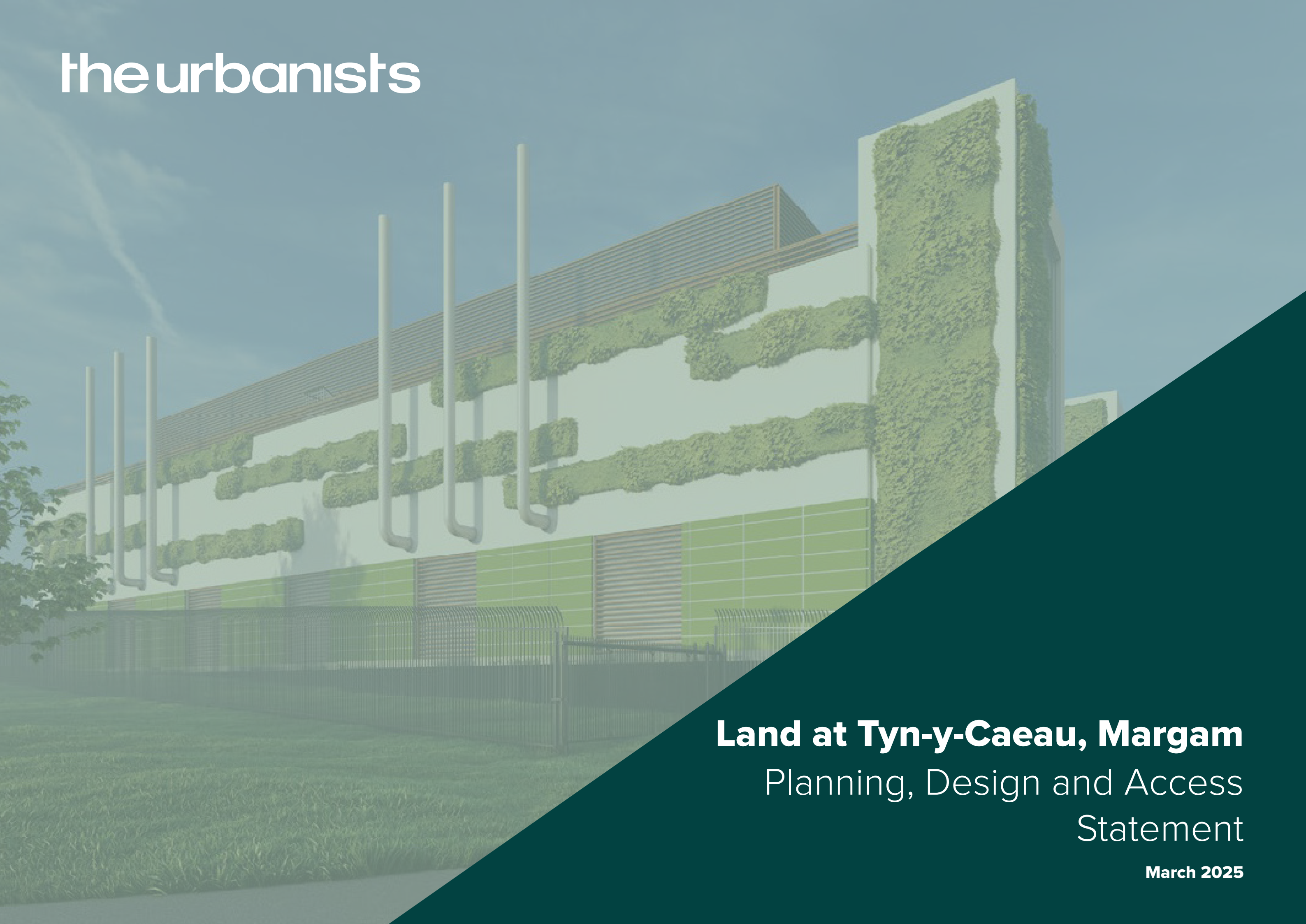


An architectural rendering of a modern building featuring a prominent green wall and several vertical planters. The building has a white facade with horizontal wooden slats on the upper levels. The green wall is covered in dense foliage, and the vertical planters hold various green plants. The building is set against a clear blue sky with some light clouds. In the foreground, there is a grassy area and a fence. The overall style is clean and modern.

theurbanists

Land at Tyn-y-Caeau, Margam Planning, Design and Access Statement

March 2025

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Consultant team:



PAUL STAMPER HERITAGE
CONSULTANCY | RESEARCH | EXPERT WITNESS

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01. Introduction

Introduction

This document is prepared by The Urbanists and a consultant team for Western Bio-Enterprises (WBE). It relates to a draft planning application for the ‘Land at Tyn-y-Caeau’ site in Margam (from heron referred to as ‘the Site’), situated to the south of Port Talbot.

The Site, which is currently owned by the Gavin Griffiths Group, has been the subject of a recent planning application for a truck stop (P2022/1061), the most recent of which is currently being determined by Neath Port Talbot Council (NPT). WBE is interested in developing the Site for a data centre. This will simultaneously provide long-term customers for the energy generated by its existing biomass energy plant, support the wider decarbonisation of the Welsh economy, and provide the infrastructure required to facilitate ongoing technological advancements.

Background to the Project

About WBE

WBE is a sustainable forestry-waste biomass facility based in Margam Port Talbot. It sits to the west of the Margam Interchange on the M4, to the south of Margam, to the east of Port Talbot Steelworks and to the north of BOC Gas and Gear, Margam Crematorium and Elgwys Nunydd Reservoir. The plant has supplied the grid with much-needed baseload power for the past 16 years.

One of two existing biomass facilities located close together, the existing biomass power plant was built in 2008. Privately owned, it was the first commercial-scale biomass facility built in the UK. It has the capacity to export 15MWh of electricity to the grid (enough to power about 40,000 homes), while in parallel offering forestry management, harvesting and fuel processing capabilities. The energy produced can also be traded as a commodity, depending on fluctuations in demand. As well as electricity the facility also has the capacity to export 35MWh of heat to a local heating network.

The facility employs 25 people directly and supports an estimated 150 jobs indirectly.

The Need to Diversify

WBE has recently been seeking to diversify its current activities in an around the existing site as it’s green renewables (‘ROC’) subsidy expires in 2028. It has been investigating the potential of a range of green enterprises, which would also contribute towards the wider decarbonisation agenda for Neath Port Talbot County Borough (NPT) and Wales as a whole. Without a replacement for ROC subsidy, the plant is unviable at current power prices.

Plans are in progress to bring local technology businesses into the area which can benefit from private power arrangements from WBE benefiting both WBE and the ‘off-taker’, having the effect of attracting local investment and extending the life of the plant for another 15-20 years. This would help to

secure a sustainable future for the business and protect the existing jobs both on-site and in the supply chain.

Projects under consideration include:

- Co-location with other energy-intensive uses, such as hydrogen pyrolysis.
- Means of storing the power generated to moderate supply to the wider grid, such as battery storage.
- Capturing externalities and using this to create new products, such as carbon capture and utilisation.
- Ways of utilising both the electricity and heat generated on site to power high energy facilities such as a data centre or enhanced vertical farming.

This aligns with the UK’s target to fully decarbonise its electricity grid by 2035.

Broader Project

WBE has been considering different sites in parallel for the above projects. These have been developed in consultation with the South Wales Industrial Cluster Clean Energy Hub, a key driver in decarbonising the regional and national economy. These have included:

- The addition of a hydrogen electrolysis plant, a carbon capture plant, a modular battery storage system and rooftop PV panels on the existing Western Wood biomass plant.
- A mix of uses on the site to the west, which was the subject of a recently approved planning application for an industrial development by Osprey Sandvik. These include a fuel storage area (for the biomass plant), vertical farm, data centre and fuel switching centre.

While these proposals are evolving, there are complexities over landownership, Local Plan processes and proximity to the existing biomass plant. As a result, this Site provides the greatest potential to deliver a significant power user, which would also offer multiple other benefits to the wider Welsh economy.

The Data Centre Proposal

The Proposal

Pursuant to the above, WBE is seeking planning permission for:

“...Redevelopment of the site for a data centre (Use Class B8) and supporting infrastructure, parking and associated works, including partial retention of the existing building for ancillary uses, and power connection to the existing Western Wood Biomass Plant”.

Why a Data Centre?

Befitting WBE’s role as a green business, the proposal is for a **Nature-Positive Data Centre**. Data centres are generally considered to be power-hungry, taking a high proportion of fossil fuel-sourced power. The perception is that they contribute to climate change and put strain on the electricity grid. The

Nature-Positive Data Centre (NPDC) proposed for this development does not fit this description. As a result of WBE's forestry activities and future development plans, it can legitimately be considered a sustainable 'force for good', being carbon-neutral/negative and part of a localised circular economy.

Consistent power demand to the NPDC can be directly supplied from WBE, reducing strain on the grid whilst securing jobs in an area that has been hit hard by changes at Tata Steel. The survival of the facility by undertaking this investment and associated infrastructure of c£100-150m will secure 27 direct jobs at the generation plant in addition to the 150 jobs currently within the local supply chain and harvesting operations.

Local Benefits

WBE view this as a first stage in a wider project, which will bring further investment in the low carbon economy in Port Talbot, alongside new jobs and skills to the local workforce. One of these projects includes an investment in carbon capture technology which can be supplied to local green bio-fuel producers or the food and drinks industry.

Further forward, the consistent demand from the NPDC provides the secure environment to invest in natural infrastructure. From this base, WBE will work with natural science specialists such as KewREACH on forestry programs, woodland/habitat creation and the transformation of over 3,000 acres of riparian borders to provide nature-enhancing biomass for the plant. These projects will accelerate over time with the customers of the NPDC helping them to attain their own carbon targets having access to high-value, traceable carbon and biodiversity credits.

The demand for power from the NPDC will lead to improvements in local forestry management and creation, water quality and wildlife habitats and have a net positive effect upon the overall biodiversity of the local environment. Without the NPDC, the biomass plant would need to be closed and decommissioned in June 2028.

The Bigger Picture

While the NPDC will maximise energy off-take from the existing biomass plant, it will also provide a valuable contribution towards the UK's data processing capacity.

Data centres will be fundamental to the growth and development of Artificial Intelligence (AI) in the UK, as reflected by the new UK Government's plan to facilitate their delivery in the AI Opportunities Action Plan (January 2025) (the Action Plan). The UK Government highlights the importance of AI in driving economic growth, improving public services and creating wider opportunities for society. The report highlights the fundamental role of data centres in driving AI, with potential plans for streamlined planning processes, a separate planning Use Class and tax relief to incentivise their development.

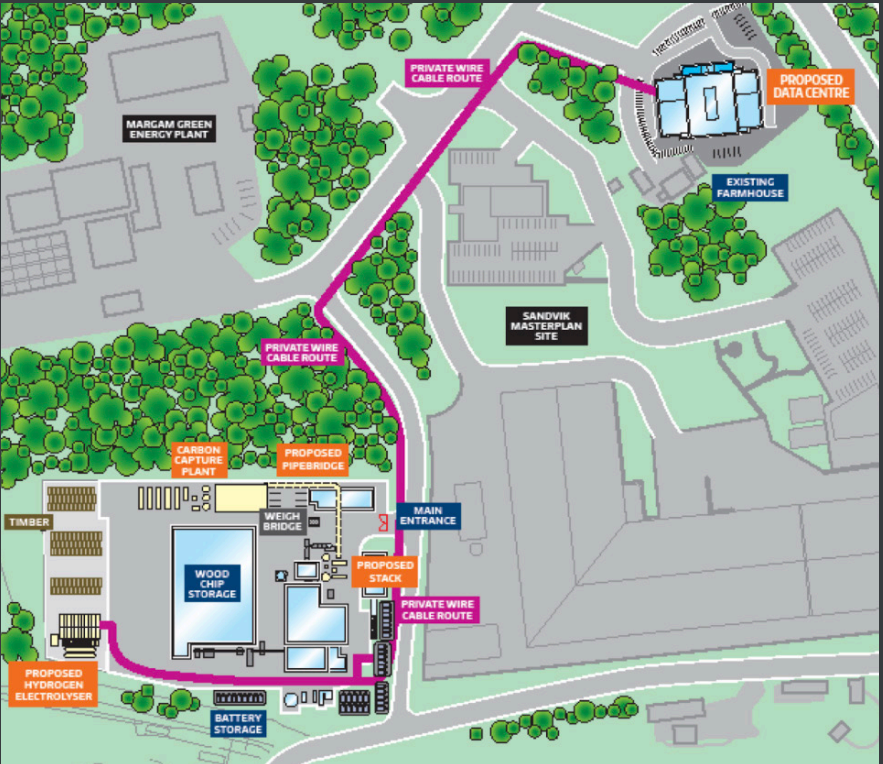
Savills estimate that the pipeline of data centres needs to more than double



Sites under consideration by WBE



Studies done by WBE for the Osprey Sandvik site, proposing a range of uses integrated to the existing Western Wood Biomass plant



Another study shows how the land of the existing Western Wood Biomass plant and the land at Tyn-y-Caeau could accommodate part of the developments

by 2025¹, and the National Grid estimate that data centre power usage is due to surge six-fold in ten years².

Although not relevant to Wales, the new National Planning Policy Framework (NPPF) in England explains the significance of data centres to the UK economy. Data centres are “...a facility hosting networked computer servers that store and process data at scale...[this] enables AI deployment and hosts all cloud-based data. Data centres produce an estimated £4.6bn in revenue each year in the UK (2021) and are forecast to support a UK tech sector worth an additional £41.5bn and 678,000 jobs by 2025.”

Delivering the required number of data centres will require substantial amounts of energy, which needs to be from renewable sources to meet the UK’s commitment to reach Net Zero by 2050. This is reflected by the Action Plan’s recommendation to establish AI Growth Zones, including a streamlined planning approvals process supported by the provision of clean power.

WBE’s proposal seeks to achieve this objective - data processing powered by low carbon/ renewable energy - in microcosm.

Application Contents

This planning application comprises the following documentation:

- Application forms and notices
- Site location plan and block plan
- Architectural drawings prepared by Future Tech as follows:
 - » Layout plan(s)
 - » Elevations
 - » Visualisations
 - » Proposed utilities plan
- Other drawings as follows:
 - » Existing topographic plan prepared by Dando (in two parts)
 - » Drawings of the existing building - plans and elevations
 - » Drainage Layout plan prepared by JRC
 - » External Works plan prepared by JRC
 - » Swept Path Analysis plan prepared by JRC
 - » Existing utilities plans prepared by Utilimap (in two parts)
 - » Landscape plans prepared by The Urbanists (Hardworks, Softworks and Illustrative Masterplan)

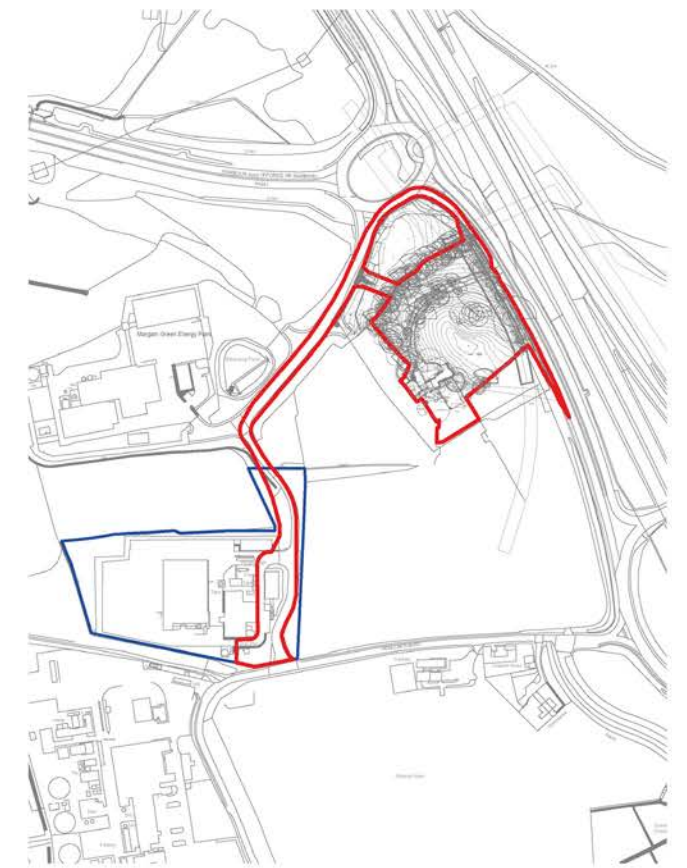
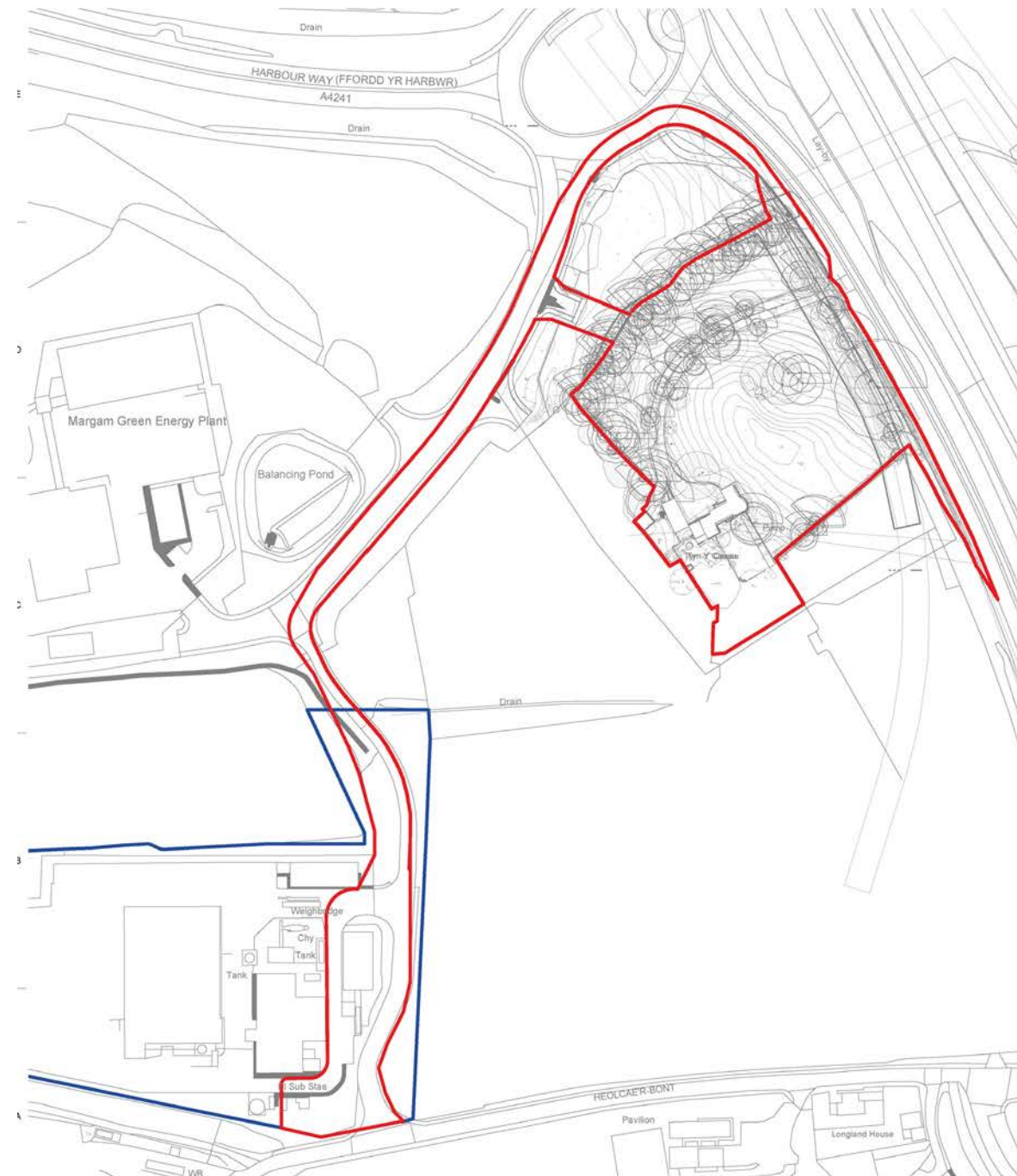
- Reports as follows:
 - » Planning, Design and Access Statement prepared by The Urbanists
 - » Transport Assessment prepared by Apex
 - » Travel Plan prepared by Apex
 - » Heritage Impact Assessment prepared by Paul Stamper Heritage
 - » Site investigation report prepared by Blandford Consulting
 - » Drainage Strategy prepared by JRC
 - » Ecology Impact Assessment prepared by Tyler Grange
 - » Green Infrastructure Statement prepared by The Urbanists
 - » Tree Survey prepared by RTAC
 - » Landscape Visual Appraisal prepared by Tyler Grange
 - » Noise Assessment prepared by Formant
 - » Air Quality Assessment prepared by RPS
 - » Sustainability Statement prepared by Coreus
 - » Utilities Report prepared by prepared by Utilimap

1 <https://www.savills.co.uk/insight-and-opinion/savills-news/336014-0/savills--pipeline-of-data-centres-needs-to-more-than-double-by-2025-to-meet-demand-for-storage-in-europe>
2 <https://www.bbc.co.uk/news/technology-68664182>

Document Structure

This document is structured as follows:

- Section two provides an analysis of the wider context.
- Section three provides an analysis of the site.
- Section four provides an overview of the relevant planning policy context.
- Section five describes the concept and vision underpinning the proposal.
- Section six explains how the design has evolved in consultation with the Council, and other consultees.
- Section seven explains the proposal in greater detail.
- Section eight provides an assessment of the proposals against the prevailing planning policy context.
- Section nine provides a summary and some conclusions.



Site Location Plan/ Block Plan Showing the Site and its Connection to the WBE biomass plant

02. Context Analysis

Wider Context

The site is located within the community of Margam, southeast Port Talbot. Under the authority of the county borough of Neath Port Talbot, Wales. Margam is located to the southern part of the county, between the Margam Mountain and the Bristol Channel.

The site is well connected to the road network in South Wales, sitting adjacent to the A48, which connects the site to Port Talbot - about 6km north, and close to the M4, which links the site and Margam to Swansea, 20 km north-west, and Bridgend, 18km southeast.

A significant proportion of Margam is accessible within a 25 minute walk from the site, including Margam Village, the southern half of Margam and Margam Country Park.

The site is adjacent to National Cycle Route 4, which connects the site to Port Talbot's town centre. The entirety of Margam, Sanfields, Baglan Moors, Goytre, Cornelly, Cwmafan and Kenfig are also accessible within an appropriate cycling distance from the site (less than 30 minutes).

The nearest railway station is Port Talbot Parkway, around 4.5 km from the site or about a 15-minute cycle ride, through National Cycle Route 4. From Port Talbot Parkway, Great Western Railway (GWR) and Transport for Wales (TfW) run train services to Swansea, Cardiff Central, Carmarthen, Milford Haven, London Paddington and Manchester Piccadilly.

Bus Route X1, that runs from Swansea to Bridgend (via Port Talbot) on an hourly basis on week days, passes directly along the A48, with a bus stop about 500m from the site. On Margam Road, 1.2km north of the site, bus stops also are served every 20 minutes by Bus 87, which connects Margam to Neath Bus Station and Port Talbot Bus Station and Port Talbot Parkway Rail Station.

Wider Context Plan Legend

- Site Location
- Main Roads
- Water Bodies
- National Cycle Route





Context Analysis

Local Context and Local Facilities

The site is located on the edge of the industrial/ employment area and Margam mountain, adjacent to the A48 and just north of the Margam Interchange, which connects the local road network to the M4.

The nearest supermarket, a Co-op, is a 25 minute walk away (1.5 km) to the north in Margam. Margam Village centre, situated to the south east, accommodates a public house, educational facilities and Margam Community Centre. Most local facilities can be found south of Port Talbot town centre, about 3.0 km away, including a surgery, takeaways and restaurants, sports clubs, a primary school and another supermarket.

The entirety of Margam is accessible within an appropriate cycling distance (8km) in addition to Port Talbot, Sanfields, Baglan Moors, Goytre, Cornelly, Cwmafan and Kenfig.

The site is within c.700m of bus stops on the A48 immediately south of the M4 J38. These stops provide north and southbound services to Swansea and Bridgend. More locally, Port Talbot town centre is only a c.8-10 minute journey time.

On the opposite side of the M4, about a 950m distance, there is the Margam Country Park, an historic park with associated historical buildings, structures and monuments, including Margam Castle.

Local Facilities Plan Legend

- Site Boundary

Town Centre

Road

Railway

Train Station

Bus Stop

Public Right of Way

National Cycle Route

Water

Industrial / Employment Area

Registered Park

Historic Landscape

Listed Building

Schedule Monument

Park
- Community Centre

Places of Worship

Surgeries and Pharmacies

Supermarket

Secondary School

Primary School

Football Club

Cricket Club

Golf Club

Restaurants and Pubs



Historic Context / Evolution

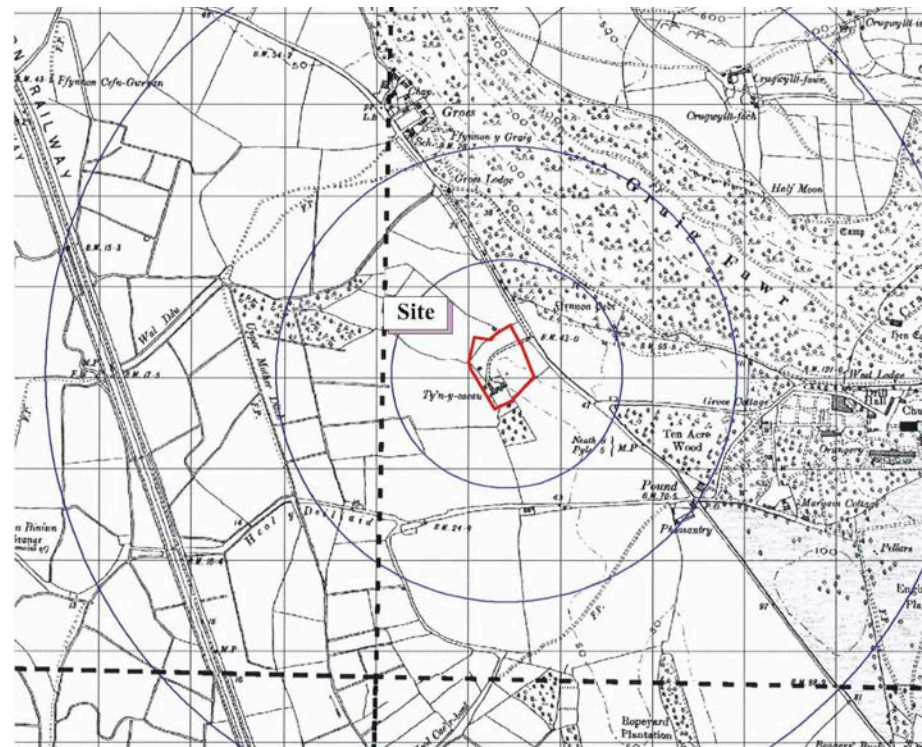
Maps from the 19th century show Tyn-y-Caeau farmstead and Margam Park and its associated buildings within the site's study area but the area was dominated by fields and woodlands. Port Talbot and Taibach were established settlements, with strong links to industry.

The site and its surroundings remained unaltered up until the 1930s. When the settlement of Margam expanded southeast, due to the growing steel industry established in the area.

The industrial facilities at Port Talbot / Taibach steel were expanding through this period, with the establishment of the Abbey Steelworks in the 1950s (now Tata Steel). The industrial character in the area continued expanding, in the 1960-1970 with the works south of Heolcae'r-bont (now BOC Limited) built during the period from 1960-1970, and lastly, Western Wood Energy Plant and Margam Green Energy Plant built in the 2000s and 2010s, respectively.

Local Character / Landscape Context Today

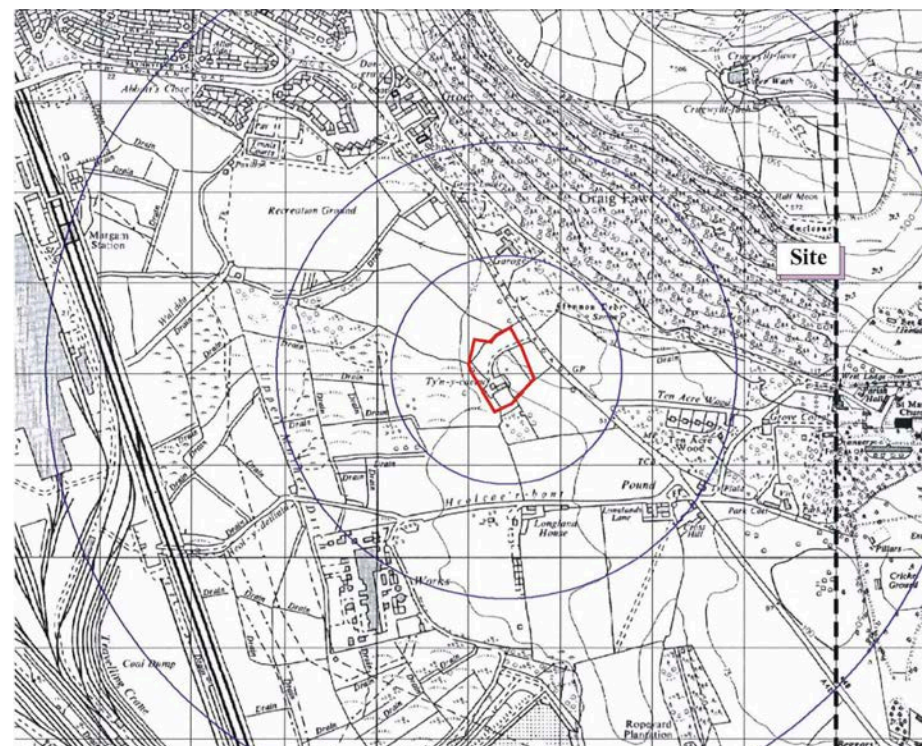
The site is located in a transitional zone, with heavy industrial use to its west and the historic landscape of Margam Mountains and Margam Castle to its East.



