

TECHNICAL NOTE

Imperial Park, Newport

SUBJECT	PROJECT NO.	DATE
Net Benefit for Biodiversity	100103661.800.L	09 April 2025
AUTHOR	DISTRIBUTION	REPRESENTING
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IQE-ATK-20250025		

Document history

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1.0	For client comment	EMc	CL	CW	OE	09/04/2025

Client signoff

Client	IQE Silicon Compounds Limited		
Project	Imperial Park, Newport	Project No.	100103661.800.L
Client signature / date			

1. Introduction

1.1 Terms of Reference

AtkinsRéalis was commissioned by IQE Silicon Compounds Limited to undertake a Net Benefit of Biodiversity (NBB) assessment to meet Condition 3 for the granted retrospective planning application (reference: 24/0953¹) for alterations to a gas bunker and prefabricated ammonia storage building at IQE Silicon Compounds, Celtic Way Imperial Park, Newport (hereafter referred to as the Scheme).

This Technical Note sets out how the Scheme will deliver a net benefit for biodiversity in accords with Policy GP5 of the Newport Local Development Plan 2011 - 2026 (Adopted January 2015)², as stated in Condition 3 of the Notice of Decision³, and planning policy and legislation.

The ecological specialists who have authored this report are committed environmental professionals who are appropriately qualified and have a demonstrable knowledge, experience, and competence in the field of nature conservation. The production of this NBB report has been overseen by competent experts who are full members of the Chartered Institute of Environmental and Ecological Management (CIEEM).

1.2 The Development Site

The Scheme is within the industrial estate Imperial Park, to the southwest of Duffryn in Newport, as identified by the planning red line boundary shown on Drawing Ref: IQE-ATK-03-XX-DR-B-006, which was provided with the planning application (reference 24/0953) and shown on Figure A.1 within **Appendix A** (hereafter referred to as the Development Site).

The Development Site is located at Ordnance Survey National Grid Reference (OSNGR) ST 28335 84488 located southwest of Newport. The Development Site is approximately 0.04 hectares (ha) and comprises hardstanding, an existing gas bunker, ammonia bunker and tooling attached. Within the Development Site there is no vegetative habitats.

The wider IQE Silicon Compounds site, in which the Development Site sits (hereafter referred to as the Wider Site), comprises a car park, buildings and further hardstanding in the form of pavements and roads with 24-hour security lighting. An area of previous disturbed ground with ephemeral vegetation is present to the south of the Development Site, where an area is to be developed in the future. A narrow verge of grassland is present approximately 150 m to the west of the Development Site, delineating the west board of the is bordered of the Wider Site. In the wider area there is further hardstanding and buildings in association with the industrial estate of Imperial Park. In the wider area, and not adjacent to the Wider Site, small areas of woodland are present to the north and west, and large areas of scrub to the south of Imperial Park. Gwent Levels – St. Brides Site of Special Scientific Interest (SSSI)⁴ is 570 m southeast of the Development Site, designated for its extensive area of reclaimed wet pasture and reed habitats supporting notable plant species and invertebrates. The Development Site is shown on Figure A.1 in **Appendix A** (as shown in the planning application).

¹ Newport City Council. 2025. Notice of Decision Letter received 6th February 2025.

² [Annual Monitoring Report 2023 Final](#)

³ Newport City Council. Notice of Decision. Reference number: 24/0953. Issued: 6th February 2025

⁴ Countryside Council for Wales. Gwent Levels – St Brides. Available at:
https://naturalresources.wales/media/640899/SSSI_0341_Citation_EN0014d9a.pdf

1.3 The Scheme

The granted planning application (reference: 24/0953) includes the following elements:

- Retrospective ductwork to the roof of the existing gas bunker;
- Retrospective installation of a new prefabricated ammonia storage building (Store A) to house a modular ammonia delivery system; and
- Retrospective installation of a prefabricated ammonia storage building (Store B) and the installation of an associated external ventilation exhaust connection to the flue stack.

