

Design & Access Statement

Demolition of Buildings/Structures and Installation of a 132kV Electricity Substation on Land at Bro Tathan, St. Athan, Vale of Glamorgan

Prepared by CarneySweeney
on behalf of Welsh Ministers

March 2026



1. INTRODUCTION

Purpose

This Design and Access Statement (DAS) has been prepared by CarneySweeney on behalf of the Welsh Ministers in support of their full planning application for proposed demolition and installation of substation works at Bro Tathan, St. Athan. The proposal comprises:

“Demolition of Existing Buildings and Structures and Installation of a 132kV Electricity Substation.”

This DAS has been prepared in accordance with the Town and Country Planning (Development Management Procedure) (Wales) Order 2012 (as amended), Planning Policy Wales (February 2024), Technical Advice Note 12: Design (March 2016) and Welsh Government Guidance on Design and Access Statements in Wales (April 2017).

The guidance indicates that the purpose of a DAS is to illustrate the process that has led to the development proposal and advises that the level of detail required depends on the nature, scale and complexity of the application.

This essential infrastructure is required to transform high-voltage electricity from Aberthaw Power Station into lower-voltage power for local distribution across the strategic business park. By establishing a reliable and robust power network, the project aims to support the current operations and future growth of the Cardiff Airport and St Athan Enterprise Zone. Ultimately, this development serves to facilitate a wider variety of commercial and industrial uses, helping to attract new businesses and create employment opportunities in accordance with both local and national planning policies.

2. SITE CONTEXT AND ANALYSIS

Site Location

The Application Site comprises land within the Bro Tathan site. Bro Tathan is a Welsh Government owned strategic business park located in the heart of the Vale of Glamorgan, approximately 8 miles west of Barry, 12 miles south-east of Bridgend, 4 miles west of Cardiff Airport and 14 miles south of Junction 33 of the M4.

Bro Tathan provides around 150,000 sq.m of employment floorspace together with its own fully operational 1.8km runway which is licensed by the Civil Aviation Authority and is home to major occupiers including Aston Martin Lagonda, eCube Solutions and Bristow Helicopters.

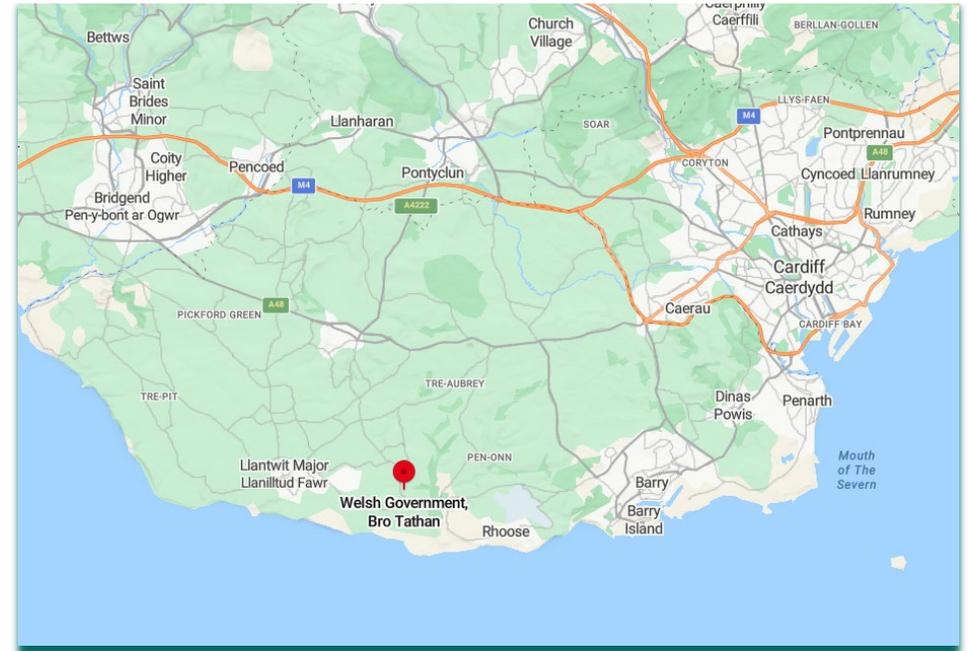


Figure 1: Site Location

Site Description

The wider Bro Tathan area is divided into six zones (see Figure 2) as follows:

- **Y Gogledd (North):** Land at Picketston to the north, with access from Ffordd Bro Tathan.