Extract from Ordnance Survey 1885, showing Tyn-y-Caeau and Margam Park and its associated buildings.



View from Margam Park towards the site, with Tata Steel in the background, beyond woodland.



Extract from Ordnance Survey 1968-1971. residential development in Margam had expanded southeast, up until its current boundary and Steel Company of Wales factory was built to the west of the site.



View from the west, from the Western Bio-Energy Plant, towards the site and Margam mountains, highlighting the 'transitional' zone character of the site.

03. Site Analysis

Site Overview

The site is comprised of an area of c.1.3 hectares¹. The A48 and National Cycle Route 4 edge the site’s eastern boundary and a roundabout junction with the A4241 “Harbour Way” dual carriageway to Margam Steelworks sits to the north. To the south and west, the site is edged by fields and a small woodland.

Margam Green Energy Plant, Western Bio-Energy and the Port Talbot Tata Steel plant are all located to the west of the site.

Land Use & Features

Tyn-y-Caeau Farmstead, which sits to the site’s southwest, was formerly in residential use and is currently unoccupied. A private drive, sided by trees, links the site access to the building. The rest of the site is composed of fields with few trees and hedgerows located mostly on the site’s edge. Mature trees and hedgerows embrace the site on all its boundaries.

Topography

The site generally slopes from its centre to edges, from around 16.5m AOD on its highest point, in the centre, to 10m AOD on the its lowest point, on its northwestern boundary.

Land Ownership

The whole site is currently owned by the Gavin Griffiths Group.

Site Access

The site has one access point, a gated access that links it with the A48, to the east of the site. It lies 110m south of the A421 Harbour Way and 48 Margam Roundabout. The access is in a location where only northbound flows are permitted, due to the dual carriageway arrangement and therefore this is operates on a ‘left in, left out’ arrangement. The A48 is not a trunk road.

An existing shared user pedestrian and cycle route passes the site access frontage, which is c.3.0m in width within immediate vicinity of the site access, reducing to 2m in width in places. A cycleway passes in front of the site, which forms part of the National Cycle Network (NCN) route 4. There are also future proposals to convert this into a formal Active Travel Network (ATNM) route, connecting with wider active travel connections to the north.

¹ Excluding the link to the exiting WBE biomass plant

Views and Heritage

The site has views out to Margam Mountains to the East and towards Margam Green Energy Plant to its west. Due to the break in the vegetation on the site’s western boundary, Tyn-y-Caeau has direct views into the adjacent field.

The Heritage Impact Assessment (HIA) undertaken by Paul Stamper Associates identifies that there are no designated heritage assets on-site, although Margam Strategic Landscape Area (SLA) is located 80m east of the site, within which sits Margam Park. The following designated heritage assets sit within the SLA:

- PGW (Gm) 52 Margam Registered Park and Gardens - Registered Grade I.
- Margam Castle and associated structures, located 1.3km east from the Site. - Castle and Orangery listed Grade I.
- GM005 Margam Abbey, located 900m east of the Site - A scheduled monument, with the former abbey church listed Grade I.
- GM162 Mynydd y Castell Cam, located 1.4km east of the Site - A scheduled monument.
- GM163 Hen Eglwys, located 850m east from the Site - A scheduled monument.
- GM488 Chain Home Low Radar Station, located 725m north of the Site - A scheduled monument.

The following non-designated heritage assets may be affected by the proposals:

- Margam Mountain Historic Landscape.
- The former dwelling at Tyn-y-Caeau.

No archaeological sites are known in the Site’s immediate vicinity.

The Landscape and Visual Appraisal, prepared by Tyler Grange, considers the potential changes experienced by visual receptors from publicly accessible



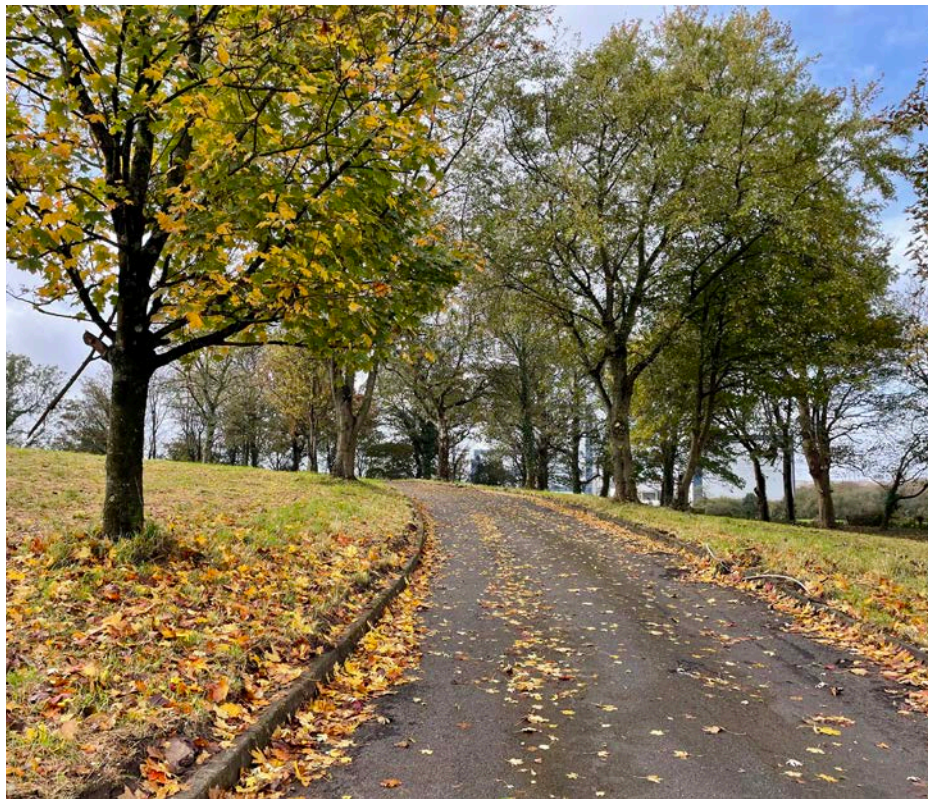
Site location plan with topography and view points



View 04 - View from the northern part of the site, towards the roundabout on the A48.

Site Location Plan Legend

- Site Boundary
- Existing Access
- Roads
- National Cycle Network Route
- Contours
- Views / Photos



View 01 - Trees siding the private drive that connects the site's access to Tyn-y-Caeau building



View 02 - Towards the trees located on the centre of the site with Tyn-y-Caeau building to the rear.



View 03 - View from centre of the site looking eastwards, towards the A48 and Margam Mountains.



View 05 - View from the centre of the site, towards Tyn-y-Caeau building, located on the southwest part of the site



View 06 - View of the southern facade of Tyn-y-Caeau.



View 07 - View from the western edge of the site looking westwards. Margam Green Energy Plant is visible due to the openness of the landscape

Site Analysis

locations within the Margam Park area. The Site is located within Neath Port Talbot County Borough Council, and therefore is covered by the Neath Port Talbot Landscape Assessment (2004). This places the Site within Landscape Character Area (LCA) 1: Margam Marsh. A number of Public Rights of Way (PRoW) pass through the study area, including the Wales Coast Path National Trail of which passes the eastern boundary of the Site.

Green Infrastructure

The existing site has a natural open grassland rural character, set within a mature green, tree and hedge-lined perimeter. The western perimeter has a stone wall. An avenue of sycamore and birch trees follow the access road through the site. Remnants of a garden are to the south of the existing building, it is now highly overgrown with bramble.

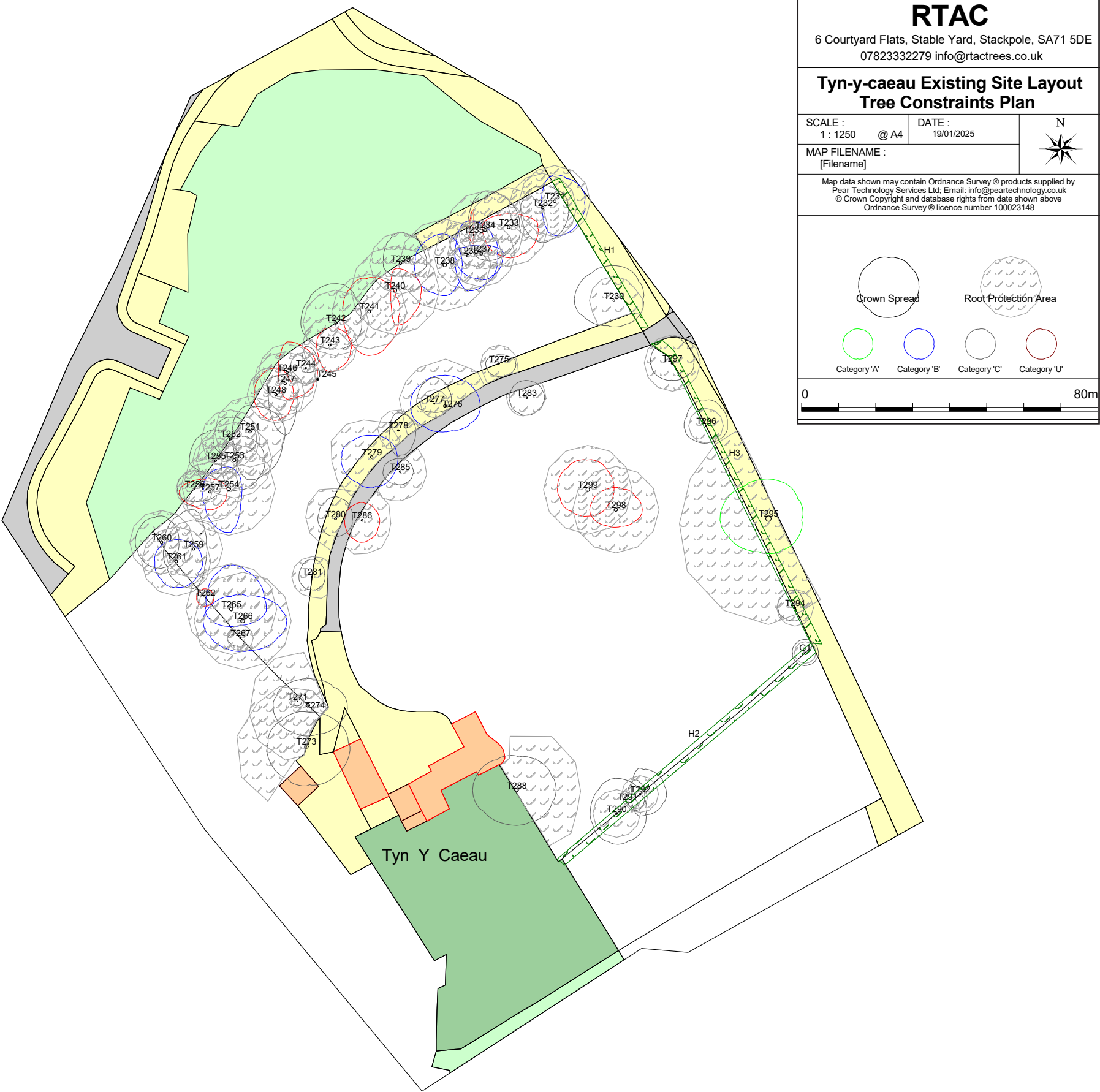
The condition of the boundary treatment, such as native hedge and stone walls is poor and much of the planting and habitat on site is overgrown.

Arboriculture

Most of the trees on the site are covered by Tree Preservation Order T364. The Arboricultural Report (prepared by RTAC) identifies three hedgerows, two small groups and 56 individual trees. Only one tree is classed as category A, 11 are category B, 36 are C category trees and 13 trees have been identified as category U trees, requiring removal due to their health and condition, regardless of development.

Following storm damage to a small number of trees on-site an updated Tree Survey was undertaken. Four trees were affected as follows:

- A Sycamore (Category U) has snapped at 6m - this tree can be retained as standing deadwood.
- An Ash (Category C) has broken branches that need to be removed.
- An Austrian Pine (Category A) has broken branches that need to be removed.
- A Silver maple (Category B) has uprooted completely and needs to be removed.





Site location plan showing views of GI photographs



View 08 - Access road with avenue of sycamore and birch trees



View 09 - Uprooted Silver Maple (Category U) (Tree T245) (Source: RTAC)



View 10 - Grassland and mature trees



View 11 - Mature trees to western and southern boundaries



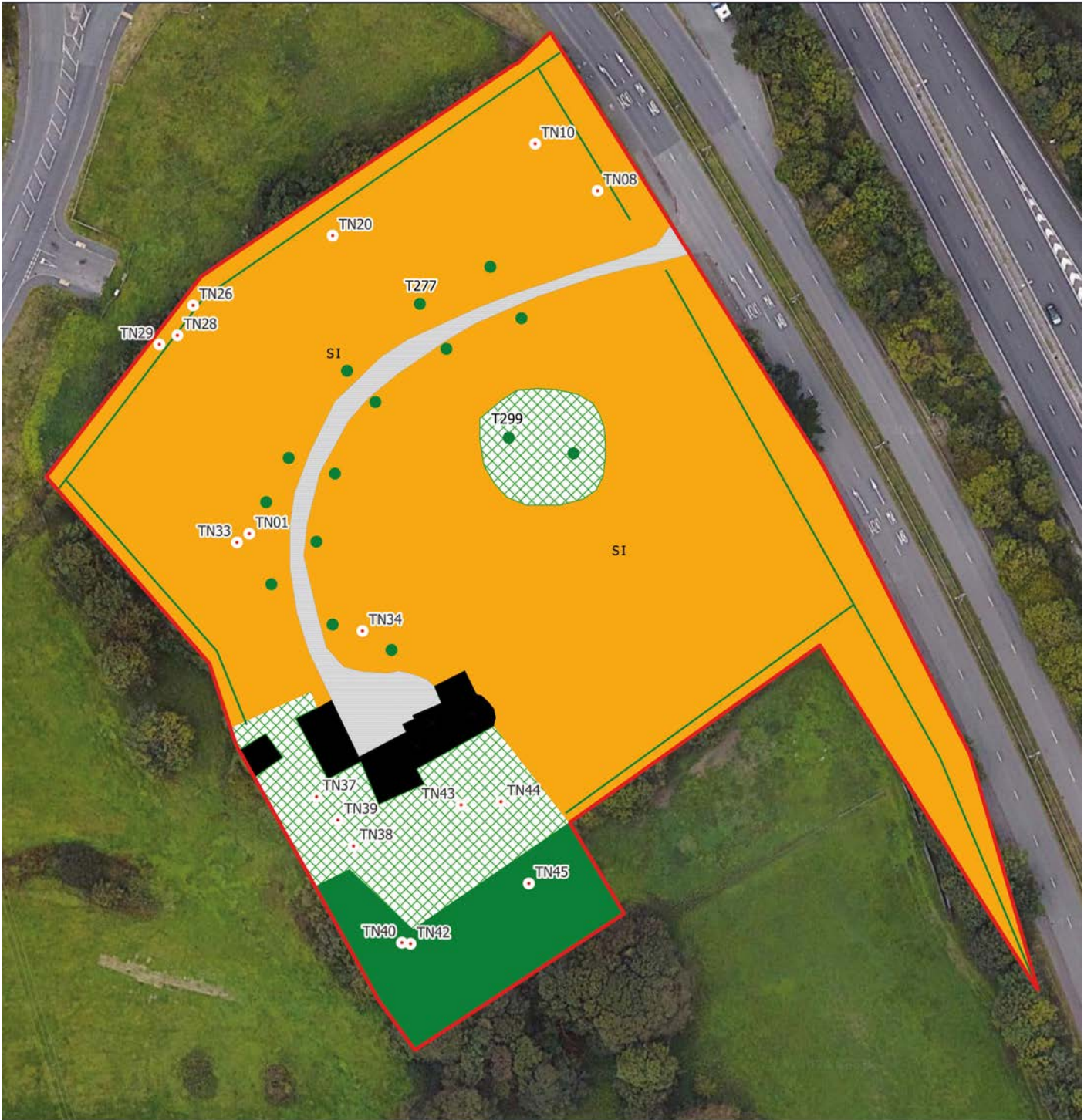
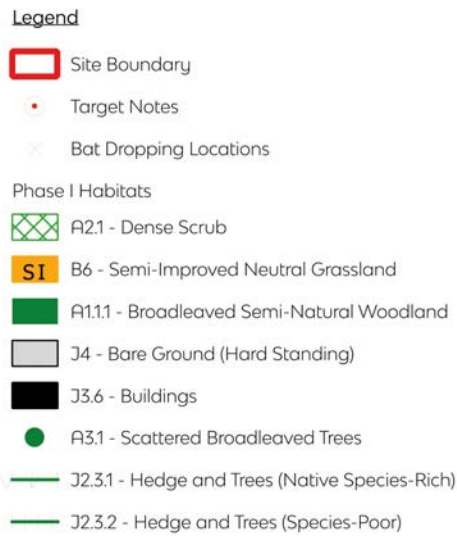
Existing stone wall to western boundary

Ecology

Several surveys have identified the following:

- The land within the site boundary comprises of Semi-improved Neutral Grassland, mature trees, buildings (with associated garden planting) bounded by hedgerows/tree-lines.
- The majority of the site is covered with neutral grassland (semi-improved) managed by mowing. The current mowing regime restricts the diversity and richness of species. It is considered to be of Moderate condition and value.
- Native hedgerow condition is poor, outgrown and gappy from poor management. It is currently of low value.
- The South West corner was formerly a garden but now consists of dense continuous scrub, dominated by bramble.
- Japanese knotweed is also present in a number of clumps along the tree-line of the roadside boundary and to the garden to the south.
- Other invasive species including winter heliotrope Petasites fragrans, montbretia Crocosmia, buddleia Buddleja davidii and bamboo Bambusa vulgaris (L.) were all identified on site.
- One tree was recorded as having potential to support roosting bats.
- The main property is being used as an occasional feeding perch for lesser horseshoe bat Rhinolophus hipposideros and a day roost for small numbers of common pipistrelle Pipistrellus pipistrellus and soprano pipistrelle Pipistrellus pygmaeus.
- The site was also noted as having potential to support badger and dormouse although no field signs of either species were identified.
- The site supports a small population of slow worm Anguis fragilis and common lizard Zootoca vivipara.

Biodiversity within Wales is considered with respect to its contribution to achieving ecosystem resilience, which is based on five attributes specified in the Environment (Wales) Act. These attributes are Diversity, Extent, Condition, Connectivity and Aspects of ecosystem resilience (DECCA). The layout has been developed with these principles in mind, and its impacts on ecology are discussed further in Section 7.



Ground Conditions

Despite the site being located on historically agricultural land, due to the site’s location at the southern margins of the former South Wales Coalfield and within an industrial setting, a Geo-Environmental Report was commissioned and undertaken by Blandford Consulting. The key findings were as follows:

- There is no recognised recorded risk to the proposed development arising as a result of the mining history of the area.
- The risk of an unrecorded mine entry being present within the confines of the Site is considered to be low but cannot be completely ruled out given the mining history of the general area. All excavations on the Site should be carefully monitored and if any unusual features are observed the excavations must be stopped and advice sought from a Consultant Geologist or from The Coal Authority.
- There are no recorded industrial uses of the Site or within 250m of the Site that could present a source of contamination of the soils.

Utilities

Both a desktop research report and a site survey have been undertaken to better understand the utilities present under and around the site. The key findings are as follows:

- Both a high and a low pressure gas lines have been traced, running along the eastern boundary of the site.
- The low pressure gas line also has a spur running east-west across the site, connecting to the existing building.
- A 12inch water pipe also runs along the eastern boundary, parallel with the A48.
- A 450mm diameter Foul Water drainage run also runs along the footpath and grassed area between the A48 and the eastern property boundary.
- Power supply to the main building is supplied via a distribution pole to the rear of the existing building.

A cut BT cable also runs to the existing property.

Flood Risk and Drainage

The site is located in Flood Zone A/1. Flood risk from sea (tidal and coastal) is very low (in present day scenario), flood risk from rivers is low for most of the site (in the present-day scenario). For surface water flood risk the risk is very low. For the future flood risk scenario that includes the effects of climate change, the site will be in Flood Zone 1.

Pursuant to the development of a SUDS strategy, an appraisal was undertaken of the most suitable and sustainable method for managing surface water runoff from the development, following the SUDS hierarchy. In order to determine the permeability of the ground and to assess the suitability of soakaway drainage at the site, full scale soakaway testing was undertaken in accordance with BRE 365 (2016). This concluded that the site could support infiltration to the ground using a sustainable drainage system.

Soundscape

A Noise Survey has been undertaken by Formant. This identifies a number of significant transportation and industrial noise sources nearby as follows:

- The A48 Margam Rd, a dual carriageway immediately to the east of the site
- The M4 motorway immediately to the east of the A48.
- Margam Green Energy, an industrial site c.250 m to the west of the site
- Western Bio Energy, an industrial site c.275 m to the southwest of the site
- The London-Swansea mainline railway c.800 m west of the site
- Tata Steel works, c.900 m to the west of the site.

The nearest noise-sensitive receptors are also as follows (see diagram adjacent):

- Residential properties on 9 Ten Acre Wood, located c.275 m to the east on the opposite side of the M4 (NSR1)
- Residential properties on Longland Lane c.300m south of the site (NSR2)
- Residential properties on Abbot’s Close c.580m to the north of the site (NSR3).

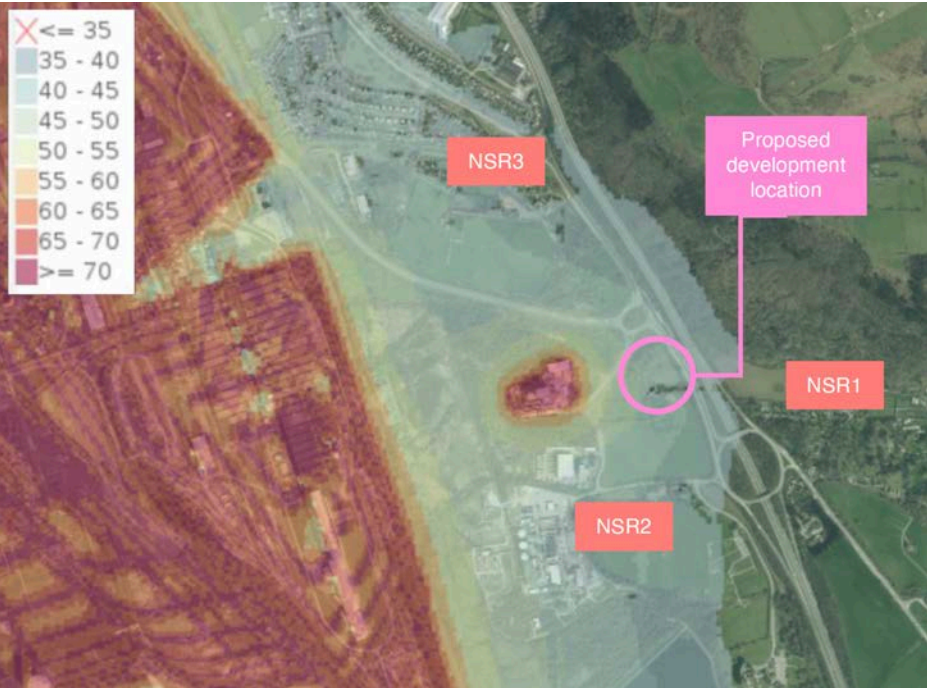
The residential receptors are all located close to the M4, so are expected to experience fairly high background noise levels and the receptors on Abbot’s Close are also in an area designated by the Welsh Government as an Air Quality Management Area, reflecting the significant levels of traffic noise exposure.

Air Quality

A baseline Air Quality Assessment has been undertaken by RPS. This sets out the following:

- The highest 2024 mapped Defra background Nitrogen Dioxide NO2 annual mean concentration for the study area is 25.3 µg.m-3.
- The highest 2001 mapped Defra background Sulphur Dioxide (SO2) annual mean concentration for the study area is 4.6 µg.m-
- The highest 2001 mapped Defra background benzene annual mean concentration for the study area is 0.25 µg.m-3
- The highest 2001 mapped Defra background carbon monoxide annual mean concentration for the study area is 0.21 µg.m-3.
- The highest 2024 mapped Defra background Particulate Matter (PM10) annual mean concentration for the study area is 16.1 µg.m-3.
- The highest 2024 mapped Defra background Particulate Matter (PM2.5) annual mean concentration for the study area is 9.9 µg.m-3.

This is a consideration in how construction activities are managed and the design/ specification of the back-up diesel generators and associated infrastructure.



Night time industrial noise contour plot (dBLnight) (Source: Formant/ Welsh Government)

04. Planning Context

Within this section we provide an overview of the legislative and planning policy context pertinent to the development of the Site. This considers policy from the national down to local level, with the key issues or likely ‘material planning considerations’ summarised at the end.

Legislation

Key legislation governing the determination of planning applications in Wales are as follows:

- The Town and Country planning Act 1990 and associated Town and Country Planning (Listed Buildings and Conservation Areas) Act 1990 (the 1990 Acts)
- The Planning and Compulsory Purchase Act 2004 (PCPA)
- The Planning Act 2008 (as amended by subsequent legislation)
- Town and Country Planning (Development Management Procedure) (Wales) Order 2012
- The Wellbeing of Future Generations Act (2015)
- The Planning Act (Wales) 2015
- The Wales Act 2017
- The Historic Environment (Wales) Act 2023

The Wellbeing of Future Generations Act (WFGA) requires public bodies in Wales to consider the long-term impact of their decisions, to work better with people, communities and each other, and to prevent persistent problems such as poverty, health inequalities and climate change.

In combination with the Planning Act (Wales) 2015 (PAW), this puts in place seven well being goals, requiring listed public bodies must work to achieve all of the goals, not just one or two. These include:

- A prosperous Wales
- A resilient Wales
- A healthier Wales
- A more equal Wales
- A Wales of cohesive communities
- A Wales of vibrant culture and thriving Welsh language
- A globally responsible Wales.

National Planning Policy Context

Key planning policy documents at the national level comprise the following:

- Planning Policy Wales (2024)
- Future Wales: The National Plan 2024 (2021)
- Various Technical Advice Notes.

Planning Policy Wales

Planning Policy Wales (PPW) is the Welsh Government’s land use planning policy for Wales. The primary objective of PPW is to ensure the planning

system contributes towards the delivery of sustainable development, and improves the social, economic, environmental and cultural well-being of Wales, as required by the PAW and WFGA. PPW establishes the key principles for the planning system, adopting a placemaking approach to plan making, planning policy and decision making. It sets out the key planning principles of ‘achieving the right development in the right place’ by the principles of:

- Growing our economy in a sustainable manner
- Making best use of resources
- Facilitating healthy and accessible environments
- Creating and sustaining communities
- Maximising environmental protection and limiting environmental impact.

These are then underpinned by National Sustainable Placemaking Outcomes in relation to each principle.

Key principles include:

- Following the **principles of good design** through locational and land use choices that reduce the need to travel, contextual approaches that reinforce local character, design choices that promote resource efficiency and improve community safety; and proposals that collectively create a strong sense of place
- Contributing towards **healthier places** that promote active travel and lifestyles, mitigate pollution and foster social interaction and cultural activities
- Ensuring that economic land uses support traditional employment uses and the **energy sector**.
- Encouraging proposals which generate **economic prosperity** and regeneration, while protecting employment sites from inappropriate development.
- Following the **energy hierarchy; sustainable building design principles** through minimising carbon and other greenhouse gas emissions associated with the building’s construction, use and eventual demolition; and including features that provide **effective adaptation to and resilience against current and future effects of climate change**.
- **Protecting, conserving and enhancing the significance of historic assets**.
- **Integrating green infrastructure** into new development through site selection and creative design to embed the benefits of biodiversity, ecosystem services and health and wellbeing benefits; and ensuring all reasonable steps are taken to retain and enhance biodiversity and the resilience of ecosystems.
- Adopting a precautionary approach, development should be avoided in areas at risk of flooding, while **sustainable drainage systems (SuDS)** should be adopted to reduce run-off.
- Addressing issues relating to **pollution**, including air quality, soundscape, land contamination and ground instability in new development.

Future Wales

Future Wales - The National Plan 2040 was adopted in February 2021 as the

national development framework (NDF) setting the direction of development in Wales to 2040. The NDF provides a strategy to address key national priorities through the planning system. It sets out 11 outcomes of Future Wales comprising the vision for Wales in 2040. These include:

- Connected, inclusive and healthy places.
- Distinctive regions that tackle health and socio-economic inequality through sustainable growth.
- Towns and cities which are a focus and springboard for sustainable growth.
- Places where prosperity, innovation and culture are promoted.
- Places where travel is sustainable.
- Places with world-class digital infrastructure.
- Places that sustainably manage their natural resources and reduce pollution.
- Places with biodiverse, resilient and connected ecosystems.
- Places which are decarbonised and climate-resilient.

The most relevant elements are as follows:

- Promoting employment growth and investment in infrastructure within the three areas of National Growth.
- The growth and regeneration of towns should positively contribute towards building sustainable places that **support active and healthy lives**.
- To ensure the enhancement of biodiversity, the resilience of ecosystems and the provision of green infrastructure, **areas should be safeguarded for adaptation to climate change and habitat protection**.
- **Development of renewable and low carbon energy** from all technologies and at all scales to meet the needs of the future including the target to generate 70% of consumed electricity by renewable means by 2030.