The Scheme is shown on Drawings Ref: IQE-ATK-03-XX-DR-B-003, which was provided with the planning application and shown on Figure A.2 in **Appendix A**. The drawing shows the proposed existing (retrospective) works.

2. Biodiversity and Ecosystem Resilience – Net Benefit for Biodiversity

A set of criteria has been developed by AtkinsRéalis to demonstrate how a scheme delivers a net benefit for biodiversity and resilience of ecosystems through use of the DECCA Framework (Diversity, Extent, Connectivity, Condition and Adaptability).

A Net Benefit for Biodiversity (NBB) is the concept that development should leave biodiversity and the resilience of ecosystems in a significantly better state than before, through securing immediate and long term, measurable, and demonstrable benefit, primarily on or immediately adjacent to the site.

NBB includes biodiversity but also includes a distinct reference to ecosystem resilience and how the site relates to surrounding ecosystems and biodiversity. As such it encourages development proposals to take proactive steps to maintain and enhance biodiversity and ecosystems with a focus on avoidance, minimisation, and mitigation of impacts within the context of the site with offsite mitigation seen as a last resort. This prioritisation beginning with avoidance follows the Stepwise approach set out within Planning Policy Wales: Planning Policy Wales - Edition 12⁵.

The DECCA framework is a method for implementing net benefits, which is required through the Section 6 Duty⁶, securing a net benefit for biodiversity, and building resilience through the planning system, including addressing all of the attributes of the DECCA framework set out within Planning Policy Wales edition 12, chapter 6⁵.

When assessing planning applications, Planning Policy Wales instructs planning authorities to take account of and promote the resilience of ecosystems, in particular the five attributes of ecosystem resilience: Diversity, Extent, Condition, Connectivity and Adaptation (DECCA). The attributes provide a framework for considering the state of ecosystem resilience in Wales and can be applied across different habitats and land uses and for a range of different scales. In applying the framework, consideration must be given to key species as well as habitats.

There is no formal published guidance on how to judge whether the DECCA framework is met for a project. AtkinsRéalis are involved in preparation of best practice guidance with Welsh Government and a Working Group to

⁵ [Planning policy Wales | GOV.WALES](#)

⁶ [Environment \(Wales\) Act 2016 Part 1](#)

identify appropriate criteria and approaches. In the absence of published guidance, AtkinsRéalis have created a set of criteria based on professional judgement, to assist in decision making. These are set out in Section 3.

All development must deliver a net benefit for biodiversity and ecosystem resilience from the baseline state (proportionate to the scale and nature of the development proposed). It is not essential for gains to be evidenced against all attributes within the framework, but for a net benefit, a project should have a positive effect on at least one, and ideally more. Predicted effects should be neutral for any attributes where they are not positive.

If a project is predicted to have a negative effect on an attribute, careful consideration is required as this may still be outweighed by gains in others. For example, a slight reduction in total habitat area may be more than compensated by improvements in habitat diversity. Where this has not been demonstrated, and the balance between outcomes across attributes does not show an evidenced overall positive outcome, further iterations to the design are required to ensure an overall net benefit is predicted to be achieved.

Although it was created for use in England, there is potential for the Biodiversity Metric⁷ to be used to explore habitat-focused aspects of the first three attributes of DECCA: Diversity, Extent and Condition. For this specific project, the Biodiversity Metric has not been used. This decision was made due to the very localised nature of the works and the common and widespread nature of the habitats present around the site.

Even if the biodiversity value of existing features is predicted to be maintained, there must still be a proactive process to look for and secure enhancement through the design and implementation of the development. The DECCA Framework is a tool to ensure that this is delivered.

The proposed net benefit for biodiversity must be proportionate to the extent and impact of development, to contribute to a 'bigger, better, more and joined up' approach to a resilient and biodiverse ecological network in Wales.

