subject to conditions
TII	Further information sought, however it is considered that the items sought can be dealt with by way of condition should permission be granted.
DHLGH	No response at the time of writing
NRO	Further information sought, however it is considered that the items sought can be dealt with by way of condition should permission be granted.
Inland Fisheries	No objections subject to conditions
HSE	No objections subject to conditions
EPA	No objections. However the following items are noted: • The development proposed may require a licence under Class 2.1 of the EPA Act 'Combustion of fuels in installations with a total rated thermal input of 50 MW or more'. • Should the Agency receive a licence application for the development, the applicant will be required to submit the associated EIAR to the Agency as part of the licence application.
NTA	No objections. Note that the Planning Authority should consider reducing car parking spaces on site

1.11 Legislative and Policy Context

Requirement for EIA

Section 172 of the Planning and Development Act 2000 (as amended) states the following with regard to the requirement for an Environmental Impact Assessment (EIA):

(1) An environmental impact assessment shall be carried out by the planning authority or the Board, as the case may be, in respect of an application for consent for proposed development where either –

a. The proposed development would be of a class specified in –

i. Part 1 of Schedule 5 of the Planning and Development Regulations, 2001 and either –

(I) Such development would equal or exceed, as the case may be, any relevant quantity, area or other limit specified in that Part, or

(II) No quantity, area or other limit is specified in that Part in respect of the development concerned

Or

ii. Part 2 other (other than subparagraph (a) of paragraph 2) of Schedule 5 of the Planning and Development Regulations 2001 and either –

(I) Such development would equal or exceed, as the case may be, any relevant quantity, area or limit specified in that Part, or

(II) No quantity, area or other limit is specified in that Part in respect of the development concerned.

Or

b.

(i) the proposed development would be of a class specified in Part 2 of Schedule 5 of the Planning and Development Regulations 2001 but does not equal or exceed, as the case may be, the relevant quantity, area or other limit specified in that Part, and

(ii) It is concluded, determined or decided, as the case may be, -

(I) By a planning authority, in exercise of the powers conferred on it by this Act or the Planning and Development Regulations 2001 (S.I. No. 600 of 2001),

(II) …..

Annex II projects are set out in Part 2 of Schedule 5, together with specified thresholds above which a project must be subject to an EIA. The following class of project listed in Part 2 of Schedule 5 is relevant to the present project;

Class 10(b)(iv): "Urban development which would involve an area greater than 2 hectares in the case of a business district, 10 hectares in the case of other parts of a built-up area and 20 hectares elsewhere."

Having regard to the overall site area of the Project which is in excess of 73.95 ha, an EIA of the Project is therefore required.

National Planning Framework

National Policy Objective 6 Regenerate and rejuvenate cities, towns and villages of all types and scale as environmental assets, that can accommodate changing roles and functions, increased residential population and employment activity and enhanced levels of amenity and design quality, in order to sustainably influence and support their surrounding area.

National Policy Objective 11 In meeting urban development requirements, there will be a presumption in favour of development that can encourage more people and generate more jobs and activity within existing cities, towns and villages, subject to development meeting appropriate planning standards and achieving targeted growth.

Eastern Midlands Regional Authority; Regional Spatial Economic Strategy

The Eastern SPA is strong in manufacturing, hosting a number of foreign owned investments of significant scale in the Technology and Pharmaceutical sectors. The Midlands SPA has strong concentrations of foreign and Irish owned companies in manufacturing - predominantly in medical devices, pharma/bio, food and engineered products.

Kildare County Development Plan 2023-2029.

Chapter 2 Kildare Core Strategy and Settlement Strategy

- 2.11Preferred Development Strategy
- 2.13 Employment in Kildare
- 2.14.3 Self-Sustaining Growth Towns
- 2.12 Sectoral Strengths

Chapter 4 Resilient Economy & Job Creation

The subject Kildare Innovation Site (Former HP Site) is identified as a "Strategic Development Area", identified as an important area specifically zoned for knowledge-based economy focusing on high tech/biotechnology, research and development, ICT and manufacturing.

- 4.2 Economic Development
- 4.4 Economic Development Hierarchy.

Strategic Development Areas in the MASP[1]	Leixlip – Former Hewlett Packard site and Collinstown site to Strengthen employment base for North Kildare. Maynooth - New Research & Technology Park adjoining Maynooth University.	North-West Corridor (Maynooth/ Dunboyne commuter line /DART)	Business Parks comprising knowledge- based economy focusing on high tech/biotechnology, research and development, ICT and manufacturing. Research and Technology

Fig. extract from Table 4.1 of the Kildare County Development Plan 2023-2029

The MASP is a key policy driver which sets out an integrated land use and transportation strategy for the sequential development of the Dublin Metropolitan Area. The Dublin Metropolitan Area includes the highly urbanised settlements of Maynooth, Leixlip, Celbridge and Kilcock which have strong connections to Dublin City and County. A Metropolitan Area Strategic Plan is included in the RSES. Strategic Development Areas have been identified at key nodes along high-quality public transport corridors in tandem with the delivery of infrastructure and enabling services. Maynooth, Leixlip, Celbridge and Kilcock are located along the North-West corridor. In Maynooth, a new research & technology park adjoining Maynooth University has been identified for strategic economic development. In Leixlip, the former Hewlett Packard site and Collinstown site have been identified as strategic employment areas.

RE O26 *Continue to support and develop the Self-Sustaining Growth Towns of Newbridge and Leixlip as an attractor but not limited to Biotechnology, ICT, professional services, High-tech manufacturing and research employment. Kildare County Council will work with Irish Water and other agencies to ensure the delivery of key infrastructure to facilitate future development*

RE O30 Co-ordinate the delivery of strategic infrastructure including pedestrian and cycle linkages within Leixlip and between Leixlip and the Greenway, Intel, Celbridge and Lucan in a manner which supports future development and population growth.

- 4.6 Land Use and Economic Development
- 4.10 Foreign Direct Investment
- 4.13 Enterprise Development
- 4.15 Retail and Commercial Development
- 4.16 Data Centres (see also Data Centres & Energy in Chapter 7)

RE P11 *Support the accommodation of Data Centres at appropriate locations in line with the objectives of the National Planning Framework and the principles for*

Sustainable Data Centre Development of the Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy (July 2022) subject to appropriate Transport, Energy and Environmental Assessments and all relevant planning conditions. The location of data centres shall be situated where they will not have a potential likely significant effect on a European Site. Such developments shall be subject to an AA Screening Report, and where applicable, Stage 2 AA. They shall have regard for any hydrological connection shared with a European Site and shall account for any potential likely significant effects and provide mitigation and monitoring where appropriate.

RE O71 *Require that any application for a data centre will be subject to all relevant and cumulative environmental assessments and planning conditions and shall take account of the cumulative visual impact of the proposed connections of the data centre with electricity transmission, renewable energy and broadband infra-structure in the area*

RE O72 *Require data centres to consider the use of sustainable renewable sources of energy to fuel their operations in whole in the first instance or in part (minimum of 30%) where this is not possible and where it has been satisfactorily demonstrated not to be possible, subject to all relevant and cumulative environmental assessments and planning conditions.*

- 4.17 Green / Circular Economy and Bio-Economy

Chapter 5 Sustainability and Mobile Transport
- 5.7 Regional Roads
- 5.8 Local Roads
- 5.9 Road and Street Design
- 5.10 Traffic and Transportation Management
- 5.11 Parking
- 5.12 Public Lighting

Chapter 7 Energy and Communications
- 7.6 Solar Energy
- 7.12 Energy Efficiency

  EC A4 *Carry out a feasibility assessment for district heating in County Kildare and identify local waste heat sources or renewable energy sources to facilitate such proposals.*
- 7.13 Communications

  EC O59 *Consider applications for data centres having regard to the following criteria:*

  • *Accessibility/ease of connection to power*

  • *Availability of renewable energy to power any proposed data centre.*

  • *Availability of high-powered fibre optic infrastructure Transport/road accessibility*

  • *Compatibility of surrounding land uses/zoning*

• Avoidance of designated sites including specifically avoidance of development of data centres where they would adversely affect the integrity of a European Site
• Availability of significant landbanks
• Noise
• Visual impact
• Flood risk
Such developments shall be subject to an AA Screening Report, and where applicable, Stage 2 AA. They shall have a regard for any hydrological connection shared with a European Site and shall account for any potential likely significant effects and provide mitigation and monitoring where appropriate.

EC O60 Require that any application for a data centre shall take account of the cumulative visual impact of the proposed connections of the data centre with electricity transmission, renewable energy and broadband infrastructure in the area.

EC O61 Require data centres to include strong energy efficiency measures to reduce their carbon footprint in support of national targets towards a net zero carbon economy, through the use of sustainable sources of energy generation in the first instance and then the use of renewable sources of energy to power their operations, where on site demand cannot be met in this way, to provide evidence of engagement with power purchase agreements (PPA) In Ireland. All data centre developments shall provide evidence of sign up to the Climate Neutral Data Centre Pact.

EC O62 All data centre development applications shall have regard to the DECLG guidance document 'Towards nearly Zero Energy Buildings in Ireland – Planning for 2020 and Beyond', which promotes the increase of near Zero Energy Buildings (nZEB). EC O63 Ensure that all significant development proposals for Data Centres are accompanied by an Energy Analysis that explores the potential for the development of low carbon district heating networks.

Chapter 11 Built & Cultural Heritage
- 11.2 Archaeological Heritage
- 11.13 Features of Historical Interest;
- 11.14 Architectural Heritage;
- 11.15 Protected Structures;
- 11.16 Country Houses and Demesnes;
- 11.17 Built Vernacular Heritage

Chapter 12 Biodiversity and Green Infrastructure
- 12.1 Biodiversity
- 12.2 Biodiversity and Ecosystem Services
- 12.6 Designated Sites for Nature Conservation
- 12.7 Protected Habitats and Species outside Designated Areas
- 12.8 County Biodiversity Sites
- 12.9 Trees, Woodlands, and Hedgerows

- 12.14 Green Infrastructure (GI)

Chapter 13 Landscape, Recreation & Amenity
- 13.3 Landscape Character Assessment
- 13.4 Areas of High Amenity
- 13.6 Recreation and Amenities
- 13.7 Urban Recreation and Amenity

Chapter 15 Development Management Standards
- 15.7 Transport
- 15.8 Surface Water
- 15.17 Built and Natural Heritage

Leixlip Local Area Plan 2020-2023

The subject site is zoned H – Industry and Warehousing under the current Leixlip Local Area Plan 2020-2023. This zoning seeks to provide for industry, manufacturing, distribution and warehousing.

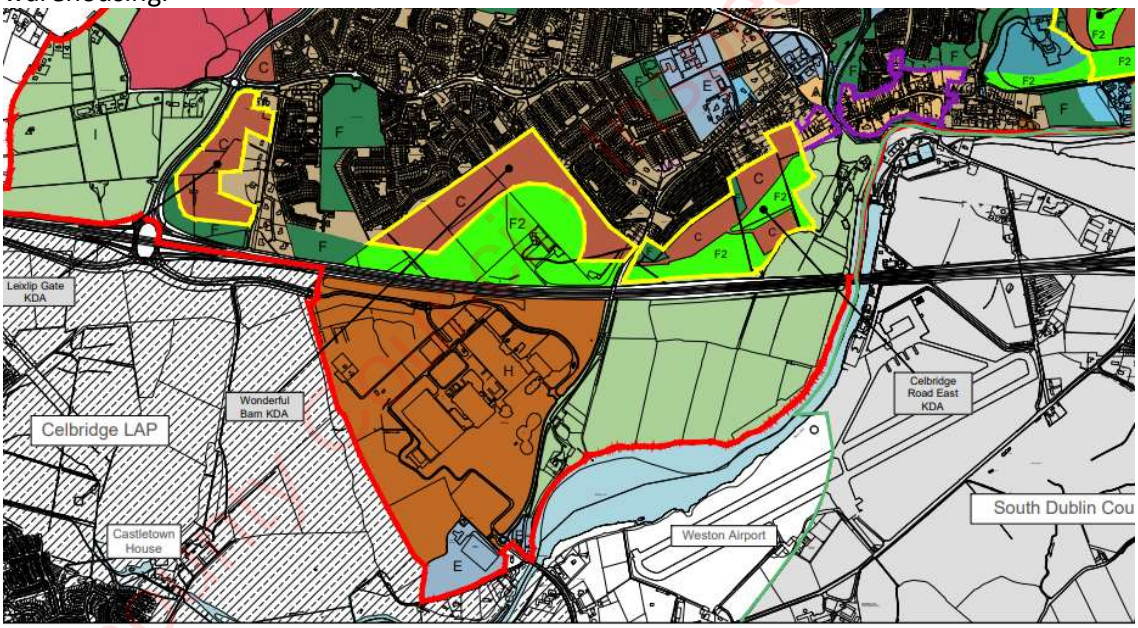

Fig: Extract from the Leixlip Local Area Plan zoning map

CS1 *It is the policy of the Council to support the sustainable long term growth of Leixlip in accordance with the Core Strategy of the Kildare County Development Plan 2017-2023 (or any variation of same), the provisions of the National Planning Framework 2018 and the Regional Spatial and Economic Strategy.*

S3 To promote, support and enable sustainable economic development and employment generation in Leixlip consistent with its role in the hierarchy of employment set out in the

Kildare County Development Plan 2017-2023 and optimising its strategic location along a key public transport corridor as identified in the Metropolitan Area Strategic Plan

Section 8.3 Road and Street Network

MT3.12 To investigate the feasibility of a new link road from the Celbridge Road (R404) to the south of the M4 connecting to the M4 Leixlip/Celbridge Interchange in consultation with TII, NTA and other stakeholders

MT3.13 To complete the through public road to connect the Celbridge Road (at Former HP site) to M4 Interchange Junction 6 prior to the commencement of Celbridge Road East KDA.

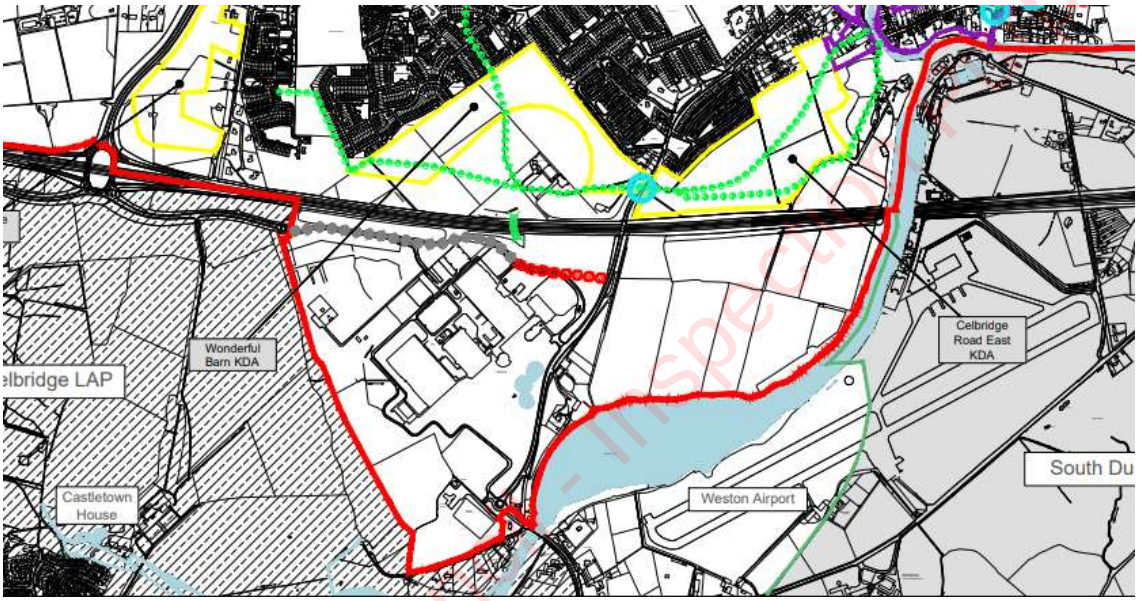

Fig: Extract from the Leixlip Transport Map showing road objectives within the site.

2.0 Environmental Impact Assessment

2.1 Methodology of EIAR

The methodology of the EIAR is outlined along with the structure of the EIAR, scoping undertaken and contributors to the EIAR. It is stated that no difficulties were encountered in the preparation of the EIAR.

In the interest of clarity and legibility for the reader it is proposed to structure this section of the report in line with the sequencing of the information contained in the EIAR. It is not the intention of this report to summarise the content of the EIAR as this is provided in the non-technical summary, but rather to address the information contained therein in a direct and succinct manner.

2.2 Proposed Development

Proposed development comprises of the following:

- Demolition of existing Buildings No's 7, 8 and 9 (total gfa c. 84,838sqm).