Port Talbot falls into one of the National Growth Areas - Swansea Bay and Llanelli, where there is a focus for growth and investment. The development site is located in the south-west region which is a National Growth Area. Well-planned and sustainable development is encouraged within the Growth Area. Priorities include:

- Developing a vibrant economy with **digital and transport connectivity**
- Achieving **decarbonisation and climate-resilience**
- Building housing and **infrastructure**
- The management of natural resources
- Improving the health and wellbeing of communities.

Technical Advice Notes

Technical Advice Notes (TANs) should be read in conjunction with Planning Policy Wales (PPW). TANs should be taken into account by the local planning authorities in the preparation of Development Plans. They may be material to decisions on individual planning applications and will be taken into account by inspectors and the Welsh Government in the determination of appeals and called-in planning applications. The most relevant are as follows:

- TAN 5: Nature Conservation and Planning

- TAN11: Noise
- TAN 12: Design
- TAN 15: Development and Flood Risk
- TAN18: Transport
- TAN20: Planning and the Welsh Language
- TAN 23: Economic Development
- TAN 24: Historic Environment

The most relevant paragraphs and policies from these different national policy documents are summarised in the table on p.13.

Local Policy Context

The Adopted Neath Port Talbot County Borough Council (NPT) Local Development Plan (2011-2026)

The LDP sets out the local planning policy framework for guiding development within the district. It designates sites for protection and/ or enhancement and allocates sites for development, supported by written policies providing more detail on the nature of development that will be acceptable in the district.

Planning Designations

The site is the subject of the following designations

- Safeguarded Minerals - M1 - Safeguarded Coal Resource
- Strategy Area - SP5 - Coastal Corridor Strategy Area
- Settlement Protection Zone - M2/1

Nearby designations include:

- A Site of Importance for Nature Conservation (SINC 12) to the west.
- A Special Landscape and Landscape of Historic Interest to the east (SP21/4(a)- Margam Mountain)
- A designated Open Space to the east
- A highway network enhancement scheme (TR1/5- Harbour Way) on the roundabout adjacent to the site.

Policies

The most relevant policies are as follows.

Strategic

- SP1- Climate Change
- SP5- Development in the Coastal Corridor Strategy Area
- SP11- Employment Growth
- SP15- Biodiversity and Geodiversity
- SP16- Environmental Protection
- SP17- Minerals
- SP18- Renewable and Low Carbon Energy



Legend

- Site Boundary
- Existing Employment Area (EC2)
- Strategic Employment Site (EC1)
- W1 In-Building Waste Treatment Facilities
- Safeguarded Minerals (M1)
- Special Landscape Area
- Wales Coast Path
- Settlement Protection Zone (M2/M1)
- SINC

Planning Context

- SP20- Transport Network
- SP21- Built Environment and Historic Heritage
- I1- Infrastructure Requirements

Thematic

- EC3 - Employment Area Uses
- OS1 - Open Space Provision
- EN2- Special Landscape Areas
- EN3 - Green Wedges
- EN7 - Important Natural Features
- EN8 - Pollution and Land Stability
- M1 - Development in Mineral Safeguarding Areas
- RE1 - Criteria for the Assessment of Renewable and Low Carbon Energy Development
- RE2 - Renewable and Low Carbon Energy in New Development
- TR2 - Design and Access of New Development
- TO4 - Walking and Cycling Routes
- BE1 - Design
- BE2 - Buildings of Local Importance

Supplementary Planning Guidance

Supplementary Planning Guidance expands upon the policies outlined in the Local Development plan for key topics and or types of development. The most relevant are as follows:

- Planning Obligations SPG (October 2016)
- Open Space and Greenspace SPG (July 2017)
- Biodiversity and Geodiversity SPG (May 2018)
- Pollution (October 2016)
- Renewable and Low Carbon Energy (July 2017)
- Parking Standards (October 2016)
- Design (July 2017)
- The Historic Environment (April 2019)

The most relevant local policy and guidance are summarised in the table opposite.

Emerging Policy

The site is being promoted as a future employment site through the Candidate Sites process. It is promoted for Employment uses under ref: RLDP/PT/0043: Land at Tyn-y-Caeau, Margam.

Planning History

The site has recently been subject to a planning application for the development of a truck stop with associated guest house accommodation, which was refused in 2020.

The adjacent site has been the subject of a recent major planning application by Osprey Sandvik, for the development of a metal processing facility totalling 28,500sq.m of floor space, and associated infrastructure. This was approved. Other applications have been submitted on neighbouring sites, although these are of lesser relevance.

The key issues material to the refusal of the truck stop application were as follows:

- Unjustified form of development outside the identified settlement limits
- Scale, type and siting within the safety zones of a high pressure gas pipeline
- Impact upon the character, appearance and setting of the landscape
- The intensification of the existing access for use by HGVs
- The absence of requested biodiversity information

The application was refused on 15 October 2020. It was then taken to appeal, and subsequently withdrawn. **A revised application was subsequently submitted in 2022, which is yet to be determined.**

The existing building was also the subject of an approved application (P2005/0449) for conversion to a guest house use, although there is disagreement between the site owner and NPT Council as to whether this was ever implemented. Application ref: P2021/0861 was submitted to regularise this situation, although this has not been determined. There is therefore a lack of clarity over whether the lawful use is residential or a guesthouse. The existing site has also historically been used for agricultural purposes.

Key Planning Issues

Overall, as outlined in the table opposite and taking into account the planning history on the site, the key issues arising from this policy and legislative context in relation to these proposals on this site are as follows:

- The principle of development, which comprises development of the site for **storage (B8) - a data centre specifically - and related ancillary uses** on an unallocated, predominantly greenfield site outside settlement limits.
- **Promoting economic growth** and a sustainable economy, including promoting employment growth in National Growth Areas (such as Swansea Bay and Llanelli), **supporting a low-carbon economy**, and **fostering innovation**.
- Designing development that reinforces local character; fosters healthy lifestyles, social interaction, and mental health and wellbeing; improves community safety and creates a **strong sense of place**.
- Protecting and **enhancing green infrastructure assets, biodiversity, and trees and woodland**; and integrating them into new development through creative design, with all reasonable steps taken to retain and enhance

biodiversity and the resilience of ecosystems. Recognising that open space should be provided in major new development.

- Directing development towards land that reduces the need to travel, is **within reach of a range of transport options**, and does not comprise the **safe, effective and efficient use of the highway network** or create unacceptable levels of traffic generation.
- Avoiding development in areas at risk of flooding, with **sustainable drainage systems (SuDS)** integrated into the design to minimise flood risk and reduce run-off.
- Recognising the need to **conserve and enhance the historic environment** and its assets; and the character of the wider landscape.
- **Minimising/ mitigating pollution**, addressing issues relating to soundscape, air quality, light pollution, land contamination and ground instability; and **avoiding an unacceptable impact on the amenity of local residents**.
- Contributing towards climate goals through following the **energy** hierarchy; following **sustainable building design principles**; and including features that provide effective adaptation to and resilience against current and future effects of climate change.
- Delivering **infrastructure improvements** required to support development.

These are reflected in the constraints and opportunities and emerging concept and design options that follow.

Summary

Theme	National			Local	SPG/ Equivalent
	Planning Policy Wales	Future Wales	TANs		
Principle	Paras 3.44, 3.49-3.52,	Policy 1, Policy 28		SP1, SP5, SP11	
Promoting Economic Growth/ a Sustainable Economy	Para 5.4	Policy 2, Policy 13, Policy 28	TAN 23: Economic Development	SP11, EC1, EC3	
Good Design/ Placemaking	Paras 3.3-3.18	Policy 2	TAN 12: Design	BE1	
Green Infrastructure - Ecology, Trees, Open Space Provision	Paras. 6.2.5 and 6.4.4	Policy 9	TAN 5: Nature Conservation and Planning	SP15, OS1, EN7	Open Space and Greenspace SPG (July 2017), Biodiversity and Geodiversity SPG (May 2018)
Transport/ Movement	Paras 3.6 and Section 4		TAN 18: Transport	SP20, TR2, TR04	
Flood Risk/ Drainage	Paras 6.6.17, 6.6.22 and 6.6.27	Policy 8	TAN 15: Development and Flood Risk		
Heritage/ Landscape	Paras. 6.1.7-6.1.9, 6.1.25		TAN 24: Historic Environment	SP21, EN2, EN3	The Historic Environment (April 2019)
Pollution, health, safety and amenity	Paras 3.19-3.24, Paras. 6.7.1-6.9.28		TAN 11: Noise	SP16, EN8	Pollution (October 2016)
Sustainability/ Climate Change	Paras. 5.7.13 and 5.8.1-5.8.3	Policy 17		SP1, SP18, RE2	Renewable and Low Carbon Energy (July 2017)
Other			TAN 20: Planning and The Welsh Language	M1	
S106/ CIL				I1	Planning Obligations SPG (October 2016)

Constraints and Opportunities

Based on the technical reports, the observations during the site visit, planning policy appraisal and design process, here we identify the key constraints and opportunities that need to be considered in the design of any proposal.

Constraints

- Several utilities, with associated easements, running north to south, on the eastern part of site, including a high pressure gas main with associated HSE Consultation Distance.
- The vacant Tyn-y-Caeau farmstead building sits on the southwestern section of the site. This has previously been identified as a non-designated heritage asset, while roosting bats have previously been identified in the building.
- Mature trees located on the site’s boundaries, many of which are the subject of Tree Preservation Orders (TPOs) and some of which have the potential to support roosting bats.
- Location and configuration of the site access and whether/ how this can be either used or adapted for the proposed use.
- The potential presence of Dormice within the hedgerows running around the perimeter of the site.
- Views across the site from Margam Park and several heritage assets to the east, which need to be considered in considering the layout, orientation and massing of any buildings.
- The need to incorporate sustainable drainage features on-site in accordance with SUDs Assessment Board (SAB) requirements.

Opportunities

- Through the provision of a data centre, provide critical infrastructure to facilitate the technological advancement and decarbonisation of the wider economy, while supporting the retention of an existing low-carbon energy facility.
- Provide a logical extension to the existing industrial area/ site allocation.
- Retain and enhance of existing vegetation can provide green corridors for wildlife and enhance existing important hedgerow features. Proposed new vegetation can also help mitigate visual and noise impact of surroundings.
- Tyn-y-Caeau, a non-designated heritage asset within the site, which, although not listed, can be preserved as an asset and incorporated into the proposed use.
- Provide connections between the site and the existing cycle route and public transport infrastructure to facilitate active travel.
- Provide sustainable drainage as a means of enhancing resilience, site character, environmental quality and biodiversity.
- Preserve mature trees at the site’s boundary, enhancing biodiversity and proving a visual buffer between the site and its surroundings.

Constraints and Opportunities Legend



Site Boundary



Existing access



Road



Bus Stop



National Cycle Route 4



Utilities | Combined sewer with 6m easement



Utilities | Water main with 12m easement



Utilities | Raising main



Utilities | High-Pressure gas main



Utilities | Low-Pressure gas main



Trees | Category A



Trees | Category B



Trees | Category C



Trees | Category U



Trees | Root Protection Area



Hedgerows classified as Important Historic Features



Green corridors



Possible location for attenuation features



Flooding risk area



Topography (direction of slope)



Direct unobstructed view to adjacent site



Non designated heritage asset within site



Non designated heritage asset adjacent to site



SINC



Historic Landscape | Mynydd Margam Landscape



HSE Consultation Distance - Inner Zone | Development restricted to a maximum of 2 storeys and 100 occupants



05. Vision and Concept

The Brief

As it stands, the loss of subsidies to the existing biomass plant in 2028 will affect the viability of a renewable energy facility. This project will play a key role in addressing this issue, through providing a sustainable income stream for the business, while itself contributing the future economy of NPT, Wales and the UK.

WBE’s main objective is therefore to maximise the size/ capacity of the data centre to maximise off-take from the existing power plant, and create an investible proposition.

The main constraint in terms of data centre size, is the primary power source. The biomass boiler will provide up to 12 MW of power via a private wire to the data centre, with back-up from grid, which could provide up to 15.8 MW. Therefore WBE is seeking to maximise capacity of data centre (up to 12MW), subject to site constraints.

Of 12MW (MVA), c.7.5 MW usable power/ IT load would be achieved, based on a cloud-based model, as opposed to an AI-based model.

Specification for Data Centre

- Achieve as close to 7.5MW IT capacity as possible within limitations of power.
- 2 Data Halls – 3.75 MW per hall
- IT Space for 24 cabinets per row (currently structural frame is not considered and would reduce this number).
- Power Infrastructure 5+1 block redundant – modular solution for space efficiency.
- Ancillary Space for deliveries and storage.
- Occupancy - Authorised personnel only for maintenance and security purposes on the Power Infrastructure area, IT space and Ancillary Space.
- Roof level to accommodate AHUs (Air Handling Unit) and Buffer Vessels
- Gantry level to accommodate Chillers
- Substation to be designed by others and to be accommodated within the site boundary.

Vision and Key Principles

Support the economic growth of the region by proposing a Data Centre while aiming to contribute to the use of cleaner energy sources, promoting a more sustainable future. This site will benefit from its proximity and integration to the existing biomass plant and allow for future expansion into the neighbouring Osprey Sandvik site if this becomes available to the client. It will also enhance biodiversity and capitalise on sustainable travel modes, including buses and cycles.

Key Objectives and Placemaking Principles:

The key placemaking principles derived from the analysis and underpinning the concept are explained opposite. These relate to:

- Promoting economic growth
- Contributing towards climate goals
- Protecting the existing environment
- Providing space and energy efficiency
- Promoting active and sustainable travel
- Enhancing ecology and biodiversity



Promote Economic Growth

Promoting economic growth and a sustainable economy, including promoting employment growth in National Growth Areas (such as Swansea Bay and Llanelli), supporting a low-carbon economy, and fostering innovation.



Contribute towards Climate Goals

By following sustainable building design principles and including in the design features that provide effective adaptation to and resilience against current and future effects of climate change.



Protect the Existing Environment

Incorporate existing features into the proposal - heritage and green infrastructure assets - and respond to transitional character of the site, mitigating impact on views from Margam Mountain and Margam Castle.



Space and Energy Efficiency

Maximize the use within the site to create an efficient building, capable of hosting the proposed use and making use of the energy provided by WBE energy plant.



Promote Active and Sustainable Travel

Integrate site with surrounding active travel possibilities, i.e. cycle network and bus routes, by proposing links and direct access to the existing cycle/ footpath network and by creating gateways designed to invite pedestrian and cyclists in - encouraging visitors and workers from nearby towns to use the available network



Ecology and Biodiversity

Create new / improve existing green corridors, propose and integrated strategy for green and blue infrastructures, preserving and enhancing biodiversity

Concept

The key principles underpinning the concept are as follows:

- Structuring the layout around green and blue infrastructure. New open space and green links reinforce existing trees and hedgerows; and drainage features respond to site topography, being along the northern section of the site.
- Incorporate Tyn-y-Caeau into the proposal, giving the existing building a new use.
- Maintenance of existing access and drive to reduce tree loss.
- The HSE Consultation (Inner Zone) was used as a constraint upon the placement of the uses with the highest associated working population.
- Pedestrian and cycle access, aiming to improve active travel by taking advantage of the close proximity to bus stops with frequent services to Port Talbot and hourly services to Bridgend and Swansea and the national cycle route links to Port Talbot Town Centre and Port Talbot Parkway Railway Station.
- Mitigating visual impacts on views from Margam Mountains through the introduction of green elements to the buildings façades and the consolidating of existing planting.

Concept Plan Legend

 Site boundary

 Existing and potential vehicular access

 Potential pedestrian/cycle access

 Road

 National cycle route

 Potential future cycle/pedestrian links

 Potential for cycle parking space

 Existing green links

 Enhanced and new green links

 Mature trees and hedgerows

 Potential for new trees and hedgerows

 Potential landscaped area / landscape feature

 Potential location of attenuation features

 Water bodies

 Non-designated heritage asset

 Road within site

 Potential for refurbishment of existing building to be adapted to offices/meeting room space for Data Centre

 Potential area for Data Centre, mitigating tree loss and accounting for utilities running on the east of site

 Potential for deliveries area for Data Centre, interlinking the data centre main hall building and the office building

 Potential location for car parking



06. Consultation and Design Evolution

Approach

Given time constraints imposed by the need to secure a grid connection, the absence of development on adjoining sites and the relatively insensitive nature of the local context, besides the statutory Pre-Application Consultation (PAC) process, we have confined our pre-application engagement to the following:

- Meetings with the Local Planning Authority (LPA) - Neath Port Talbot County Borough Council (CBC).
- Meetings with the Local Highways Authority - Neath Port Talbot CBC Highways team.
- Formal consultation with the Health and Safety Executive (HSE).

Within this section we provide a brief overview of how the proposals have evolved in response to discussions with these consultees.

Initial Proposals

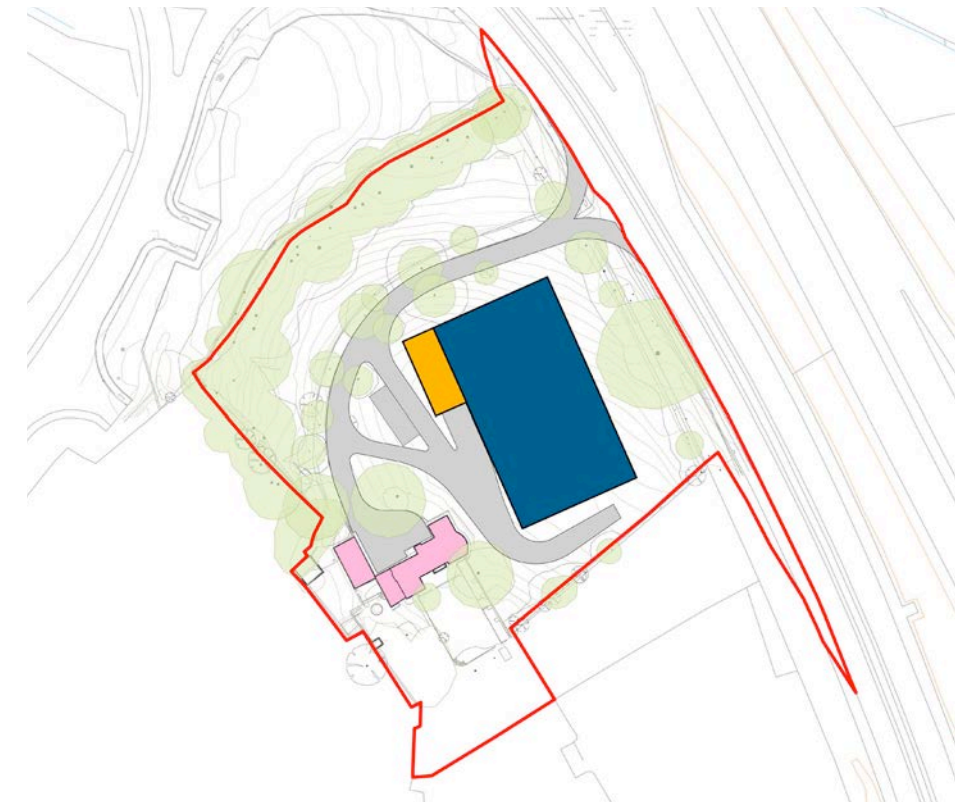
Design options

To arrive at the following options it was considered how to respond to the site's constraints, the possible uses for the existing Tyn-y-Caeau building, the possible footprint for the data centre.

The vision and concept were refined into 3 different approaches, all of them considering the findings of the site analysis. Due to the requirements in terms of size and shape for an efficient Data Centre building, the options were broadly similar, with the main variables being the configuration of the road layout, servicing and the location of the offices. Of the three options presented below/ adjacent, Option 3 was preferred on the basis of the following:

- Optimising the use of the existing building, which would accommodate the offices as a discrete component.
- Siting access for fire vehicles along the eastern boundary, giving it a function within the scheme.
- Bringing the delivery area closer to office/ administrative functions to be sited in the existing building.

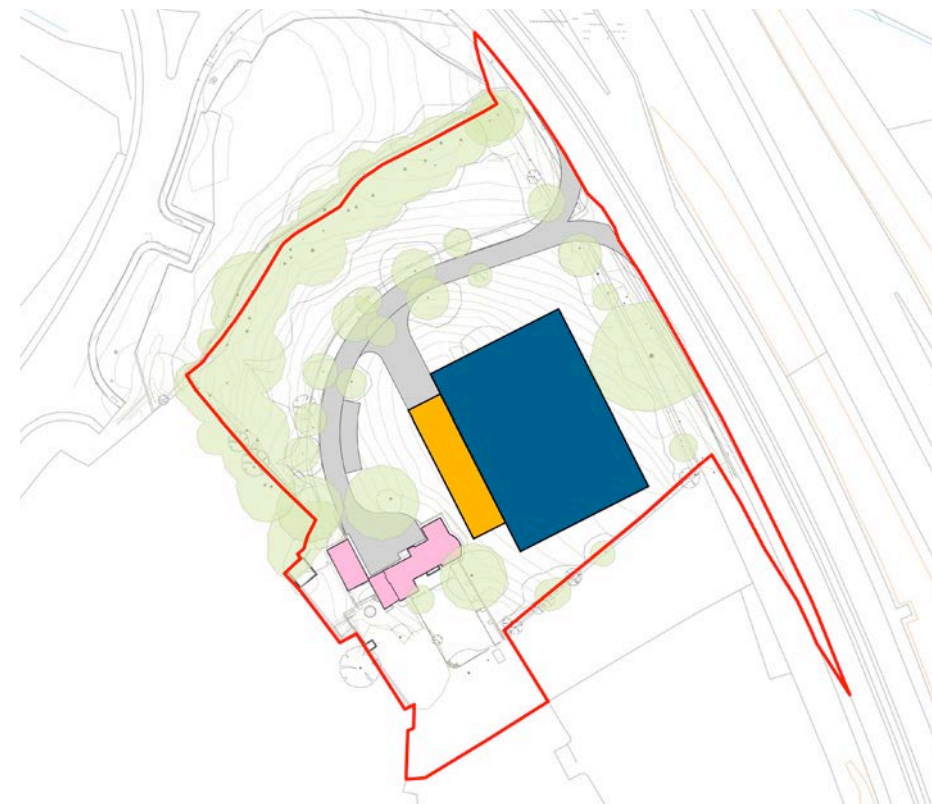
Option 3 was the preferred option, and formed the basis of the emerging proposal discussed with Neath Port Talbot (NPT) Council in September 2024 and described in more detail overleaf.



Option 02 brings the data centre office to Tyn-y-Caeau building and proposed a delivery area to the north of the site, close to the access road

Legend for Plans

- Site Boundary
- Contours
- Trees
- Roads
- Data Centre | Main Hall
- Data Centre | Delivery area
- Data Centre | Offices



Option 01 shows the possibility of Tyn-y-Caeau being used by offices for WBE, while the offices for the data centre would be located in the delivery area

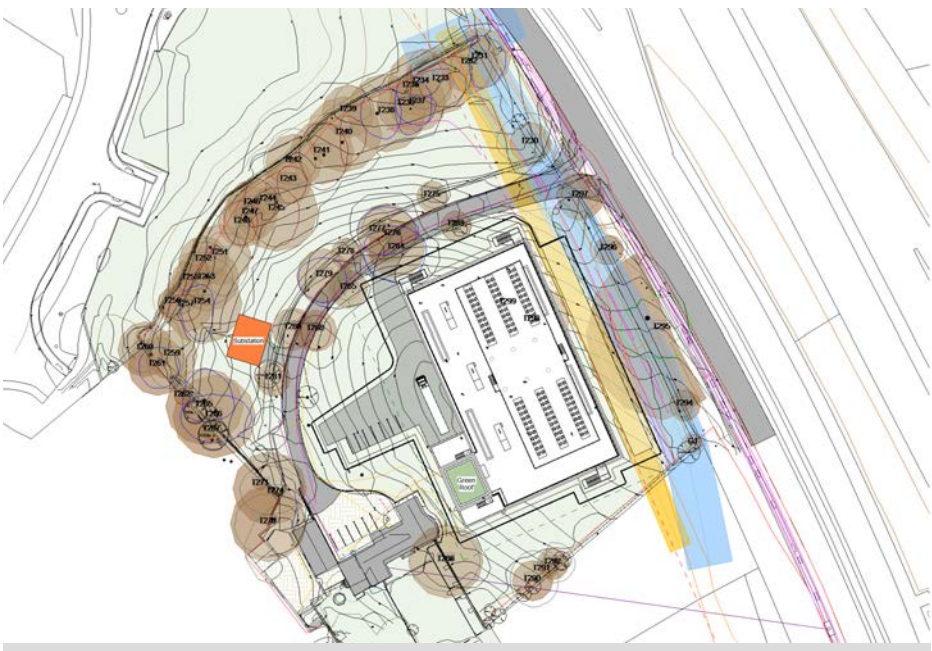


Option 03 shows the delivery area closer to the office building.

Layout

Key components were as follows:

- Buildings/ uses:
 - Existing building retained for office and associated functions (reception, meeting space etc.). Initially a proportion was to be for the Data Centre, and a proportion for other users.
 - New building houses main data hall and associated plant, plus delivery bay and is situated at the heart of the southern part of the site on a north-south axis.
 - Areas around the periphery would be given over to green/ blue infrastructure, including compensatory tree planting, an attenuation basin and other landscape interventions required to enhance the biodiversity of the site.

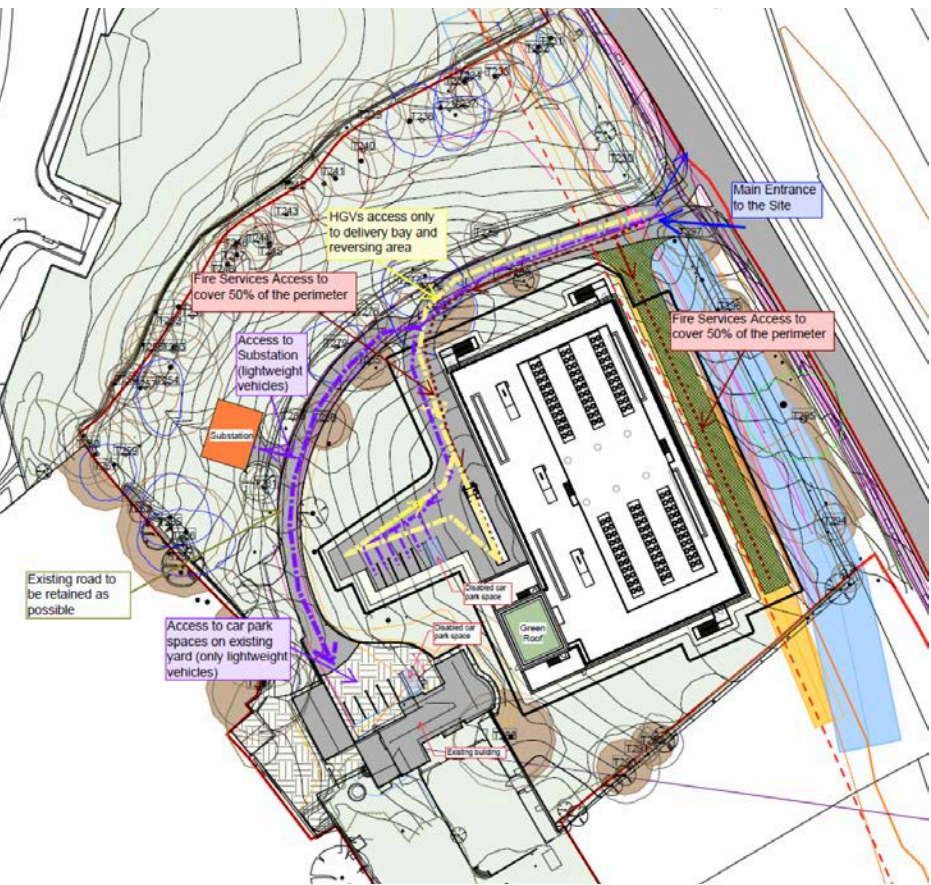


Legend for Plans

- Site Boundary
- HGV Movements
- Fire Tender Movements
- Lightweight Vehicle Movements

Access and Movement

- The site access was largely retained in its existing position, with a geometry designed to comply with Design Manual for Roads and Bridges (DMRB), with visibility of 2.4m x 160m, in line with a 50 mph (80 kph) design speed and incorporating the existing footway on the A48 Margam Road through a tactile crossing and a central island.
- A minimum 5.5m wide carriageway on the internal access road, designed to avoid key constraints while accommodating HGVs.
- A new access road and servicing yard serving the new building, with the existing building served by the existing access road.
- Parking provision for a total of 12 cars, two of which would be disabled spaces. Six of these would serve the new building (within the security perimeter) and six would be outside, serving the offices within the existing building.
- Cycle parking provision was to be determined.