3. Net Benefit for Biodiversity

A set of criteria has been developed by AtkinsRéalis to help demonstrate how a scheme delivers a Net Benefit for Biodiversity and resilience of ecosystems through use of the DECCA Framework. Table 3-1 below shows how the Scheme is predicted to meet these criteria, and the evidence provided.

⁷ [Statutory biodiversity metric tools and guides - GOV.UK](#)

Table 3-1 Summary of how the Scheme delivers a net benefit for biodiversity and resilience of ecosystems through the use of the DECCA Framework

DECCA Framework	Summary of Attribute ⁸	Criteria	Evidence	Predicted outcome for Attribute ⁹
Diversity	Development proposals should avoid negative impacts on biodiversity, and the overall diversity value present, by considering how biodiversity assets can be avoided, but ultimately maintained and enhanced.	Criterion 1) Demonstrate that avoidance measures have been implemented for the highest value diversity¹⁰, if present within and around the site (habitats and species present), including within appropriate buffer zones. Criterion 2) Demonstrate that appropriate mitigation and compensation has been applied, and that enhancement measures have been implemented to improve the favourable status of the overall diversity present within the site¹¹. Criterion 3) Demonstrate that an increase in plant diversity has been implemented across each specific habitat were applicable proposed within landscape proposals¹²	No statutory or non-statutory designated sites or irreplaceable habitat are anticipated to be at risk of negative impacts due to the proposed works. There is no vegetation within or immediately adjacent to the Development Site. Therefore, no vegetation loss is anticipated for the works. Given the limited site extent and the fact that the only nearby habitat is a grass verge in the Wider Site, which is not to be impacted, mitigation measures are not required beyond standard construction site good practice including measures to protect surrounding areas from incursion and pollution control measures. No compensation is required due to the lack of negative impacts due to the proposed works. There will be no negative impacts on the biodiversity of the Development Site or Wider Site and the overall diversity will remain the same. There are no opportunities to enhance the diversity of the Development Site due to the lack of vegetation and lack of areas suitable for vegetation to be introduced.	Neutral

⁸ Welsh Government, (2024), Planning Policy Wales, Edition 12

⁹ Positive, Neutral or Negative

¹⁰ Rare, threatened, or endangered species and habitats, significant populations/extent of endemic or range-restricted species or ecosystems and or important species aggregations, such as key breeding or foraging areas. Diversity value should be assessed using best practice guidance: Guidelines for Ecological Impact Assessment (EclA) | CIEEM

¹¹ The evidence must demonstrate compliance with the StepWise Process provided within Planning Policy Wales: Planning Policy Wales - Edition 12 (gov.wales).

¹² Certain habitats will not require an increase in plant diversity (i.e. species richness), this will be decided upon the professional judgement of the ecologist.

DECCA Framework	Summary of Attribute ⁸	Criteria	Evidence	Predicted outcome for Attribute ⁹
Extent ¹³	The development must avoid loss in the extent of biodiversity and incorporate measures to appropriately maintain and enlarge existing habitats, especially where extent is small or declining, through habitat restoration and creation with adjoining and nearby areas, green infrastructure features and networks, and promote the restoration of	Criterion 1) Demonstrate: - Direct loss of habitats predicted within and adjacent to the site as result of the development in an appropriate format (hectares/metres) with geospatial mapping tools (GIS). - Creation and/or restoration of proposed habitat¹⁴ within or adjacent to the site in an appropriate format (hectares/metres) with geospatial mapping tools (GIS). In the absence of priority level assessed habitats, this criterion should focus on improving the quality of habitats that are considered to be common and widespread, through other attributes of this criteria, such as improving condition. Criterion 2) Demonstrate the increase in extent will provide suitable habitat for the given protected or notable species present on site, and its capacity to support populations of species adjacent to the site, and that their ability to breed, forage and complete the species life cycle is enhanced. Criterion 3) Provide evidence that the NRW Habitat Network mapping tool OR local green	There will be no direct loss of any habitats within statutory or non-statutory designated sites or irreplaceable habitat due to the works. The habitats identified within the Development Site are of low biodiversity value, such as the hardstanding and gas bunker, with no priority level (Section 7) habitats present. The Scheme will not result in any habitat loss suitable for biodiversity. As such, mitigation and compensation are not necessary. However, the extent of suitable habitats for biodiversity can be increased within the Wider Site as enhancement, proportionate to the extent and impact of development, as detailed below. Habitat opportunities for roosting bats and breeding birds cannot be considered within the Development Site or Wider Site as there is 24-hour security lighting and no adjacent vegetation that can offer refuge from predators. Therefore, attaching species roosting/nesting boxes to the main building within the Wider Site is not suitable. The linear strip of grassland delineating the western edge of the Wider Site is the only vegetation suitable for incorporating enhancement. Newport City Council (NCC) state priority species in Newport include invertebrates, such as small	Positive