- Existing Buildings No's 1 – 6 will be retained for deep tech and innovation related uses (total gfa c.42,862sqm)
- Construction of 2 no. new deep tech buildings and 4 no. new data centre buildings, all including ancillary office spaces. The deep tech buildings will have an overall maximum height of c.16m and vary in size from 30,945sqm – 41,190sqm with a combined total gfa of c. 72,135 sqm. The data centres will be c.15 m in height to parapet and c.16.5m in height to top of roof plant screening. The data centres will vary in size from 13,225 sqm – 21,000 sqm with a combined total gfa of c. 76,225sqm. All buildings will be provided with Solar PV panels at roof level and green walls along selected elevations.
- The new deep tech buildings (A1 & A2) will be provided with service yard areas, loading docks, car parking, access roads, security fencing/gates and landscaping. The deep tech buildings will include rainwater harvesting tanks and green roofs over office areas.
- Each data centre (B1, C1, C2 & C3) will include data halls, admin blocks (comprising offices, breakroom, loading dock, storage, and ancillary areas) and a variety of mechanical and electrical plant areas/structures including battery storage rooms and mechanical rooms. Car parking, access roads, security fencing/gates, gate houses and landscaping will also be provided.
- B1 will include 14 no. fuel oil generators, MV rooms and associated mechanical flues. C1 – C3 will each include 22 no. fuel oil generators, MV rooms and associated mechanical flues (each c.18.6m high). Car parking, access roads, security fencing/gates, gate houses and landscaping will also be provided.
- 2 no. district heating pump house areas and inground piping for district heating system.
- Construction of a Replacement 110kV Gas Insulated Switchgear (GIS) Substation adjacent to the existing 110kV Rinawade Substation. The current Air Insulated Switchgear (AIS) substation known as the Rinawade 110kV sub is fed by 2 x 110kV Overhead lines. The new substation will connect to these overhead lines via short runs of underground cable. The replacement 110kV substation will include 6 No. transformers, with client control building and a 2 storey GIS substation building within a 2.4m high fenced compound.
- Decommissioning and removal of the existing 110kV Rinawade substation.
- Construction of an on-site energy centre to provide to the national electrical grid. The Energy Centre will include 9 no. gas powered combustion turbine generators (CTG's) and 9 no. Flues with a maximum height of c.15 metres. The turbines will be enclosed by a screen wall 14m in height. The energy compound will include all required infrastructure including 2 no. back-up fuel oil (HVO) tanks, an administration building, pump house, fire water tank, access roads, 14 no. parking bays, security fencing etc.
- Provision of a Gas Networks Ireland (GNI) gas skid surrounded by a 2.4m high fence and access from Celbridge Road (R404). The GNI skid will replace the existing gas skid along Celbridge Road. Provision of a GNI AGI (Above Ground Installation) including 1 no. kiosk building, c.32m high surrounded by a 2.4m high fence.

- Closure of the existing main entrance to the campus on Celbridge Road and reinstatement of the boundary. Construction of a new signalised entrance/exit on Celbridge Road c.80meters north of the existing main entrance. Use of the existing secondary entrance/exit off Barnhall Road Roundabout in the south-east as a principal entry/exit.
- Construction of internal access roads, footpaths and cycle paths including a publicly accessible link road between Celbridge Road (R404) to the east and Barnhall Road (R449) to the west.
- Construction of a new pedestrian and cycle overpass across the M4 motorway and pedestrian/cycle path adjacent to lands known as the Wonderful Barn Allotments; the overpass will link the new publicly accessible link road within Kildare Innovation Campus to the entrance of Barnhall Meadows estate.
- Undergrounding and diversion of the existing overhead 10Kv/20kv overhead line adjacent to the M4 Motorway.
- The pedestrian and cycle route within the Kildare Innovation Campus will provide a link from the new public link road, along the protected view corridor (between Castletown Estate & Wonderful Barn) to the north-eastern boundary of Castletown Estate.
- The provision of a net increase of 678 new car spaces, resulting in a total of 2291 car spaces across the site (including a total of 244 EV car spaces).
- The provision of a new private EV Bus charging hub with parking for 10 no. electric buses.
- The provision of a net increase of 310 new bicycle spaces, resulting in a total of 350 bicycle spaces across the site.
- The diversion of the c.500 m stretch of an existing 1.5m culvert, located to the north of the site along the existing loop road, southwest by c.60m; the diverted culvert will be located along the proposed link.
- All associated site development works, drainage and services provision, landscaping, boundary treatments (including security fencing), and associated works.
- An Environmental Impact Assessment Report has been prepared in respect of and will be submitted with the planning application. The application relates to a development for the purposes of an activity requiring an industrial emissions licence.

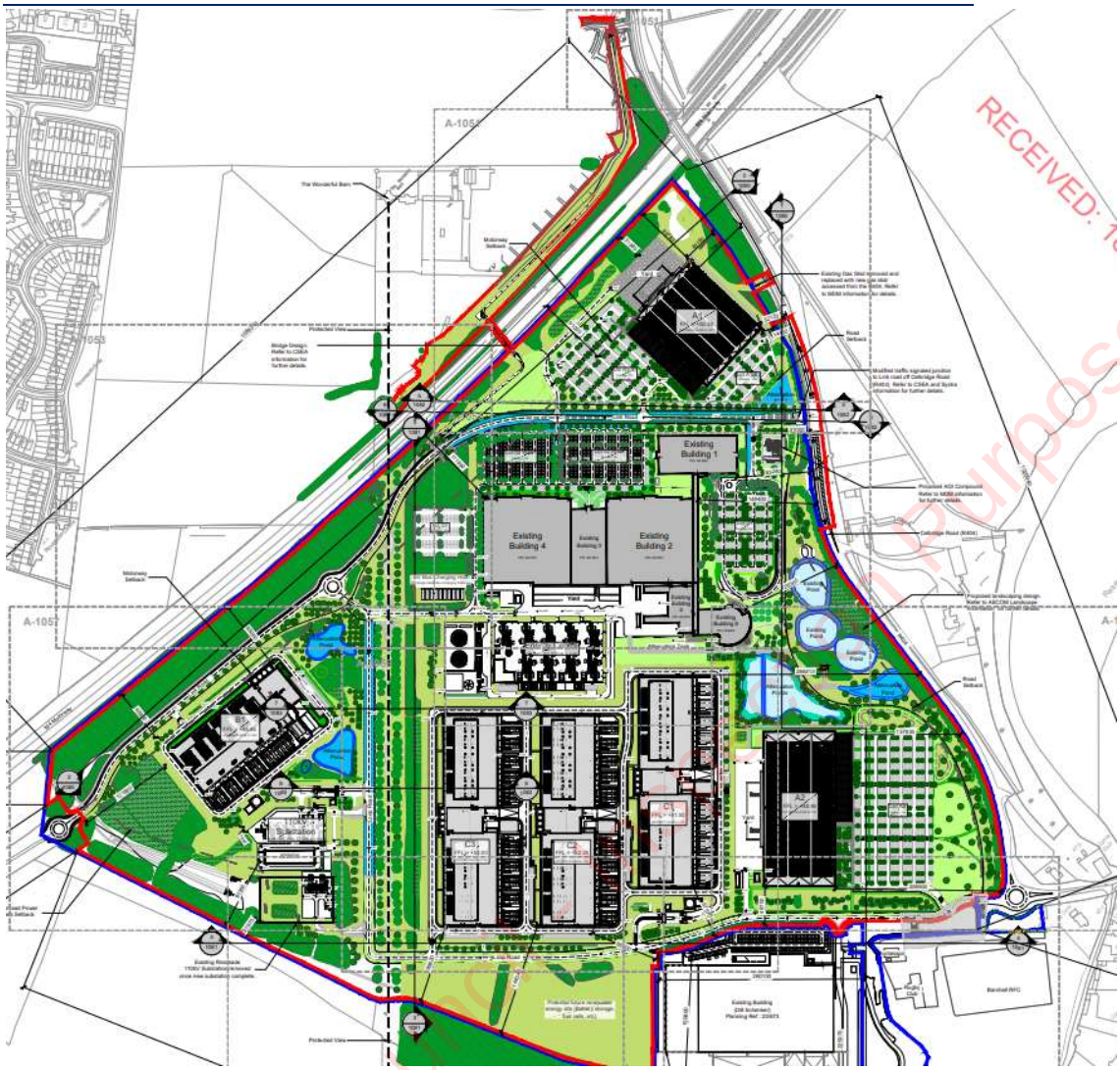

Fig: Site layout proposed

2.3 Examination of Alternatives

2.3.1 Description of Alternative Scenarios

An assessment of alternatives is considered in the EIAR. The assessment of alternatives set out the following information/alternatives:

- Do nothing alternative - it should be noted that each chapter of the EIAR has a section discussing the do-nothing scenario and how it relates to that environment topic. This scenario is an alternative by itself and is noted as appropriate.
- alternative project locations;
- alternative designs/layouts;
- alternative processes;
- alternative mitigation measures.

2.3.2 Rationale for Development

The proposed development seeks to provide for the redevelopment/regeneration of an underutilised business and innovation campus, in order to encourage foreign direct investment and maximise economic value. The National, Regional and Local planning policies supporting the proposed development are outlined within this Chapter. The development will also seek to improve the physical connectivity of the site with the surrounding lands to improve mobility for sustainable modes of transport in line with the Leixlip Local Area Plan 2020-2023.

2.3.3 Site Selection

The site selection is not considered relevant given the zoning of the site, the existing uses on site and the nature of the development. Prior to the purchase of the site the current landowners considered the following key criteria;

- Availability of a high-quality telecommunications fibre network;
- Accessibility to the natural gas network (to provide dispatchable energy in line with government policy);
- Availability of a high-quality and existing electricity network (to provide direct connection to the national grid and mix of renewables);
- Availability of a suitably large site with suitable development zoning;
- A site in proximity to existing high density of US and global tech companies;
- Existing campus development with potential to expand with high-tech and ICT uses;
- Low natural disaster risk particularly in relation to flooding

Having regard to the above and the support national, regional and local planning policy earmarking the site for redevelopment, the further consideration of alternative locations for employment generating uses was not considered relevant.

2.3.4 Alternative Design/Layout

Analysis of the layout initially assessed which reviewed the existing buildings on site, site access, connections site profile, site levels and adjoining land uses. A number of design iterations have been considered throughout the design, including building design. Alternative Design/Layout were not considered feasible due to impacts on the nearby protected structures/views and noise impacts to surrounding land uses. The proposed layout was considered to be the preferred layout due to it having the least environmental impact.

2.3.5 Assessment of Alternative processes

Alternative options/alternatives have been explored for the following;

- Power supply
- Water Supply
- Heat Supply
- Transportation of goods and People
- Drainage

Justification for the final proposal under each of the above items has been detailed within each sub heading. The most practical and efficient solution was considered to be chosen in each element.

2.3.6 Assessment of Alternative Mitigation Measures

For each aspect of environment, each specialist considered likely impacts and reviewed feasible mitigation measures selecting the most suitable to the setting and guidance/legislation. The selected mitigation measures are set out in each of the EIAR chapters 5-17.

2.4 Population and Human Health

2.4.1 Introduction

Chapter 5 Population and Human Health evaluates how the proposed development and the likely direct and indirect impacts would effect the population and human health. The Chapter sets out a legislative context, methodology to the chapter, data sets used, baseline of human health the area, receiving environment and the potential impact the proposed development may or may not have on the population and human health, mitigation measures and monitoring.

2.4.2 Baseline

A baseline scenario was assessed and established in terms of population, economy, employment, housing and social infrastructure and amenities. It is noted that 2 no. study areas were used in the demographic analysis in order to assess the impacts of the proposed development on the surrounding population. The first study area provides information with respect to the local electoral district context, and includes 4 No. EDs which adjoin the subject sites within a c. 1 km radius. The second study area information with respect to the wider LA context of Kildare in terms of economic and social impacts.

2.4.3 Potential impacts and mitigation

To predict the impact of the proposed development on the baseline environmental headings/topics, the Applicant has submitted Grant Thornton Economic Impact Assessment, to determine the overall economic impact of the project, calculated the housing demand likely to be generated from the permanent employment increase and identified the social infrastructure and amenities provided or impinged by the project.

The various impacts and mitigation measures are discussed and accounted for under each of the relevant chapters within the EIAR.

2.5 Biodiversity

This chapter sets out the habitats, flora and fauna present in the receiving environemtn and presents an assessment of potential impacts arising from the project, with consideration given to appropriate mitigation measures to minimise and/or avoid potential negative impacts.

The studies undertaken to inform this chapter have been set out and tabulated.

Date	Time	Weather	Ecologist	Task
28.04.2022	10:00-16:00	Wind F2-F3, Dry, Visibility Good	Dr. Gavin Fennessy	Deployment of passive detectors and cameras, bird transect survey, mammal survey. Inspection of Buildings 7, 8 and 9 for bat roost suitability
08.06.2022	10:00-16:00	Wind F3-F4, Dry, Visibility Good	Dr. Gavin Fennessy	Deployment of passive detectors, bird transect survey, mammal survey.
09.06.2022	10:00-16:00	Wind F2-F3, Light showers, Visibility Good	Dr. Gavin Fennessy	Deployment of passive detectors, mammal survey.
14.06.2022	07:00-08:00	Wind F3, Overcast, Dry, Visibility good	Dr. Gavin Fennessy	Ecological site walkover, mammal survey.
16.06.2022	11.15 - 19.30	Overcast, Dry, Wind F2/3 SE, Visibility Good	John Deasy	Baseline ecological survey for habitats and botanical species.
27.06.2022	12:00-16:00	Wind F4, Infrequent showers, Visibility Good	Dr. Gavin Fennessy	Collecting passive detectors and cameras, mammal survey.
10.08.2022	12:00-16:00	Bright, Wind F2-F3, Dry, Good Visibility	Dr. Gavin Fennessy	Collecting passive detectors, mammal survey.
30.11.2022	12:00-16:00	Wind F2-F3, Dry, Good Visibility	Dr. Gavin Fennessy	Bird transect survey
01.02.2023	10:00-16:00	Strong breeze, Wind F4, Dry, Good Visibility	Dr. Gavin Fennessy	Bird transect survey, ecological site walkover of the north lands (Wonderful Barn)
28.03.2023	10:30-16:00, 20:45-21:15	Overcast, Cloud 8/8, Wind F2, Occasional Light Showers, Visibility Good	Dr. Gavin Fennessy, Marie Kearns, Fiona May-Aylward	Preliminary ground level roost assessment - trees, bat activity survey, deployment of passive detectors
29.03.2023	10:00-13:00, 19:35-21:15	Bright and Breezy, Dry, Cloud 6/8, Wind F3/F4, Visibility Good	Dr. Gavin Fennessy, Marie Kearns, Fiona May-Aylward	Preliminary ground level roost assessment - trees, dusk emergence survey, deployment of passive detectors
30.03.2023	12:00-16:00	Warm and Bright, Cloud 6/8, Wind F2/F3, Occasional showers	Dr. Gavin Fennessy, Marie Kearns, Fiona May-Aylward	Preliminary ground level roost assessment - trees, deployment of passive detectors
13.04.2023	11:00-12:00	Wind F4-F5, Bright, Dry, Good Visibility	Dr. Gavin Fennessy	Site walkover as part of the KIC pre-planning meeting
19.05.2023	1600-17:00	Dry, Cloud 6/8, Wind F3, Good Visibility	Dr. Gavin Fennessy	Ecological survey of the proposed GNI upgrade route – check for invasive plant species.

The EIAR sets out a comprehensive methodology and impact assessment technique as well as background policy at national and local level.

- Appropriate Assessment and Natura Impact Statement by AWN Consulting has been submitted as part of this planning application and the assessment of same.
- Arboricultural Assessment, Impact Statement and Method Statement also submitted by Arbeco Ltd.
- Chapter explores and provides assessment of impacts on biodiversity of site and wider area. Chapter provides assessment of impacts of proposed development in question on the ecological environment. Chapter sets out receiving environment including development areas.
- Chapter sets out national legislation, policy and guidance with respect to same, this including National Planning Policy Framework, KCC CDP 2017-2023 (updated as part of new adopted KCC CDP 2023-2029 however biodiversity objectives generally carry through);

2.5.1 Methodology

The studies undertaken to inform this chapter have been set out and tabulated as set out below.

Date	Time	Weather	Ecologist	Task
28.04.2022	10:00-16:00	Wind F2-F3, Dry, Visibility Good	Dr. Gavin Fennessy	Deployment of passive detectors and cameras, bird transect survey, mammal survey. Inspection of Buildings 7, 8 and 9 for bat roost suitability
08.06.2022	10:00-16:00	Wind F3-F4, Dry, Visibility Good	Dr. Gavin Fennessy	Deployment of passive detectors, bird transect survey, mammal survey.
09.06.2022	10:00-16:00	Wind F2-F3, Light showers, Visibility Good	Dr. Gavin Fennessy	Deployment of passive detectors, mammal survey.
14.06.2022	07:00-08:00	Wind F3, Overcast, Dry, Visibility good	Dr. Gavin Fennessy	Ecological site walkover, mammal survey.
16.06.2022	11.15 - 19.30	Overcast, Dry, Wind F2/3 SE, Visibility Good	John Deasy	Baseline ecological survey for habitats and botanical species.
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01.02.2023	10:00-16:00	Strong breeze, Wind F4, Dry, Good Visibility	Dr. Gavin Fennessy	Bird transect survey, ecological site walkover of the north lands (Wonderful Barn)
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13.04.2023	11:00-12:00	Wind F4-F5, Bright, Dry, Good Visibility	Dr. Gavin Fennessy	Site walkover as part of the KIC pre-planning meeting
19.05.2023	1600-17:00	Dry, Cloud 6/8, Wind F3, Good Visibility	Dr. Gavin Fennessy	Ecological survey of the proposed GNI upgrade route – check for invasive plant species.

A desktop review was also carried out on the study area, the proposed GNI upgrade route and the Eirgrid uprating route. The assessment also consulted the following data sets and ecological resources;

- National Parks and Wildlife Service (NPWS) online mapping and datasets;
- Heritage Maps online mapping;
- National Biodiversity Data Centre (NBDC) online mapping and datasets;
- Environmental Protection Agency (EPA) online mapping and datasets;
- Botanical Society of Britain and Ireland (BSBI) online mapping;
- Kildare County Development Plan 2023 – 2029;
- Leixlip Local Area Plan 2020-2023;
- Celbridge Biodiversity Action Plan 2021 – 2025;
- National Biodiversity Action Plan 2017 - 2021;
- National Biodiversity Action Plan 2023 – 2027 (Draft for Public Consultation);
- Invasive Species Ireland;

A desk study was carried out identifying Natura 2000 sites within 15km radius of site.