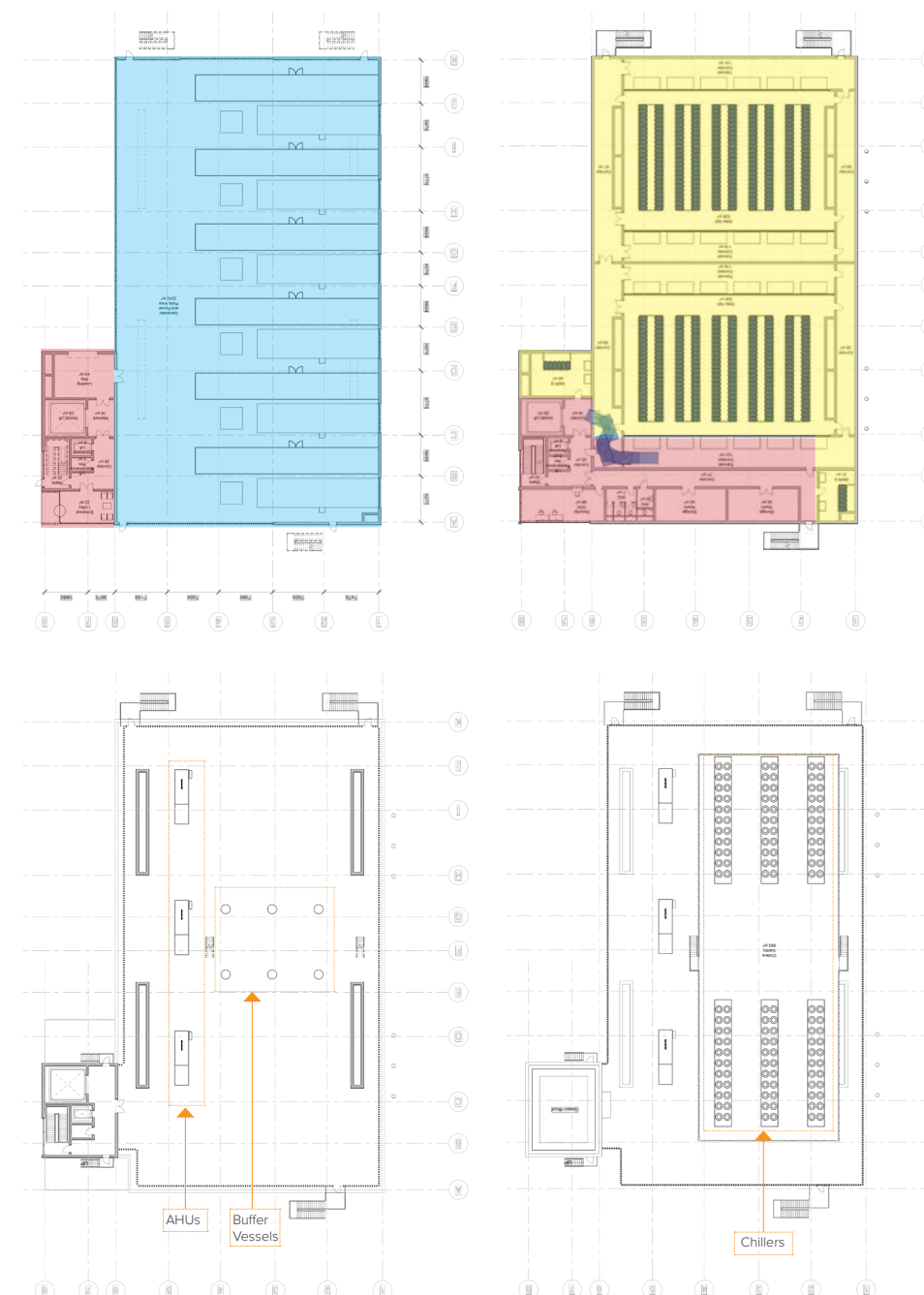
Layout - Existing Building

- The existing building was to be divided up to accommodate a combination of offices, meeting rooms, reception space, kitchens, toilets and other associated ancillary facilities, with scope for some of this space to be rented out to a/ some third parties (up to 2/3).



Layout - New Building

- The ground/ first floor level was designed to incorporate two data halls (3.75 MW per hall), with space for 24 cabinets per row, with ancillary Space for deliveries and storage.
- The gantry level was designed to accommodate chillers.
- The roof level was designed to accommodate AHUs (Air Handling Unit) and Buffer Vessels.



Height, Scale and Massing

- The building heights would step down from c.18m at the highest point at the heart of the site, to c.10m in height adjacent to the existing building, which stands at 2 storeys (c.6m plus roof).
- Although in fairly close proximity, this helps reduce the impact (insofar as is possible) of the mass of the new building on the existing building.
- The location of the less bulky access core in this location, further reduces any impact.



Articulation/ 'Look and Feel'

- The building was broadly divided into three horizontal components - a bottom, middle and top, with two approaches to articulating the building as set out below.
- The first option was as follows:
 - » The bottom provided a solid 'base' to the building, grounding it into the context, with solid panels interspersed with louvred ventilation panels, to keep the equipment inside cool.
 - » The first floor combined light metal cladding, broken up by horizontal strips of green wall, to blend with the green surroundings and break up the mass of the facade.
 - » The top provided visually-permeable louvres further reducing the bulk/ visual prominence of the top floor, while still hiding and reducing noise emissions from rooftop plant.
- The second option was the same as the first, but with the green wall omitted, in favour of patterned metal cladding, the texture of which would break-up the perception of mass.



Feedback from First Pre-App Meeting (4th September 2024)

The key points raised at the first pre-app meeting were as follows:

- **Principle:**
 - » NPT recognised that the site is outside the settlement boundary and an unallocated site, although it is bounded by an employment allocation and an approved industrial scheme.
 - » The case for development should be based on the need for diversification of the power plant (contingent on the private wire network/ micro-grid, rather than using mains power).
- **Promoting Economic Growth/ a Sustainable Economy**
 - » NPT recognise the benefit of protecting existing jobs and the re-use of the existing building, subject to managing impacts on the highway network and levels of traffic generation if some office space would not be occupied by the data centre.
 - » NPT was seeking a report/ narrative around carbon balancing i.e. how carbon used in burning wood is offset by tree planting; and how this feeds into the decarbonisation of the wider economy
- **Design/ Placemaking**
 - » NPT raised the impact on the existing building as a consideration, with the new data centre building of significantly greater size/ bulk, affecting its setting, although this is offset by the re-use of the existing building, and the shared understanding that the existing building could be demolished without the need for planning permission in any case.
- **Green Infrastructure/ Ecology**
 - » Impact on bats was discussed, with areas of concern being the impact on commuting routes to/ from Margam Park.
 - » Impact on reptile habitat due to the loss of grassland on-site.
 - » The requirement to replace the nine trees identified as being lost on-site and/ or off-site in close proximity, to the Application Site.
 - » Green walls were welcomed, with NPT having a preference for native species.
- **Pollution, Health, Safety and Amenity**
 - » NPT advised that the WBE team consult with the Health and Safety Executive due to the presence of a high-pressure gas main running along the eastern boundary of the site.

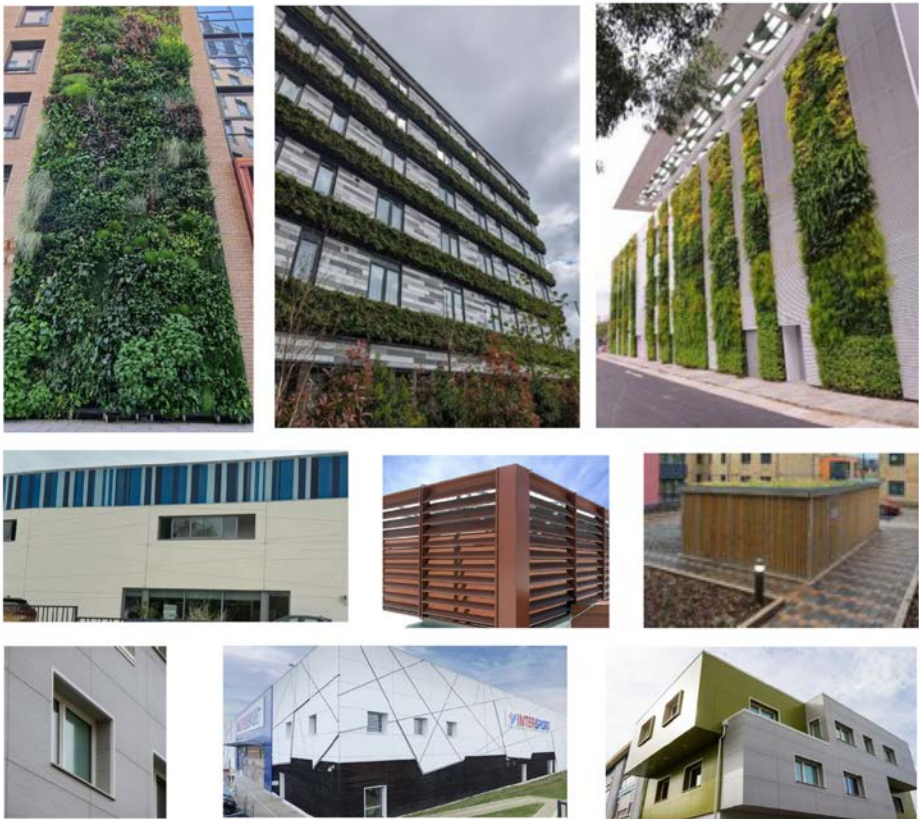
Key Changes/ Further Information

The key changes/ areas of development or further work following this meeting were as follows:

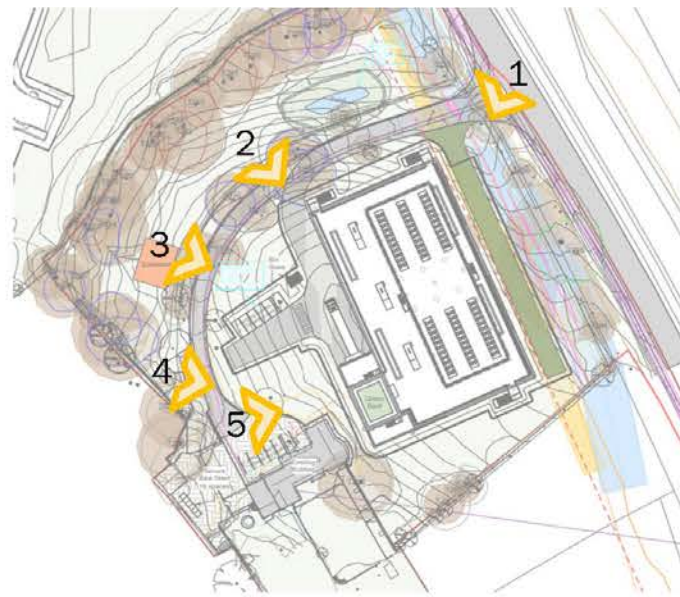
- **Measures were introduced to break up the mass of the building** and provide a softer transition to the existing building on-site. These included:
 - » A plinth and a combination of horizontal/ vertical cladding.
 - » Louvres have been added around chillers on roof to perform acoustic and visual function.
 - » The **colour palette** of the proposed building was designed to reflect the existing building.
 - » The **annexe to the existing building was proposed to be demolished**, as it adds little to the character of the site, is not required by the proposed use and - if let to third party occupiers - would increase traffic generation.



Updated floor plans for existing building, with annexe demolished to reduce need for third party occupiers and associated issues (e.g. traffic generation)



Precedent images for materials palette



Visualisations of proposed data centre as presented at pre-app meeting on 26th September 2024

- More detail was provided on the **landscape strategy**. Notably:
 - » Proposals for the retention and replacement of **tree canopies** around the site perimeter and along the tree-lined avenue.
 - » The integration of the **SUDS** strategy, including the provision of an attenuation pond, and permeable paving.
 - » Proposals to **enhance retained grassland** to support reptile habitats, such as through providing log piles.
 - » Options for off-site tree provision to meet the 3:1 requirement, should this be necessary.
- More detail was provided on **ecological mitigation**, specifically:
 - » The inclusion of bat/ bird boxes.
 - » More detailed proposals for the monitoring/ mitigation relating to a tree found to have bat roosting potential at the heart of the site.
 - » A strategy for dealing with the Horseshoe Bats that had been found in the loft space of the existing building.
- More commentary was also provided in relation to the following, within a note (dated 26th September 2024). This included:
 - » Comments from Tyler Grange, confirming they were comfortable with the arrangement and massing from a **visual impact** perspective.
 - » An updated draft **Heritage Impact Assessment (HIA)**, confirming that any harm caused by the proposed data centre would be slight, and the removal of the annexe would enhance the setting of the existing building, which is of benefit in heritage terms.
 - » The findings of a **baseline noise survey**, setting out that the local soundscape is dominated by the M4 and A48, which provide significant sources of noise for local noise-sensitive receptors (NSRs), with industrial noise also audible. Mitigation would comprise attenuation on the chillers or acoustic louvres at roof level.
 - » A summary of the draft **Air Quality Assessment**, which concluded that, following the implementation of mitigation measures, residual dust effects from the construction phase would be “not significant”; and the long-term operational impacts for all pollutants would be negligible.
 - » Confirmation that a Flood Consequences Assessment would not be required.



Landscape Strategy as presented at pre-app meeting on 26th September 2024



Ecological Strategy as presented at pre-app meeting on 26th September 2024

Feedback from Second Pre-App Meeting (Highways) (25th September 2024/ 4th November 2024)

A meeting was held between NPT Highways and Apex Transport. The key points raised were as follows:

- **NPT did not agree with the principle of providing access from the A48** as proposed, without either evidence it can be safe in highways terms or an acceptable alternative could be designed.
- NPT requested that the WBE team consider the potential for an alternative access from the north, off Longlands Lane through a site presently owned by Welsh Government.
- **Apex agreed to undertake two traffic surveys and a road safety audit, and consider the merits of the alternative access.**

Feedback from Third Pre-App Meeting (26th September 2024)

A third, pre-app meeting was then held with NPT. The key issues raised were as follows:

- **Design/ Placemaking**
 - » It was concluded that **the impact of the development on the existing building was likely to be acceptable**, noting that the annexe is a non-designated heritage asset.
 - » The need for two external building staircases on the northern elevation was queried by NPT. WBE explained that the scope for a reduction would be determined by the fire strategy.
- **Green Infrastructure/ Ecology**
 - » NPT were **supportive of proposals to retain trees around the perimeter**, requesting the opportunity to see any views from the Landscape Visual Appraisal at the earliest opportunity, to understand the impact on heritage assets to the east.
 - » NPT requested that **tree replacement take place on-site where possible**, and a schedule to show the value of replacement trees against the value of what is being removed.
 - » Although NPT initially requested that they were likely to require full bat survey results prior to an application being validated, given that further surveys could be undertaken from May to mid-June 2025 at the earliest, NPT agreed subsequently by email¹ to validate the application without the additional two tree inspection surveys for the tree with bat roosting potential. However, this was subject to a timeframe being given/ agreed upon for the remaining surveys to be submitted to the Council, and no decision being issued until this had been received and it being demonstrated that suitable mitigation can be provided.
 - » NPT also highlighted the need to get rights to re-use previous surveys; and the need for confidence that NPT will get a licence to undertake

works to the existing building, given the presence of bats. The WBE team explained that these would not be an issue.

- NPT requested that consideration be given in the Air Quality Assessment to the impact of development on Sites of Special Scientific Interest within 1km
- The WBE team agreed to send through noise/ air quality reports for advance scrutiny when ready (these were subsequently sent).
- It was agreed that a Flood Consequences Assessment (FCA) was not required due to the site being at low risk of flooding.

Health and Safety Executive Consultation (4th October)

In the interim and following NPT's recommendation, the WBE team consulted with the HSE on the basis that the sites within the consultation distance (CD) of at least one major hazard site and/or major accident hazard pipeline.

Following consultation, the HSE confirmed that **they Do Not Advise Against, development.** Consequently, HSE does not advise, on safety grounds, against the granting of planning permission.

Feedback from Fourth Pre-App Meeting (Highways) (11th December 2025)

A fourth, pre-app meeting was then held with NPT, between NPT Highways and Apex Transport. Apex presented a pre-submitted Technical Note, which provided more evidence to justify the proposed access, including the findings of the two traffic surveys, the road safety audit and a response on the alternative access point.

Due to a further pre-application fee not being paid, NPT Highways had not read the Technical note, but reiterated the following comments:

- The need for a 160m visibility splay southwards, although Apex countered that only a 144m visibility splay is required, and should be maintained by NPT as the highway authority.
- That a HGV cannot exit the site safely.

Feedback from Fifth Pre-App Meeting (Highways) (20th January 2025)

Following the payment of a fee, a further pre-app meeting was then held with NPT covering transport-related issues. This time, NPT Highways had read the documents before responding formally. The feedback was as follows:

- NPT confirmed they had **no highway objection to the proposed data centre** subject to the following:
 - » The new use being subject to a condition limiting HGV arrivals/ departures to two per day.

- » Maintenance of the visibility splays (cutting of hedging & grass) being subject to a planning condition.
- » Consideration as to whether any additional signage is required under the Stage 2 RSA.
- NPT also raised some queries over the construction phase, notably the volume of HGVs required during construction and how these might be phased, delivery times, traffic routing and mitigation measures.

The **WBE team have no objection to the proposed conditions** and have provided more information on the management of construction traffic within the Transport Assessment.

¹ Email to Michael Fox from Chris Davies dated 9th October 2025

Pre-Application Consultation (PAC) Process
(February 2025)

The WBE then formally consulted upon the draft planning application as part of the PAC process. **There were no objections to the proposals**, with a summary of the comments received provided in the table opposite/ overleaf.

These could broadly be summarised as follows:

- Additional information/ points of clarification or requirements that can be addressed through the submission of additional information with the planning application, for example, highways requirements relating to visibility splays, car parking and road safety; and bat surveys.
- Comments/ issues raised around the construction process, lighting, emergency fire planning (e.g. Hydrants), which can be addressed by a condition or planning obligation attached to any permission.
- Requests for additional information/ clarifications from neighbours concerned about the operation of their facility (Margam Green Energy plant), which can be addressed through the provision of additional information direct to the respondent.

The **main changes made in response** have been:

- Additional information provided in the Transport Assessment in response to NPT Highways comments.
- Dry risers added to drawings in response to Mid and West Wales Fire and Rescue.

Consultee	Summary of Comments	Response in Brief
Natural Resources Wales - South West Wales	• Raised some concerns, but confirmed that these could be overcome by the imposition of conditions relating to: » Lighting, during both the construction and operational stages. » The management of construction, through the provision of a Construction Environmental management Plan (CEMP). • Confirmed they were satisfied with the proposed approach regarding trees with bat roosting features; that further surveys will be undertaken; and that storm-damaged trees will be inspected for bat roosting potential. Advise that the results of these surveys are submitted with the planning application, along with mitigation/ compensation proposals as necessary. • Consider the proposals could be acceptable from a flood risk perspective.	• Noted - these will be addressed by condition. • As agreed with NPT, further surveys will be submitted during determination of the application.
Mid and West Wales Fire and Rescue	• No comments/ objections were raised. • General advice provided on the need to provide adequate water supplies and vehicle access for fire-fighting purposes on the site. • Advised to contact the appropriate Authority responsible for safety and compliance (HSE/ Building Control).	• Comments noted. • Fire tender access has been designed in. Requirement for water supplies i.e. a hydrant, may be secured by a condition/ similar. • Dry risers have been designed in and added to the drawings. • HSE have been contacted and Building Control will be contacted at the relevant time.
Coal Authority	• No objections were raised	• No action required
Cadw	• No Objections • Advise to consult the Historic Environment Record held by the Glamorgan-Gwent Archaeological Trust	• HER was consulted in preparing the Heritage Statement/ Impact Assessment.
Dŵr Cymru Welsh Water	• No Objections • General comments/ advice given about the public sewerage network, surface water drainage, foul water drainage, and potable water supply	• Comments noted.
Welsh Government Estates	• No response provided	• No action required
NPT Highways & Drainage	• No objection to the principle of the development subject to the guidance/ standards given being followed. • Some fairly standard comments were made in relation to: » Highways - visibility splays, car parking, construction methods, emergency fire planning, HGV tracking, and road safety auditing. » Drainage - advisories around ground water features, sewerage, and the SAB process.	• Noted - these have been addressed within the transport Assessment/ Travel Plan, and overall design. • SAB consent will be applied for in parallel with planning.
Welsh Government Highways	• No objections, and no direction issued.	• No action required

Summary

Following this series of pre-application meetings with NPT and other statutory consultees, the situation is broadly as follows:

- The **principle of developing the site for the proposed use is broadly supported**, subject to demonstrating it’s role in diversifying the income stream for the power plant.
- The **use of the existing access is supported in highways terms** (subject to conditions).
- The **design of the proposed building is broadly supported**, subject to the following:
 - » Further detail/ justification relating to the fire stairs.
 - » Further information on the impact on views.
- The **green infrastructure/ landscape strategy is broadly supported**, subject to the following:
 - » Tree replacement should take place on-site where possible.
 - » The application will be validated, but not determined without additional two tree inspection surveys for any trees with bat roosting potential,
- **The impact on the existing building is acceptable**, given the proposals would secure the beneficial re-use the existing building and remove the existing annexe.
- **An FCA is not required.**
- **The HSE does not advise against development on safety grounds.**

In addition, no objections have been raised through the PAC process.

This provides the basis for the application scheme, which is described in the following pages.

Consultee	Summary of Comments	Response in Brief
Health and Safety Executive	• Clear data centre would be for 33 employees, but not clear on the sensitivity level: » If the data centre is intended specifically for workers with disabilities, it would be a sensitivity level 3 development » If the data centre had three or more occupied storeys, it would be a sensitivity level 2 development » If the data centre had one or two occupied storeys, it would be a sensitivity level 1 development • HSE would not advise against a sensitivity level 1 development in the inner zone, but would advise against 2 or 3. • Consider contacting Wales and West Utilities before deciding the case, as development is in the vicinity of a major accident hazard pipeline.	• Development would have up to 2 occupied storeys¹ - within both the existing and proposed buildings. Therefore, the development is Sensitivity Level 1 and HSE does not advise against development. • Wales and West Utilities are not a statutory consultee, but will be engaged at the relevant time.
Neighbour comments - Margam Green Energy Limited	• Application - General: » Clarify red line boundary » Confirm whether Welsh Government and other owners have been notified. » Request to be sent a copy of the EIA screening opinion request. » Confirmation on when an application is to be submitted. • More information sought on access requirements during construction, given its importance for their operations: » Confirmation access not required over access road to the MGE plant. » Request for details on works to access road.	• There is no obligation on WBE to make a copy of the request for a screening opinion available to the public. Sufficient information has been provided as part of the PAC process to understand the impacts of the development, which the WBE team consider not to trigger the need for EIA. The same information will be available with the Application itself. It is for the ‘competent authority’ (Neath Port Talbot County Borough Council) to formally publish their Screening Opinion. • Other comments/ points of clarification noted - WBE will respond separately to MGE.

1 * “A storey assigned to storage or plant equipment and does not normally have a workforce presence would not be classed as an occupied storey”

07. Proposed Development

The Proposal

Within this section we explain the proposals in full, taking into account the outcomes of the consultation process explained in Chapter 6.

The Layout - Site-wide

Key components are as follows:

Buildings/ uses

- The existing building will be retained for offices and associated functions (reception, meeting space etc.) for the Data Centre.
- The new building houses the main data hall and associated plant, plus delivery bay and is situated at the heart of the southern part of the site on a north-south axis, to minimise impact on the existing building and trees.
- The building is also set in from the eastern edge of the site to avoid the easement associated with the existing utilities running along the eastern boundary.
- For security reasons, a 2.4m high perimeter fence encloses the new building and its associated delivery bay.
- A sub-station is located in the north-western corner of the site.

Green/ blue infrastructure

- Areas around the periphery would be given over to green/ blue infrastructure, including compensatory tree planting, an attenuation pond and other landscape interventions required to enhance the biodiversity of the site.



Proposed site layout

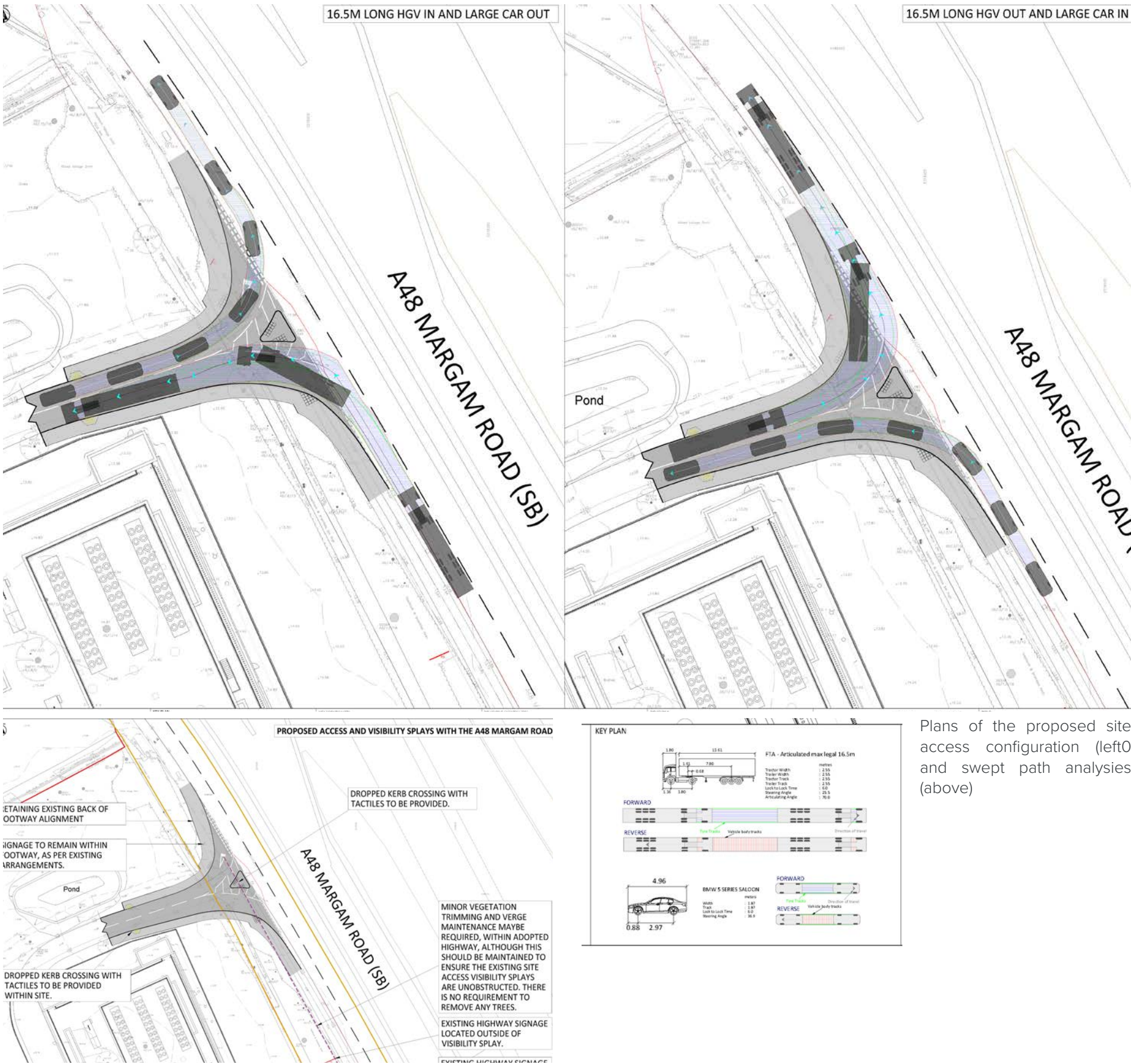
Access and Movement

Site access

- The access will be largely retained in its existing position.
- The geometry will be designed to comply with Design Manual for Roads and Bridges (DMRB), and includes appropriate corner taper radii for accommodating all vehicles. This is a significant improvement over the existing access arrangement.
- Vehicular visibility for drivers emerging from the junction onto the A48 is provided at 2.4m x 160m, in line with a 50 mph (80 kph) design speed and guidance in TAN18 / DMRB.
- The existing footway on the A48 Margam Road can be maintained and incorporated into the site access arrangements through a tactile crossing and a central island.
- Internally within the site, a minimum of a 5.5m carriageway width is proposed, which is suitable to allow two HGVs to pass (although this is unlikely).
- Swept path analysis has been undertaken, which shows that a 16.5m articulated HGV can pass a large car at the site access and the initial section of the internal access road. There would be no conflicts for vehicles turning in and out which would lead to an issue on the highway.
- The position of the proposed vehicular access also takes into consideration of existing constraints and vegetation/trees.

Internal roads:

- The internal access road from the A48 has been designed to accommodate access for a HGV/ fire tender, whilst considering the existing constraints on the site such as trees/ ecology and topography.
- The data centre will be provided with a new access road and servicing yard, where staff parking will also be provided.
- The existing building will be connected by the existing access road, which will be retained.



Plans of the proposed site access configuration (left) and swept path analyses (above)

Access and Movement (cont.)

Servicing and Deliveries:

- It is proposed the data centre will be provided with a dedicated service yard and loading bay for HGV access. There would be a minimal level of HGV movements generated, mainly relating to the delivery of equipment. However, these vehicles will need to be accommodated on the site and the design includes suitable provision.
- The site layout has been designed to accommodate access by fire tender, should an emergency arise.

Car and Cycle Parking:

- The proposed scheme is to provide a total of 12 car parking spaces, which includes two disabled bays. This is considered appropriate to accommodate the likely demand generated by the proposals. One electric vehicle charging bay will be provided.
- Car parking is to be split between two locations, with six spaces adjacent to the servicing/loading bay area and a further six spaces next to the retained building at the southern western corner of the site.
- The adopted Parking SPG does not provide specific thresholds for data centres. Data centres typically fall within either a B8 storage or Sui Generis use. However, for context, storage warehouses require 1 space per 500sqm GFA, which based on the development site would equate to 17 spaces. This is broadly comparable to the level of provision proposed.
- The site will provide ten cycle parking spaces in a secure and covered location, which is considered an appropriate level to promote cycling, based on the anticipated level of movements to and from the site.