¹³ The criteria descriptions for 'Extent' use AtkinsRéalis' standard wording for consistency. However, in this case GIS-based analysis has not been done, because no existing habitats or designated sites are predicted to be affected by the Scheme so mapping would add no value to the assessment.

¹⁴ Habitats proposed for recreation must be those that can be re-created, and there is conservation evidence available to support this. Those that are assessed as irreplaceable habitats or those within designated sites are not to be included.

DECCA Framework	Summary of Attribute ⁸	Criteria	Evidence	Predicted outcome for Attribute ⁹
	damaged, modified or potential habitat and the creation of new additional habitat.	infrastructure strategy was used to consider the above, and (if applicable) demonstrate that restoration of core areas will be implemented. This should be evidenced through the provision of mapping of habitat networks, through use of geospatial mapping (GIS). Criterion 4) Provide evidence that the LPA Biodiversity Action Plan has been taken account in satisfying this criterion, and during the design of the overall net benefit approach.	<i>Ranunculus</i> moth and shrill carder bee¹⁵. The NCC Biodiversity Duty Forward Plan (2023-2025) recommends bug hotels that are suitable for lacewings, solitary bees and lady birds¹⁶. As such, the installation of a bug hotel, in approximate location Ordnance Survey National Grid Reference (OSNGR) ST 28120 84434, will increase opportunities for a range of invertebrates to forage and breed within a predominantly urban area within and adjacent to the Wider Site. While this is not a physical increase in vegetated habitat area, the introduction of a bug hotel increases the quantum of habitat suitable for invertebrates. Given the extremely limited nature of the Scheme, the installation of a single bug hotel is considered proportionate enhancement.	
Condition	Development should ensure ecosystems and biodiversity assets are in a healthy condition to function effectively, to deliver a range of important ecosystem	Criterion 1) Demonstrate current known presence of direct physical damage to that habitat (e.g., grazing pressure or lack of management) and steps taken to remove that pressure and provide favourable future management. Criterion 2) Demonstrate if current known indirect damage is to occur (e.g. water, air or nutrient pollution) and what steps will be taken to remove that pressure and provide favourable future management.	There is no current direct physical damage occurring to existing habitats within the Development Site. There is no known current indirect damage occurring, such as water, air pollution, or nutrient pollution. There are no habitat mosaics within the Development Site as there is no vegetation present. There are no non-native invasive species present within the Development Site and, therefore, no action necessary.	Neutral

¹⁵ [Biodiversity | Newport City Council](#)

¹⁶ [Newport City Council - Biodiversity Duty Forward Plan 2023 - 2025](#) Page 25