2.5.2 Receiving Environment

2.5.2.1 Closest European sites are as follows:

Site Name	Site Code	Proposed Development Site Distance (km)
Natura 2000 sites		
Rye Water Valley/Carton SAC	001398	0.96
Glenasmole Valley SAC	001209	13.83
South Dublin Bay and River Tolka Estuary SPA	004024	18.33
South Dublin Bay SAC	000210	19.55
North Bull Island SPA	004006	21.46
North Dublin Bay SAC	000206	21.47
Nationally designated sites (no NHA sites within 15km)		
Rye Water Valley/Carton pNHA	001398	0.96
Royal Canal pNHA	002103	1.11
Liffey Valley pNHA	000128	1.30
Grand Canal pNHA	002104	2.60
Slade of Saggart and Crooksling Glen pNHA	000211	10.35
Lugmore Glen pNHA	001212	11.17
Kilteel Wood pNHA	001394	12.35
Dodder Valley pNHA	000991	13.21
Donadea Wood pNHA	001391	13.50
Glenasmole Valley pNHA	001209	13.83

The likely significant effects on European designated sites arising from the proposed development are addressed in the accompanying Screening Assessment report.

Regarding the closest designated site, Rye Water Valley/Carton SAC, it is noted that the River Liffey is hydrologically connected to the proposed development site by the surface-water drainage system that releases run-off via controlled discharge to the Leixlip Reservoir and the foul water drainage network that discharges treated foul water to the River Liffey via the Leixlip WWTP primary emission point. The Rye Water River flows into the River Liffey c. 450m

downstream of the surface-water discharge point in the Leixlip Reservoir and c. 1km upstream of Leixlip WWTP primary emission point. Given the location of the confluence of the River Liffey and the Rye Water River, it is considered that no elements of the proposed development are likely to result in significant impacts on the Rye Water Valley/Carton SAC. The uprating works which cross the Rye Water River/SAC are described in detail and it is noted that no instream works or poleset/tower replacement works will be required within the SAC. The proposed GNI upgrade route does not cross the Rye Water River or any other watercourses, therefore no significant impacts to the Rye Water Valley/Carton SAC are likely.

Given the distance to the other Natura 2000 sites, it is considered that no significant effects as a result of the development are likely.

2.5.2.2 Impacts on Non-designated areas;
Rye Water Valley/Carton pNHA, Royal Canal pNHA and Liffey Valley pNHA are all located within 1.3km of the site. The Royal Canal is not hydrologically connected to the proposed development site; therefore, no significant effects are expected on this pNHA. The entry point to the River Liffey via the existing Leixlip WWTP primary emission point has already been noted under Section 2.5.2.1.

2.5.2.3 Flora
According to the Leixlip Local Area Plan (2020 – 2023), there are a number of areas throughout Leixlip that have been identified as "key local biodiversity areas", including:

"The woodlands, hedgerows, treelines, watercourses and extensive areas of grassland within the farmlands of Collinstown and Confey, in St. Catherine's Park, Leixlip Manor, Leixlip Castle Demesne, Barnhall and the surroundings of the commercial grounds of Intel and the Hewlett Packard site all provide excellent habitats which are interlinked and support widespread habitat connectivity across the study area and contribute to the GI network of Leixlip."

No legally protected or red-listed plant species have been previously recorded in the NBDC database within which the study area is located.

While the main campus consists of industrial buildings, associated car parking and access roads, the areas immediately surrounding the built areas consist of formal landscaping including grassland, ornamental shrubbery, hedges and treelines. The campus itself is well screened from the external roadways with semi mature, landscaping of mixed woodland and treelines. There are a number of areas of unmanaged meadows and grasslands along with artificial lakes and ponds. No invasive species listed on the Third Schedule of the 2011 European Communities (Birds and Natural Habitats) Regulations (i.e., species of which it is an offense to disperse, spread or otherwise cause to grow in any place) were recorded within the proposed development boundary or along the proposed GNI upgrade route.

2.5.2.4 Fauna
Eleven confirmed non-volant mammal species were recorded during ecological surveys and by the trail cameras.

Species	Cam1	Cam2	Cam3	Cam4	Cam5	Cam6
Red Deer	1			2	1	2
Fox		58	5	83	34	
Grey Squirrel		1		5		
Hedgehog		5		2	4	
Badger		1			1	
Rabbit		10		149		
Field Mouse				8		
Unidentified small mammal (mouse/vole/shrew)				4		
Brown Rat				1		
Dog					1	

While no breeding and/or resting places of any protected mammal were recorded suitable habitat exists for species such as Badger. No Badger sett was recorded as part of the ecological surveys undertaken as part of the planning application for the proposed development.

There are a number of records for additional protected mammal species within the wider area of the 10km grid square in which the campus is located. An otter is one of these protected mammals recorded, however no otter activity was recorded during site walkovers of the campus and there is no optimal foraging/breeding habitat for Otter within the campus.

From the analysis of the bat call registrations recorded by all 14 no. passive detectors, the presence of five bat species was confirmed. The most popular areas of bat activity were west of the ponds, within semi mature woodland surrounding the site and the woodland belt that borders the west of the campus. Building inspections were carried out on the buildings to be demolished and no evidence of current of historic signs of usage by bats inside or outside any of the three buildings.

There are 535 no. trees to be removed as part of the development and the majority of these trees are considered to have 'Negligible' to 'Low' roosting suitability for bats. Bat boxes permitted as part of the development of the site to the south were visible on site.

Regarding birds, a total of 55 bird species were recorded during winter and breeding bird surveys. These included five red-listed species, Kestrel, Meadow Pipit, Redwing, Snipe and Swift.

2.5.3 Potential Impacts on Designated Conservation Sites

A screening assessment has been provided in support of the Appropriate Assessment (AA) process which accompanies the application. Details regarding the proposed earthworks, surface water drainage, foul drainage and air quality during both the construction and operational stage are outlined. The Screening Assessment concludes that there is no likelihood of significant effects on any of the Natura 2000 located within the wider area.

2.5.4 Construction and operational impacts on the biodiversity within the site

The proposed development will see an increase of 171,641.88sqm in hardstanding within the boundary of the development site. The report assesses the impact that the proposed

development will have on the habitats listed within the site. The following habitats were considered of local importance;

- *Recolonising Bare Ground (ED3)/Scrub (WS1) Mosaic - local importance (higher value)*
- *Mixed broadleaved woodland (WD1) - local importance (higher value).*
- *Scattered trees and parkland (WD5) - local importance (higher value), given the maturity of the trees present.*
- *Hedgerows (WL1) - local importance (higher value),*
- *Treelines (WL2) - local importance (higher value).*
- *Other artificial lakes and ponds (FL8) - local importance (higher value)*

The report details both the construction and operational impacts that the development may have on the flora, fauna, habitats and mammals as described within the chapter. Along with the increase in hardstanding as already detailed, other impacts include;

- 535 trees will be removed from site
- Reduction in foraging, roosting and breeding potential given removal of vegitation

2.5.5 Mitigation

An extensive list of mitiagtion is proposed to minimise the potential impacts identified. These include;

- Apointment of suitably qualified Ecological Clerk of Works for each phase of the construction of the project to ensure the full and proper implementation of the mitigation strategy
- Any areas where vegetation removal or construction activity is due to commence will be subject to a pre-works survey by a suitably qualified ecologist
- All soil removed from the site will be disposed of at approved licenced facilities
- The proposed Landscaping Plan will be implemented in full, including the planting of 1,400m of linear hedgerow and some 22,500m2 of woodland habitat with 1,370 specimen trees.
- All environmental controls described in the CEMP and elsewhere in the EIAR
- Installation of green roofs and walls will support a diversity of invertebrate species.

Please note that this list is not exhaustive.

2.5.6 Assessment

The details set out in this section of the EIAR are considered to be generally acceptable.

2.6 Lands, Soils, Geology and Hydrogeology

2.6.1 Methodology

This chapter assesses and evaluates likely significant impacts of the proposed development on the land, soil, geological and hydrogeological aspects of the site and surrounding area associated with the proposed development. The governing legislation and criteria for assessing impacts, measuring/rating of effects and mitigation is set out as well as a description of the works. The methodology used in assessing the baseline information and soils and geology impact of the proposed development is then outlined. The proposed development has primarily relied on databases maintained by the Environmental Protection Agency (EPA),

Geological Survey Ireland (GSI) and NPWS along with other relevant bodies. Site investigations were also carried out between October and December 2019 and February 2020, details of which are described throughout the chapter.

2.6.2 General Baseline

The site comprises of 10 buildings with approximately 1,600 car spaces and associated green spaces. The site is generally flat and there are no particular archaeological features within the site. According to the site investigation undertaken by IGSL between December 2019 and February 2020 reported the ground conditions to be consistent with made ground deposits described as sandy gravelly Clay with some occasional fragments of tarmacadam and concrete.

With regard to hydrogeology, the ground investigations report carried out by IGSL in October to December 2019 indicate a vulnerability rating of extreme/high, as bedrock was encountered at depths from 0.4 – 3.2mbgl across the site. It should be noted that bedrock was not encountered in the majority of the excavation holes in the north-east, north-west and western portion of site which would indicate a vulnerability rating of 'moderate', which is consistent with the GSI classification of the entire central and southern portions of the site.

2.6.3 Impacts of construction and operational phase

2.6.3.1 Construction Phase

- There was no evidence of waste deposited on-site during Site investigation works carried out by IGSL in 2019. Therefore the risk of contaminated soils being present onsite is low.
- Excavation of soil, tarmac and hardcore will be required for both the principal works and some of the facilitation works. The pipe will run under the existing road pavement.
- Local removal and reinstatement (including infilling) of the 'protective' topsoil and subsoil cover across the development area at the site will not change the overall vulnerability category for the site which is already 'high to extreme'.
- Capping of the energy centre, data centre, deep tech buildings and the overall substation footprint of the site by hardstand/ building following construction and installation of drainage which will minimise the potential for contamination of the aquifer beneath the site
- It is assumed that the material removed along the roadways for the GNI pipeline upgrades is expected to be contaminated. This material will be required to be removed and disposed by a licenced contractor to an appropriate waste facility.
- There is potential for water (rainfall and/or groundwater) to become contaminated with pollutants associated with construction activity

2.6.3.2 Operational phase

- There will be an increase in overall hardstand as a result of the development of c 171,641.88 m2.
- The inherent SuDs design has been provided to control runoff frequency, flow rates, volumes and, reduce concentrations of contaminants to acceptable levels. The proposals provide an integrated and innovative surface water drainage design

solution which manages water quality and quantity in accordance with Kildare County Council objectives

- There is a potential for leaks and spillages from vehicles along access roads and in parking areas
- In the event of a fire, firewater could become contaminated and in the absence of mitigation may contaminate soil and groundwater
- Groundwater abstraction does not form part of the proposed development.

2.6.4 Mitigation Measures

2.6.4.1 Construction Phase

- Implementation of a Construction & Environmental Management Plan (CEMP);
- Sources of fill and aggregates for the Proposed Development;
- Fuel and chemical handling, transport and storage; and
- Control of water during construction.

2.6.4.2 Operational Phase

- Provision of spill kit facilities and training of operatives in use of same;
- Where mobile fuel bowsers are used the following measures will be taken:
    - Any flexible pipe, tap or valve will be fitted with a lock and will be secured when not in use;
    - The pump or valve will be fitted with a lock and will be secured when not in use; o All bowsers to carry a spill kit;
    - Operatives must have spill response training; and
    - Portable generators or similar fuel containing equipment will be placed on suitable drip trays.

2.6.5 Cumulative Impacts

- Construction works will require additional removal of topsoil and subsoil cover and will further increase the vulnerability of the underlying bedrock.
- Overall increase in hardstanding will result in localised reduced recharge to ground and increase in surface run-off. The aquifer underlying the site is a locally important aquifer which is moderately productive only in local zones. The proposed development will have a relatively small footprint in comparison to the underlying aquifer size. As such, the impact is considered to be Low.
- Accidental releases from fuel storage/unloading could contaminate groundwater or soil environments unless mitigated adequately.
- There will be a further loss of greenfield area locally however, the area of development is small in the context of the overall agricultural land available in the region
- The residual cumulative effect on land, soils, geology and hydrogeology for the construction and operation phases are anticipated to be long-term, neutral in terms of quality and of not significant, once the appropriate mitigation measures are put in place for each development.

2.6.6 Assessment

The details set out in this section of the EIAR are considered to be generally acceptable.

2.7 Hydrology

This chapter of the Environmental Impact Assessment Report (EIAR) has been prepared by AWN Consulting and assesses and evaluates the potential for significant impacts on the surrounding hydrological environment associated with the principal and facilitation works of the proposed project.

2.7.1 Methodology

This chapter was prepared by AWN Consulting in line with national legalisation, Water Frameworks Directive and TII and EPA policy and guidance and assesses and evaluates potential for significant impacts on the surrounding hydrogeological environment.

Account is taken of both importance of attributes and predicated scale and duration of likely impacts. Rating is of potential environmental effects on hydrological environment. The receiving environment is detailed.

2.7.2 Baseline/Receiving environment

The receiving environment is discussed in terms of hydrology, flood risk and water quality. The topography of the site slopes gently down towards the south east, which is consistent with the surrounding area. There is an existing Reservoir (Leixlip Reservoir) east of the principal works site which forms part of the River Liffey. The site discharges its surface water runoff directly into the Leixlip Reservoir via an outfall pipe following confirmation of water quality through electronic monitoring mechanisms inclusive of shut off valves, upstream of the existing retention ponds near the existing site entrance off the Celbridge Road. The Kilmacredock_Upper watercourse is mapped on the EPA as flowing in a south-easterly direction through the site. This watercourse has already been diverted beneath the site via a 1.5m culvert and outfalls into the Leixlip Reservoir east of the Celbridge Road.

A Site-Specific Flood Risk Assessment was completed and is included as part of the EIAR. The assessment identified no flood hazards for the Proposed Development. The Proposed Development resides within Flood Zone C and is not at risk of flooding from a 1% or 0.1% Annual Exceedance Probability (AEP) event.

Existing storm water runoff from the existing building surface areas discharges to the existing retention pond system. Two existing surface water retention ponds are located on the western site boundary. An additional fire water retention pond is also located there. Additional bunded storage is provided in the surrounding landscaped area in the event of an overflow occurring. The normal capacity of the retention ponds is 5000m3, with and additional 25,000m3 being able to be accommodated in the bunded overflow area. The site is also connected to the local municipal sewerage network where wastewater streams drain by gravity to the Kildare County Council sewer and is treated within the municipal wastewater treatment plant in Leixlip.

The existing foul/wastewater inflows were pumped to the public sewerage system at the northeast corner of the site. Two pumping stations are located on the site with 200mm diameter pumping mains with provision included for future development.

2.7.3 Potential impacts/risks

2.7.3.1 Construction Phase

- Increased run-off and sediment loading
- Excavation for foundations, services and landscaping may require removal of perched rainwater
- Risk of accidental pollution from localised spillage or leakage of fuels from construction traffic. Alkaline run-off due to use of concrete and cement also possible.

2.7.3.2 Operational Phase

- Surface water discharge directly to the Leixlip Reservoir.
- Wastewater system
- Fuel leakages/spillage
- Fire
- Increase in hardstanding area may increase run-off rate into receiving surface waterbodies.

2.7.4 Mitigation

- Implementation of CEMP
- Proposed redesign of the culvert to ensure that there is no reduction in the hydraulic capacity of the culvert and no resultant increase in flood risk
- Surface run-off water containing silt will be contained on site via settlement tanks and treated to ensure adequate silt removal. Silt reduction measures on site will include a combination of silt fencing, settlement measures (silt traps, silt sacks and settlement ponds).
- A series of measures to reduce spillages of fuels, described in detail within the chapter.
- Temporary storage and management of soil.
- Implementation of Environmental Management System.
- Containment measures minimising the risk of release of solid/ liquid material spillages to the water environment. Containment measures will include storage of fuels on site in bunded containers or compartments
- A number of attenuation measures will be implemented to minimise the likelihood of any spills entering the water environment to include the design of attenuation techniques such as Swales, Tree pits, Green roofs, Filter drains, Permeable paving, Rainwater Harvesting system, Bio-Retention ponds, Hydrocarbon interceptors, Silt Traps and Attenuation facilities will protect from on-site and off-site flooding.

The cumulative impact on hydrology for the construction and operation phases is anticipated to be Long-Term, Neutral in terms of quality and Not Significant, once appropriate mitigation measures to manage water quality runoff in compliance with legislative requirement are put in place for each development.

2.7.5 Assessment

The details set out in this section of the EIAR are considered to be generally acceptable.

2.8 Air Quality and Climate

This chapter evaluates the impacts which the project may have on Air Quality as defined in the EPA EIA Report Guidelines 2022.

2.8.1 Methodology

The chapter details how the construction and operational phase of the development has been assessed under the relevant guidelines. The concern from a health perspective is focussed on particles of dust which are less than 10 microns (µm) in diameter. Air dispersion modelling was carried out across all elements of the operational phase.

2.8.2 Receiving Environment

In terms of meteorological data, Casement Aerdrome meteorological station, which is located approximately 6 km south-east of the site, collects data in the correct format and has a data collection rate of greater than 90%. Results indicate that the prevailing wind direction is from westerly to south-westerly in direction over the period 2017 – 2021. The mean wind speed is approximately 4.6 m/s over the period 1981-2010.

Air quality monitoring programmes have been examined and it is considered that the area surrounding the facility is categorised as Zone C. According to EPA data, Zone C locations of Dundalk, Kilkenny and Portlaoise in 2021 show that levels of NO2 are below both the annual and 1-hour limit values. Average long-term concentrations at Kilkenny and Portlaoise range from 5 - 11 µg/m3 for the period 2016 – 2021; suggesting an upper average over the fiveyear period of no more than 11 µg/m3 . There were no exceedances of the maximum 1-hour limit of 200 µg/m3 in any year.