Swept Path analyses of internal HGV, refuse and emergency vehicles servicing (above) and large car (left)

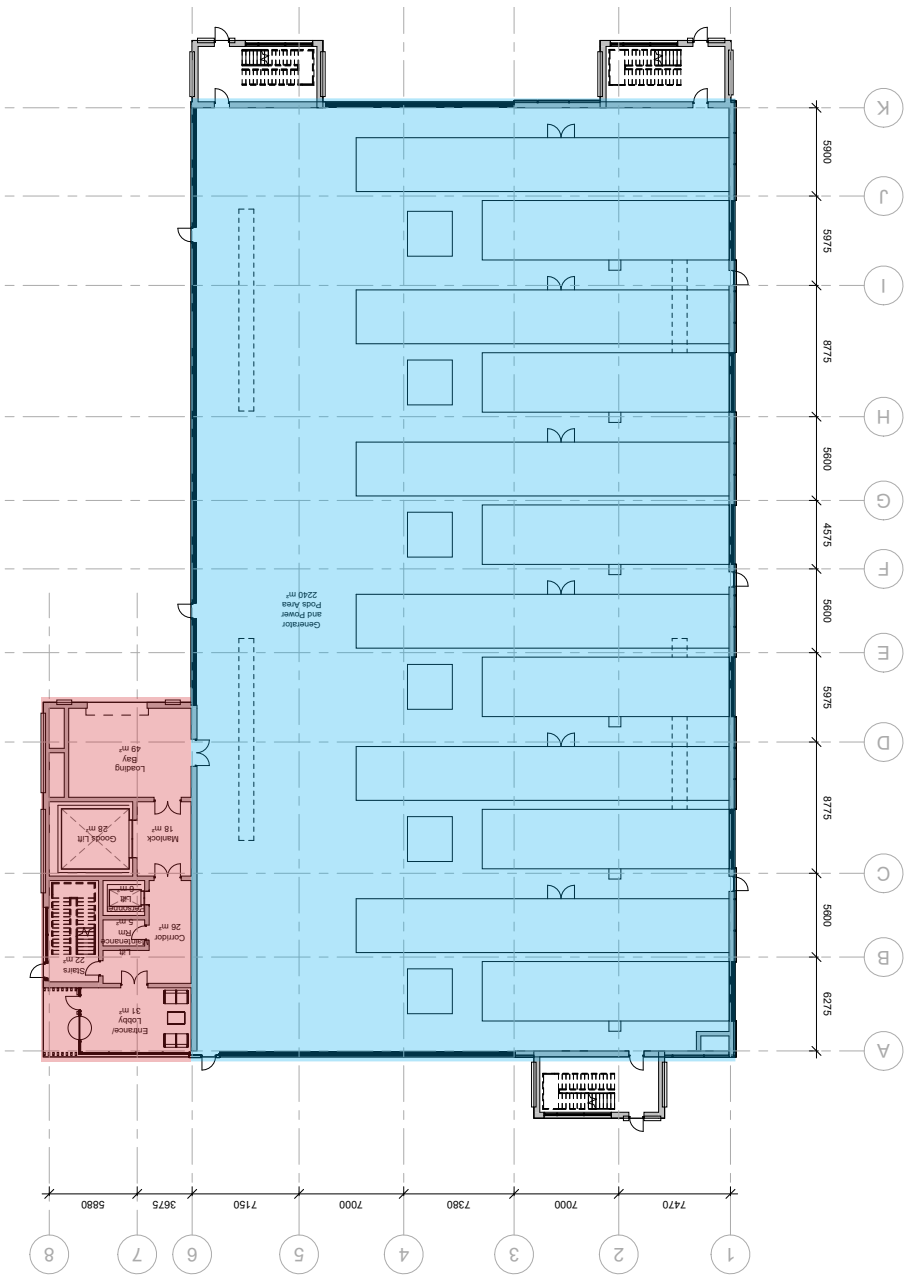
Layout - New Building

Ground/ First Floor Level - The specification is as follows:

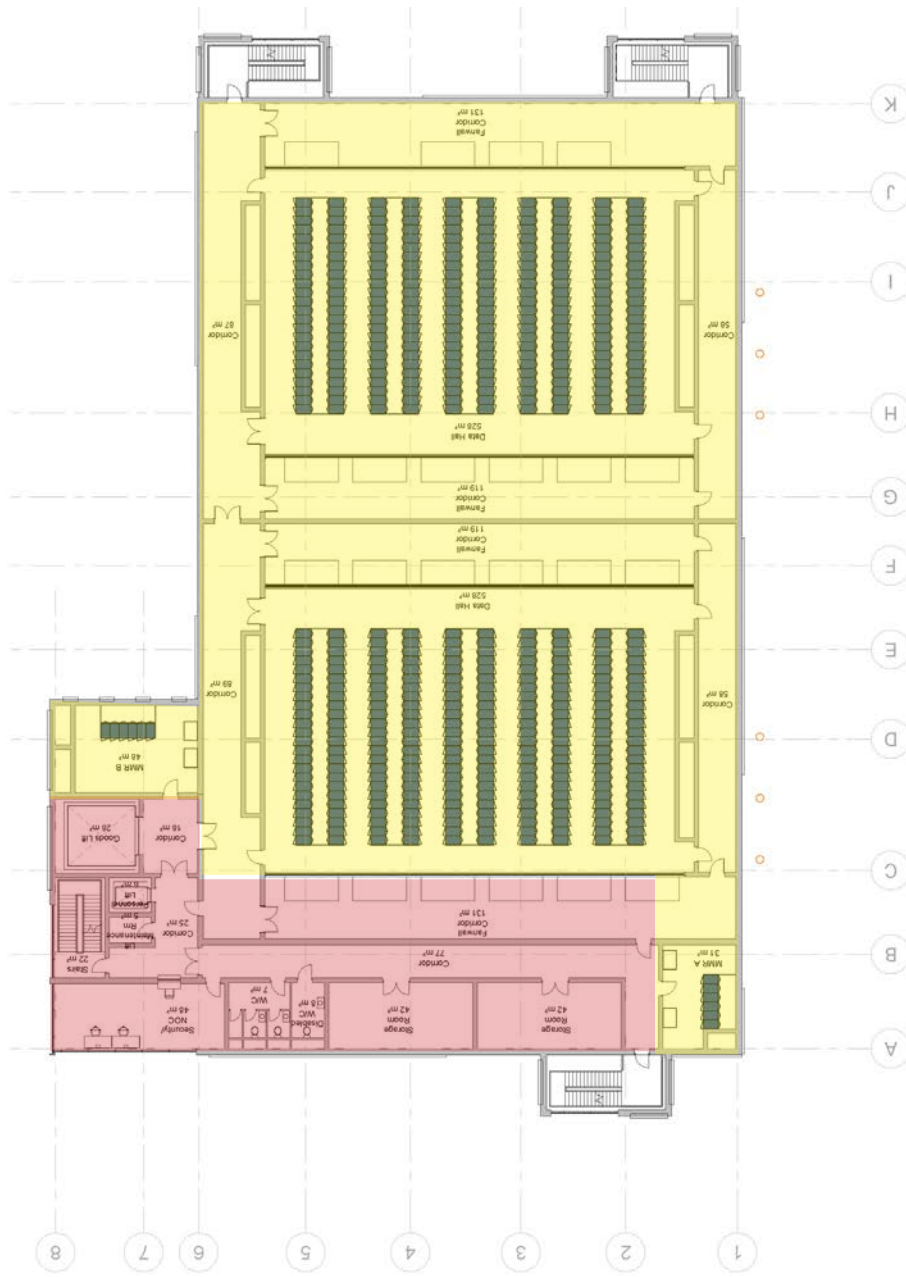
- Achieve as close to 7.5MW IT capacity as possible within limitations of power.
- Provide two Data Halls – 3.75 MW per hall
- Provide IT Space for 24 cabinets per row (currently structural frame is not considered and would reduce this number).
- Power Infrastructure comprising 5+1 block redundant – modular solution for space efficiency.
- Provide ancillary space for deliveries and storage.
- To be occupied by authorised personnel only for maintenance and security purposes on the power infrastructure area, IT space and ancillary space.

Ground/ First Floor Level - Key design requirements are as follows:

- The IT Space requires a minimum of 6m clear internal space between slabs
- Maintenance access below gantry level requires c.2m of space below gantry structural frame and roof finish level
- Louvred panels around power infrastructure (at ground floor level) for ventilation purposes - Exact locations to be confirmed
- Delivery bay with Loading Dock.



Ground Floor



First Floor

Legend for Plans

- Power Infrastructure
- Ancillary Space
- IT Space

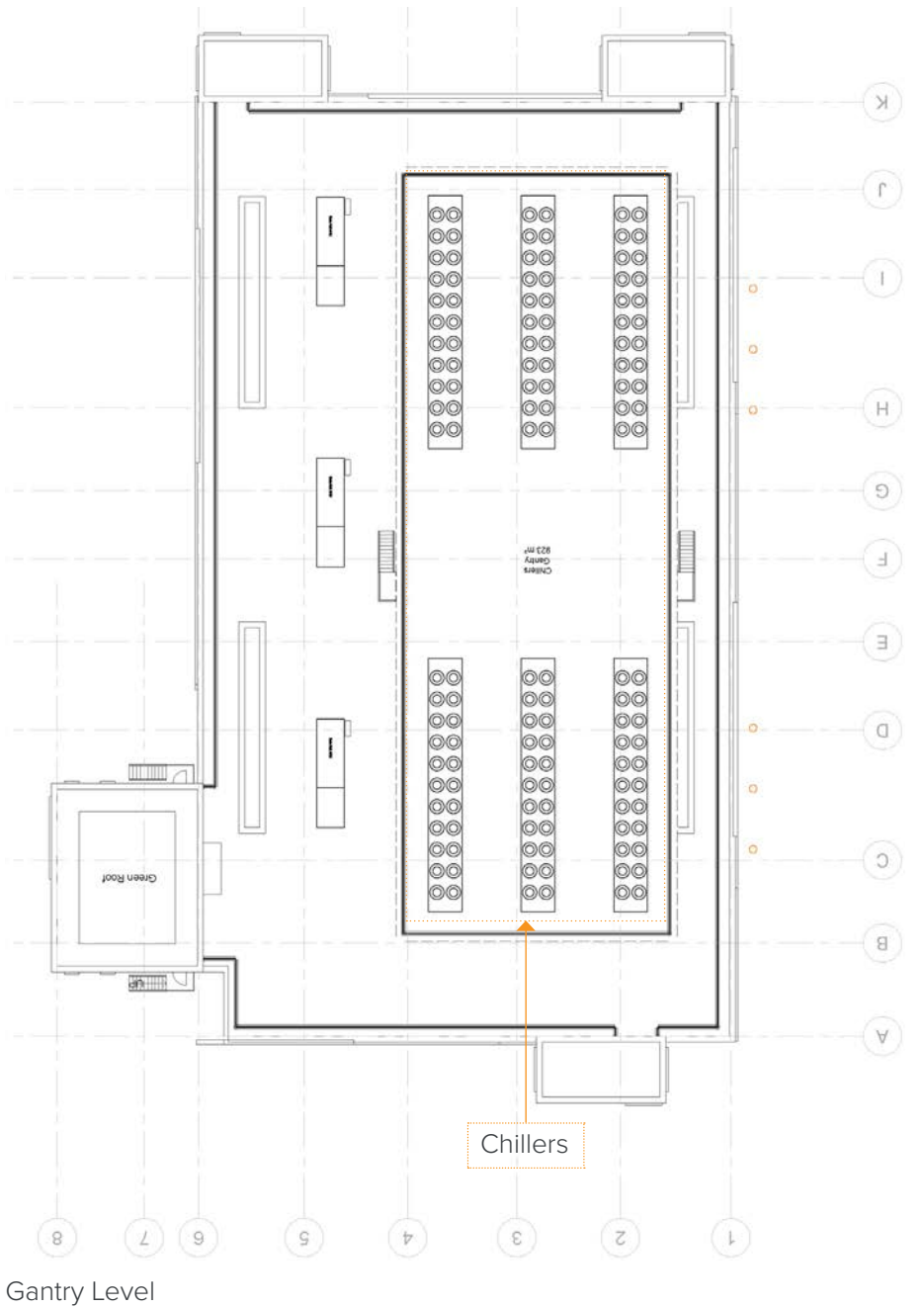
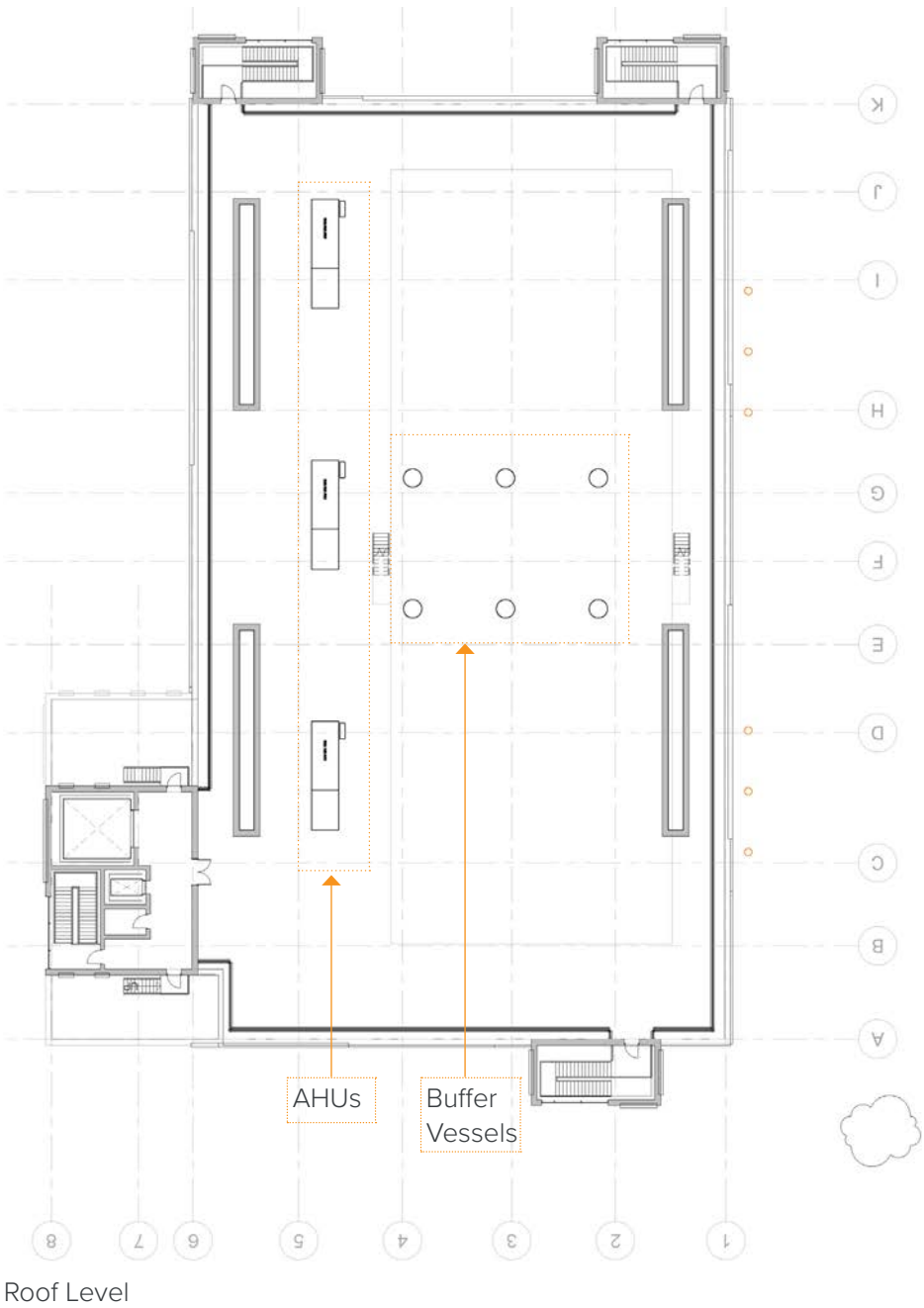
Layout - New Building

Gantry/ Roof Level

- Roof level to accommodate AHUs (Air Handling Unit) and Buffer Vessels
- Gantry level to accommodate Chillers.

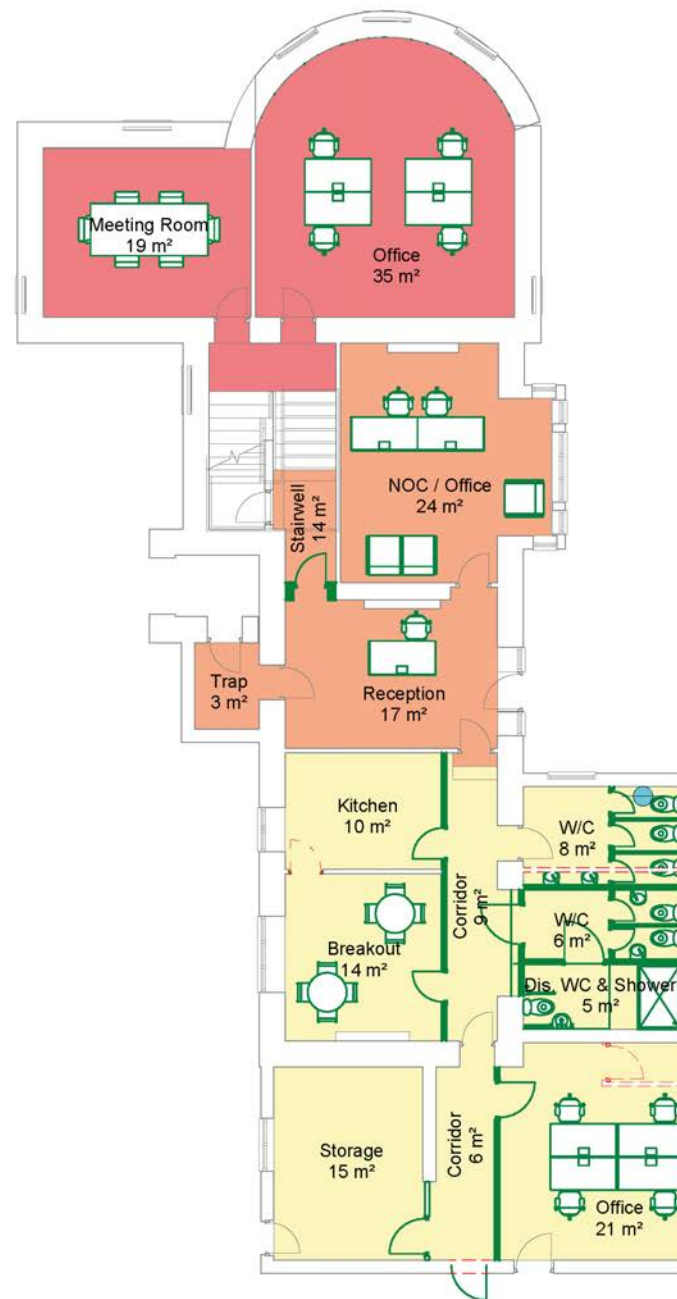
Key design requirements

- Provide a 1.5m acoustic louvred fence around each of the chillers and a non-acoustic fence around the gantry
- Maintenance access below gantry level requires c.2m of space below gantry structural frame and roof finish level.

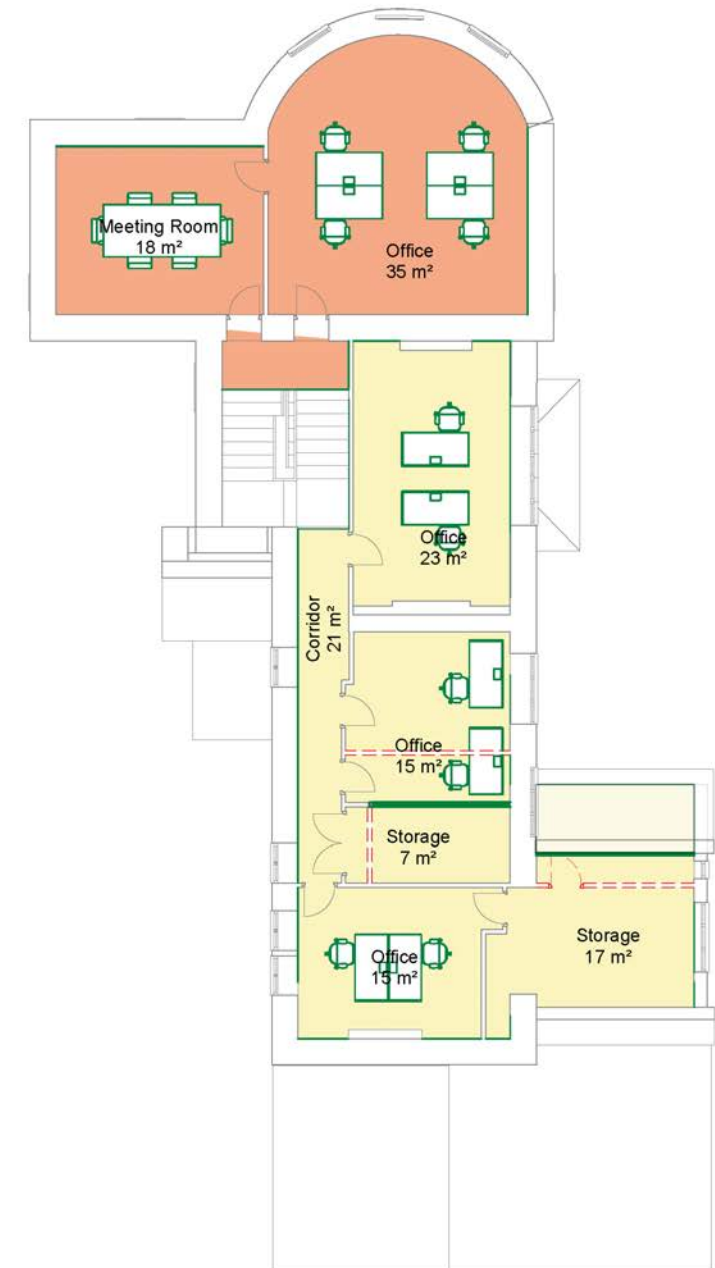


Layout - Existing Building

- The existing building would be divided up to accommodate a combination of offices, meeting rooms, reception space, kitchens, toilets and other associated ancillary facilities.
- It is proposed to demolish the annexe, which detracts from the setting of the main building, and is not required for the operation of the data centre.
- The intention is to work within the confines of the existing building, rather than extend.



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1 : 100

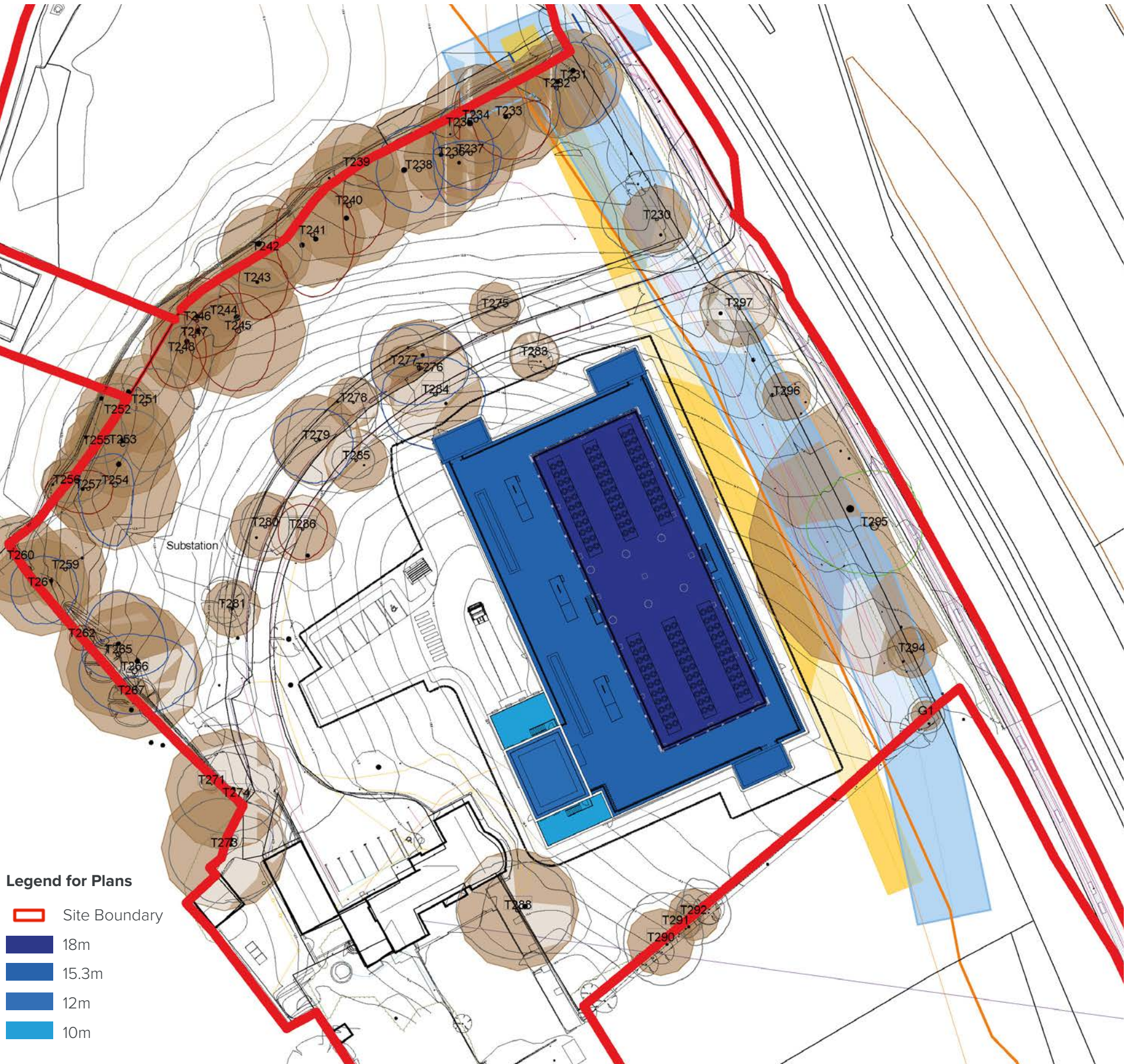


2 01 FFL
1 : 100

Height, Scale and Massing

Principles

- Building heights would step down from c.18m at the highest point at the heart of the site, to c.10m in height adjacent to the existing building, which stands at 2 storeys (c.6m plus roof).
- Although in fairly close proximity, this helps reduce the impact (insofar as is possible) of the mass of the new building on the existing building.
- The location of the less bulky access core in this location, further reduces any impact, while the approach to the building's look and feel, and materiality is provided over the following pages.



Height, Scale and Massing

Principles

- The building layout sites the lighter weight, lower and more articulated access core and delivery bay adjacent to the existing building, to reduce the impact of its mass.
- The building can broadly be divided into three horizontal components - a bottom, middle and top, with different approaches to each, as described overleaf.
- It is now proposed to enclose the fire stairs on the northern/ southern elevations as part of the fire strategy.



Articulation/ 'Look and Feel'

Overall

- The building would be given a horizontal emphasis, to reduce the perception of height.
- The 'weight' of the materials are designed to reduce as one moves up the building, enabling it to blend with sky and reducing the perception of mass/bulk.
- The external fire escape stairs have now been enclosed to provide a tidier and less utilitarian appearance. Their bulk will be reduced through full height glazing and vertical greening in the form of green walls, similar to the main circulation core.

Bottom

- Provides a solid 'base' to the building, grounding it into the context.
- Solid panels will be interspersed with louvred ventilation panels, to keep the equipment inside cool.

Middle

- The first floor combines light metal cladding, broken up by horizontal strips of green wall, to blend with the green surroundings and break up the mass of the facade.

Top

- Louvres further reducing the bulk/ visual prominence of the top floor, while still hiding and reducing noise emissions from rooftop plant.



Materials

The materials for this proposal have been selected to complement and enhance the surrounding natural context.

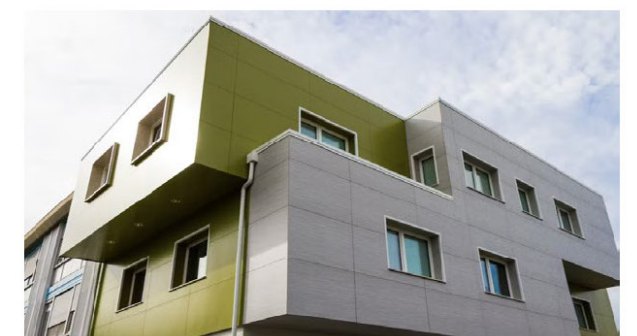
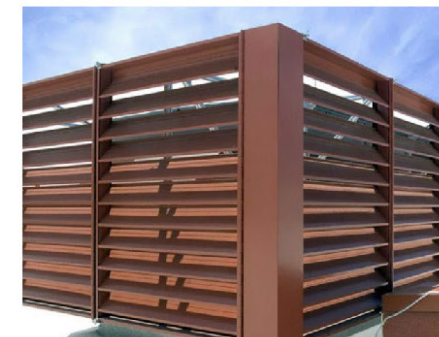
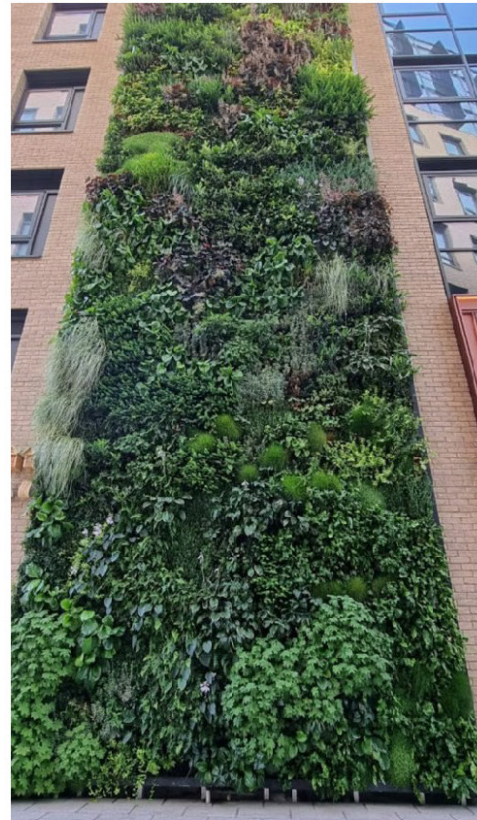
The external elevation of the main building would combine high quality materials as insulated sandwich panels with rainscreen cladding in different tones and textures, living walls, and louvred fencing.