DECCA Framework	Summary of Attribute ⁸	Criteria	Evidence	Predicted outcome for Attribute ⁹
	services and be more resilient to external influences and ensure the functioning of natural processes can occur.	Criterion 3) Demonstrate current habitat mosaic formations present and steps taken to ensure these are retained and/or supported. Criterion 4) (If applicable) Demonstrate the presence of invasive species and steps taken to reduce or remove spread, this should include mapping of the location and extent of invasive species, and methods of removal required.		
Connectivity	Development should ensure that retained habitats continue to be well connected to adjacent habitats and is vital to provide connectivity (stepping stones) for key species and	Criterion 1) Demonstrate an increase in connectivity to broad ecosystems and habitats¹⁷, including Priority habitats (Section 7¹⁸) and other notable habitats (e.g., Local BAP habitats¹⁹), through appropriate geospatial mapping (GIS)^{20 21}. Criterion 2) Demonstrate an increase in connectivity to species assemblages, with links between habitats, allows species within development to forage, breed and migrate and respond to climate change beyond the Site, through appropriate geospatial mapping (GIS) of connectivity and species dispersal corridors.	Habitats immediately adjacent to the Development Site in all directions include hard standing and buildings associated with Imperial Park industrial estate. However, NRW Habitat mapping shows coastal floodplain grazing marsh associated with Gwent Levels – St Brides SSSI approximately 570 m to the south and southeast of the Development Site as well as an area of semi-natural broadleaved woodland to the southeast at approximately 280 m. Scattered trees are located approximately 580 m to the northwest of the Development Site. There is no direct or indirect connectivity to the SSSI or area of woodland from the Development Site; therefore, they will not be negatively impacted as a result of the works.	Positive

¹⁷ UK Habitat Classification. 2018 - 2022. [online] Available at: <https://ukhab.org>

¹⁸ <https://www.biodiversitywales.org.uk/environment-wales-act>

¹⁹ <https://jncc.gov.uk/our-work/uk-bap-priority-habitats/>

²⁰ Provide mapping to demonstrate connectivity, this should be done through using desk-based mapping and provision of habitat mapping through field survey. Additionally, this could include appropriate guidance, and use of Ecological Zone of Influence (EZol) were appropriate.

²¹ Should consider the Resilient Ecological Networks (REN) core areas (available here: [resilient-ecological-networks-practitioner-guide.pdf](#) (cyfoethnaturiol.cymru)), to ensure connectivity is demonstrated, with buffer zones around notable or priority habitats established.

DECCA Framework	Summary of Attribute ⁸	Criteria	Evidence	Predicted outcome for Attribute ⁹
	ensuring that the favourable conservation status of local species populations is maintained. Development proposals should identify and incorporate appropriate links to be made between the site and its surroundings to improve connectivity.	Criterion 3) (if applicable) Demonstrate an increase in connectivity to designated sites (statutory and non-statutory) and evidence of this if applicable (direct or indirect linkage).	The installation of a bug hotel at approximate OSNGR ST 28120 84434 will create a stepping stone of habitat connectivity across the Wider Site to the scattered trees in the northwest via the linear strip of grassland and ornamental shrubs immediately adjacent to the Wider Site. It also has the potential to increase invertebrate assemblages in the area that could benefit the habitats associated with Gwent Levels – St Brides SSSI, such as the shrill carder bee. This installation of a single bug hotel is considered proportionate enhancement given the extremely limited nature of the Scheme.	
Adaptation	Development proposals should identify impacts to the ecosystem resilience attributes of biodiversity, using the pressures	Criterion 1) Demonstrate how the incorporated measures (i.e. ecological mitigation) will ensure that biodiversity's ability to adapt to, resist and recover from pressures, is enhanced, and adaptable to climate change. Criterion 2) Demonstrate how the incorporated measures within the site, provide enhancement of ecological networks and green infrastructure provisions.	A bug hotel will offer opportunities for invertebrates to shelter, hibernate and reproduce in an area with low biodiversity value and will assist with adapting to the commercial urban area. In line with NCC's Organisational Climate Change Plan²², this enhancement looks to improve the connectivity for invertebrates. This enhancement, proportionate to the extent and impact of development, will improve the ecosystem resilience of the Wider Site and enhances the ecological network, contributing	Positive

²² [Newport-City-Council-Organisational-Climate-Change-Plan-2022-27](#)

DECCA Framework	Summary of Attribute ⁸	Criteria	Evidence	Predicted outcome for Attribute ⁹
	identified in SoNaRR. The incorporated measures within development should ensure that biodiversity's ability to adapt to, resist and recover from pressures is enhanced.		to helping invertebrate species to adapt with pressures of an urban and industrial area.	