2.8.3 Potential impacts

In relation to the proposed development, the facility will have 9 combustion turbine generators (CTGs) which will have a stack height of 15m above ground level and 80 back-up generators which will have a stack height of 18m above ground level. The back-up generators will power the data centre in the event of an interruption to the supply of power from the National Grid. The other aspects of the development including the data halls and the Deep Tech buildings and facilitation works will lead to some air emissions during construction but will not be significant sources of air emissions during the operational phase.

2.8.3.1 *Construction Phase*

- During demolition of Buildings No's 7, 8 and 9 there will be the potential for dust emissions associated with the generation and movement of the waste material associated with the demolition.
- Vehicles transporting material to and from the site also have the potential to cause dust generation along the selected haul routes from the construction areas.
- Construction dust emissions as a result of excavation works, infilling and landscaping activities and storage of soil in stockpiles

2.8.3.2 Operational Phase

- operation of the combustion turbine generators (CTGs) in the energy centre and the scheduled testing of the back-up generators in the data storage facilities will release air pollutant emissions
- The infrequent emergency operation of the back-up generators for the data storage facilities in the event of a loss of power from the National Grid due to a power outage would release air pollutant emissions

- Road traffic accessing the site will emit air pollutants.

2.8.4 Mitigation

- Ensure good site management
- the siting of activities and storage piles will take note of the location of sensitive receptors and prevailing wind directions in order to minimise the potential for significant dust nuisance
- When rainfall is greater than 0.2mm/day, dust generation is generally suppressed
- A complaints register will be kept on site detailing all telephone calls and letters of complaint received in connection with dust nuisance or air quality concerns, together with details of any remedial actions carried out
- The dust minimisation measures shall be reviewed at regular intervals during the works to ensure the effectiveness of the procedures in place and to maintain the goal of minimisation of dust through the use of best practice and procedures
- speed restriction of 20 km/hr will be applied as an effective control measure for dust for on-site vehicles using unpaved site roads
- Bowsers or suitable watering equipment will be available during periods of dry weather throughout the construction period.
- Regular watering of storage piles.
- Hoarding erected around storage piles.

2.8.5 Residual impacts

Based on the scale and temporary nature of the construction works and the intermittent use of equipment, the predicted impact on climate change from the proposed development, after mitigation, is deemed to be short-term, neutral and not significant. Once the mitigation measures outlined in Section 10.7 are implemented, the residual impacts on climate from the operational phase of the proposed development will be long-term, negative and minor adverse.

2.8.6 Assessment

The details set out in this section of the EIAR are considered to be generally acceptable.

2.9 Climate

This chapter evaluates the impacts which the project may have on Climate as defined in the Guidelines on the information to be contained in Environmental Impact Assessment Reports. Baseline data providing national emissions data has been outlined.

2.9.1 Methodology

The chapter references the guidance against which the preparation of the chapter has been set against. The Chapter also makes reference to carbon budgets, emission ceilings to 2030, Ireland's climate targets and details of national and international legislation, including the Paris agreement.

2.9.2 Potential Impacts

The Proposed Development will primarily use electricity from the National Grid. Thus, based on electricity from the National Grid for 8,510 hours per year and diesel generators usage for

250 hours per year (HVO fuel will be used where available although it has been assumed that HVO emits the same level of GHG as diesel as a worst-case), will consume 19.2MW of power in Phase 1 translating to approximately 54,839 tonnes of CO2eq per year based on the likely 2025 electricity mix. The CTGs will be available to dispatch 16MW to the national grid for up to 330 days per year. A breakdown of the GHG emissions for the proposed development prior to mitigation is provided. The emissions generated are measured against baseline figures set out earlier in the chapter.

2.9.2.1 Construction Phase

- During demolition of Buildings No's 7, 8 and 9 there will be the potential for GHG emissions associated with the generation and movement of the waste material associated with the demolition.
- Infilling and landscaping
- Construction traffic accessing the site will emit air pollutants during transport

2.9.2.2 Operational Phase

- The operation of the CTGs in the energy centre and the scheduled testing of the back-up generators in the data storage facilities will release GHG emission
- Indirect GHG emissions from electricity from the national grid which will power the proposed development
- The infrequent emergency operation of the back-up generators for the data centres
- Road traffic accessing the site will emit GHG emissions.

2.9.3 Mitigation Measures

2.9.3.1 Construction Phase

- Standard vehicular mitigation including vehicles to be switched off when stationary, maintenance of vehicles etc are proposed during construction stage

2.9.3.2 Operational Phase

- Provision of significant Solar PV installations with c.8,560 panels being proposed across the 4no. data centre buildings and the 2no. Deeptech buildings
- Use of Hydrotreated Vegetable Oil (HVO) as back-up fuel source for the Energy Centre upon full build rather than diesel
- Implement District Heating system, which will use recaptured heat produced from the data centres to provide recycled heat the existing campus buildings being retained as well as the new buildings A1 and A2. Further to this, the district heating system has been designed to provide export heat to surrounding community uses

The developer and data centre end user outline that they are committed to continued renewables additionality nationally and investment in new generation, repowering or otherwise increasing in-country renewable energy capacity. In this regard the proposed development will have a Maximum Import Capacity (MIC) of 170MW once fully developed (c.2034/2035).

As the Proposed Development is over 20 MW thermal input, a greenhouse gas emission permit will be required for the facility which will be regulated under the EU-wide Emission Trading System (ETS) which necessitates operating under a "cap and trade" scheme, meaning

carbon emissions will become increasingly costly and encourage the least-cost pathway to GHG emission reductions.

2.9.4 Assessment

The details set out in this section of the EIAR are considered to be generally acceptable.

2.10 Noise and Vibration

This chapter includes a description of the receiving ambient noise climate in the vicinity of the subject site and an assessment of the potential noise and vibration impact associated with the proposed development, during both the short-term construction phase and the permanent operational phase, on its surrounding environment.

2.10.1 Methodology

- Construction and operational noise calculations have been conducted in accordance with the relevant standards. However, it is noted that there is no published statutory Irish guidance relating to the maximum permissible noise level that may be generated during the construction phase of a project. Local authorities or An Bord Pleanála normally control construction activities by imposing limits on the hours of operation and/or applying noise limits for construction noise at noise-sensitive locations.
- Details of the baseline noise levels have also been provided along with a breakdown of the relevant threshold values.
- Baseline monitoring has been carried out as part of the assessment. Both nighttime and daytime noise levels are monitored
- Vibration guide values have been outlined within the chapter, which outlines tolerance levels and effects of human response to vibration in terms of peak particle velocity (PPV).
- Details have been provided of the uses located within a range of the existing uses. These are tabulated within the chapter.

2.10.2 Potential impacts

2.10.2.1 Construction Phase

- The largest noise and vibration impact of the proposed project will occur during the construction phase due to the operation of various plant machinery and HGV movement to, from and around the site.
- The noise data emitting from various construction vehicles has been tabulated.
- Predicted noise levels based on distances to the works have also been tabulated.
- A breakdown of the impact on the noise environment due to construction activities is presented and results range from *not significant* to *slight-moderate* significance.

2.10.2.2 Operational Phase

- Various scenarios are assessed regarding the fixed plant at data centres and the energy centre, all of which comply with the relevant noise standards required.
- The predicted noise levels for the emergency generators, combined with the energy centre and data centre plant, are within the criteria for emergency operations.
- The proposed development will not generate significant additional traffic noise

2.10.3 Assessment

The details set out in this section of the EIAR are considered to be generally acceptable.

2.11 Material Assets – Waste Management

This chapter evaluates the likely significant effects, if any, which the proposed development and facilitating works may have on Material Assets – Waste. A site specific Resource Waste Management Plan (RWMP) has been prepared and submitted to deal with waste generation during the demolition, excavation and construction phases of the proposed development and facilitating works. The waste materials described in this chapter include non-hazardous and hazardous waste from both construction and operational phases. The Chapter also provides a breakdown of the relevant legislation and guidance that the proposed waste management adheres to.

2.11.1 Methodology

A desktop study was carried out which included the following:

- Review of applicable policy and legislation which creates the legal framework for resource and waste management in Ireland;
- Description of the typical waste materials that will be generated during the Construction and Operational phases; and
- Identification of mitigation measures to prevent waste generation and promote management of waste in accordance with the waste hierarchy.

Estimates of waste generation during the construction and operational phases of the proposed development have been calculated and are included in the chapter.

2.11.2 Potential Impacts

2.11.2.1 Construction phase

- A range of hazardous and non-hazardous materials will be generated during site demolition, excavation and construction. Details have been provided regarding estimations of waste generated on site from the demolition.
- General housekeeping will also generate waste.
- Waste generated will be disposed of accordingly

2.11.2.2 Operational phase

- If waste is not disposed of properly or stored correctly it could lead to litter or pollution issues.
- Lack of waste management could see small volumes of waste being sent unnecessarily to landfill.

2.11.3 Mitigation

2.11.3.1 Construction Phase

As previously stated, a project specific RWMP has been prepared in line with the requirements of the requirements of The EPA, Best Practice Guidelines for the Preparation of Resource and Waste Management Plans for Construction & Demolition Projects. Mitigation measures are outlined within the RWMP. In addition, the following mitigation measures will be implemented;

- Building materials will be chosen to 'design out waste';
- On-site segregation of waste materials will be carried out to increase opportunities for off-site reuse, recycling and recovery.
- Left over materials (e.g. timber off-cuts, broken concrete blocks / bricks) and any suitable construction materials shall be re-used on-site
- All waste materials will be stored in skips or other suitable receptacles in designated areas of the site
- A Resource Manager will be appointed

2.11.3.2 Operational Phase

- All waste materials will be segregated into appropriate categories and will be temporarily stored in appropriate bins, skips or other suitable receptacles in a designated, easily accessible areas of the site
- The Operator / Buildings Manager of the Site to enforce implementation of an Operational Waste Management Strategy
- Waste collected from the Site of the proposed development will be reused, recycled or recovered, where possible

2.11.4 Assessment

The details set out in this section of the EIAR are considered to be generally acceptable.

2.12 Material Assets – Traffic and Transportation

This chapter provides an overview of the existing receiving environment, a detailed and robust assessment of the potential impact of the project on the operation of the local road network both during the short-term construction phase and long-term operational phase and outlines mitigation measures to ensure any significant effects are minimised or avoided.

2.12.1 Methodology and baseline

Details of the assessment criteria are provided within the chapter. National and local legislation have been considered. In order to establish the baseline data for the site, site visits, traffic surveys, existing road network/accessibility and local travel patterns were all assessed. The chapter sets out the existing walking/cycling accessibility, public transport infrastructure, road network and future infrastructural improvements.

2.12.2 Potential impacts

A construction management plan has been carried out and submitted with the application in response to the potential impacts of the construction phase. Regarding the operational phase, trip generation rates have been provided for each of the proposed new elements of the development. In total, it is anticipated that the development will generate a net increase of 178 two-way pcu movements during the AM peak and 36 during the PM peak. This is the total operational traffic following the demolition of existing buildings on site. The development traffic has been distributed onto the surrounding road network based upon the existing east west split of those currently accessing the site and as per the existing turning movements on the surrounding road network

2.12.3 Mitigation

Construction phase;

- Construction Traffic Management Plan has been prepared as a 'best practice' measure which identifies measures that aim to minimise the effect of construction traffic on the surrounding road network
- Appropriate level of cycle and vehicle parking on site for staff
- Parking provided to prevent overspill onto surrounding network
- Appointment of Construction Site Manager/Community Liaison Officer
- On-site wheel wash facilities;
- KCC agreed haulage routes along designated HGV routes
- Control and timing of deliveries where possible

Operational Phase;

- Implementation of site specific Mobility Management Plan
- Appointment of Mobility Manger
- A Welcome Travel Pack will be provided to occupants with details of local transport network, maps of local amenities, detail of on-site facilities, incentives for sustainable travel use
- Walking and Cycling Challenges and promotion events

2.12.4 Assessment

The details set out in this section of the EIAR are considered to be generally acceptable. Kildare County Council's Transportation Department has also reviewed the documentation received and have no objections subject to conditions.

2.13 Material Assets: Site Services

This section of the EIAR describes the existing material assets (site services) for the foul and surface drainage, potable water, power, gas, heating & telecom aspects of the proposed development site.

2.13.1 Methodology and baseline

The relevant legislation, policy and guidance which has informed the chapter is listed. The chapter has also been informed by desktop studies of relevant data sources including, flood risk assessment report, engineering planning report and all topographical information and relevant utility drawings, along with a physical inspection. Consultation was carried out with Kildare County Council, Uisce Eireann, Eirgrid, ESB and Gas Networks Ireland.

There is an existing foul/wastewater inflow pumped to the public sewerage system at the northeast corner of the site. Two pumping stations are located on the site with provision included for future development. Surface water runoff from hardstanding areas with the existing site are collected in a sealed system of pipes and gullies which drain towards the east side of the site. Two existing surface water retention ponds are located on the eastern site boundary. The existing retention pond system includes two individual ponds to allow for alternating, with a single pond use during routine inspections and maintenance. An additional fire water retention pond is also located there. Surface water discharge outfalls into the Liffey Reservoir. The water supply system is in place since the development of the HP Site and is in

adequate working condition. The Kildare Innovation Campus is currently provided with a connection to the existing gas distribution network via an existing gas skid to the northeast of the campus. Power supply to the Campus is provided via the existing 110kV Rinawade Substation located southwest within the Site.

2.13.2 Potential Impacts

Details of the potential/likely impacts of the proposed development on each of the services outlined above have been considered and outlined within the chapter during both the operational and construction phase.

Construction phase;

- The surface water, foul water generated and water demand during the construction phase is not likely to have a significant negative impact on the existing networks as overall demand is low and in line with previous developments on the campus.
- Power supply - If works are not carried out correctly there is potential for the construction works to cause accidental damage to the infrastructure for the permitted development.

Operational Phase;

Details of the upgrade works required for each of the services are provided. It is noted that the proposed works will not have a significant impact on the existing services currently existing on site and all potential issues appear to be addressed. It appears that the Applicant has engaged appropriately with the relevant stakeholders for the upgrade and works to the existing services on site.

2.13.3 Mitigation

Construction Phase;

- Construction of the proposed development will require connections to water supply and drainage infrastructure, power and telecommunications. Ongoing consultation with Gas Networks Ireland, KCC, Uisce Éireann , EirGrid and ESB Networks and other relevant service providers within the locality and compliance with any requirements or guidelines they may have will ensure a smooth without disruption to local and business community.
- Best practice measures will be put in place

Operational Phase;

- The design of the surface water system has incorporated attenuation within the design to ensure that there is no potential for off site flooding as a result to the proposed increase in hardstanding area.
- Pre-connection enquiry submitted to Uisce Eireann

2.13.4 Assessment

It is considered that there is already an existing connection to many of the services required for the proposed development and the works will require upgrade works which have been adequately detailed throughout this chapter and other chapters of the EIAR. It is also noted

that the potential future district heating system could provide benefit to the wider community. Overall, the details set out in this section of the EIAR are considered to be generally acceptable.

2.14 Archaeology and Cultural Heritage

This chapter describes the baseline archaeology and cultural heritage environment at the Kildare Innovation Campus (KIC) lands, it identifies the likely significant effects of the proposed developments at the KIC lands on the archaeological and cultural heritage resource, and it proposes measures to mitigate predicted effects.

2.14.1 Methodology and baseline

The relevant legislation, policy and guidance which has informed the chapter is listed. Desktop based study of relevant data sources included the following;

- National Monuments
- Site and Monuments Record and Record of Monuments and Places
- Register of Historic Monuments
- Urban Archaeological Survey
- Topographical Files of the National Museum of Ireland
- Excavations Bulletin and Excavations Database
- Local Authority County Development and Local Area Plans
- National Inventory of Architectural Heritage
- Cartographic Sources
- Aerial Photographs
- Toponomy Sources

An on-site inspection was also conducted.

Descriptions and definitions of the type of effect, quality of effect, magnitude of change, significance of effects and sensitivity of receptors are also provided. An Archaeological and historical background is described for the area, including details of Castletown House to the north west and the Wonderful Barn to the north east of Castletown House. It should be noted that Castletown House and the Wonderful Barn are the only protected structures within 1km of the site. Images of old ordinance survey maps have been included to outline the growth of Leixlip and the surrounding area. It is noted that the location of the proposed development would, if it had not already been subject to the development of the currently existing industrial park, be considered to be part of the historical setting of Castletown House.

2.14.2 Potential Impacts

Construction phase;

The KIC lands are largely developed and landscaped lands, with existing buildings centrally focussed and surrounded by a greenfield periphery. A monument recorded in the SMR, fulacht fiadh KD011-062, was exposed and removed by archaeological excavation as part of Hewlett Packard Campus development. The site of the monument is not on the statutory RMP and is not scheduled for inclusion in the next revision of the RMP. As such, the monument is not listed in Appendix 5, Record of Monuments and Places, of the Kildare County Development Plan 2023-2029. No other recorded monuments are present on the KIC lands,

and no construction phase impact on recorded monuments or known archaeology is predicted.

No impacts are likely during the operational phase.

2.14.3 Mitigation

A Geophysical survey shall be carried out pre-construction. This shall be followed by a programme of pre-construction archaeological test excavation. Test-excavation shall be carried out under licence from the National Monuments Service and the National Museum of Ireland. During the construction phase, all existing trees that currently form the grand allee of the Protected View Corridor, will be protected by site fencing, to prevent damage from construction activities, and damage to the ground by compaction and damage to roots.

2.14.4 Assessment

The assessment set out in the EIAR is considered robust overall, having regard to the already developed nature of the site and the proposed testing and mitigation measures.

2.15 Landscape and Visual Impact Assessment

This chapter identifies and assesses the potential effects of the Proposed Development at the Kildare Innovation Campus (within the redline boundary), Leixlip, County Kildare on the landscape and visual resource of the study area. It identifies the mitigation and compensation measures that will be implemented to prevent, reduce or offset potential adverse landscape and visual effects or enhance potential beneficial effects, where possible. In the context of this project 'landscape' includes also sub-urban townscape.