A green roof over the ancillary block/ circulation core will also increase biodiversity, while extensive glazing areas will help to bring the outside inside the building and lighten the appearance of the elevation facing the existing building.

The data centre block will combine cladding in two colours, green walls and louvred panels arranged horizontally, while the ancillary area will have cladding and green walls arranged vertically.

The colour and tone of the cladding replicates the surrounding colour palette. These include the white tones of the render on the existing building, and green tones (green walls and green cladding) to reflect the surrounding landscape.

To integrate into the natural surroundings, the proposed bin and cycling storages will be clad in timber.



Materials

- 1. White/Cream Rainscreen Cladding
- 2. Green tone Rainscreen Cladding
- 3. Living Walls
- 4. Louvred fencing
- 5. Louvred fencing 1.5m
- 6. Security Fence
- 7. External door
- 8. External steel staircase
- 9. Loading Dock
- 10. Glazing
- 11. Acoustic Louvre Fence



Northern



Eastern

Materials

- 1. White/Cream Rainscreen Cladding
- 2. Green tone Rainscreen Cladding
- 3. Living Walls
- 4. Louvred fencing
- 5. Louvred fencing 1.5m
- 6. Security Fence
- 7. External door
- 8. External steel staircase
- 9. Loading Dock
- 10. Glazing
- 11. Acoustic Louvre Fence



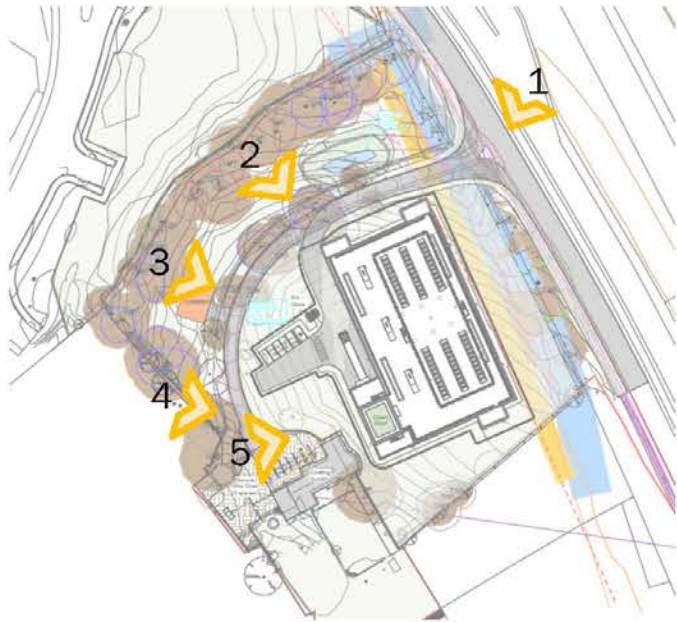
Southern



Western

Visualisations (of building)

Visualisations of how the building would appear in three dimensions are below.



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Details of Internal Security Fence

Details of the security fence, which would surround the main data centre for security reasons, are provided below.

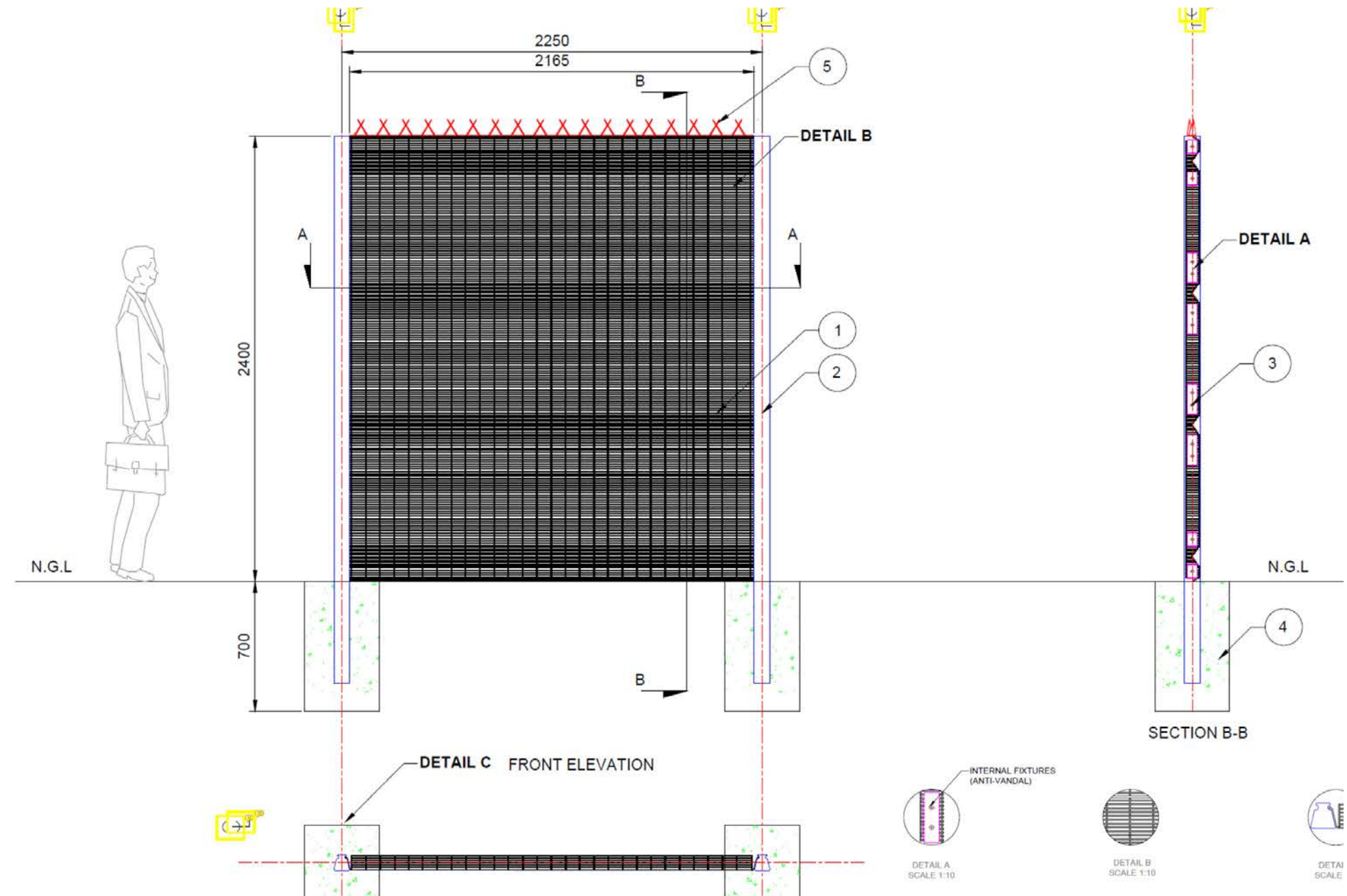
SPECIFICATION

CLEARVU INVISIBLE WALL PANEL

- | | | |
|---|--------------------------------|---|
| 1 | PANEL | <p>CLEARVU MESH PANELS 3305mm WIDE x 2400mm HIGH GALVANIZED .</p> <p>PANEL FORMATION: PANEL REINFORCED WITH 4X DEEP "V" FORMATION HORIZONTAL RECESSED BANDS (RIGIDITY), 2 x 70° FLANGES ALONG SIDES (INTERNAL FIXTURES - ANTI VANDAL, ALLOWING FOR FLUSH POST AND PANEL FINISH, LINE WIRE SECURE CONNECTION, LOCKING RECESS MECHANISM) AND 2 x 30° FLANGES ALONG TOP AND TOE.</p> <p>(ARROW - STRAIGHT EDGES, INTEGRATED ANGLE).</p> <p>COATING: MESH GALVANIZED, THEN MARINE FUSION BOND COATED.</p> <p>(PATENTS AND DESIGN REGISTRATIONS APPLY)</p> |
| 2 | POST | <p>COCHRANE TAPER LOCKING POST, SEALED WITH STEEL CAP.</p> <p>COATING: GALVANIZED, THEN STRUCTURAL MARINE GRADE COATED.</p> |
| 3 | CLAMPS | <p>SINGLE BOLT COMB CLAMPS.</p> <p>DOUBLE BOLT COMB CLAMPS.</p> <p>COATING: GALVANIZED, THEN MARINE FUSION BOND COATED.</p> |
| 4 | FOUNDATION SPECIFIED BY OTHERS | |
| 5 | TOPPING | SHARK TOOTH SPIKES |

			
		DRAWING NAME:	
SHEET NO:		13719-AP-CV-00-01-00-0C-A-R00	
1 OF 1		DRAWING DISCRIPTION:	
PRINT DATE:		DETAIL DRAWING OF CLEARVU MESH	
N/A			
CURRENT REV:			

1044-FUT-ZZ-ZZ-PP-Z-0016



Landscape Architecture

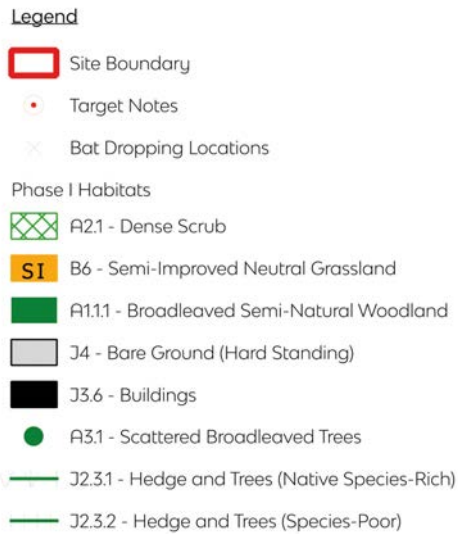
Ecological and Habitat Considerations

The site is mostly covered with existing neutral grassland habitat, which provides habitat for reptiles. It also contains an area of single species (bramble) scrub in the SW corner, native trees across the site and native hedgerow to the Eastern perimeter

The strategy is to retain the grassland as much as possible, enhancing it with more diverse species to provide an optimum habitat for reptiles.

Key principles

- **Habitat protection:** The northern area of grassland should be fenced off during construction- extend the tree protection fencing to include the grassland habitat and provide log piles from felled trees for reptiles to migrate to
- **Invasive species:** Japanese knotweed has been identified in the SW scrub area of the site. Due to the extent of cut and fill required it is recommended to remove the Japanese knotwood. Bramble scrub habitat to be enhanced in this area with the planting of more diverse scrub species such as hazel, dog rose and scattered native trees.
- **Habitat creation:** Wet grassland/ marginal planting in SuDS attenuation pond, Mixed Scrub and scattered trees in area of single species (bramble) scrub SW corner
- **Habitat enhancement:** Within the fenced area of development and around car parks provide wildflower/ species rich grass areas
- Cable route from / to sub-station is to avoid tree RPAs and habitat
- **Ecological enhancements:** Bird, bat boxes and log piles and bug hotels are to be located across the site
- **Tree removal:** Some category U trees have potential for bat roosting, including T277, which is to be removed to build the Data Centre. Monitoring and mitigation are required
- **Tree re-planting:** Re-planting along the perimeter will help to enhance and extend green corridors, along with enhancing and planting native hedgerows
- **Presence of Horse-shoe bats** in existing building. Monitoring and mitigation required



Existing Species/ Habitats

Semi-improved Grassland

Dominant species:

- Grass: Cock’s-foot, Creeping Bent, False Oat and Yorkshire Fog
- Wildflowers: Meadow Buttercup, Broadleaved plantain, Common Knapweed.

Field Margins

Woodland Edge and Hedgerow species:

- Hedge Woundwort, Herb Robert, Lesser Celandine and Cuckoo Pint, with large patches of Winter Heliotrope (Non-native Invasive)

Boundary Features

- The site is virtually bounded by outgrown hedgerows.
- The southern boundary is essentially a gappy hedge dominated by Hawthorn with occasional Ash, Holly and Elder.
- The eastern boundary along the roadside consists of a row of unmanaged native trees. North and western boundaries include stone walls in poor condition

Garden

- Dense scrub including Bramble
- Garden shrubs such as Magnolia and Apple/ Crab Apple, trees including Pine and Ash saplings, and other planting are still evident.

Scrub

- Predominantly Bramble

Invasive Non-native Species

- Japanese knotweed present in tree-line to roadside boundary
- Buddleia davidii
- Winter Heliotrope

Semi-improved Grassland - survey

- False Oat (Arrhenatherum elatius)
- Cock’s foot (Dactylis glomerata)
- Yorkshire fog (Holcus lanatus)
- Creeping Bent (Agrostis stolonifera)
- Red fescue (Festuca rubra)
- Sweet Vernal (Anthoxanthum odoratum)
- Common hogweed (Heracleum sphondylium)
- Common Bird’s-foot Trefoil (Lotus corniculatus)
- Lesser knapweed (Centaurea nigra)
- Ribwort plantain (Plantago lanceolata)
- Sorrel (Rumex acetosa)
- Orpine (Sedum telephium)
- Ragwort (Senecio jacobaea)
- Bramble (Rubus sp.)
- Nettles (Urtica dioica)
- Cleavers (Galium aparine)
- Creeping buttercup (Ranunculus repens)
- Bitter dock (Rumex obtusifolius)
- Curly dock (Rumex crispus)
- Spear thistle (Cirsium vulgare)
- Creeping cinquefoil (Potentilla reptans)
- Scarlet pimpernel (Anagallis arvensis)
- Petty spurge (Euphorbia peplus)
- Hairy willowherb (Epilobium hirsutum)
- Hoary Mullein (Verbascum thapsus)
- White Clover (Trifolium repens)



Knapweed



False Oat

Landscape Strategy

The landscape strategy centres around the retention of the natural open character of the site and enhancing the existing habitat. It also aims to retain the sense of tree and hedge-lined enclosure to the perimeter of the site and the avenue of trees along the access road through the site.

Design Principles

- Eastern boundary edge - enhance/restore tree canopy and hedgerow to screen site
- Create green corridors to perimeter of site, with tree and native hedge planting
- Avoid structures in RPA zones
- Opportunity to re-provide tree-lined avenue to access road - replant on the side of the adjusted road
- Retain, restore and enhance existing ecological features e.g. habitats and native hedge
- Re-provision of any lost habitats where possible on site. Off-site mitigation possible
- Integrated landscape / SuDS response
- Provide permeable surfaces wherever possible
- Cut & fill of earth works - landscape response to provide usable gradients
- Provide amenity space where out-building is removed, to the West of the retained existing building. This will include cycle parking and seating
- Coordination with drainage and structure & civil engineering
- Provide green walls to the new building to screen it and increase biodiversity on site
- Create and enhance green corridors including trees to perimeter of site. Locate replacement trees where category U trees removed
- Replace trees on site wherever possible and where category U trees have been removed. Off-site mitigation possible
- Provide ecological enhancements such as bird, bat boxes and log piles/bug hotels across the site
- Cable routes to and from sub-station to avoid RPAs- suggested route to follow new road.



Landscape Masterplan



Planting Strategy

The predominance of open grassland on the existing site is reflected in the planting strategy; with species rich grassland, wild flower and wet grassland species forming the bulk of planting to enhance the existing internal site, and a native green screen and corridor to the perimeter of the site in the form of enhanced and new native hedgerows, trees and woodland understorey.

The key principles underpinning the planting strategy are as follows:

- Enhance existing planting and habitats with increased species in seed mixes and improve management
- Maintain the open grassland character of the site
- Maintain and enhancing the green, mature tree perimeter to the north and east as well as the native hedgerow
- Increase biodiversity
- Planting to respond to aspect, location, use and provide seasonal interest
- Maintain the avenue of trees that follow the access road through the site.



Planting Precedents



Grassland and bug hotels



Wet Grassland mix for attenuation basin



Native scrub mix



Grassland and tree planting



Grassland and bug hotels



Native hedge and mature trees to boundary

Tree Replacement and Planting

Category U trees

- Three category U trees fall within the central development area and will be removed and replaced one tree for each tree removed.
- The other category U trees are located within the northern boundary. The removal and replacement of these trees will be separate to the immediate development and form part of the long term tree management plan, which will incorporate succession planting - trees will be replaced in the same location to retain the northern green corridor and tree canopy.

Tree Removal - due to Development

- 7 trees have been identified to be removed within the central development area - three of these are category U trees
- 4 category B & C trees to be removed. This will require 12 replacement trees on site (policy requires three for every one removed)

Tree Replacement

- 12 trees are required to replace category B & C removals and the intention is to replace one-for-one the three category U trees removed, making a total of **15 replacement trees**.
- The strategy is to replace trees where removed where possible and to follow the landscape strategy to re-instate and enhance boundary edges/ green corridors. The other principal location for tree replacement is the south west corner, where a species rich mixed scrub with scattered trees is proposed
- The 15 trees required for mitigation can fit within the red line (dependent on size and location)

Trees at Risk

- There are two trees identified as at risk from development.
- The building and internal fence-line can be nudged further north to ensure that one tree is retained in the south west corner of the site, but the tree at the entrance to the site requires further information about the highways design detail and levels to confirm if it can be retained.

Proposed tree species include:

- Field maple
- Sycamore

- Rowan
- Cherry
- Silver birch
- Hawthorn

EXISTING TREES		Category
Total Existing Trees	54	
Total Trees to be Removed	7	
Trees Removed for Health	3	U
Trees Removed for Development	4	B & C
REPLACEMENT TREES		
To replace cat B & C - 3 for 1	12	
To replace cat U - 1 for 1	3	
Total Replacement trees	15	



Trees							
Abbrev.	Botanical Name	Common Name	Girth/ Dia. cm	Height cm	Root Zone	Specification	Number
A ca	Acer campestre	Common Maple	16-18	400-450	RB	3x; EHS; clear stem min. 200cm; 5 brks	3
A pl	Acer platanooides	Norway Maple	18-20	450-650	RB	3x; EHS; clear stem min. 200cm	3
A ps	Acer pseudoplatanus	Sycamore	18-20	min 450	RB	3x; EHS; clear stem min. 200cm	2
A sa	Acer saccharinum	Silver Maple	18-20	450-650	RB	3x; EHS; clear stem min. 200cm	1
B pe	Betula pendula	Common Silver Birch	14-16	400-450	RB	3x; EHS; clear stem 175-200cm; 5 brks	1
C mon	Crataegus monogyna	Common Hawthorn	14-16	400-450	RB	3x; EHS; clear stem 175-200cm; 5 brks	1
P pad	Prunus padus	Bird Cherry	14-16	400-450	RB	3x; EHS; clear stem 175-200cm; 5 brks	2
S auc	Sorbus aucuparia	Rowan	14-16	400-450	B	3x; EHS; clear stem 175-200cm; 5 brks	2

Proposed Tree Species



Field Maple



Sycamore



Wild Cherry



Rowan



Crab Apple



Silver birch

Planting Mixes

PM1: Enhanced Grassland mix

EM8 Meadow Mixture
Species include:

Common Knapweed, Wild Carrot, Lady’s Bedstraw, Field Scabious, Oxeye Daisy, Musk Mallow, Ribwort Plantain, Salad Burnet, Cowslip, Meadow Buttercup, Yellow Rattle, Bladder Campion

PM10: Grassland mix is the same mix



Burnett



Ox eye Daisy



Wild carrot



Knapweed

PM2: Bioretention mix

EM8 Meadow Mixture for Wetlands
Species include:

Common Knapweed, Lady’s Bedstraw, Field Scabious, Oxeye Daisy, Great Burnet, Cowslip, Meadow Buttercup, Yellow Rattle, Bladder Campion, Yarrow, Grey sedge, Meadow Vetchling, Ribwort Plantain, Red fescue, Common sorrel, Common bent, Rough Hawkbit, Meadow cranesbill



Yarrow



Meadow cranesbill



Bladder campion



Scabious

PM3: Wildflower mix

EM3 Special General Purpose Meadow Mixture
Species include:

Common Knapweed, Lady’s Bedstraw, Field Scabious, Oxeye Daisy, Musk Mallow, Ribwort Plantain, Salad Burnet, Cowslip, Meadow Buttercup, Yellow Rattle, Meadowsweet, Red Campion, Yarrow, Black Medick, Vipers Bugloss, Wild Parsnip



Black medic



Meadowsweet



Ox eye Daisy



Ladys Bedstraw

PM4: Scrub, native hedge and wildflower:

Species include: hazel, dog rose, dogwood, guelder rose, blackthorn, hawthorn, holly, elder, wild cherry



Dog rose



Hazel



Elder



PM5: Enhanced native hedge

The existing hedge contains:

Hawthorn with occasional Ash, Holly and Elder.

This is to be enhanced with the planting of additional hawthorn, hazel, guelder rose, dog rose and holly.



Holly



PM6: New Existing Native hedge

Species include:

25% hawthorn, 25% hazel, 25% bird cherry

25% mix of holly, guelder rose, dog rose, elder

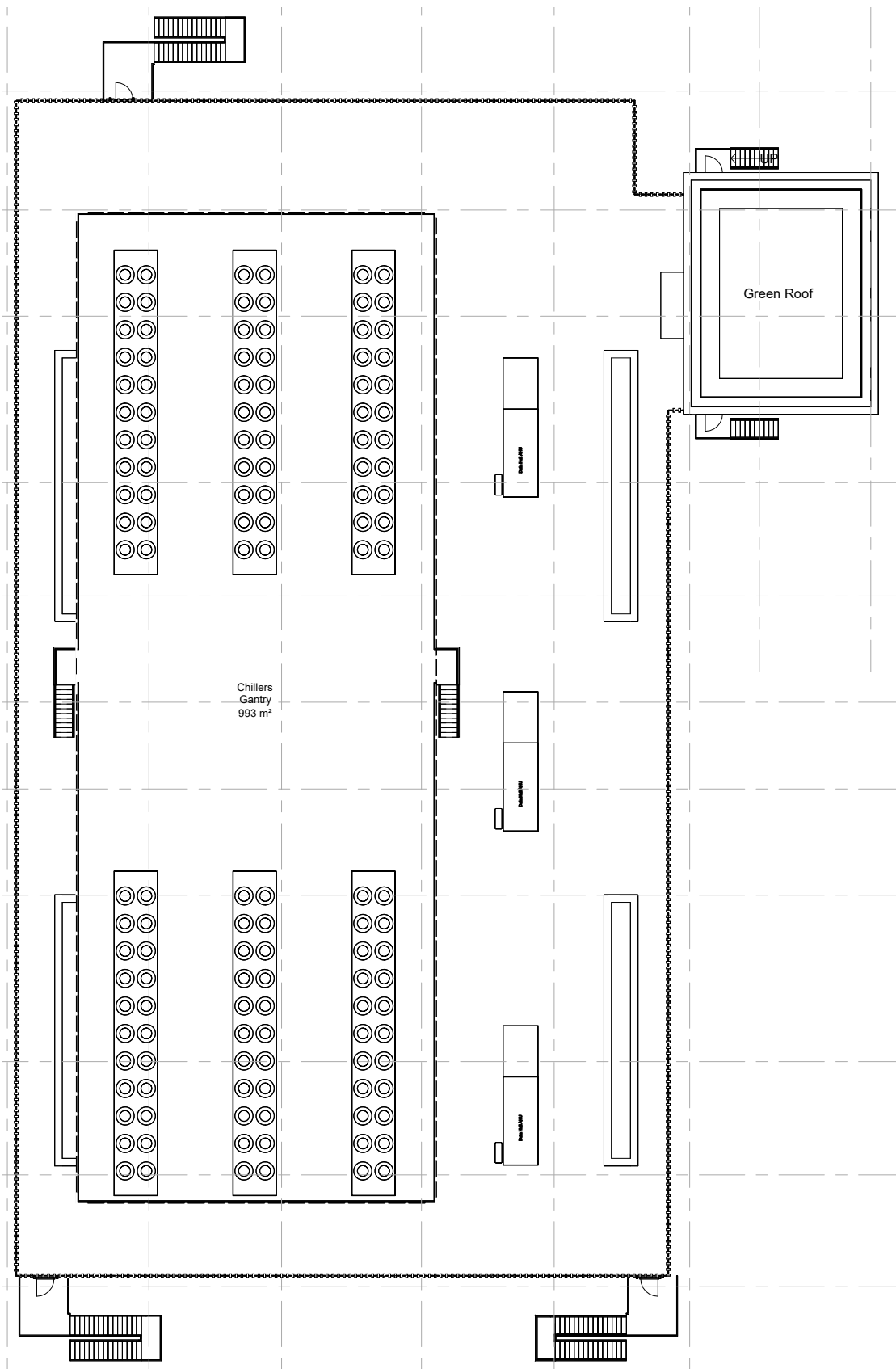


PM7: Woodland understorey:

Species include:

Anemone, geranium, primrose, guelder rose, bluebells, snowdrop, crocus, blue eyed mary





PM8: Green Roof Planting Mix

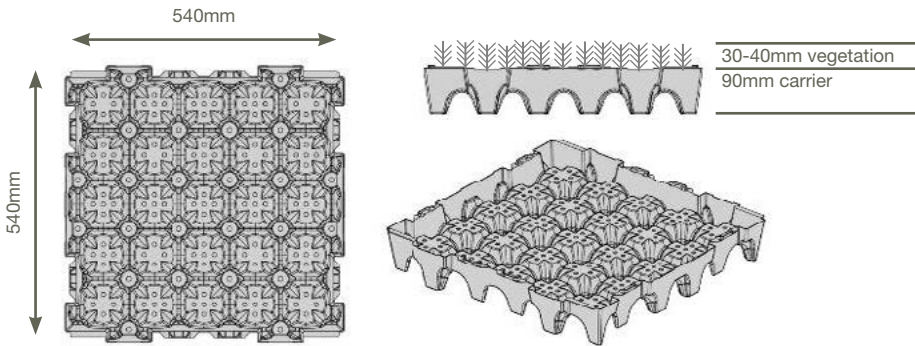
This is a Biodiverse Roof mix consisting of sedum and wild flower. The proposal is a pre-fabricated mix that comes as a standard tile system by Grufe Tile or similar.



Key Facts

- Compressive strength 2.000 Kg/m²
- Water holding capacity of 20 litres/m²
- UV resistant
- Temperature range -50°C - 80°C
- Carrier material 100% Regenerated
- Polypropylene (PP)
- Carrier measures 540 x 540 x 90mm
- Drainage Surface 318 cm²/m²
- Outflow Volume 40 l/m²
- Saturated weight 65kg/m²
- Module has a 12 month guarantee

Your GrufeTile will be supplied with established plant coverage, growing on 60mm 100% recycled growing media. The GrufeKit has a saturated weight of 65kg per m2 apart from Brown Wildflower which are 75kg per m2.



Vegetation: The Sedum GrufeTile's are pregrown with 8 -12 varieties of sedum, the Sedum & Wildflower has an additional 20-30 varieties of wildflower and meadow grasses, the Brown Wildflower has no sedum, just wildflowers and meadow grasses.

Carrier: Made from recycled HDPE plastic, and performs the following roles – a water reservoir, drainage layer, protection from excessive drying of roots from the airspace below, the cups greatly improve product handing making it easier to install



Installation: The item is equipped with a double-action coupling system: the tabs on the side of each part engage the edge in the gaps between tabs of the facing part.

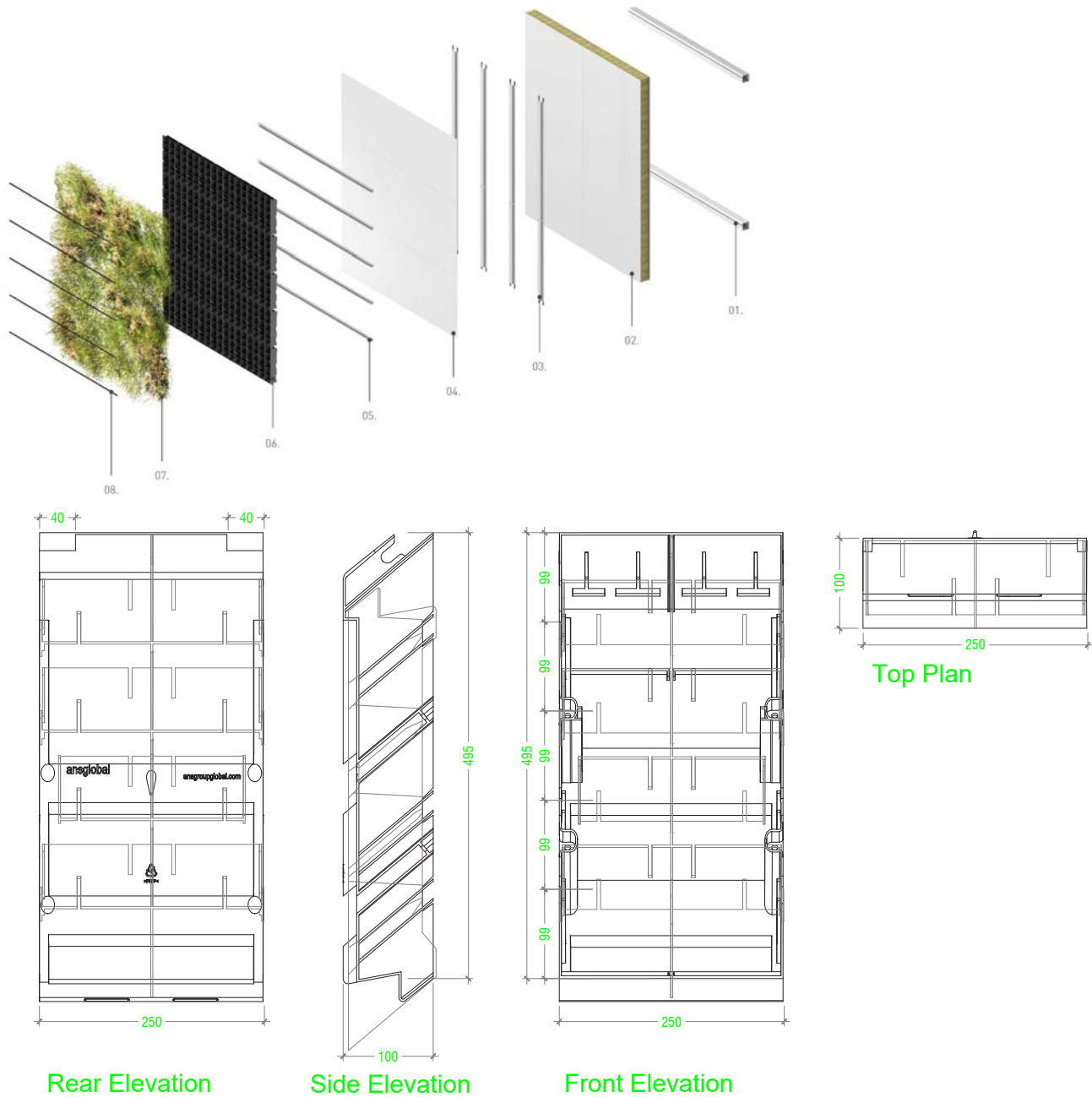
Media: The media mix used is a special substrate prepared specifically for ANS, but particular mixes can also be prepared depending on the planting & project requirement.