4. Conclusion

Taking into account the StepWise process, the Scheme conforms to Planning Policy Wales Edition 12 and local planning policy. There will be no direct or indirect negative impacts on biodiversity receptors. It is concluded that the Scheme will not result in a significant residual negative effect on any important ecological feature throughout construction or operation.

A bug hotel will be installed in the Wider Site at approximate location OSNGR ST 28120 84434. This is considered proportionate enhancement given the extremely limited nature of the Scheme. It has been evidenced that Net Biodiversity Benefit is predicted to be achieved as a result of the Scheme:

- Diversity – neutral
- Extent – positive
- Condition – neutral
- Connectivity – positive
- Adaptation – positive.

Overall, given the size and extent of the Scheme, and its impact on biodiversity, a Net Benefit for Biodiversity is predicted to be achieved that is proportionate to the Scheme.

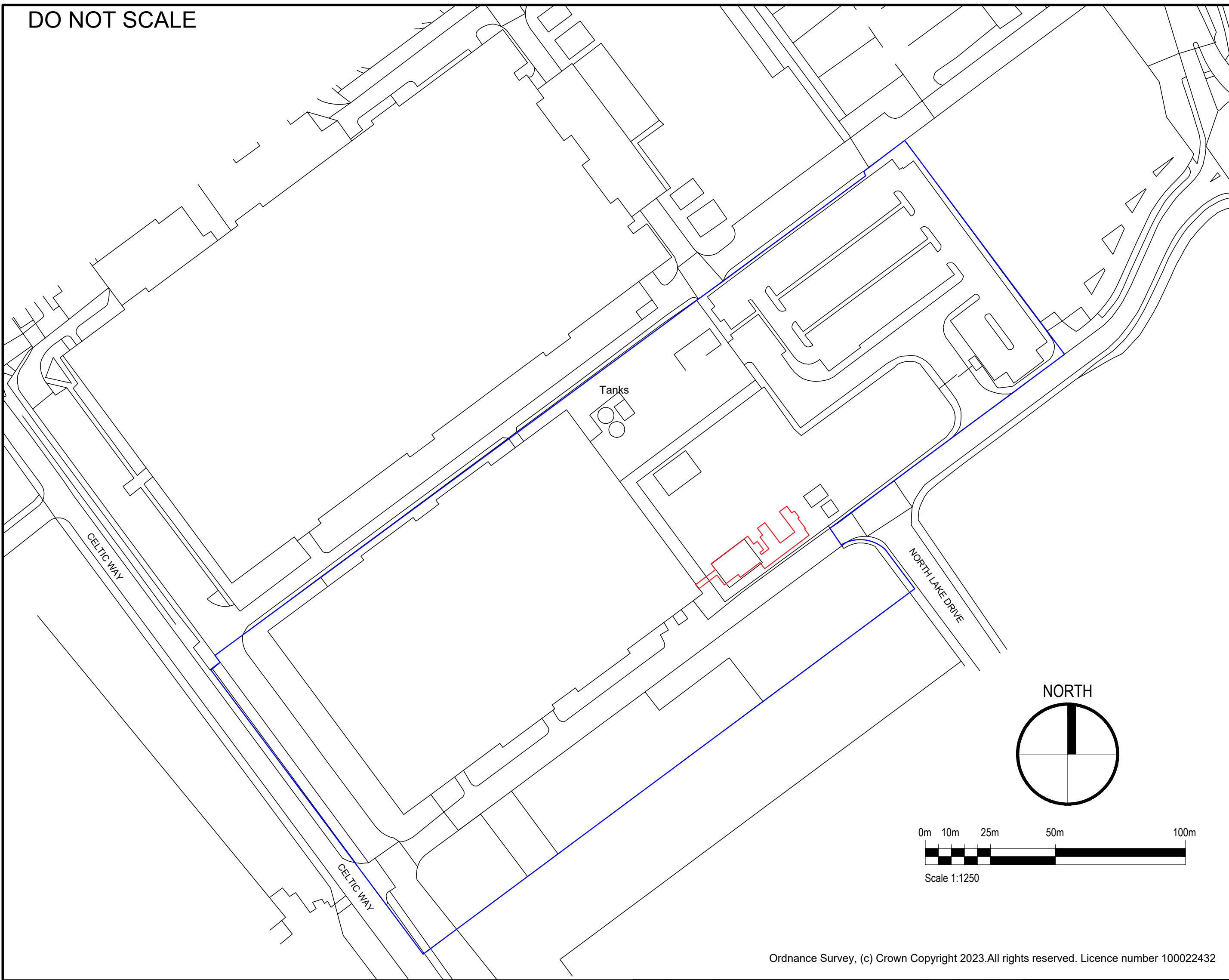
Appendix A. Site Location Plan and the Scheme Design