2.15.1 Methodology and baseline

This chapter was prepared in accordance with the relevant guidelines and good practice guidance, listed within the chapter. The significance of an effect or impact is determined by two distinct considerations, nature and magnitude. The receiving environment was established through a combination of desk based research and site appraisal. A study area of 2km from the boundary of the proposed development, 200m to either side of the indicative alignment of GNI enhancement works, and up to 500m to either side of the existing overhead lines subject to EirGrid uprating has been considered. Details of the various criteria that the chapter is assessed under is provided and explained.

The study area lies within the following 2 landscape character areas according to the Kildare County Development Plan 2023-2029, Northern Lowlands (class 1 sensitivity) and River Liffey (Class 4) landscape character areas. A number of scenic routes and viewpoints are located within the study area, all of which are identified within the chapter. Protected views within the study area are outlined within the Leixlip Local Area Plan 2020-2023.

2.15.2 Potential Impacts

Construction Phase:

The Proposed Development will result in localised changes to landform to accommodate the bridge and other buildings. Construction plant, including boring equipment and lifting machinery, will be introduced, and typical construction features such as fencing, access tracks

and construction compounds will be laid out. The presence and activity of construction machinery and associated features will degrade the condition of this landscape character area locally. The introduction of these features relating to construction will be temporary, medium term and reversible.

Landscape Character Areas located within the wider study area in South Dublin, namely Liffey Valley, Urban, and Newcastle Lowlands will not be altered by the proposed construction works. While construction traffic will pass temporarily along existing transport corridors within these landscape character areas, the landscape character will not be affected resulting in no landscape effects.

Potential effects to the visual amenity within the locality as a result of the visibility of construction activities such as demolitions works, the construction / refurbishment of buildings, associated scaffolding and tall equipment such as cranes and containers. Effects also include temporary site infrastructure such as site traffic and construction compounds especially those located in areas adjacent to sensitive visual receptors.

Operational Phase:
The alteration and transformation of the existing campus will intensify the inherent light industrial landscape character within the site, leading to an increase and densification of the light industrial buildings replacing sections of existing open green space.

Considering the flat and low-lying nature of the existing landscape, in addition to the dense mature vegetation planting to the perimeter of the existing business campus site, indirect change in landscape character is largely limited to a short section of the R404 and from the existing campus entrance to the northwest of the site. A summary of the landscape effects on surrounding receptors within the study area is tabulated within the chapter.

17 photomontages have been prepared illustrating the nature of visibility of the proposals at key viewpoint locations. The majority of significant visual effects will occur from locations within the Proposed Development site or in close proximity to it (up to approximately 300m) as dense bands of woodland along the boundaries of the M4, the grounds of Castletown Demesne, within the area around The Wonderful Barn, and publicly accessible locations along the River Liffey will screen the Proposed Development fully. A written description is provided of each of the photomontages within the chapter, along with a table which outlines the susceptibility, sensitivity, magnitude and significance of the visual effects that the proposed development will have on each viewpoint.

2.15.3 Mitigation

The proposed mitigation measures have been developed in tandem with the landscape masterplan. Retention and protection of the existing mature woodland belts along the site boundaries to the north, south and east. Existing trees to be retained will be protected during the construction stage in accordance with recommendations of the Arboricultural Assessment. Further mitigation measures include;

- height and scale of the Proposed Development will align with the existing prevailing building format on the site

- Proposed Development will be fenced off during the construction phase to reduce the visual impact of the works
- Disturbance of existing vegetation will be minimised where possible
- Proposed planting will help integrating the Proposed Development into the surrounding landscape, provide screening where needed, and minimise the effect on the landscape character of the area

2.15.4 Assessment

It is considered that the chapter adequately addresses the issues regarding landscape and visual impact of the proposed development. The mitigation measures proposed will enhance the site over time and adequately screen the development, while also maintaining essential biodiversity.

2.16 Major Accidents and Disasters

This chapter is an assessment of the potential for the project to cause major accident hazards and the vulnerability of the project to natural disasters based on the engineering design, drawings and documentation.

2.16.1 Methodology and Receiving Environment

The relevant legislation, policy and guidance has been outlined in the chapter.

The current state of the environment was assessed. This included reviewing elements such as seismic activity, landslides, flood risk and metrological conditions.

2.16.2 Potential impacts

The potential impacts are not considered significant or even likely in most cases. The majority of the potential impacts have been discussed in previous chapters of the EIAR. An assessment of natural disasters has been collated and tabulated but again, there are no likely impacts on the project.

2.16.3 Mitigation

The proposed development has been designed in line with good industry practice, and, as such, mitigation against the risk of major accidents and/or disasters is embedded through the design and in accordance with planning and legislative requirements.

2.16.4 Assessment

The details set out in this section of the EIAR are considered to be generally acceptable.

2.17 Interactions and cumulative effects

This section addresses the intra project significant effects (i.e. those occurring between environmental topics within the project). Inter project effects (i.e. those which are likely to occur as a result of the likely impacts of the proposed project interacting with the impacts of other projects in the locality) have also been considered.

Actual interactions and their significance are dealt with the relevant chapters of the EIAR. A matrix of potential interactions between environmental factors is included within the chapter.

***2.18** Mitigation and Monitoring*

This chapter summaries all mitigation measures proposed in order to provide a comprehensive overview of the full range of mitigation measures discussed within each chapter. No new mitigation measures are included.

2.19 Conclusion

This report comprises an Environmental Impact Assessment of the proposed development. The aim of the EIA Report is to identify and assess effects of the proposed development on various environmental factors, in order to assist in considering whether the proposed developments are consistent with the proper planning and sustainable development of the area.

It is considered that the EIAR has adequately identified and assessed the effects of the proposed development on various environmental factors. The EIAR submitted together with the planning documentation received is deemed to adequately describe the direct, indirect and cumulated effects on the environment of the proposed development as well as the mitigation measures proposed to counteract these impacts.

3.0 Appropriate Assessment

3.1 Introduction

This Appropriate Assessment has been carried out by Kildare County Council's Planning Department in accordance with the provisions of the Appropriate Assessment of Plans and Projects, Guidelines for Planning Authorities (2009) and the OPR Practice Note PN01 Appropriate Assessment Screening for Development Management.

For reference, a full and detailed description of the planning history is set out previously in this report while the Appropriate Assessment Screening Report (AA report) prepared by the Applicant sets out the receiving environment and identifies the potential for ecological impacts to European Sites in the vicinity of the proposed development. An Environmental Impact Assessment report was also received with the planning application which identifies the baseline scenario for all environmental topics including, for example, hydrology, air quality, traffic and landscape impacts.

The AA report outlines all existing European sites within 15km of the development and identifies any potential impacts or connections: European sites encompasses Special Areas of Conservation (SAC) and Special Protection Areas (SPA).

The development description and main site characteristics are set out previously in this report.

3.2 European Sites within 15km

- Closest European sites are as follows:

Site Name	Site Code	Proposed Development Site Distance (km)
Natura 2000 sites		
Rye Water Valley/Carton SAC	001398	0.96
Glenasmole Valley SAC	001209	13.83
South Dublin Bay and River Tolka Estuary SPA	004024	18.33
South Dublin Bay SAC	000210	19.55
North Bull Island SPA	004006	21.46
North Dublin Bay SAC	000206	21.47
Nationally designated sites (no NHA sites within 15km)		
Rye Water Valley/Carton pNHA	001398	0.96
Royal Canal pNHA	002103	1.11
Liffey Valley pNHA	000128	1.30
Grand Canal pNHA	002104	2.60
Slade of Saggart and Crooksling Glen pNHA	000211	10.35
Lugmore Glen pNHA	001212	11.17
Kilteel Wood pNHA	001394	12.35
Dodder Valley pNHA	000991	13.21
Donadea Wood pNHA	001391	13.50
Glenasmole Valley pNHA	001209	13.83

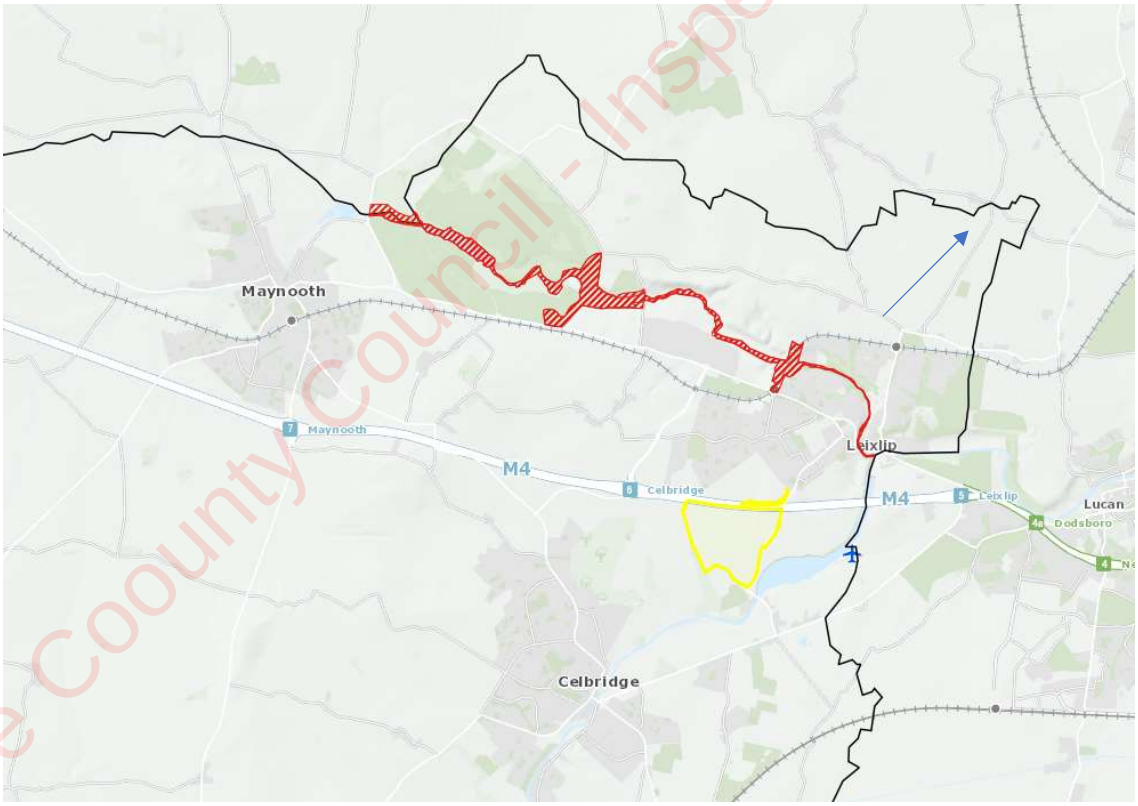

Fig: Application site relative to *Rye Water Valley/Carton SAC*

3.3 Identification and Evaluation of Likely Significant Effects or Cumulative Impacts

Direct Impacts;

No habitat loss of relevance to the Natura 2000 sites in the wider area will be lost as a result of the development.

Indirect Impacts:

- No negative impacts to the River Liffey or any designated sites downstream are likely as result of direct surface-water run-off to the River Liffey. However, the existing surface-water drainage system servicing Kildare Innovation Campus ultimately discharges to Leixlip Reservoir via the attenuation ponds. The SuDs strategy for the proposed development site will reduce surface-water run-off by utilising controls including bio-retention areas (i.e., wetland areas), attenuation ponds (proposed and existing), swales, filter drains, permeable paving and hydrocarbon interceptors.
- The excavation, movement and storage of soil can potentially lead to the release of sediment-loaded run-off, resulting in indirect negative impacts to aquatic habitats within and immediately downstream of the proposed development site. There are construction phase environmental protection measures outlined in the CEMP and these are standard measures designed to minimise the risks to the immediate receiving environment.
- Construction machinery and associated equipment will be the principal sources of pollutants such as oil, lubricants, fuel and hydrocarbons. This could result in adverse water quality impacts to the River Liffey.
- Leixlip WWTP has sufficient capacity to accommodate the existing peak foul water outflow from Kildare Innovation Campus.
- Noise and/or visual cues arising from the proposed development can potentially act as sources of disturbance/displacement for qualifying interest species of Natura 2000 sites. The proposed construction works will adhere to best practice regarding standard environmental protection to minimise impact on the species referred to above.

3.4 Appropriate Assessment Conclusion Statement

Having regard to the potential impacts identified above together with the mitigation proposed and separation distance between the site and the nearest SAC, it is concluded that there is no likelihood of significant impacts to the European Sites and therefore a Stage 2 Appropriate Assessment is not required.

4.0 Summary of Key Planning Issues and Assessment

4.1 Proposed Development

Extensive works are proposed on site and include the following;

- Demolition of existing Buildings No's 7, 8 and 9 (total gfa c. 84,838sqm).
- Existing Buildings No's 1 – 6 will be retained for deep tech and innovation related uses (total gfa c.42,862sqm)
- Construction of 2 no. new deep tech buildings and 4 no. new data centre buildings, all including ancillary office spaces. The deep tech buildings will have an overall maximum height of c.16m and vary in size from 30,945sqm – 41,190sqm with a combined total gfa of c. 72,135 sqm. The data centres will be c.15 m in height to parapet and c.16.5m in height to top of roof plant screening. The data centres will vary in size from 13,225 sqm – 21,000 sqm with a combined total gfa of c.

76,225sqm. All buildings will be provided with Solar PV panels at roof level and green walls along selected elevations.

- The new deep tech buildings (A1 & A2) will be provided with service yard areas, loading docks, car parking, access roads, security fencing/gates and landscaping. The deep tech buildings will include rainwater harvesting tanks and green roofs over office areas.
- Each data centre (B1, C1, C2 & C3) will include data halls, admin blocks (comprising offices, breakroom, loading dock, storage, and ancillary areas) and a variety of mechanical and electrical plant areas/structures including battery storage rooms and mechanical rooms. Car parking, access roads, security fencing/gates, gate houses and landscaping will also be provided.
- B1 will include 14 no. fuel oil generators, MV rooms and associated mechanical flues. C1 – C3 will each include 22 no. fuel oil generators, MV rooms and associated mechanical flues (each c.18.6m high). Car parking, access roads, security fencing/gates, gate houses and landscaping will also be provided.
- 2 no. district heating pump house areas and inground piping for district heating system.
- Construction of a Replacement 110kV Gas Insulated Switchgear (GIS) Substation adjacent to the existing 110kV Rinawade Substation. The current Air Insulated Switchgear (AIS) substation known as the Rinawade 110kV sub is fed by 2 x 110kV Overhead lines. The new substation will connect to these overhead lines via short runs of underground cable. The replacement 110kV substation will include 6 No. transformers, with client control building and a 2 storey GIS substation building within a 2.4m high fenced compound.
- Decommissioning and removal of the existing 110kV Rinawade substation.
- Construction of an on-site energy centre to provide to the national electrical grid. The Energy Centre will include 9 no. gas powered combustion turbine generators (CTG's) and 9 no. Flues with a maximum height of c.15 metres. The turbines will be enclosed by a screen wall 14m in height. The energy compound will include all required infrastructure including 2 no. back-up fuel oil (HVO) tanks, an administration building, pump house, fire water tank, access roads, 14 no. parking bays, security fencing etc.
- Provision of a Gas Networks Ireland (GNI) gas skid surrounded by a 2.4m high fence and access from Celbridge Road (R404). The GNI skid will replace the existing gas skid along Celbridge Road. Provision of a GNI AGI (Above Ground Installation) including 1 no. kiosk building, c.32m high surrounded by a 2.4m high fence.
- Closure of the existing main entrance to the campus on Celbridge Road and reinstatement of the boundary. Construction of a new signalised entrance/exit on Celbridge Road c.80meters north of the existing main entrance. Use of the existing secondary entrance/exit off Barnhall Road Roundabout in the south-east as a principal entry/exit.
- Construction of internal access roads, footpaths and cycle paths including a publicly accessible link road between Celbridge Road (R404) to the east and Barnhall Road (R449) to the west.
- Construction of a new pedestrian and cycle overpass across the M4 motorway and pedestrian/cycle path adjacent to lands known as the Wonderful Barn Allotments;

the overpass will link the new publicly accessible link road within Kildare Innovation Campus to the entrance of Barnhall Meadows estate.

- Undergrounding and diversion of the existing overhead 10Kv/20kv overhead line adjacent to the M4 Motorway.
- The pedestrian and cycle route within the Kildare Innovation Campus will provide a link from the new public link road, along the protected view corridor (between Castletown Estate & Wonderful Barn) to the north-eastern boundary of Castletown Estate.
- The provision of a net increase of 678 new car spaces, resulting in a total of 2291 car spaces across the site (including a total of 244 EV car spaces).
- The provision of a new private EV Bus charging hub with parking for 10 no. electric buses.
- The provision of a net increase of 310 new bicycle spaces, resulting in a total of 350 bicycle spaces across the site.
- The diversion of the c.500 m stretch of an existing 1.5m culvert, located to the north of the site along the existing loop road, southwest by c.60m; the diverted culvert will be located along the proposed link.
- All associated site development works, drainage and services provision, landscaping, boundary treatments (including security fencing), and associated works.

4.2 Principle of development

The subject site has been earmarked both nationally and locally for redevelopment. The site is of significant economic importance to the region. The Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region specifically refers to the employment lands in Leixlip, *"Large scale former Hewlett Packard site and Collinstown site for regional enterprise to strengthen employment base for North Kildare."*

Locally, figure 4.1 within the Kildare County Development Plan 2023-2029 identifies the site as a Strategic Development Area in the Metropolitan Area Strategic Plan (MASP). Sectoral Opportunities for the site are identified as *Business parks comprising knowledge based economy focusing on high tech/biotechnology, research and development, ICT and manufacturing*.