PM9: Green Wall Mix



Green Wall System

All four elevations of the building are proposed to have green walls, as per the illustrative elevations opposite. The green wall segments will be a mix of horizontal and vertical bands of planting in pre-fabricated panels. A sandwich green wall system is proposed with irrigation system and maintenance by supplier.



PM9: Green Wall Planting Mix

A planting mix for each elevation has been prepared, based on the ecology report and species found on site. Species selected respond to local species and the aspect of each elevation.

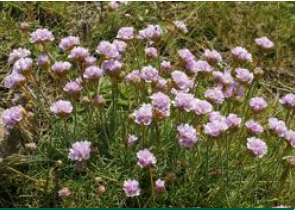
Selected species will include those opposite. Each building elevation has a mix suited to its aspect.

Full details will be provided as the green wall is developed in detail design.

Plant Species for Northern elevation include:



Abeilia grandiflora



Armeria Maritima



Bergenia 'Bressingham White'



Cotoneaster Damerii



Dryopteris felix-mas



Euonymus 'Emerald Gaiety'



Euonymus 'Emerald n Gold'



Euonymus radicans



Euphorbia purpurea



Fatsia Japonica



Fragaria vesca



Hebe pinguifolia 'sutherlandii'

Plant Species for Western elevation include:



Origanum vulgare



Pachysandra terminalis 'Green Carpet'



Perovskia blue spire



Peiris 'Flaming Silver'



Pittisporum Tom Thumb



Polypodium vulgare

Plant Species for Eastern elevation include:



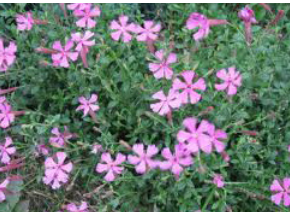
Polypodium vulgare



Primula Chungensis



Sarcococca Confusa



Silene schafta



Thymus vulgaris



Viburnum tinus

Plant Species for Southern elevation include:



Euphorbia purpurea



Fatsia Japonica



Fragaria vesca



Galium Odoratum



Geranium Macrorrhizum



Hebe pinguifolia 'sutherlandii'

Planting Schedule

Refer to Planting plan and schedule 2335-URB-XX-DR-LA-XX-102_SW GA.

Trees							
Abbrev.	Botanical Name	Common Name	Girth/ Dia. cm	Height cm	Root Zone	Specification_____	Number
A ca	Acer campestre	Common Maple	16-18	400-450	RB	3x; EHS; clear stem min. 200cm; 5 brks	3
A pl	Acer platanoides	Norway Maple	18-20	450-650	RB	3x; EHS; clear stem min. 200cm	3
A ps	Acer pseudoplatanus	Sycamore	18-20	min 450	RB	3x; EHS; clear stem min. 200cm	2
A sa	Acer saccharinum	Silver Maple	18-20	450-650	RB	3x; EHS; clear stem min. 200cm	1
B pe	Betula pendula	Common Silver Birch	14-16	400-450	RB	3x; EHS; clear stem 175-200cm; 5 brks	1
C mon	Crataegus monogyna	Common Hawthorn	14-16	400-450	RB	3x; EHS; clear stem 175-200cm; 5 brks	1
P pad	Prunus padus	Bird Cherry	14-16	400-450	RB	3x; EHS; clear stem 175-200cm; 5 brks	2
S auc	Sorbus aucuparia	Rowan	14-16	400-450	B	3x; EHS; clear stem 175-200cm; 5 brks	2
PM1 - Enhanced Species rich grass mix							
Emorsgate Seed Mix: EM2F Standard General Purpose Wild Flowers							
Area: 100.000m² Sow Rate: 1g/m² Amount: 100g Cost: (please input) /g							
5.00% Achillea millefolium – Yarrow							
15.00% Centurea nigra – Common Knapweed							
8.00% Daucus carota – Wild Carrot							
2.00% Galium verum – Lady's Bedstraw							
4.00% Knautia arvensis – Field Scabious							
13.00% Leucanthemum vulgare – Oxeye Daisy							
5.00% Malva moschata – Musk Mallow							
15.00% Plantago lanceolata – Ribwort Plantain							
10.00% Poterium sanguisorba ssp sanguisorba – Salad Burnet							
3.00% Primula veris – Cowslip							
10.00% Ranunculus acris – Meadow Buttercup							
5.00% Rhinanthus minor – Yellow Rattle							
5.00% Silene vulgaris – Bladder Campion							
PM2: Biorention mix							
Emorsgate Seed Mix: EM8 Meadow Mixture for Wetlands							
Area: 100.000m² Sow Rate: 1g/m² Amount: 100g Cost: (please input) /g							
PM3 - Wildflower mix							
Emorsgate Seed Mix: EM3 Special General Purpose Meadow Mixture							
Area: 100.000m² Sow Rate: 1g/m² Amount: 100g Cost: (please input) /g							
PM4: Scrub/ species rich shrub wildflower							
Abbrev.	Botanical Name	Common Name	Girth/ Dia. cm	Height cm	Root Zone	Specification_____	Mix %
C san 'M F'	Cornus sanguinea 'Midwinter Fire'	Dogwood 'Midwinter Fire'		60-80	B	0/1/1; Transplant - cutting raised; branched; 3 b	13
C av	Corylus avellana	Common Hazel		60-80	3L	Branched; 3 brks	14
C mon	Crataegus monogyna	Common Hawthorn		40-60	B	1+1; Transplant - seed raised	15
L per	Lonicera periclymenum	Common Honeysuckle		60-80	B	Caned; several shoots; 2 brks	5
P pad	Prunus padus	Bird Cherry		60-80	B	1+1; Transplant - seed raised; branched; 3 brks	15
R can	Rosa canina	Dog Rose		60-80	B	1+1; Transplant - seed raised; branched; 3 brks	15
S ni	Sambucus nigra	Common Elder		60-80	B	1+1; Transplant - seed raised; branched; 3 brks	13
V I	Viburnum lantana	Wayfaring Tree		60-80	B	1+2; Transplant - seed raised; branched; 3 brks	5
V op	Viburnum opulus	Guelder Rose		40-60	B	1+1; Transplant - seed raised; branched; 2 brks	5

PM5: Enhanced Native hedge							
Abbrev.	Botanical Name	Common Name	Girth/ Dia. cm	Height cm	Root Zone	Specification_____	Mix %
C av	Corylus avellana	Common Hazel		40-60	B	1+1; Transplant - seed raised; branched; 2 brks	30
C mon	Crataegus monogyna	Common Hawthorn		40-60	B	1+1; Transplant - seed raised	30
R can	Rosa canina	Dog Rose		60-80	B	1+1; Transplant - seed raised; branched; 3 brks	25
V op	Viburnum opulus	Guelder Rose		40-60	B	1+1; Transplant - seed raised; branched; 2 brks	15
PM6: New native hedge							
Abbrev.	Botanical Name	Common Name	Girth/ Dia. cm	Height cm	Root Zone	Specification_____	Mix %
C av	Corylus avellana	Common Hazel		40-60	B	1+1; Transplant - seed raised; branched; 2 brks	30
C mon	Crataegus monogyna	Common Hawthorn		40-60	B	1+1; Transplant - seed raised	30
I a	Ilex aquifolium	Common Holly		30-40	2L	Leader with laterals	15
P pad	Prunus padus	Bird Cherry		40-60	B	1+1; Transplant - seed raised	15
R can	Rosa canina	Dog Rose		40-60	2L	Branched; 3 brks	5
V op	Viburnum opulus	Guelder Rose		40-60	B	1+1; Transplant - seed raised; branched; 2 brks	5
PM7: Woodland understorey							
Abbrev.	Botanical Name	Common Name	Girth/ Dia. cm	Height cm	Root Zone	Specification_____	Mix %
A nem	Anemone nemorosa	Wood Anemone			2L	Full pot	10
D f-m	Dryopteris filix-mas	Male Fern			1.5-2L	Full pot	20
L per	Lonicera periclymenum	Common Honeysuckle		60-80	2L	Caned; several shoots; 2 brks	10
L niv	Luzula nivea	Snowy Wood-rush			2L	Full pot	10
O v	Omphalodes verna	Blue-eyed Mary			2L	Full pot	10
P vul	Primula vulgaris	Primrose			2L	Full pot	10
R can	Rosa canina	Dog Rose		60-80	B	1+1; Transplant - seed raised; branched; 3 brks	15
S ho	Stellaria holostea	Greater Stitchwort			1L	Full pot; Sept to April planting; British native-ori	5
V op	Viburnum opulus	Guelder Rose		40-60	B	1+1; Transplant - seed raised; branched; 2 brks	10
Bulb mix							
Abbrev.	Botanical Name	Common Name	Girth/ Dia. cm	Height cm	Root Zone	Specification_____	Mix %
Cro Ru	Crocus tommasinianus 'Ruby Giant'	Early Crocus 'Ruby Giant'				Grade 5/7	25
G n	Galanthus nivalis	Common Snowdrop				Grade 5/6	25
H n-s	Hyacinthoides non-scripta	English Bluebell				Grade 6/7	25
N p	Narcissus pseudonarcissus	Wild Daffodil				Grade 5/6	25
PM8: Green Roof							
Grufe Tile: Sedum & Wildflower tile standard mix							
PM9: Green Wall mix							
Green wall mix by Viritopia including species:							
PM10 - Species rich grass mix							
Emorsgate Seed Mix: EM2F Standard General Purpose Wild Flowers							
Area: 100.000m² Sow Rate: 1g/m² Amount: 100g Cost: (please input) /g							

GI Strategy

Principles

In line with the landscape strategy, the GI strategy aims to enhance existing habitats, restore native hedgerows and improve or create green corridors, particularly to the site boundaries. Principles for the GI strategy are set out below:

- Retain, restore and enhance existing ecological features e.g. habitats and native hedge
- Integrated landscape / SuDS response
- Provide amenity space on the site of the removed building to west of the existing building, including cycle parking
- Provide green walls to the new building to provide screening to the building and increase biodiversity. A small area of Green Roof is also provided
- Create and enhance green corridors including trees to the perimeter of site
- Replace trees on site wherever possible
- Provide ecological enhancements such as bird, bat boxes and log piles/ bug hotels across the site
- Create habitat in the form of wet grassland/ marginal planting in SuDS attenuation pond, and Mixed Scrub and scattered trees in area of single species (bramble) scrub SW corner
- Provide ecological enhancements in the form of bird boxes, bat boxes and log piles and bug hotels located across the site
- Tree re-planting strategy along perimeter will help to enhance and extend green corridors, along with enhancing and planting native hedgerows
- Improved mowing and management of grassland will encourage better diversity of species



- Existing tree canopy
- Category A tree
- Category B tree
- Category C tree
- Root Protection Area (RPA)
- Existing Tree to be removed due to development
- Category U tree to be removed due to health
- Proposed tree (indicative)
- Existing Hedges - to be retained and enhanced
- Strategy for re-planting to restore canopy cover
- Proposed SuDS / Drainage Pond
- Proposed Amenity space - on site of removed building
- Ecological Protection Zone
- Proposed Green Wall to Data Centre building
- Existing building; retained and re-used
- Proposed Data Centre building
- Proposed access/ roads
- Line of existing access/ road
- Line of proposed cable run
- Proposed Indicative Reptile Receptor Area
- Existing 'Horse Shoe' Bat Roost
- Proposed Wildflower Meadow
- Proposed Enhanced Grassland for Reptiles
- Proposed mix scrub
- Proposed indicative hibernacular log piles



Refer to the Green Infrastructure Statement for more detail and information on compliance with policy and the Ecology Statement for more information on habitats

Opportunities

Due to the poor condition of the existing site with its single low value grassland habitat, there are many ecosystem opportunities.

The expansive open space, consisting primarily of low value amenity grassland, sheltered by a green tree lined boundary provides an opportunity to enhance the grassland with diverse species and wildflower and restore boundary hedgerow and trees to maintain green corridors and boundaries.

Extent for mitigation

The new building footprint set within a sloped site, will require mitigation from the earthworks and removal of the grassland. The access road has been carefully planned so as to affect as few of the existing mature sycamores and grassland through the site. The northern section will have a substation and an attenuation basin incorporated but the basin will be planted with species rich wetland grasses and wildflower. Removed trees will be replaced on-site and with the aim to retain the central avenue where possible and restore the perimeter greening/ green corridors.

Habitat creation, habitat enhancement and tree planting and replacement contribute to the landscape design tree and wildflower planting to connect habitats and provide ecological corridors.

The site will be enhanced by the planting of diverse species, increasing biodiversity. The landscape-led sustainable drainage strategy creates new species rich planting that also improves drainage and water quality.

Connectivity

The creation and enhancement of green corridors to the perimeter of the site continue into the wider rural landscape. The Northern and Eastern boundaries currently have mature but neglected green edges, which can be enhanced with additional native hedgerow species, a woodland understorey and the infill, succession planting of any trees that come out.

Diversity

Biodiversity across the site can be increased through the introduction of a mixture of new habitats and pollen-rich native planting species.

There is an opportunity to create and enhance a variety of different habitats to provide a rich diversity of species, whilst also maintaining a degree of continuity through the planting mixes which results in a holistic planting scheme. The predominance of grassland on the existing site is reflected in the planting strategy; with species rich grassland, wild flower and wet grassland species.

Specific habitats include native hedgerow, native woodland edge understorey, wildflower, species rich flowering lawn and bio-retention areas. Wildflower mixes contain local species. Woodland edge and hedgerow planting respond to local native woodland.

15 native trees are proposed in response to existing species found on site.

The landscape and planting strategies provide a significant improvement in biodiversity, access to nature, air pollution, sustainable drainage and in response to the natural setting of the site. Ecological improvements and the sustainable drainage strategy are intrinsically part of the landscape strategy.

Ecological Enhancements

Bird and bat boxes are provided across all sites. Bug hotels will be provided in south facing, sheltered locations. Felled trees will be retained on site to provide hibernaculum. Refer to the GI strategy diagram for locations.

Supporting Benefits

Bio-retention and green walls will address building and road run-off, the planting filters the water and provides biodiversity opportunities. The site levels and existing drainage outflow and connections prohibit the creation of areas of standing water. The significant areas of new ground flora, and other vegetation, will assist in the formation of top soils on newly made ground and help secure improved nutrient cycling within the site. All landscaping and proposed features for wildlife will provide a habitat benefit for fauna over the existing baseline condition of the site.

Cultural

The landscape responds to the landscape character, incorporating features of wildlife benefit which bring people closer to nature and community facilities, enhancing the visual impact of the development. It also provides an improved setting for the existing non-designated heritage asset (Tyn-y-Caeau) on-site.

Regulating Benefits

The planting provides benefits to air and water quality, also providing climate change resilience from the cooling effects through their shading and tree planting will sequester and store carbon.

Provisioning

Some species of tree may produce fruit or flowers suitable for foraging.

Materials Strategy

Materials

The materials strategy is quite simple, to provide durable surfaces in line with the requirements of the site and the drainage strategy:

- Retain the existing access route as much as possible
- Tarmac to road surface where used by heavy vehicles
- Permeable paving to existing road beyond HGV access, to parking spaces and in front (north) of existing building
- Resin bound gravel to amenity/ cycle storage area to west of existing building

Perimeter

Retain, restore and enhance existing perimeter features where possible, such as:

- Stone wall to west and north of the site
- Existing hedgerow to south and east of the site
- Succession tree planting to north and eastern perimeter to maintain green screen
- Provide new species rich native hedgerow to southern perimeter
- New estate rail fencing to replace timber fencing to north & east of site
- 2m high security fencing around Data Centre



Permeable paving



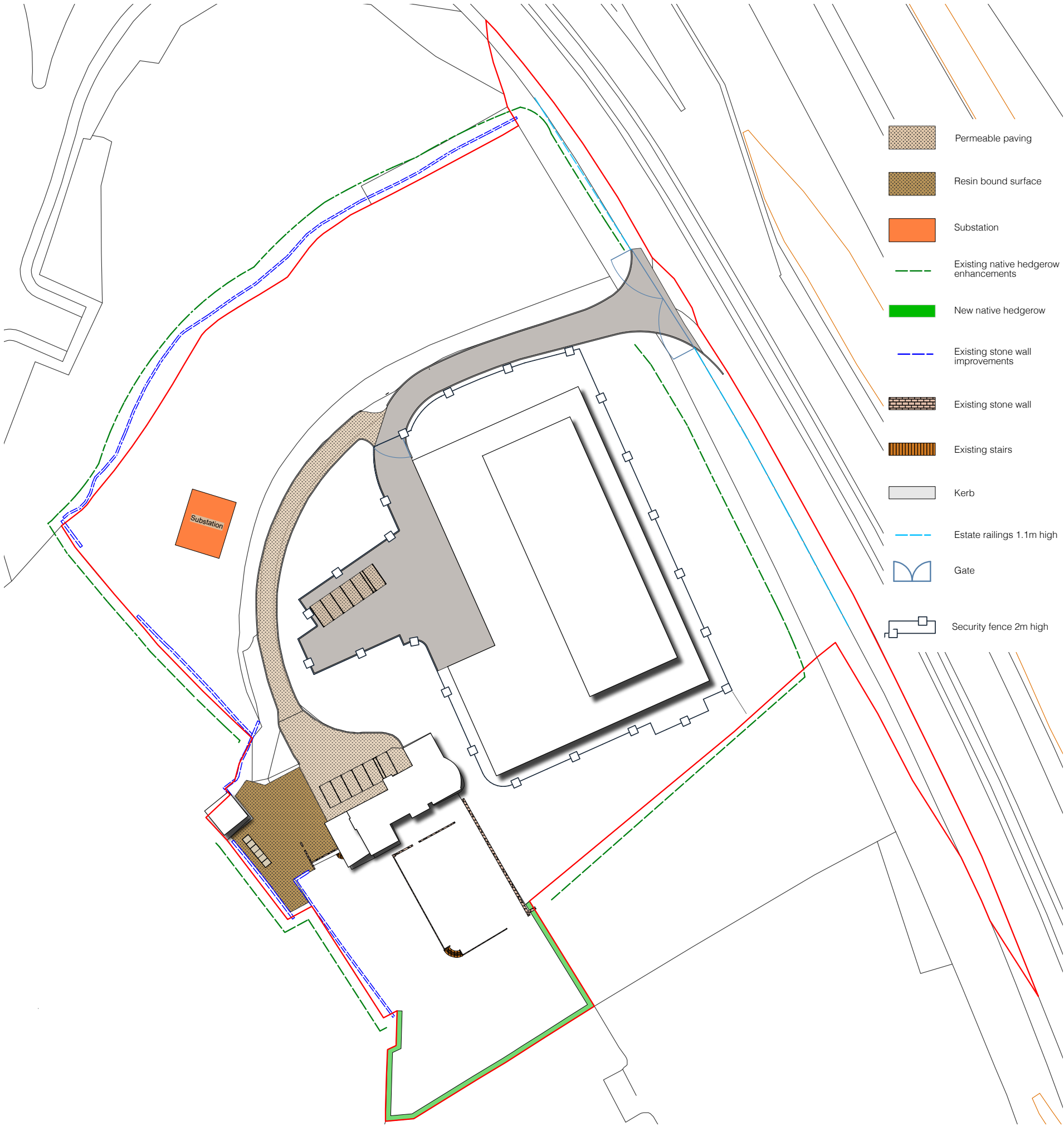
Estate rail fencing



Permeable paving to parking bays & adopted asphalt road



Resin bound gravel to amenity and cycle store area



08. Planning Assessment

Introduction

This section provides an assessment of the proposals described in Section 6 against the key policy issues outlined in the Legislative and Planning Policy Context section (3). The key ‘material’ planning issues identified are as follows:

- Principle of development
- Promoting economic growth and facilitating a sustainable, low-carbon economy
- Promoting good design and placemaking
- Impact on and provision of appropriate green infrastructure - ecology, trees, open space provision
- Promoting the use of sustainable transport modes, and impacts on the transport network
- Managing flood risk and providing sustainable drainage
- Managing visual impacts on the landscape
- Conserving and enhancing heritage assets
- Minimising pollution and risks to health, safety and amenity
- Promoting sustainable design and low-to-zero carbon energy use
- Balancing safeguarding mineral deposits with the need for development

These are discussed further in the following paragraphs.

Assessment

Principle of Proposed Development

Planning Policy Wales paragraphs 3.44, 3.49-3.52 discuss the spatial strategy for the development of land. They set out that where there is a need for sites, suitable and sustainable greenfield sites can be considered for development where there are no sites within or on the edge of settlements. The density and type of development should relate to the level of access by sustainable transport modes, to promote active travel and the use of public transport over the car.

Policies 1 and 28 of Future Wales support growth in employment and housing and investment in infrastructure in Swansea Bay and Llanelli, a National Growth Area and the main focus for growth and investment in the South West region. This includes digital infrastructure.

LDP Policy SP1 promotes more efficient settlement patterns, and consequently more sustainable travel patterns, with SC1 restricting development outside settlement limits to specified development types, adjacent to existing buildings or settlement boundaries. The subtext sets out that relevant policies within the Local Development Plan (LDP) and national policy will be used to determine whether development proposals are appropriate or suitable outside settlement limits. Policies SP5 and EC1 allocate the neighbouring land to the north, south and west as a Strategic Employment site, leaving the Site as a gap in an area of land otherwise designated for employment use.

While the site falls outside of the settlement boundary and is unallocated,

and is therefore technically a departure from the overall spatial strategy in the Development Plan, the site is enveloped on three sides by designated employment land, which has been the subject of an approved application for a large-scale employment use. It is situated in an area of the borough prioritised for employment investment, including in digital infrastructure, and is accessible by public transport, walking and cycling. It is also proposed as an employment site as part of the Candidate Sites process, to inform the emerging Local Development Plan.

As outlined further below, the proposals present a significant opportunity to support investment in critical digital infrastructure, support an existing low-carbon power provider, protect and provide jobs in the low-carbon economy, and make better use of an under-used site. Overall, the nature of the proposal aligns with policy which promotes growth, innovation and sustainability.

During pre-application discussions, NPT acknowledged the above, explaining that the case for development needs to be based on setting out the need for diversification of the existing WBE Western Wood biomass power plant. This has been explained elsewhere in the document, but in essence WBE will be losing the current Renewable Obligation Certificates (a subsidy) by 2028, and therefore require alternative income streams to fund the ongoing operation of the facility, which contributes towards the wider decarbonisation of the Welsh economy. A data centre, connected by a private wire, will do this by providing an energy ‘off-taker’ (a customer) for the energy generated by the plant, and providing a sustainable income stream in return.

Promoting Economic Growth / a Sustainable Economy

Planning Policy Wales Paragraph 5.4 sets out the targets of economic development, ensuring that the growth of prosperity and employment are not constrained by a shortage of land. Planning authorities should encourage and support development which generates economic growth and regeneration.

Policies 2 and 28 of Future Wales supports growth and development that contributes towards building sustainable places. It promotes investment in infrastructure in Swansea Bay and Llanelli, a National Growth Area and the main focus for growth and investment in the South West region. This includes digital infrastructure.

TAN 23: Economic Development focuses primarily on B1-8 use classes. It advocates seeking a ‘win-win’ in balancing economics with social and environmental factors. Where there may be harm to either, evidence needs to be provided that alternative sites have been considered, the quantum of jobs it may deliver and whether the proposal would make any special contribution towards policy objectives, with particular support given to proposals that would help deliver a low-carbon economy and innovative business / technology clusters.

LDP Policy SP11 supports existing and future employment opportunities and aims to promote employment areas particularly within the Coastal Corridor Strategy Area. Policy EC1 and EC3 set out the Employment allocations and Employment Area Uses, the neighbouring site is specifically allocated for B1,

B2 and B8 uses.

This proposal supports economic growth, regeneration and innovative business/ technologies through employment uses. The development will deliver development both promoting and protecting businesses in the low-carbon and tech sectors (both the biomass plant and data centre), making it compliant with both national and local policy. The proposed uses all fall within the ‘B’ or related use classes and create an opportunity for economic diversification and to reduce reliance on traditional industries.

As outlined in Section 1, data centres will be fundamental to the growth and development of Artificial Intelligence (AI) in the UK, as reflected by the new UK Government’s plan to facilitate their delivery in the AI Opportunities Action Plan (January 2025) (the Action Plan). The UK Government highlights the importance of AI in driving economic growth, improving public services and creating wider opportunities for society. The report highlights the fundamental role of data centres in driving AI. Savills estimate that the pipeline of data centres needs to more than double by 2025¹, and the National Grid estimate that data centre power usage is due to surge six-fold in ten years².

WBE’s proposal seeks to achieve this objective - data processing powered by renewable energy - in microcosm, simultaneously protecting 27 jobs on the existing biomass plant site, and the associated 150 indirect jobs; while potentially providing a further 33 jobs as part of the proposed data centre development itself³.

Good Design / Placemaking

Planning Policy Wales (Paras 3.3-3.18) explain the fundamentals of good placemaking. Development should be responsive to context and site features to create an attractive, accessible, safe, sustainable development with a strong sense of place.

Policy 2 of Future Wales supports the growth and regeneration of towns, that contributes towards building sustainable places and active and healthy lives. TAN 12: Design provides advice on how sustainability, through good design, may be facilitated through the planning system. It sets out the core design principles that any development proposal must follow to help create a sustainable environment and exhibit a high level of design quality.

LDP Policy BE1 sets out that development should demonstrate high quality design which takes into account the natural, historic and built environment context into the creation of attractive, sustainable places. Proposals will only be permitted where they complement and enhance the character of the area, with particular to scale, height and massing. Important local features should be retained and enhanced.

The proposed scheme responds to the natural and built heritage of the

1 <https://www.savills.co.uk/insight-and-opinion/savills-news/336014-0/savills--pipeline-of-data-centres-needs-to-more-than-double-by-2025-to-meet-demand-for-storage-in-europe>
2 <https://www.bbc.co.uk/news/technology-68664182>
3 Using UK Government multipliers

area, such as Margam Castle and the wider landscape. It also responds to the existing site features to create an attractive, accessible, safe, sustainable development with a strong sense of place.

The layout has evolved in response to both on-site and off-site features, including existing heritage assets, green and blue infrastructure, active travel and other movement networks, sensitive neighbouring uses, and the wider landscape character. This would create an employment development designed to integrate into its surroundings and provide a high standard of amenity for future site users, while minimising impacts on adjoining occupiers and historical features, to comply with Policy at all scales.

Considered against the key principles of good design outlined in TAN12 and Building Better Places, the proposals would comply as follows:

- Access - Ensuring ease of access for all:
 - » The proposals would provide level access across the site, disabled parking close to building entrances and internal layouts that facilitate movement by all users.
- Character - Sustaining of enhancing local character, including scale, height and massing and retaining local features:
 - » The proposals would retain and reinforce the key green infrastructure assets, notably the trees and planting around the site periphery, and tree-lined character of the existing road running through the site.
 - » The proposals would retain the most valuable built feature on the site, notably through reusing the existing building and demolishing the annexe, which is detrimental to its setting.
 - » While the new building would be of greater scale and mass than the existing building, this will be moderated to some extent by the gradual, incremental reduction in height from 18m to 10m adjacent to the building, and deployment of green walls, extensive areas of glazing and a colour palette that reflects the existing building, to soften the building appearance and reduce dominance overall.
 - » Measures to moderate the building mass, combined with the retention/ reinforcement of perimeter planting will serve to reduce impacts on views from the surrounding area, including from sensitive heritage assets and landscapes to the east in Margam Park.
- Community safety - Ensuring attractive, safe public spaces and security through natural surveillance:
 - » As a key part of the UK’s data infrastructure, security is paramount. Therefore, the site layout incorporates in inner perimeter fence around the main data halls. However, this will be visually permeable, while more public areas of the proposed data centre buildings (existing and proposed) will provide windows overlooking adjacent spaces, contributing to natural surveillance and community safety at the local level.
 - » The proposals will also include attractive new landscape planting and a new amenity space to enhance user-experience and wellbeing for future employees and visitors to the site.
- Environmental sustainability - Achieving efficient use and protection of

natural resources and enhancing biodiversity, and designing for change:

- » This is discussed further under green infrastructure, but the proposals will concurrently seek to retain those areas of greatest ecological value, such as trees, grassland and planting where feasible, and where not mitigate in accordance with policy requirements.
- » The retention and reuse of the existing building would retain the carbon embodied within the existing structure, while working with the bulk of the existing structure.
- » The new data centre is essentially a large, relatively open and flexible structure, with scope for adaptation to other industrial and related uses later should this be required, and should policy and other material planning considerations allow.
- » The data centre will be powered by low carbon/ renewable energy.
- Promoting sustainable means of travel:
 - » As outlined elsewhere in this statement, and in Apex’s Transport Statement, despite not being located in the settlement boundary and the industrial nature of its surroundings, the site is accessible by active transport modes and public transport.
 - » A significant proportion of Margam is accessible within a 25-minute walk from the site (c. 2km). This includes Margam Village, the southern half of Margam and Margam Country Park. This shows that there is a potential for employees to be situated within potential walking distance of the site.
 - » The entirety of Margam is accessible within an appropriate cycling distance in addition to Port Talbot, Sandfields, Baglan Moors, Goytre, Cornelly, Cwmafan and Kenfig.
 - » The site is served by buses which connect to Bridgend, Port Talbot and Swansea throughout the day, and therefore travelling by bus would be a suitable option for some commuting journeys to and from the site as well as for journeys by visitors.
 - » Travelling by rail and cycle (or bus) to the site provides a reasonable alternative for some employees, particularly those travelling longer journeys to the site.