A.1 Site Location Plan (IQE-ATK-03-XX-DR-B-006)

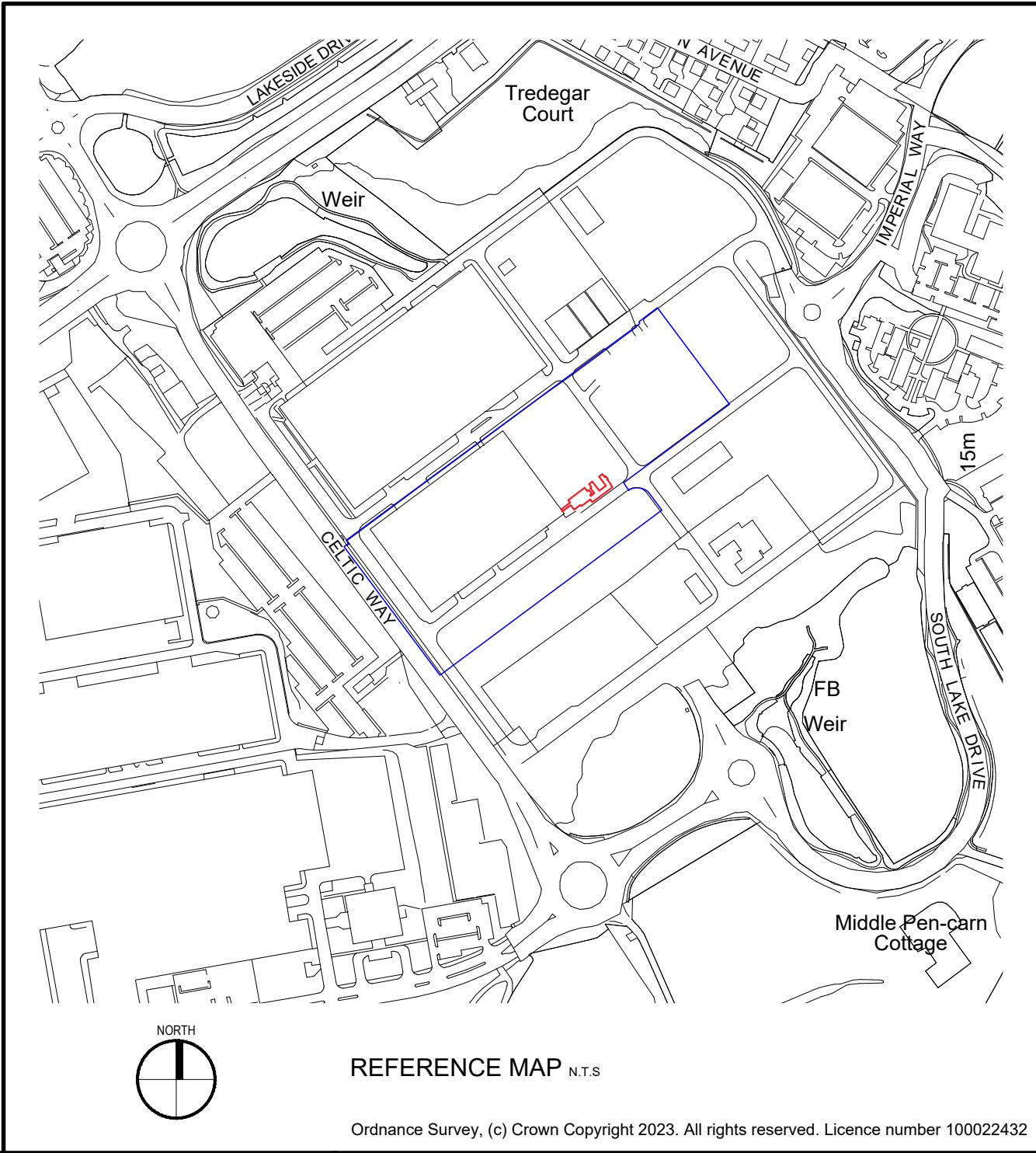
A.2 Proposed Site Plan (IQE-ATK-03-XX-DR-B-003)