More specifically, the site is zoned H - Industrial and Warehousing within the Leixlip Local Area Plan 2020-2023. This zoning seeks to provide for industry, manufacturing, distribution and warehousing. Section 2.1 of the LAP notes that "*the overall HP site is currently underutilised with a significant level of vacancy".* Section 6.2.1 of the LAP states that *"Given the size and scale of the former HP campus it is an objective of the Council to work with local and national agencies to ensure the site can be redeveloped in an appropriate manner and remain a key employment hub for Leixlip and the Dublin Metropolitan Area".*

While the proposed uses of the site are not specifically listed within the zoning matrix table 13.3 of the LAP, it is considered that the proposed development could be considered "industrial light" and therefore is would be permitted in principle. Notwithstanding the zoning of the site, the importance of the site redevelopment is understood, not only at local, but regional and national level.

An Economic Impact Statement of the Proposed Kildare Innovation Campus has been prepared by Grant Thornton and submitted with the application. The statement provides a breakdown of the existing site context and outlines the potential benefits that the redevelopment of the site would have on the surrounding area. The development would lead to the creation of 3511 jobs and would result in a €2.5bn investment into the local and national economy, with an overall economic output of €5bn. The proposed development aims to become the leading technological and innovation campus in Europe in areas such as AI & Robotics, quantum computing, AgTech, Renewables, Digital Health and Space Technologies.

Not only will the development seek to become a leader in its field, but the development has committed to becoming a carbon neutral development, through the installation of c. 8,560 solar PV panels across the site and implementation of a district heating system which will use recaptured heat produced from the data centres to provide recycled heat the existing campus buildings being retained as well as the new buildings A1 and A2. Furthermore, the proposed district heating system has the potential to export heat to surrounding community uses, thus benefitting the wider area.

It is considered that the proposed development would result in a positive introduction to the wider surrounding community and transport network, given the key infrastructure proposed throughout the site. A pedestrian bridge linking "The Wonderful Barn" and the campus with the town of Leixlip is proposed across the M4 while an internal link road is proposed towards the northern end of the site to link the R404 with Junction 6 of the M4. In addition to the public linkages above, the proposed development will see the creation of pedestrian and cycle trails through the site providing important amenity space for not only users of the campus but members of the public.

Finally, the proposed campus incorporates biodiversity measures into its overall placemaking strategy. While initially tree removal will be required to facilitate the development, the landscaping masterplan proposed offers a diverse mix of habitat and an improvement to the existing tree cover on site. This will be achieved through the provision of a new retention pond, attenuation areas, increased tree planting, improved meadow planting and more focused landscape management.

Having regard to all of the above, the importance of the site and benefit to the surrounding area is obvious. The redevelopment of the site is supported by regional and local legislation. The proposed development incorporates sustainable design techniques through a range of measures including energy efficiency, creation of site permeability, increased employment within walking distance of existing settlements, the provision of a district heating network and a net increase in tree planting across the site to ensure overall quality placemaking. It is considered that the proposed development is considered permitted in principle.

4.3 Layout, siting and design

The site itself is extensive in size (c. 72ha), bound by the M4 to the north, Celbridge Road (R404) to the east, further industrial development (DB Schenker) and Barnhall RFC to the south and undeveloped greenfield land to the west. There are 3 existing entrances to the site, 2 from the R404 and the 3rd from the Barnhall Road to the north west corner of the site. The

site are does include a piece of land to the north of the main site where it transects the M4 and continues on towards the entrance to Barnhall Meadows. There are 9 no. large industrial buildings currently on site, 3 of which are to be demolished under the proposed application. The site also include Rinawade 110kV substation to the south west and a number of car parking areas throughout. The site is currently well screened both internally and externally by mature planting, especially to the north and north west of the site where there is a strong buffer between the existing campus building and the M4.

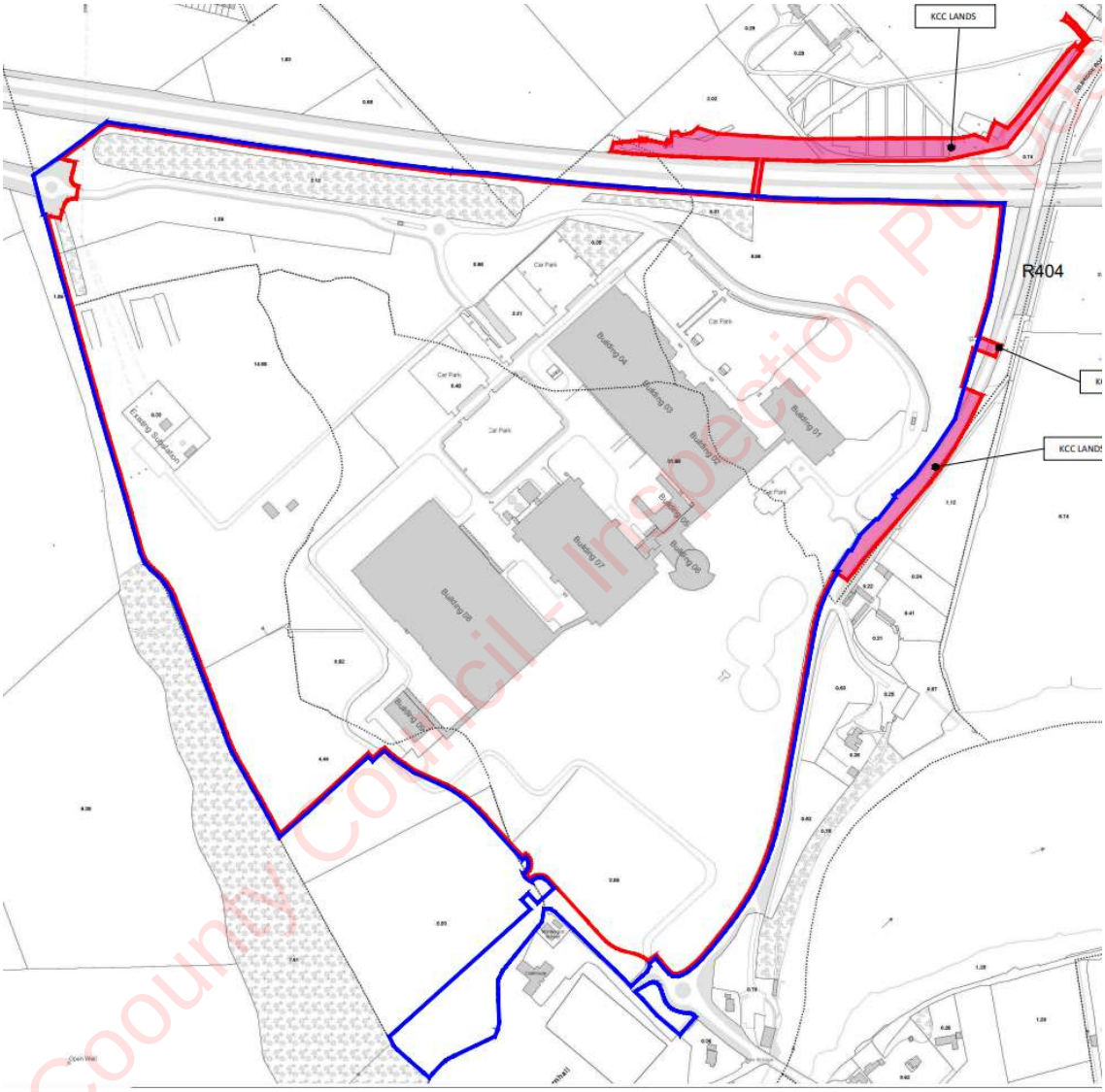

Fig. Existing site layout.

The works proposed under the subject application are extensively described within the EIAR, Architectural Design Statement the other documents submitted with the application. In order to enable the development to take place, 3 no. existing buildings (Buildings no. 7, 8 and 9; total gfa c. 84,838sqm) are to be demolished. These buildings are located centrally within the site. The other 6 no. buildings on site are to be retained for deep tech and innovation related uses. The proposed development seeks construction of 2 new deep tech buildings and 4 no. new data centre buildings. Three of the new data centres would be positioned to the centre

of the site in place of existing buildings no. 7, 8 and 9. The fourth data centre building (B1) is proposed to the north western corner of the site, well screened to the north by existing mature woodland. The two new deep tech buildings (building A1 and A2) would be positioned to the north eastern corner and south eastern corner of the site in areas which are underutilised by the existing site layout.

Key travel infrastructure is also proposed throughout the site. A new public link road is proposed along the northern portion of the site which would run east to west, connecting the R404 with Junction 6 of the M4. A new pedestrian and cycle bridge is proposed to the north of the site across the M4 which will connect Leixlip and the Wonderful Barn with the Campus, Castletown House and Celbridge. Internal pedestrian and cycle routes are proposed throughout the site including along the existing protected view, which will further improve permeability and promote active travel.

Fig. Extract of proposed masterplan

A detailed breakdown of the buildings proposed is provided in the Architectural Design Statement submitted with the application. The buildings proposed would have a flat roof finish with solar PV panels to be provided at roof level and green walls along selected elevations. The buildings would be no more than 16.5m in height which reflects the scale of the existing buildings within the campus.

The finishes of the proposed A1 and A2 buildings are considered to be of high architectural quality and offer a futuristic industrial design. The main façade of buildings A1 and A2, where the offices are proposed, will have a glass finish with feature sunshades to give the buildings a contemporary and interesting appearance. The manufacturing/industrial element of the buildings will be clad with insulated metal cladding and green walls.

Fig. Rendering of building A1

The Data Centre buildings (B1, C1, C2 and C3) will all have the similar finishes. Again, green walls will be incorporated into the design throughout the buildings, while the main façade will have feature screening. The design is well thought out and will provide an attract and interesting visual experience for employees and visitors to the site.

Fig. Proposed North and west facades of Building B1

The proposed energy centre will provide power to the national electrical grid and ensure that the power requirements of the campus as provided. Located centrally within the site, it is essentially a box which will enclose the turbine compound, providing acoustic attenuation and visual screening to the equipment. Again, the design will incorporate green walls, with extensive acoustic cladding panels.

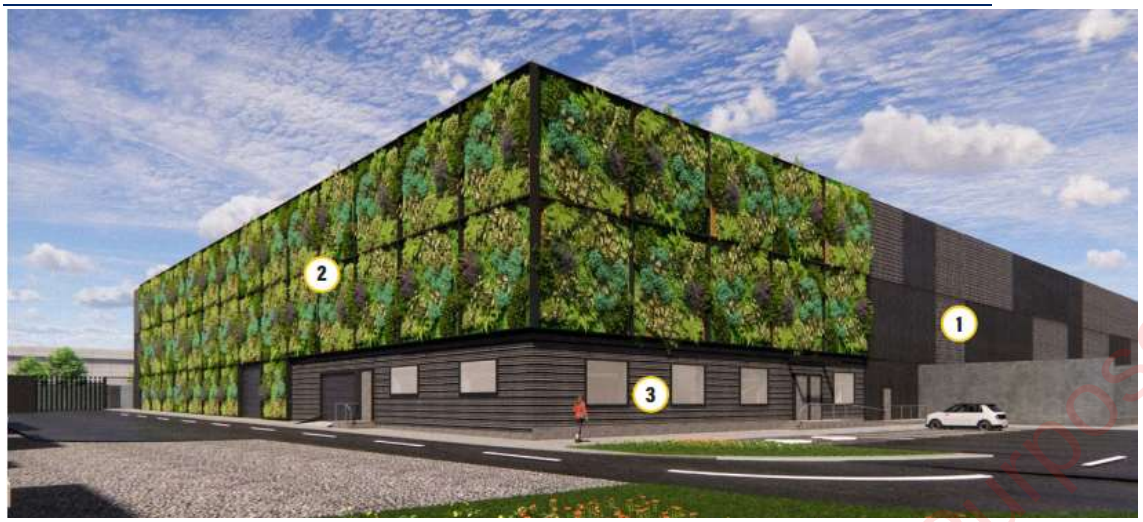

Fig. Proposed west and south facades of the energy centre

The Applicant has submitted a photomontage booklet detailing the "before and after" visual impacts from various viewpoints within the site and from external areas. The external viewpoints are largely to assess the impact of the development on the surrounding areas of importance, namely The Wonderful Barn, Castletown House and the Leixlip Reservoir. The images show that the proposed development would not have a negative impact on the surrounding areas and would revitalise the site.

Having regard to the extensive landscaping proposed (discussed later in this report), the high quality architectural design and the efficient use of the zoned land within the settlement boundary, it is considered that the design and layout of the proposed development is acceptable.

In terms of layout, siting of the proposed buildings as described above, make efficient use of the existing lands within the site.

4.4 Permeability and connectivity

The proposed development seeks to improve permeability within the existing Kildare Innovation Campus (KIC) and also allow for greater connectivity with the surrounding areas neighbouring the campus. The Leixlip Local Area Plan 2020-2023 (extended to 2026) includes a number of objectives which relate to the subject site including Objective MT1.11 and MT3.13.

MT1.11 To support the delivery of a pedestrian and cycle overpass of the M4 to link The Wonderful Barn at Leixlip to Castletown Demesne in Celbridge in consultation with Transport Infrastructure Ireland (TII).

MT3.13 To complete the through public road to connect the Celbridge Road (at Former HP site) to M4 Interchange Junction 6 prior to the commencement of Celbridge Road East KDA.

The proposed development addresses these objectives through the proposed deliver of a new pedestrian and cycle overpass of the M4 connecting Leixlip and the Wonderful Barn with the

KIC, Castletown House and potential connections on to Celbridge. A new public link road is also proposed along with pedestrian and cycle paths which connect the Celbridge Road to the M4 interchange Junction 6. The proposed link road will run along the northern side of the campus. The routing of the proposed link road means that the existing signalised access to the east of the campus onto the R404 will need to be repositioned 60m further north.

The proposed development not only caters for the end users of the campus but also invites public usage by including pedestrian links through the site. A pedestrian and cycle path is proposed along the eastern side of the development which connects the new link road with the R404 roundabout and Barnhall RFC. Further pedestrian amenity is proposed along the western side of the campus through the retention of the protected view from Castletown – Donaghcumper, and the enhancement of the planting scheme along this route to provide a tree lined pedestrian route. This route also allows for future connection with Castletown House to the west of the site.

Fig. Connectivity Plan submitted for the proposed development

It is considered that the proposed development offers extensive permeability through the site for both vehicle users and vulnerable road users (VRU's). The proposed development of the

pedestrian bridge over the M4 will help to promote sustainable transport within the site and provide potential for further cycle and pedestrian linkages with nearby Celbridge. The amenity spaces proposed are well designed and landscaped throughout the site to not only soften the industrial appearance of the campus but also provide a more attractive spaces for campus employees and members of the public.

4.5 Landscaping, tree removal and ecology

The issue of ecology/biodiversity has been extensively investigated within the EIAR submitted and within the assessment of the EIAR (See Section 2 of this report).

There are 535 no. trees to be removed as part of the development. Of the trees to be removed 18 are of high quality (category A), 181 are of moderate quality (category B), 279 are of low quality (category C) and 57 are of poor quality (U Category). While there are a number of hedgerows and woodland areas also to be removed as a result of the development, the landscaping plan proposed includes the planting of 1370 trees, 1400 linear metres of hedgerow and 22,500sqm of woodland. Swale planting, wildflower meadows and shrubs are also proposed. An extensive landscaping plan along with landscape masterplan detailing open spaces and landscape rationale has been provided. A tree protection plan has also been provided for the trees to be retained.

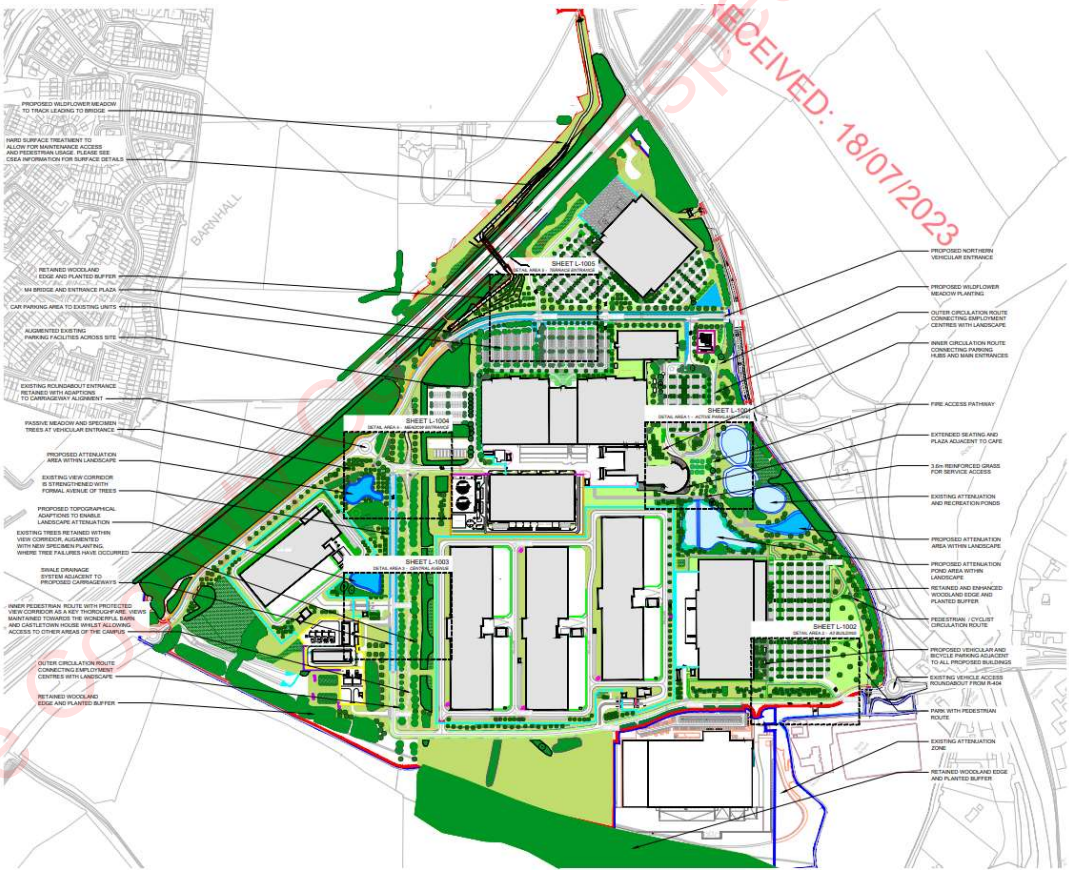

Fig. Landscape masterplan proposed

Given the extensive planting proposed on site, the maturation of the landscaping measures will provide an attractive space for members of the public, KIC employees and the biodiversity

within the area. KCC's Heritage Officer has reviewed the information submitted and has no objections subject to conditions.