This accords with policy objective and will deliver good placemaking on a constrained site.

Green Infrastructure - Ecology, Trees, Open Space Provision

Planning Policy Wales (Paragraphs 3.3-3.18) focuses on the impacts of climate change. There is a theme around the natural environment, with the key aspects around maintaining and enhancing the resilience of ecosystems, halting & reversing the loss of biodiversity and enhancing green infrastructure. Paragraph 6.2.5 focuses on the new requirement for Green Infrastructure Assessments and sets out the importance of implementing this. Paragraph 6.4.4 sets out how biodiversity and ecosystem resilience considerations should be taken into account at the early stages of design. It also sets out that reasonable steps must be taken to maintain and enhance biodiversity and to avoid adverse effects where possible.

Policy 9 of Future Wales supports the enhancement of biodiversity, the resilience of ecosystems and the provision of green infrastructure, areas should be safeguarded for adaptation to climate change, for habitat protection.

TAN 5: Nature Conservation and Planning provides advice about how the land use planning system should contribute to protecting and enhancing biodiversity and geological conservation.

LDP Policy SP15 sets out that habitats, species and sites of geological significance shall be protected and enhanced through identifying sites with national designations and sites with local importance and natural heritage features. Policy OS1 seeks the provision of amenity space in employment and/ or commercial development of over 1,000 sqm. Policy EN7 sets out that proposals that would adversely affect important natural features such as trees, woodlands or hedgerows will only be permitted where it can be demonstrated that full account has been made to the design and biodiversity value of the relevant feature has been taken into account.

The Open Space and Greenspace SPG (July 2017), and the Biodiversity and Geodiversity SPG (May 2018) provide further detailed guidance to the policies set out within the LDP.

The integration of green infrastructure has been central to the design of the proposals. This has included the enhancement of biodiversity, and protecting habitats, species and sites of either local or national conservation importance. This falls in line with the update chapter 6 of PPW which sets out the requirement for green infrastructure enhancements. In particular:

- The majority of impacts are confined to the grassland habitats, with the most important ecological features, namely the tree lines and hedgerows bounding the site, being fully retained and enhanced through additional planting, ensuring connectivity remains.
- There is an opportunity to improve the condition of habitats on site through the removal of invasive species on site, specifically Japanese knotweed, which can be undertaken with advice from a specialist invasive species contractor and also increasing habitat diversity through additional planting around boundary features, enhancements to the existing grassland and log piles and bat and bird boxes.
- The layout has been designed with a focus on minimising tree loss and therefore potential impacts upon roosting bats. While there could be impacts on a small number of trees with bat roosting potential, this needs to be confirmed through further bat survey work in May 2025 as agreed with NPT, and should provide sufficient information to demonstrate the principal of appropriate mitigation for losses is achievable.
- The proposals incorporate sufficient tree planting to compensate for the seven Category B/C and three Category U trees lost at the required 3:1 ratio, through the provision of 15 new trees.

Overall, the proposals will allow for a network of green habitat links to be retained and enhanced through additional planting and the introduction of sustainable drainage features, better connecting those existing features beyond the site boundary. The addition of green walls is proposed to enhance

this further. Open amenity space is also proposed to comply with policies.

The proposed layout retains key features for protected species such as dormouse, nesting birds, commuting and foraging bats, while sufficient grassland will also be retained to maintain the small population of reptiles on site (with construction impacts being managed through precautionary working methods).

Subject to conforming the bat roosting potential of a small number of trees, and therefore the mitigation required to offset this if/ where necessary, the proposals will deliver on policy objectives.

Transport / Movement

Planning Policy Wales Paragraph 3.6 details how development in the countryside should be located where it can best be accommodated in terms of infrastructure, access, habitat and landscape. All new development should be of scale and design that respects the character of the surrounding area. Section 4 focuses on creating Active and Social Places to reduce reliance on travel by private vehicles.

TAN 18: Transport provides guidance on how to better integrate transport and planning through the decision-making process. TAN18 states that 'Maximum car parking standards should be used at regional and local level as a form of demand management'.

LDP Policy SP20 states that transport infrastructure will be delivered in a safe, efficient and sustainable manner through the implementation of transport projects identified in the Joint Transport Plan, promoting connectivity and access through public transport and enhancing walking and cycling networks. Policy TR2 sets out that development proposals will only be permitted where the following criteria have been satisfied: development does not comprise the safe, effective and efficient use of highway network or create unacceptable levels of traffic generation. Transport assessments and travel plans should be provided for developments that create significant traffic generation. Policy T04 states that any proposals that would prevent or have an adverse impact on the implementation of the Wales Coastal Path will be resisted.

The overall policy considerations include prioritising active travel and public transport in new development, whilst not compromising the functioning of the highway network.

The site is situated in a sustainable location, well connected to existing pedestrian, cycle and public transport routes, which will promote sustainable travel behaviour by future employees and reduce car dependency. The principle of using the existing access is established by the existing and alternative (guest house) uses, while the changes proposed will facilitate access by the proposed users safely, as discussed at length in the Transport Assessment (TA).

In terms of impacts:

- Vehicle movements would mainly relate to staff arrivals and departures,

which would equate to 7 vehicle movements in the peak hour or one vehicle every 8-9 minutes, which would not have a material impact on the operation of the highway network.

- The proposed use would generate a maximum of one HGV delivery per day based on standard metrics, although WBE understand this would in fact be one-two per month.

The NPT Supplementary Planning Guidance (SPG) on Parking Standards dated October 2016 does not provide parking standards for data centres specifically. Most relevant is its parking standards relating to office use. In Zones 4-6 this requires 1 space per 20 sqm for developments under 1,000 sqm.

An office use of 213sqm would result in a parking requirements of 11 spaces. Although the 12 parking spaces proposed would slightly exceed that sought by SPG, this does not account for additional ancillary floorspace and staff likely to be located in the main building. Therefore, the level of provision is in line with SPG requirements. Two disabled parking spaces would be provided, which exceeds 5% of the overall provision. 1 (or 10%) of the parking spaces would provide charging for electric vehicles.

On that basis, as stated in the TA, the development would not have an unacceptable impact on road safety or a material impact on the operation of the highway network.

We recognise that the promotion of active and sustainable modes through such measures as cycle parking and associated provision, as well as green travel planning measures will be required. Proposals are outlined in the Framework Travel Plan (FTP) submitted with the application. The purpose of the FTP and its measures is to encourage sustainable travel by staff and consequently reduce the number of single-occupancy car trips. Some of the measures to be included within the Travel Plan are as follows:

- The designation of a Travel Plan Coordinator.
- The provision of Travel Information Packs (TIPs), Visitor Travel Leaflets and noticeboards providing information on sustainable travel option for staff and visitors.
- Requirements on the occupier to implement home working and video conferencing to reduce the need to travel.
- Other measures to encourage walking, cycling, public transport usage and car sharing.

Therefore, overall the proposals would be in accordance with Policy TR2 of the Local Plan as they would not result in an adverse impact on highway safety, unacceptable levels of traffic generation and would promote the use of sustainable transport modes.

Flood Risk / Drainage

Planning Policy Wales Paragraph 6.6.17 focuses on Sustainable Drainage and the requirement to gain approval from SuDS Approval Body before construction can commence. Paragraphs 6.6.22 and 6.6.27 sets out the impacts of climate change on flooding caused by more intense rainfall. The

risk of surface water flooding has increased and this should be considered at an early stage in formulating development proposals.

TAN 15: Development and Flood Risk advises on development and flood risk as this relates to sustainability principles and provides a framework within which risks arising from both river and coastal flooding, and from additional run-off from development in any location, can be assessed. This document is currently under review.

The overall aims of policy are to avoid development in areas at risk of flooding, with Sustainable Drainage Systems (SuDS) adopted to reduce run-off and subject to approval by SAB.

The site lies outside flood risk zones on the existing Development Advice Map and emerging Flood map for Planning. The nature of the development proposed in the locations identified is therefore appropriate and a Flood Consequences Assessment is not required.

The layout has been designed with SuDS provision, as part of the wider multi-functional spaces to maximise its ecological, amenity and water quality value. The drainage strategy follows the sustainable drainage hierarchy and includes:

- A 125 m³ attenuation basin in the north-eastern corner of the site, which will capture excess water during heavy rainfall, store it temporarily and then gradually release it back into the environment. Aside from slowing run-off, it will also enhance biodiversity by creating new habitats for wildlife, including birds, amphibians, and aquatic species.
- A geocellular tank accommodating the remainder of the quick storage requirements (67 m³).
- Permeable paving will be provided along the access road to the existing building, which will allow rainwater to pass through the surface and infiltrate the ground beneath, reducing surface runoff and minimising the risk of flooding. This will also help to trap and filter pollutants, improving water quality before it enters local watercourses or groundwater systems.

The foul water will be connected to the site’s existing foul sewer that runs along its eastern edge.

The above approach complies with Planning Policy Wales and Local Plan Policy, simultaneously minimising flood risk while improving environmental conditions. A SAB application will be submitted in parallel with the planning application.

Impact on the Landscape

TAN 12 sets out the factors that should be considered in appraising character. These include topography, landscape character, field patterns and land use patterns, distinctive views, skylines and vistas; and locally distinctive features.

Policy SP5 refers to the need to protect and enhance the Coastal Corridor Strategy Area’s character and environment, while SP14 refers to the need to protect the open countryside through the control of inappropriate development outside settlement limits and the protection of SLAs. Strategic Policy SP21/4(a)

seeks to conserve and enhance landscapes of historic interest. Policy EN2 identifies areas of high quality landscape, which the Vale of Neath falls into (referenced EN2/3) which is located nearby to the site to the east. Policy EN3 states that in order to prevent the coalescence of settlements and protect green areas and the setting of urban areas, green wedges have been designated. Policy EN7 concerns the protection of areas of high landscape quality, designating SLAs including Margam, seeks to manage the impact of development that could adversely affect ecologically or visually important natural features. Policy BE1 seeks high quality, contextual design and TO4 protects proposals that would adversely affect the routing of the Wales Coast Path.

The proposals have evolved with the benefit of ongoing advice from specialists Tyler Grange and a Landscape Visual Appraisal has been submitted as part of this application. The appraisal considers the effects upon the following:

- The character of the site
- LCA 1: Margam Marsh.
- Visual receptors including users of nearby Public Rights of Way (PRoW) - the Wales Coast path and Footpath 9/46.PT/1, users of Margam Country Park, and road users - along the A48, A4241 and Longlands Lane.

The appraisal concludes that while the development will change the Site from a predominantly greenfield to a more developed state, the industrial backdrop, the enhancement of boundary vegetation, provision of replacement tree planting, removal of invasive species and inclusion of green walls to soften the appearance of the data centre mean it will have net beneficial effects on site-specific character and landscape features.

With regard to its impact on the LCA, the inclusion of green walls, green roof, additional planting and removal of invasive species means the data centre will integrate into the context without changing the character of the area, especially given the baseline presence of industrial buildings and structures within the LCA, as well as recent consent for a metal processing facility adjacent to the Site (ref: P2021/1255).

Visual receptors who will experience the greatest change in their views will be those on the roads and paths that pass the Site’s eastern and northern boundaries and from one PRoW located on the elevated ground of Graig Fawr, that also forms a section of the Wales Coast Path. However, views will be limited and, being generally viewed within the context of larger scale industrial and commercial development, the data centre will be lower than many of the surrounding buildings, be of high quality modern design and incorporate features that will soften its impact, such as living walls, a green roof and landscape enhancements.

Therefore, overall the proposal will have limited adverse effects upon landscape character and visual receptors, in accordance with policy objectives.

Impact on Heritage Assets

Planning Policy Wales Paragraphs 6.1.7-6.1.9 focus on conserving, enhancing

and protecting the significance of historic assets. Any decisions made through the planning system must fully consider the impact on the historic environment and on their contribution to the character of place. TAN 24: Historic Environment provides guidance on how the planning system considers the historic environment during development plan preparation and decision making on planning and Listed Building (LBC) applications.

LDP Policy SP21, states that the built and historic environments will be conserved and enhanced through encouraging high-quality design standards and identifying and protecting those designated sites. The Historic Environment SPG (April 2019) provides more detail on how development should not hinder the historic environment and how it can be used to enhance historic features.

The proposals have evolved with the benefit of ongoing advice from heritage specialist Paul Stamper Heritage (PSH), who has prepared a Heritage Impact Assessment (HIA) for submission with the application.

As outlined throughout this document, proposed layout has been designed to minimise its impact on the significance of heritage assets in two areas: the setting of designated heritage assets in/ around Margam Castle and the Park lying beyond the M4 to the east; and the setting of the non-designated heritage asset on site (Tyn-Y-Caeau).

There are limitations as to what can be done to change the overall scale and mass of a 12MW data centre, which has fundamental spatial requirements which cannot be met in any other way. However, those elements for which there is some flexibility in terms of configuration, location and mass have been moderated in order to reduce their overall visual impact, while the skin of the building has then been designed to reduce it further. Specifically:

- Stepping the massing from 18m at the heart of the site, down to 10m adjacent to the existing building.
- Giving the building a horizontal emphasis through treating bottom, middle and top differently in terms of materials and features.
- Setting back the louvres at roof level.
- The materials and pattern of fenestration, with strategically located green walls and glazing.

Combined with the landscape strategy to retain/ reinforce the ‘green’ perimeter to the site, this will serve to soften any impact in longer-distance views from Margam Park and the associated designated heritage assets. As a result, overall, combined with the utilitarian backdrop to the proposals when viewed from the east, combined with the more disaggregated nature of the proposals, the enhanced network of green infrastructure, and the adoption of potential mitigation measures (material choices, green roofs/ walls etc.) mean the proposed development would not have an adverse impact on the significance of the designated heritage assets. The HIA explains the reasoning in more detail and can be summarised as follows:

- Margham Park - The topography precludes any sight of the proposed data centre’s Site, and while the Zone of Theoretical Visibility prepared as part of the LVA suggests the possibility of limited views from small areas of the park, the data centre would be seen as a minor component of the

extensive industrial zone beyond, the data centre would not cause further harm to the setting of the gardens around Margam Castle or the wider registered landscape.

- Margam Castle, Orangery, Abbey and other listed structures - The topography precludes any sight of the proposed data centre's Site and there would therefore be no harm to the setting of the building.
- Mynydd y Castell Camp and Hen Eglwys - The nature of the topography means that only distant views of Port Talbot can be obtained, and not the remainder of the industrial landscape to the east including the Site. Therefore the proposal would cause no harm to the setting of the scheduled monument
- Chain Home Low Radar Station - While it seems likely that the proposed data centre would be visible from the vicinity of the radar station, it would be within a highly developed modern transport and industrial landscape and so PSH do not believe the data centre would cause further harm to the setting of the scheduled monument.

With regard to non-designated assets, the HIA concludes the following;

- Margam Mountain Historic Landscape - The proposal will have no direct impact on the integrity and coherence of the Landscape, and any indirect impact, notably on its setting, will be negligible, given how the west edge of the non-designated area is formed by the A48/M4 corridor, with the Port Talbot industrial zone beyond to the west.
- Tyn-y-Caeau - The change to the setting arising from the new data centre will cause 'less than substantial harm' to the building towards the lower end of the scale, which is offset by the building's refurbishment to give it a beneficial use and the removal of the modern annexe. On balance it is therefore concluded that overall any harm caused by the proposed data centre would be slight.

Therefore, the conclusion drawn by the HIA is that the proposed development as designed would avoid harm, either directly or in terms of setting, to the designated heritage assets and only slight harm to a non-designated asset (Tyn-y-Caeau). This minimal degree of harm needs to be balanced against the wider benefits offered by the proposal, and the reality that the building could be demolished without planning permission in any case, as acknowledged by NPT in pre-application discussions.

Pollution, Health, Safety and Amenity

Planning Policy Wales paragraphs 3.19-3.24 focus on Promoting Healthier Places and explains that the way places work and operate can have an impact on the choices people make in their everyday lives, including their travel and recreational choices and how easy it may be to socialise with others. Paragraphs 6.7.1-6.9.28 set out the importance of air quality and soundscape, lighting and other amenity impacts and how they can be addressed through development.

TAN 11: Noise provides advice on how the planning system can be used to minimise the adverse impact of noise without placing unreasonable restrictions on development or adding unduly to the costs and administrative

burdens of business. It sets out that planning authorities should ensure that noise generating development does not cause an unacceptable degree of disturbance, including through intensification or change of use.

Policy SP16 suggests that environmental features, such as air, water and ground quality will be protected and improved through ensuring proposals have no significant adverse effects, giving preference to brownfield sites. EN8 sets out that proposals which would be likely to have an unacceptable adverse effect on health and or would expose people to unacceptable risk due to the following will not be permitted air, noise, or light pollution. Pollution SPG (October 2016) provides more details on this.

Policy aims overall to minimise pollution and ensure that there are no unacceptable impacts on health/ amenity arising from air quality, noise, ground contamination/ instability, lighting, and daylight/ sunlight and outlook loss.

With regard to this scheme, the two most critical issues are noise generation and air quality impacts.

Noise

A Noise Impact Assessment has been by Formant. The key issues potentially arise from the rooftop plant required to cool the proposed IT equipment. This comes in the form of a bank of roof-mounted chillers. While the final design and specification of the chillers is not known at this stage, Formant have assumed a sound power level of 101 dBA per unit for six no. chillers with five of the six units running on full duty continuously 24 hrs a day. In terms of mitigation, they have assumed 150 mm deep acoustic louvres around the entire rooftop plant compound, with insertion losses ranging from 3-15dB.

Accepting that final plant specifications have not yet been fixed, the assessment concludes that predicted noise levels are likely to be no higher than the representative background sound level at the closest noise sensitive receptors (NSRs). During daytime hours the predicted specific sound levels would be more than 10 dB below the representative background sound levels, which is indicative of a 'low impact' under British Standard (BS) 4142, with **no significant adverse noise impacts** predicted at any NSR locations.

Air Quality

An Air Quality Assessment has been undertaken by RPS. This considers the potential impacts of the proposal on air quality during construction and operation.

During the **construction** phase, temporary air quality impacts would potentially arise from demolition earthworks; handling and disposal of spoil; wind-blown particulate material from stockpiles; handling of loose construction materials; and movement of vehicles, both on and off site. The key sources and their potential 'dust emission magnitude' would be as follows:

- Demolition of the existing building - dust emission magnitude small
- Earthworks associated with remodelling the site - dust emission magnitude small

- Building construction - dust emission magnitude medium
- HDV movements - dust emission magnitude medium.

Taking into account that the sensitivity of the surrounding area for earthworks and construction is generally low, and for vehicle movements it is low-medium, the overall risk is deemed to be medium to negligible. The report outlines a series of mitigation measures, which if implemented would reduce the residual dust effects to a level categorised as 'not significant'. We would expect mitigation measures to be secured through a condition.

During **operation**, the main source of pollution would arise from the proposed diesel generators, which provide a fourth source of power should the WBE plant go down, and two other connections to the national grid fail. Though unlikely, the assessment considers concentrations of NO₂, PM₁₀, PM_{2.5}, SO₂, CO and benzene at selected receptors, considering both long and short-term impacts on air quality. The overall impact is considered to be 'not significant' for surrounding human receptors.

Other Matters

The orientation and layout of development has been designed to minimise loss of **daylight, sunlight and outlook** from the existing building on site, accepting this would not be a sensitive (i.e. residential) use, and would form part of the development. It would not impact on the sunlight, daylight or outlook to any adjoining properties beyond the site.

Furthermore, the layout has been designed with both its impact on amenity and the need to foster social interaction and the wellbeing of the workers in mind. The substantial green space/ associated green infrastructure retained and reinforced will facilitate social interaction on-site to the benefit of people's wellbeing.

As the proposals show, none of the buildings would exceed two occupied storeys and would not house more than 100 employees, and so the **Health and Safety Executive does not advise against development**.

The **Coal Mining Risk Assessment** demonstrates that there are no extractions beneath the site, and there are no associated risks. **Ground contamination**-related risks are also low. Accordingly, The Coal Authority has raised no objection.

Overall, subject to the requisite mitigation measures being in place, in terms of pollution and health impacts the proposals would not have a significant impact on the surrounding environment and are low risk. This accords with policy requirements.

Sustainability/ Climate Change

PPW Para. 5.7.13 sets out an energy hierarchy, which expects all new development to mitigate the causes of climate change by reducing energy demand and increasing energy efficiency. Paragraphs 5.8.1-5.8.3 set out how to reduce energy demand and how the planning system should support development that has a high energy performance, supports decarbonisation

and tackles the causes of the climate emergency.

Future Wales Policy 17 sets out Welsh Government's support for development of Renewable and Low Carbon Energy and Associated Infrastructure at all scales to support the future energy needs.

LDP Policy SP1, is focused on implementing measures to address the causes of climate change, such as developing the efficiency and sustainability of settlements and transport. Provision will also be made for renewable and low carbon energy generation within NPT. Policy SP18 sets out that a contribution to renewable energy targets should be made in NPT, whilst balancing its impact on the environment and communities. This includes encouraging low carbon technology development, and encouraging renewable/ low-carbon energy development and energy efficiency in major development proposals, while avoiding an unacceptable impact on the environment or amenity of local residents. Policy RE2, sets out that schemes that connect to existing sources of renewable energy and incorporate on-site zero / low carbon technology (including microgeneration technologies) will be encouraged and will be required to submit an energy assessment to determine the feasibility of the scheme when it proposes a total floorspace of 1,000 sqm or more.

The Renewable and Low Carbon Energy SPG (July 2017) provides more detail on development which incorporates renewable and low carbon energy uses.

A Sustainability Statement has been prepared by Coreus. This sets out how the proposals follow the energy hierarchy, and sustainable building design principles, for both construction, and use. Specifically and as outlined elsewhere in many cases:

- The Simplified Energy Model (SBEM) assessment undertaken demonstrates that - subject to detailed design - the proposals can achieve compliance with Welsh Building Regulations Part L2 2022 using a fabric first approach and including passive measures for natural lighting, ventilation and preventing overheating.
- The resulting energy needs of the scheme will then be met by the WBE biomass plant, a low-carbon energy source.
- The site sits outside flood risk zones and SuDS are deployed to manage surface water run-off and reduce flood risk in an environmentally sensitive way, while water efficiency measures will be carried through into the detailed design to reduce consumption overall.
- Materials will be responsibly sourced, with local and recycled, recyclable and reused materials used where possible; timber sustainably sourced; and a Site Waste Management Plan deployed to minimise the impact of construction waste on the environment and encouraging the adoption of circular economy principles.
- The proposals will be designed to incorporate and enhance ecological features of value, and mitigate for their loss where required to deliver net benefits for biodiversity and comply with policy requirements relating to green infrastructure, such as the DECCA Framework and the Step-wise approach.
- Following mitigation the proposals would not have a significant impact on pollution or health and are low risk.

- The proposals will not affect the safety of the highway network and will promote the use of sustainable transport modes.

The proposals are therefore consistent with policy objectives relating to sustainable design and energy use.

Minerals

The site sits within an area safeguarded for coal extraction (Policy M1). LDP Policy SP17, sets out that a contribution to meeting demand for the supply of minerals should be made, whilst balancing the impact of the development on the environment and communities. This will be achieved through promoting the efficient use of mineral resources and safeguarding identified resources. Policy M1 addresses proposals within mineral safeguarding areas and sets out that they will only be permitted where the mineral is no longer of value or the mineral can be extracted prior to development taking place.

The benefits of development, outlined at length in this document, far outweigh the drawbacks of losing the potential to extract coal in this location. The development embodies the principles of sustainable development, delivering critical 21st century infrastructure powered by a low-carbon energy source. This contrasts favourably with the extraction and deployment of coal implied, which would sit at odds with Wales' environmental commitments and policy goals focused on the creation of a low carbon economy. Therefore, on balance the development of the site as a data centre would deliver greater all-round benefit to the environment and local communities, than safeguarding the site for coal extraction at a later date.

Furthermore, the principle of development on the Site has been established by the extant consent on the adjacent site to the west.

Planning Obligations

Policy I1 sets out that infrastructure improvements may be necessary to support development and make it acceptable in health, safety and amenity terms. These requirements will include consideration of and provision for biodiversity and environmental interests, public realm improvements, public transport, education and training, and potentially emergency fire planning (i.e. provision of a fire hydrant). The Planning Obligations SPG (October 2016) provides more detail on contributions.

We envisage some of the mitigation measures outlined within this and other reports prepared in support of the planning application being secured either by conditions or, if necessary and compliant with the relevant tests, planning obligations.

09. Summary and Conclusions

The Opportunity

WBE is a sustainable forestry-waste biomass plant based in Margam Port Talbot. As its green renewables ('ROC') subsidy expires in 2028, it aims to develop the Tyn-y-Caeau site for a data centre as part of a wider strategy to diversify its current activities.

Plans are in progress to bring local technology businesses into the area which can benefit from private power arrangements from WBE, benefiting both WBE and the 'off-taker'. This will attract local investment and extend the life of the plant for another 15-20 years. Befitting WBE's role as a green business, the main proposal (and the subject of this application) is a Nature-Positive Data Centre.

Data centres are generally considered to be power-hungry, taking a high proportion of fossil fuel-sourced power. The perception is that they contribute to climate change and put strain on the electricity grid. To the contrary, this proposal - a data centre powered by the existing biomass plant - can reduce the strain on the grid whilst securing jobs in at the existing biomass plant, which sits in an area that has been hit hard by changes at Tata Steel. The survival of the facility by undertaking this investment and associated infrastructure of c£100-150m will provide 33 new jobs, secure 27 direct jobs at the generation plant, and deliver a further 150 jobs currently within the local supply chain.

It forms the first phase of similar projects, and complimentary programmes that will lead to improvements in local forestry management and creation, water quality and wildlife habitats and have a net positive effect upon the overall biodiversity of the local environment. It will also provide a valuable contribution towards the UK's data processing capacity, which is fundamental to the future growth of the UK economy, but powered by low carbon/ renewable energy, one of the key challenges identified by the UK Government's AI Opportunities Action Plan.

In essence, WBE's proposal seeks to achieve UK Government objectives - data processing powered by renewable/ low-carbon energy - in microcosm.

Acceptability in Planning Terms

Turning to its compliance with policy, although the site sits outside the settlement boundary, the site is enveloped by employment land, located in an area prioritised for investment in digital infrastructure, accessible by sustainable transport modes, and proposed as an employment site in the Candidate Sites process. The proposal supports economic growth, regeneration and innovative business/ technologies, promoting and protecting businesses in both the low-carbon and tech sectors (both the biomass plant and data centre).

The proposal has evolved in response to both on-site and off-site features, including existing heritage assets, green and blue infrastructure, active travel and other movement networks, neighbouring allocations, and the wider landscape character. This would create an employment development designed to integrate into its surroundings and provide a high standard of

amenity for future site users, while minimising impacts on adjoining occupiers and historical features, to comply with policy at all scales.

The integration of green infrastructure has been central to the design of the proposals. This has included the enhancement of biodiversity, and protecting habitats, species and sites of either local or national conservation importance. This falls in line with the updated chapter 6 of PPW which sets out the requirement for green infrastructure enhancements. Overall, the proposals will allow for a network of green habitat links to be retained and enhanced through additional planting and the introduction of sustainable drainage features, better connecting those existing features beyond the site boundary. The addition of green walls is proposed to enhance this further. Open amenity space is also proposed to comply with policies.

The proposed layout retains key features for protected species such as dormouse, nesting birds, commuting and foraging bats, while sufficient grassland will also be retained to maintain the small population of reptiles on site (with construction impacts being managed through precautionary working methods). Subject to conforming the bat roosting potential of a small number of trees, and therefore the mitigation required to offset this if/ where necessary, the proposals will deliver on policy objectives.

The site is situated in a sustainable location, well connected to existing pedestrian, cycle and public transport routes, which will promote sustainable travel behaviour by future employees and reduce car dependency. The principle of using the existing access is established by the existing and alternative (guest house) uses, while the changes proposed will facilitate access by the proposed users safely, as discussed at length in the Transport Assessment (TA) and Travel Plan Framework.

The site lies outside flood risk zones and the layout has been designed with SuDS provision, as part of the wider multifunctional spaces to maximise its ecological, amenity and water quality value.

The proposal will have limited adverse effects upon landscape character and visual receptors, and would avoid harm, either directly or in terms of setting, to designated heritage assets and cause only slight harm to a non-designated asset (Tyn-y-Caeau). This minimal degree of harm needs to be balanced against the wider benefits offered by the proposal, and the reality that the building could be demolished without planning permission.

Subject to the requisite mitigation measures being in place, in terms of pollution and health impacts the proposals would not have a significant impact on the surrounding environment and are low risk; and the proposals follow the energy hierarchy, and sustainable building design principles, for both construction, and use. The development of the site as a data centre would also deliver greater all-round benefit to the environment and local communities, than safeguarding the site for coal extraction at a later date.

The proposals are therefore compliant with planning policy objectives and would deliver a range of benefits to Port Talbot, the wider region, Wales and the UK economy overall.

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