100
Millimetres
0 10

DO NOT SCALE



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REFERENCE MAP N.T.S

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GENERAL NOTES

1. ALL MEASUREMENTS IN MILLIMETRES UNLESS STATED OTHERWISE.
2. RESPONSIBILITY IS NOT ACCEPTED FOR ERRORS MADE BY OTHERS SCALING FROM THIS DRAWING
3. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT FIGURED CONSTRUCTION ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS.

KEY

APPLICATION SITE
OTHER LAND IN THE LEASE OF APPLICANT IQE



Rev.	Date	Description	By	Chk'd	App'd
P1	24/10/2024	FOR PLANNING	LD	STC	OE

Drawing Status

FOR PLANNING

Suitability

S2

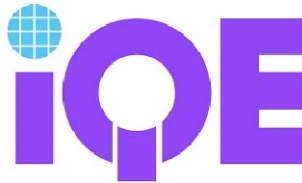
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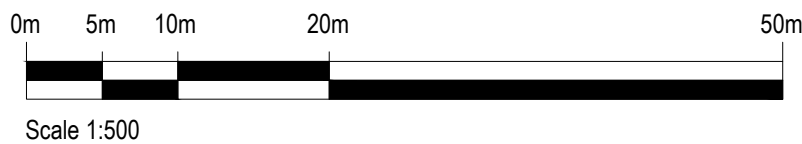
Project Title

PART RETROSPECTIVE FULL
PLANNING APPLICATION

Drawing Title

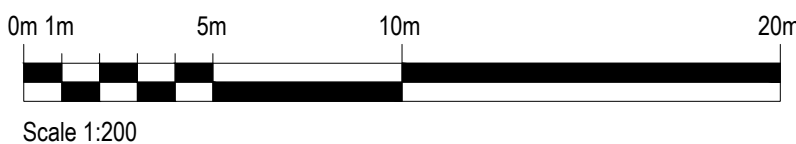
SITE LOCATION PLAN
IQE NEWPORT FACILITY

Scale 1:1250	Designed LD	Drawn LD	Checked STC	Authorised OE
Original Size A2	Date 24/10/24	Date 24/10/24	Date 24/10/24	Date 24/10/24
Drawing Number IQE-ATK-03-XX-DR-B-006				Revision P1



1A

- 1:500



1B

- 1:200

PROPOSED WORKS

Drawing Number	Revision
IQE-ATK-03-XX-DR-B-003	P01

Appendix B. Recommended location for bug hotel

Figure B-1: Recommended location for the bug hotel