4.6 Water Services

There are three existing ponds located within the site boundary. The existing ponds provide a combination of firewater and attenuation storage. A total of 5,000m3 of storage is provided within the pond with a further 25,000m3 provided in the adjacent areas.

The proposed surface water networks for the development collect runoff from roofs, roads and other hard standing areas in a combination of SuDS systems and sealed system of pipes and gullies. The site is divided up into five catchment areas which are defined by the topographical characteristics of the site and the proposed finish levels of the development. Each catchment collects the surface runoff and attenuates it within a attenuation system up to the 1:100 year event. Due to site conditions and underground service congestion, 2 No. attenuation basins, 2 No. attenuation ponds, 1No. infiltration basin, 3 No. Permeable Paving with Stone Storage and 1 No. StormTechTM systems is proposed. An Engineering Report carried out by Clifton Scannell Emerson has been submitted which details the proposed works on site.

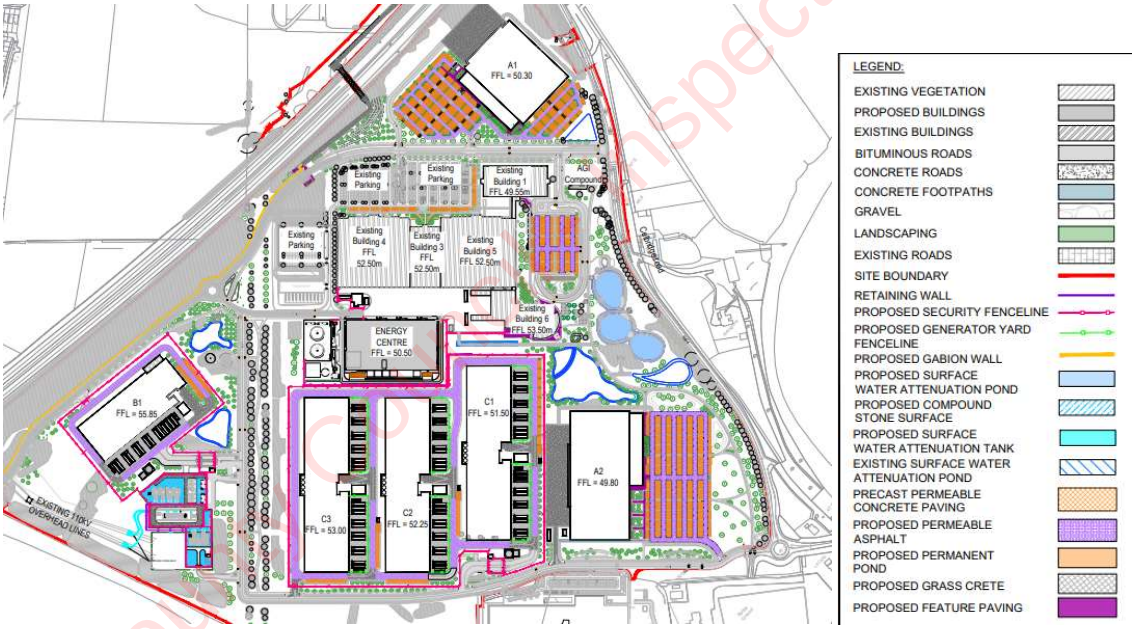

Fig. Proposed SuDS on site

Kilmacredock Upper Stream passes through the proposed development. The stream has since been diverted across the site development by means of a 1.5m culvert. It is proposed to redesign the culvert as part of the proposed scheme. The diverted culvert will be located along the proposed link road, will be c.360m in length and located c.90 south-west of the existing culvert.

In terms of water supply and wastewater demand, the Applicant proposes to connect to the existing public services on site. The Applicant has submitted a pre-connection enquiry to Uisce Eireann.

4.7 Transportation and Access

As mentioned above, the proposed development seeks to address Objective MT1.11 and MT3.13 as outlined within the Leixlip Local Area Plan 2020-2023 (extended to 2026). The proposed development addresses these objectives through the proposed delivery of a new pedestrian and cycle overpass of the M4 connecting Leixlip and the Wonderful Barn with the KIC, Castletown House and potential connections on to Celbridge. A new public link road is also proposed along with pedestrian and cycle paths which connect the Celbridge Road to the M4 interchange Junction 6.

It should be noted that the proposed pedestrian bridge proposed to the north of the site, is at preliminary design stage. A dedicated report compiled by Clifton Scannell Emerson has been submitted with the application which addresses the design elements of the proposed bridge. KCC's Transportation Department have reviewed the information submitted and have outlined that should permission be granted, final details of the bridge shall be agreed with the Planning Authority prior to commencement of development.

A Transportation Assessment has been carried out by Systra and provides details of car parking, cycle parking, pedestrian and cycle options, vehicular access and circulation and public transport provision.

Cycle Parking Provision	Cycle Spaces
Existing Bicycle Parking On Site	50
Guideline Amount for Existing Uses	902
Guideline Amount for New Units	53
Total Guideline Amount	**955**
Total Planned Spaces as part of Development Proposals	**350**

Fig. Cycle parking proposed

Car Parking Summary	Parking Spaces
Existing Car Parking On Site	1,613
Maximum Permitted for Existing Units	1,822
Anticipated Requirement for New Units	1,570 – 1,713
Total To Be Provided for New Units	678
Total Planned Spaces	**2,299**

Fig. Car parking proposed

Regarding the car parking, over 240 EV parking stalls will be provided on site promoting the use of electric vehicles (c.10% of parking).

It is noted that the site is well serviced by public transport and under the Bus Connects programme, more regularly scheduled bus stops will serve the site. A new EV Bus charging terminal will be provided on site for overnight charging of EV buses.

While it is noted that the NRO and TII have requested further information regarding the M4 pedestrian bridge and Construction Environmental Management Plan (CEMP), it is considered that these issues can be addressed by way of condition. KCC's Transportation Department have reviewed the application and have no objections subject to conditions.

4.8 Conservation

The proposed development takes account of the protected views between Castletown House and the Wonderful Barn. A tree lined avenue which was planted as part of the original 1999 development of the site will be reinforced and maintained.

Fig. Direction of protected view through the site.

As previously noted, a photomontage booklet has been submitted with the application. The proposed landscaping and existing screening ensure that the proposed development would not have a negative visual impact on the surrounding protected structures or viewpoints. There are no protected structures or monuments within the development site. A Heritage Impact Assessment was submitted with the application and concludes that there would be no additional impacts on the historic settings of Castletown House or the Wonderful Barn caused by the construction of the proposed development and the development would be beneficial

to the maintenance of the existing tree lined avenue. KCC's Heritage Officer has reviewed the information and has no objections subject to conditions.

4.9 Climate, district heating and connection to national grid

The Applicant has noted that the development will be fully powered by connection to the national grid. A new 110kV substation is proposed to replace the existing substation towards the south west of the site. The replacement 110kV substation will include 6 No. transformers, with client control building and a 2 storey GIS substation building lighting masts, carparking and access roads within a 2.4m high fenced compound.

The campus has been designed to provide a district heating network and infrastructure that will allow for the use of recycled heat for the existing campus buildings and proposed A1 & A2 development in the first instance, with the provision of recycled heat to surrounding sites such as Barnhall RFC, Salmon Leap Canoe Club, Castletown Estate and potentially residential lands to the north of the M4 to be developed in tandem with Kildare County Council in the future. District heating export pipes are proposed along the proposed access to the R404 and along the M4 over pass.

The proposed district heating network complies with Policy RE P12 of the Kildare County Development Plan 2023-2029 which states;

"Ensure that economic and enterprise related development is provided in a manner which facilitates a reduction in greenhouse gas emissions and accelerates the transition towards a sustainable, low carbon and circular economy. The following measures shall be supported:

- *An increase in employment densities within walkable distances of communities and on public transport routes.*
- *Promotion of walking and cycling and use of public transport through increased permeability and mobility management measures within and outside employment areas.*
- *The sourcing of power from district heating and renewables including wind and solar. Additional native tree planting and landscaping on existing and proposed enterprise zones and development sites to aid with carbon sequestration, contributing to the green infrastructure network of the County and promoting quality placemaking."*

An Energy and Sustainability Statement has been submitted with the application which demonstrates how the energy performance and the sustainability of construction and operation of the proposed development meets or exceeds legislative/planning requirements. The report outlines how that the heat available from phase 1 of the proposed development could support 580 dwellings.

The provision of a district heating system across the site, cycle and pedestrian routes, solar panels on all proposed buildings, green walls and the increase in tree planting across the site all ensure that the proposed development complies with Policy RE P12 of the Kildare County Development Plan 2023-2029.

5.0 Conclusion

Having regard to the land use zoning objective of the area, the policies included within the National Planning Framework, Regional Spatial and Economic Strategy for the Eastern and Midland Region, Kildare County Development Plan 2023-2029 and Leixlip Local Area Plan 2020-2023 (extended to 2026), it is considered that the development on site is acceptable. Having reviewed the information submitted with the application it is considered that the layout, siting and design of the overall site is of a high quality and fitting of a site of such national and regional significance. The proposed development is respectful of its surroundings and helps to link the existing campus with the town of Leixlip, while also providing high quality urban space for end users and members of the public. Overall, it is considered that the proposed development is of significant benefit to the surrounding area and is in accordance with the proper planning and sustainable development of the area.

5.1 Recommendation

It is recommended that planning permission is granted subject to the following conditions.

Schedule 1 - Considerations and Reasons on which this Decision is based as required by Article 31 of the Planning and Development Regulations 2001 (as amended).

Having regard to the policies and objectives of the Leixlip Local Area Plan 2020-2023 (extended to 2026) and Kildare County Development Plan 2023-2029, to the nature and design of the proposed development, and the character of adjoining development, it is considered that, subject to compliance with the conditions attached, the proposed development would not seriously injure the amenities of the area or of property in the vicinity, and would be in accordance with the proper planning and sustainable development of the area.

Schedule 2 - Conditions

General

1. The development shall be carried out in accordance with the plans, particulars and specifications received by the Planning Authority on 18/07/2023, except as amended by the conditions of this permission.

   Reason: To ensure that the development shall be in accordance with the permission and that effective control be maintained and to restrict and minimise any adverse environmental impacts resulting from the development.

2. The permission hereby approved shall be for a period of 10 years from the date of final grant.

   Reason: Having regard to the nature of the development and in the interest of clarity.

3. The developer shall enter a legal agreement with Kildare County Council which sets out the mechanism for the detailed design and delivery of the proposed M4 Pedestrian and Cycle Overbridge, accessway and associated works. This agreement shall be entered into prior to commencement of the development, unless otherwise agreed in writing with the Planning Authority.

Reason: To promote Active Travel between Leixlip and Celbridge; to provide access to the Innovation Campus and enhance Vulnerable Road User Safety.

4. Prior to Commencement of Development, Developer shall finalise details for the M4 Pedestrian and Cycle Overbridge, accessway with associated site works and obtain the written agreement of the Planning Authority. In order to finalise the pedestrian and cycle overbridge, the Developer is required to:
   a) Propose a time frame and mechanism for delivery.
   b) Submit revised documentation and plans demonstrating the requirements of TII Publications and have regard to the extents of the Motorway Maintenance and Renewal Contracts (MMaRC) Maintenance Area A in the proposed development.
   c) Liaise with Transport Infrastructure Ireland to provide an updated Construction Environmental Management Plan (CEMP) that shall demonstrate compliance with TII Publications requirements and mitigation of potential impact on the national road network in relation to the crossing of the M4 and other proposed works in the vicinity of the M4.

   Reason: To promote Active Travel between Leixlip and Celbridge; to provide Access to the Innovation Campus and enhance Vulnerable Road User Safety.

5. The Developer shall obtain the written agreement from TII for the following:
   a) final detailed design of the M4 Pedestrian and Cycle Overbridge, including parapets;
   b) protocols for the temporary closure, associated traffic management, bridge lift and installation by a competent contractor over the M4 Motorway.

   Reason: In the interest of Traffic Safety.

6. A full time Resident Engineer shall be provided and funded by the developer to supervise the connecting pedestrian/cycle lane and M4 Pedestrian and Cycle Overbridge for the development and to liaise with, TII, stakeholders, adjacent developers and the Planning Authority.

   Reason: In the interest of Traffic Safety.

7. The Developer shall ensure that all mitigations measures set out within the Environment Impact Assessment Report (EIAR) received on 18/07/2023 shall be implemented in full, except as may otherwise be required in order to comply with the following conditions.

Reason: In the interest of clarity and protection of environment during the construction and operation phases of the development.

8. (a) The structures shall be used as data centre/deep tech building only with ancillary office and welfare facilities associated with the data centre/deep tech use.
(b) Any further subdivision or change of use or increase in office space within the proposed development, whether or not such change, subdivision or amalgamation would otherwise constitute exempted development, under the Planning and Development Regulations 2001 (as amended) shall not be undertaken without the prior grant of planning permission.

Reason: To avoid any misunderstanding as to the proper construction of this permission, to regulate the use of the development and to ensure proper planning control is maintained.

9. Prior to commencement of development, the final details of the proposed district heating system network and infrastructure shall be submitted for the written agreement of the Planning Authority.

Reason: To ensure that the development shall be in accordance with the permission and that effective control be maintained and to restrict and minimise any adverse environmental impacts resulting from the development.

10. The external finishes shall be as per indicated on the drawings and details received on the 18/07/2023 unless otherwise agreed in writing with the Planning Authority.

Reason: In the interest of visual amenity and orderly development.

11. a) The landscape plan and masterplan received on the 18/07/2023 along with maintenance schedule shall be fully complete (hard and soft landscaping and boundary treatment) prior to the commencement of use of the buildings.

b) All fencing proposed to protect hedgerow and tree lines as detailed on the Tree Protection Plans received on 18/07/2023 shall be erected prior to the commencement of soil stripping. Photographic evidence of erection of protective fencing shall be submitted and agreed with the Planning Authority.

Reason: To ensure timely delivery of landscaping, protection of existing hedgerow/trees and in the interest of visual amenity.

12. The Developer shall retain the services of the qualified Landscape Architect (or qualified Landscape Designer) as a Planting and Landscape Consultant throughout the life of the construction works. The Developer shall inform the Planning Authority of that appointment in writing prior to commencement of development. A Practical Completion Certificate is to be signed off by the Landscape Architect (or equivalent) when all landscape works are fully completed to the satisfaction of the Parks Section and in accordance with the permitted landscape proposals.

Reason: In the interest of clarity and visual and residential amenity.

13. A) All mitigation measures outlined in Ecological Impacts Assessment, Construction Management Plan and any revisions shall be collated into a Schedule of Mitigation Measures by Ecological Clerk of Works (ECoW) and submitted to the planning authority for written approval prior to the commencement of site clearance to ensure all mitigation is carried out in accordance with detail submitted with the planning application.
    b) A report detailing compliance with all preconstruction measures shall be submitted to the planning authority for approval prior to the commencement of the construction stage.
    c) A completion report demonstrating compliance with all mitigation measures outlined in the Schedule of Mitigation Measures shall be prepared by the Ecological Clerk of Works and submitted to the planning authority within 6 weeks of completion of the development. This report shall detail any residual ecological monitoring or maintenance measures to be undertaken including who will undertake these measures including reviewing the lighting plan when it is operational.

    Reason: In the interest of clarity and protection of environment during the construction and operation phases of the development.

14. Following the first Biodiversity Audit to be conducted every five years, interpretative panels shall be erected across the site to inform the public of the biodiversity value and actions taken for biodiversity within the site.

    Reason: In the interest of clarity and protection of environment

15. The services of a qualified Arborist as an Arboricultural consultant shall be retained for the entire period of construction activity. The Developer shall inform the Planning Authority of that appointment in writing prior to commencement of development.

    Reason: In the interest of clarity and visual and residential amenity.

16. The Developer shall protect existing trees and hedgerows to all site boundaries (for which are to be retained) during construction works and retain thereafter. Any hedgerow/plants/trees which die, are removed or become seriously damaged or distressed, within a period of five years from the completion of the development shall be replaced within the next planting season with others of similar size and species, unless otherwise agreed in writing with the Planning Authority.

    Reason: In the interest of preservation of visual and residential amenity.

17. The Developer shall act as client for the purposes of the Safety, Health and Welfare at Work (Construction) Regulations 2013 (within the meaning of that term as therein defined) for the road project.

Reason: In the interest of proper health and safety management for the project.

18. Prior to the commencement of development, the developer shall submit a Construction Management Plan to contain:

a) A Construction Traffic Management Plan indicating all haul routes to and from the site. Delivery times for plant and materials and waste collection shall have consideration to morning and evening peak school times in the area and peak traffic periods. This plan is also to contain mitigation measures to minimize the effects the proposed development would have on adjacent residential development, the school, the immediate public road network and existing traffic movements.

b) the names and contact details, in writing, of the Project Supervisor for the Design Process and the Project Supervisor for the Construction Stage, as appointed under the Safety Health & Welfare (Construction) Regulations, 2013, or any preceding Regulations, to the Roads, Transportation and Public Safety Department Section.

c) Wheel wash arrangements and locations for the construction phase.

d) Final details of the construction compound, use of cranes, parking and storage areas during the construction phase. (This is in the interest of the residential amenity of properties in the area).

e) Relevant construction site warning signs on the public road network shall be in accordance with the Department of Transport, Tourism and Sport (DTTAS) Traffic Signs Manual having consideration to adjacent residential development.

f) A Construction and Demolition Waste Management Plan.

g) Hours of operation during the construction phase to be 08.00 hours to 18.00 hours Monday to Friday and 0.800 hours to 14.00 hours Saturday. No work permitted on the Sundays and public holidays. (This is in the interest of the existing residential amenity of properties in the area)

Reason: In the interest of pedestrian, cyclist and vehicular safety, proper planning and sustainable development.

19. Where works are being carried out by the Developer's Contractor on the public road, all works involving the opening of roads or footpaths shall be carried out under a Road Opening Licence submitted to the relevant Municipal District Area Office through the MRL system to ensure the following items are assessed.

    a) Contractor's experience and competency to conduct such works.

    b) Compliance with the Guidelines for Managing Openings in Public Roads (The Purple book, 2017 edition).

    c) Compliance with Chapter 8 of Traffic Management Guidelines including a general assessment of traffic impacts within the local area.

    d) Relevant Insurance's to conduct such works.

    Reason: To improve vulnerable road user facilities along the frontage of the development.

20. The Developer shall ensure that a revised Stage 2 is carried out on the detailed design and a Stage 3 Road Safety Assessment (RSA) is carried out on the contractors' completed works, by an independent approved and certified auditor. The Developer shall ensure that the necessary road safety engineering changes identified in the RSA are incorporated.

    Reason: In the interest of Vulnerable Road User Safety.

21. Lines of sight at the entrances to the site shall be provided in accordance with the Design Manual for Urban Roads and Streets (DMURS).

    Reason: In the interest of Road Safety.

22. The development shall comply measures proposed within the Mobility Management Plan received by the Planning Authority on 18/07/2023, in order to reduce car-based journeys.

    Reason: In order to reduce car-based trips and proper planning

23. The Developer shall ensure that no surface water runoff from the site discharges onto the public road. The Developer shall ensure that existing land and roadside drainage are maintained.

    Reason: To prevent interference with existing roadside drainage.

24. The Developer shall ensure that Public Lighting complies with Kildare County Council's Online Street Lighting Policy Technical Specification 2021.

    Reason: In the interests of Road Safety.

25. The Developer shall comply with any future requirements of the planning authority in relation to adjusting the lighting aiming or fitting appropriate additional louvers, to deal with remaining glare issues that may arise for M4 motorway and other road users or residents and may only become apparent when the installation is commissioned.

    Reason: To protect the amenities of the area.

26. Prior to commencement, the applicant shall submit the Conformation of Feasibility for connections received from Uisce Eireann, to the Planning Authority for their records

    Reason: To ensure proper servicing of the development

27. Prior to commencement, the applicant shall consult Uisce Eireann (UE) Diversions and Build Over Assets division to assess the implications for existing UE Water Service Infrastructure traversing the subject and outside the site and which will be impacted by the proposed development, including GNI Pipework Upgrade which is located on- and off-site (See existing record drawing in submitted Engineering Services Report Appendix C showing UE WW Rising main through site and proximity of existing 300 UE foul sewer to proposed overbridge north of M4 and EIAR Volume 2 Appendix 2.1 Proposed GNI Pipe works.)
    a) Where UE determine a Conformation of Feasibility (CoF) for any diversions or other measures to protect existing UE WS infrastructure is required, the received CoF for diversions shall be submitted to the Planning Authority as above.

    Reason: To ensure proper servicing of the development

28. Prior to commencement, the applicant shall liaise and agree pollution prevention measures with Uisce Eireann to ensure water quality standards in adjacent Liffey public water supply reservoir are maintained.

    Reason: In the interests of public health, to avoid pollution and to ensure proper servicing of the development.

29. Where the applicant proposes to connect to a public water/wastewater network operated by Irish Water, the applicant must sign a connection agreement with Irish Water prior to the commencement of the development and adhere to the standards and conditions set out in that agreement.
    a) Supplementary on-site water storage for the data centre servers cooling to prevent undue reductions in local water network pressure and flows, particularly during hot weather shall be agreed with UE as part of the connection application

process (see Engineering Services Report section 4.4.2 and EIAR sections 14.5.2 and 14.11)

Reason: To ensure proper servicing of the development

30. In the interest of Public Health and Environmental Sustainability, Irish Water Infrastructure capacity requirements and proposed connections to the Water and Waste Water Infrastructure will be subject to the constraints of the Irish Water Capital Investment Programme.

Reason: To ensure proper servicing of the development

31. All development shall be carried out in compliance with Irish Water Standards codes and practices (see Engineering Services Report section 3.4.1 and EIAR Volume Part 2 sections 8.4.6 and 8.4.7, 8.5.2 and 8.6.2, Chapter 14, including proposals for new site WWPS x 3 (14.5.2) and Chapters 18 and 19).

Reason: To ensure proper servicing of the development

32. Only clean uncontaminated surface water from the development shall be discharged to the surface water system. Only foul sewage and soiled water from the development shall be discharged to the foul system. All surface water shall be collected and disposed of to rainwater harvesting, soakways designed and constructed in accordance with B.S. 8301:1985 and BRE Digest 365 and provided with inspection manhole covers. The entrance shall be drained to the surface water system in order that no water discharges of to the public roadway.

Reason: In the interests of public health, to avoid pollution and to ensure proper servicing of the development.

33. Roadside drainage shall be provided at the entrance which shall discharge to soakways or water system on site. The roadside drainage along the road frontage shall not be impaired and shall discharge to the grass verge which shall be lowered and levelled to the road level and provided with water run-off cuttings as directed by roads authority. Roadside drains where present shall be retained except at the entrance where they shall be piped with a single pipe or culvert corresponding to the dimensions of the drain cross section.

Reason: In the interest of traffic safety and proper development.

34. The proposed surface water drainage system shall be designed and constructed in compliance with the requirements of the Greater Dublin Strategic Drainage Study in

terms of incorporating appropriate Sustainable Drainage Systems (SuDS) to restrict-attenuate surface water discharge flows from the proposed development and prevent pollution to maintain the quality of adjacent ground water and watercourses.

- The applicant shall ensure that surface water generated from roofs and paved areas will not increase the risk of pluvial flooding to existing developments surrounding the proposed site.
- The applicant shall ensure that surface water from the development does discharge to a point where neighbouring developments would be at risk of flooding.
- The Developer shall ensure that there is sufficient attenuation allocated for this development within the overall site.

Reason: To ensure proper servicing of the development and to eliminate the potential impact of pluvial flood risk.

35. Surface water shall be collected and disposed of to porous paving, soakways or a water system designed and constructed in accordance with B.S.8301:1985 and BRE Digest 365 and provided with attenuation.
    - The drainage system shall be designed, inspected, and supervised by a qualified engineer who shall certify the works as compliant with regard to design and construction.
    - The engineer shall decide the requirements for any drainage and attenuation requirements in conjunction with any porous paving provisions.
    - The engineer shall provide a photographic report of the various construction stages for record purposes together with other construction and design details.
    - The attenuated system shall cater for the 1 in 100-year storm event (or as otherwise agreed in writing) and with an allowance of +30% in order to cater for 'climate change'.

    Reason: To ensure proper servicing of the development and to eliminate the potential impact of pluvial flood risk.

36. The SuDs strategy detailed within the Engineering Services Report Drainage and Water Services carried out by Clifton Scannell Emerson and outlined on the drawings submitted within the *Civil Drawings Planning Document Issue,* both received on the 18/07/2023, shall be implemented in full unless otherwise agreed with the Planning Authority.

    Reason: To ensure proper servicing of the development and to eliminate the potential impact of pluvial flood risk.

37. Prior to commencement of the development, a Stage 2 Surface Water Audit undertaken by a suitably qualified, competent and experienced consulting civil engineer who is independent of the project design team and assessing the final drainage (including the totality of the new road to be taken in charge by KCC) and

SuDS designs and all calculations, drawings and details outlined within Clifton Scannell Emerson Associates (CSEA) Engineering Services Report, CSEA Surface Water Management Strategy Report, EIAR Volume 1 Section 8.4.5, Chapters 14 and 18 and CIRIA SuDS Manual Part E Chapters 24 to 26 and Appendix C shall be submitted and agreed with the Planning Authority.

Reason: To ensure proper servicing of the development

38. Upon completion of the development the following shall be submitted:
    a) Stage 3 Surface Water Drainage Audit and
    b) a construction safety risk assessment for all surface storage SuDS shall be carried out and submitted to the Planning Authority with assessor's report confirming risk mitigation measures have been implemented to their satisfaction and
    c) a report confirming the watertightness of the drainage network including pipes, manholes and gullies and the absence of misconnections ie fire water, industrial wastewater, foul or other contaminated drainage to the surface water drainage system

    Reason: To ensure proper servicing of the development

39. The applicant-management company shall implement a drainage-SuDS monitoring, inspection, maintenance and repairs plan, directly or indirectly via a competent contractor for the proposed drainage systems including drainage pipe networks, SuDS and the outfalls (see CIRIA SuDS Manual Part D Chapters 11-23 and Part E Chapter 32 and Appendix B and CSEA Surface Water Management Strategy Report Appendix A and EIAR Volume 1 Section 8.9.2).
    This maintenance and repairs regime shall have planned preventative and response elements and cover all emergency maintenance and repairs on a 24-7 basis, out of normal business hours and during holidays.
    The applicant-management company shall keep full records akin to the statutory 'Safety File' including paper, digital and photographic of all drainage systems and both site watercourses and structures thereon, their operation, implementation and maintenance & repair and these records shall be handed over to new owners-LA in suitable paper and digital formats at the time of sale-transfer or taking in charge.

    Reason: To ensure proper servicing of the development

40. The flood risk mitigation measures contained in Site Specific Flood Risk Assessment received by the Planning Authority on 18/07/2023, shall be implemented and maintained by the applicant-management company and full records akin to the statutory 'Safety File' including paper, digital and photographic of the mitigation measures, their operation, implementation and maintenance & repair shall be kept and recorded by the developer on a regular basis and shall be handed over to new owners/Local Authority in suitable paper and digital formats at the time of sale-transfer or taking in charge.

Reason: To ensure proper and sustainable servicing of the proposed development and to prevent pollution and flooding.

41. The Developer shall comply with the requirements of the Office of Public Works (OPW) in relation to the proposed diverted culvert.

Reason: To ensure proper and sustainable servicing of the proposed development and to prevent pollution and flooding.

42. All overground oil, chemical storage tank(s) shall be adequately bunded to protect against spillage. Bunding shall be impermeable and capable of retaining a volume equal to 1.1 times the capacity of the largest tank. Filling and offtake points shall be located within the bund.

Reason: In the interest of public health and the use of best practice guidelines in order to avoid pollution.

43. All foul sewage, trade effluent and soiled water shall discharge to the public foul sewer system.

Reason: In the interest of public health, to avoid pollution, and to ensure proper development.

44. Prior to the commencement of development, the applicant shall prepare a Construction and Demolition Resource Waste Management Plan (RWMP) in accordance with Appendix C of the "EPA Best Practice Guidelines for the Preparation of Resource and Waste Management Plans for C&D Projects (2021)" including demonstration of proposals to adhere to best practice and protocols. The RWMP shall include specific proposals as to how the RWMP will be measured and monitored for effectiveness, these details shall be placed on the file and retained as part of the public record. The RWMP must be submitted to the planning authority for written agreement prior to the commencement of development.

Reason: In the interest of proper planning and sustainable development

45. Noise from the construction stages of the development shall not give rise to sound pressure levels (Leq 15 minutes) measured at noise sensitive locations which exceed 70 dB(A) (LAeq 1 hour) between 0800 hours and 1800 hours Monday to Friday inclusive (excluding bank holidays) and between 0800 hours and 1300 hours on Saturdays when measured at any noise sensitive location in the vicinity of the site. Sound levels from site development works shall not exceed 45 dB(A) (LAeq 1 hour) at any other time.

Reason: In the interest of public health, to avoid pollution, and to ensure proper development.

46. Noise from the operational stages of the planned development shall not give rise to sound pressure levels (Leq 15 minutes) measured at noise sensitive locations which exceed the following limits:
    a) 55 dB(A) between the hours of 0800 and 1800 Monday to Friday inclusive (excluding bank holidays) and 45 dB(A) at any other time, and
    b) There shall be no clearly audible tonal component or impulsive component in the noise emission from the development at any noise sensitive location. A detailed Noise Study, with recommendations, shall be carried out by a competent noise/environmental consultant within three months of the development being in full operation and at any other time as may be specified by Kildare Co. Council. The Noise Study shall be submitted for the consent of the Planning Authority.

    Reason: In the interest of public health, to avoid pollution, and to ensure proper development.

47. A Noise Survey of the site operations shall be carried out annually by a competent Environmental Consultant in accordance with a plan to be agreed with the Planning Authority prior to commencement of operations. A record of the survey results shall be available for inspection by any authorised persons of the Planning Authority, at all reasonable times.

    Reason: In the interest of public health, and the use of best practice guidelines in order to avoid nuisance.

48. Applicant shall use "Best Practicable Means" to prevent/minimise noise and dust emissions during the construction and operational phases of the development, through the provision and proper maintenance, use and operation of all machinery all to the satisfaction of the Planning Authority.

    Reason: In the interest of public health, and the use of best practice guidelines in order to avoid nuisance.

49. Prior to commencement of development, the Developer is requested to submit the following information for written agreement with the Planning Authority;
    a) Details on the battery type being proposed in the battery storage areas. A full hazard analysis and risk assessment to be carried out taking the following into consideration (list is not exhaustive).
        - Location of battery storage

- Thermal runaway
- Fire detection & protection measures
- Construction of enclosures
- Battery management system
- Protection & suppression systems
- Ventilation

b) Specify the exact water storage being proposed on site and what is being provided for in the ring main (provide storage locations on plans and corresponding volumes). There are discrepancies between the EIAR and the Engineering Services Report, as to what water is being provided for firefighting, flow rates etc. Please detail the firefighting water strategy.

c) Details of fire brigade access to the attenuation ponds. Ground bearing capacity should be capable of supporting a fire appliance and be extended to edge of the ponds. Sections to be provided.

d) The Applicant is requested to undertake an auto-track analysis to demonstrate the manoeuvrability of fire appliances along all proposed access routes (including to open-source water supplies).

e) Confirmation that there will be no height restrictions less than 4m along any part of the fire brigade access routes.

Reason: In the interest of fire safety.

50. All surface water from the carpark areas shall pass through adequately sized and sited petrol/oil interceptor(s) before being discharged to the surface water system.

Reason: In the interest of public health, to avoid pollution, and to ensure proper development.

51. Prior to Commencement Notice Stage, the developer shall submit a Construction Phase Surface Water Management Plan in accordance with IFI Publication 2016 "Guidelines on Protection of Fisheries During Construction Works in and Adjacent to Waters" for the written consent of the Planning Authority. The Plan shall address the management of any surface water run-off from the site, to prevent any polluting matter, suspended solids, and silt, being discharged to any receiving water. The Plan shall, inter alia, include:
(a) Site Layout Plan identifying any potential surface water and/or groundwater receptors
(b) The location and design of any proposed mitigation measures.
(c) Proposals for a surface water and/or groundwater monitoring programme, as appropriate.

Reason: In the interest of public health, to avoid pollution, and to ensure proper development.

52. The permitted hours of operation during the construction phase and for deliveries shall be between 07.00 hours to 18.00 hours Monday to Friday and 08.00 hours to 14.00 hours Saturday. No work onsite is permitted on Sundays and public holidays.

Reason: In order to safeguard the amenity of properties in the area.

Oisín Boland
A/Executive Planner
05/09/2023

Kehinde Oluwatosin
Senior Executive Planner
05/09/2023

Emer Uí Fhátharta
Senior Planner

September 5th 2023

Written Statement of Decision Maker (Chief Executive)

It is noted that the Environmental Impact Assessment (EIA) carried out by the Acting Executive Planner dated 5th September 2023 and the Senior Executive Planner dated 5th September 2023 and approved by the Senior Planner, has been carried out giving full consideration to the Environmental Impact Assessment Report (EIAR) and all plans and other particulars received by the Planning Authority on the 18th July 2023, all Kildare County Council internal department reports, and all submissions and observations received from prescribed bodies and third parties made in relation to the environmental effects of the proposed development.

It is considered that the EIAR received on the 18th July 2023, adequately assessed the likely significant environmental effects of the proposed development on the environment and thereby complies with the requirements of Article 5(1) of EIA Directive 2014/52/EU and the potential impacts on;

- Population and Human Health
- Biodiversity
- Land, soils, geology and hydrogeology
- Hydrology
- Air quality
- Climate
- Noise and Vibration
- Material Assets – waste management
- Material assets – traffic and transportation
- Material assets – site services
- Archaeology and cultural heritage
- Landscape and visual impact assessment
- Major accidents and disasters
- The assessment of interactions and cumulative effects
- Mitigation and monitoring

The EIAR submitted with this application is deemed to adequately describe the direct, indirect and cumulative effects on the environment of the proposed development, together with proposals to avoid, mitigate and reduce environmental impacts of the proposed development. A thorough Environmental Impact Assessment of the proposed development has been undertaken by the Planning Authority.

In these circumstances I am satisfied that planning permission be granted subject to the conditions as set out foregoing Planning Report.

Signed: _____

Chief Executive