Figure 2: Plan of Bro Tathan showing Different Zones

- **Y Dwyrain (East):** Approximately 52 hectares of land north of the runway, extending from the eastern boundary of the AML factory to the site boundary at Cowbridge Road. This zone benefits from its own independent access and access to the runway.
- **Y De (South):** Land south of the runway at Batslays, West Orchard and Beggar's Pound.
- **Y Gorllewin (West):** Land north of the runway and east of the army-occupied West Camp, including the Aston Martin Lagonda (AML) manufacturing facility, with direct runway access.
- **Y Porth:** Land south of Ffordd Bro Tathan, north of Caerdav Ltd and west of the roundabout serving AML; as well as land to the west of Caerdav Ltd, south of Scott Way.
- **Airfield:** The airfield is managed by Cardiff International Airport Limited. There are two runways, one which is active and is 1,765m long trending east-west across the site; and a smaller runway which is approximately 1,000m in length running north-south. The smaller runway is predominantly utilised as a taxiway supporting businesses located at Bro Tathan West and Keithrow. The area immediately surrounding the runway consists of undeveloped grass covered areas.

The Application Site comprises land within Y Dwyrain (East).

Site Description

The application site extends to 30,904 sqm of brownfield (i.e. previously developed) land and comprises rough grass, scattered trees, areas of hardstanding, car parking, former sports pitches, internal roads and tracks, and a range of buildings and structures associated with the former Royal Air Force (RAF) and MoD operations.

A recorded 33 trees, ranging in their condition and quality, are distributed across the site. Of these, 8 are moderate quality and 25 are low quality.

The site is generally flat. No public rights of way travel through the site and it is presently inaccessible to the public. The wider site is bounded with wire mesh fencing for security purposes.

In terms of flood risk, the site lies in Flood Zone 1 according to the TAN 15 Flood Map. There are no other known statutory or non-statutory designations on or immediately neighbouring the site.



3. PLANNING POLICY CONTEXT

Section 38(6) of The Planning and Compulsory Purchase Act 2004 requires that the determination of planning applications must be in accordance with the Development Plan unless material considerations indicate otherwise.

The Development Plan relevant to the Site comprises Future Wales – the National Plan 2040 (published February 2021) and the Vale of Glamorgan Local Development Plan 2011-2026, which was formally adopted in June 2017. Material considerations include national policy in the form of Planning Policy Wales (PPW). Those policies that are considered to be relevant to the proposed development in the Development Plan and PPW are summarised below.

Future Wales – the National Plan 2040

The National Plan 2040 was published in February 2021 and sets out the national development framework for Wales outlining the direction for development to 2040.



The National Plan sets out the strategy for addressing key national priorities through the planning system, including sustaining and developing a vibrant economy, achieving decarbonisation and climate-resilience, developing strong ecosystems and improving the health and well-being of communities. Policy 12 – Regional Connectivity – focuses on connectivity and different modes of transport.

Within the National Plan, the Cardiff Airport and Bro Tathan Enterprise Zone is noted as offering opportunities for investment in the site and surrounding areas. The National Plan goes on to state that “...The Enterprise Zone offers a wide range of development sites and business accommodation, providing opportunities for the development of bespoke facilities or investment in existing accommodation.”

Vale of Glamorgan Local Development Plan

The Vale of Glamorgan Local Development Plan (LDP) 2011-2026 was adopted in 2017, setting out the vision, objectives and policies for the plan period up to 2026.

The Site forms part of the wider St Athan Cardiff Airport Enterprise Zone which is allocated for employment uses under Policy SP2 Strategic Sites and Policy MG9 Managing Growth – See Figure 2 overleaf. Paragraph 5.33 of the LDP states “the sites identified in Policy SP2 (Strategic Sites) are those that are considered to be major elements contributing to the implementation of the LDP Strategy as set out in the Plan i.e. the promotion of development and regeneration opportunities within the specific areas identified within the strategy.”

CARNEYSWEENEY

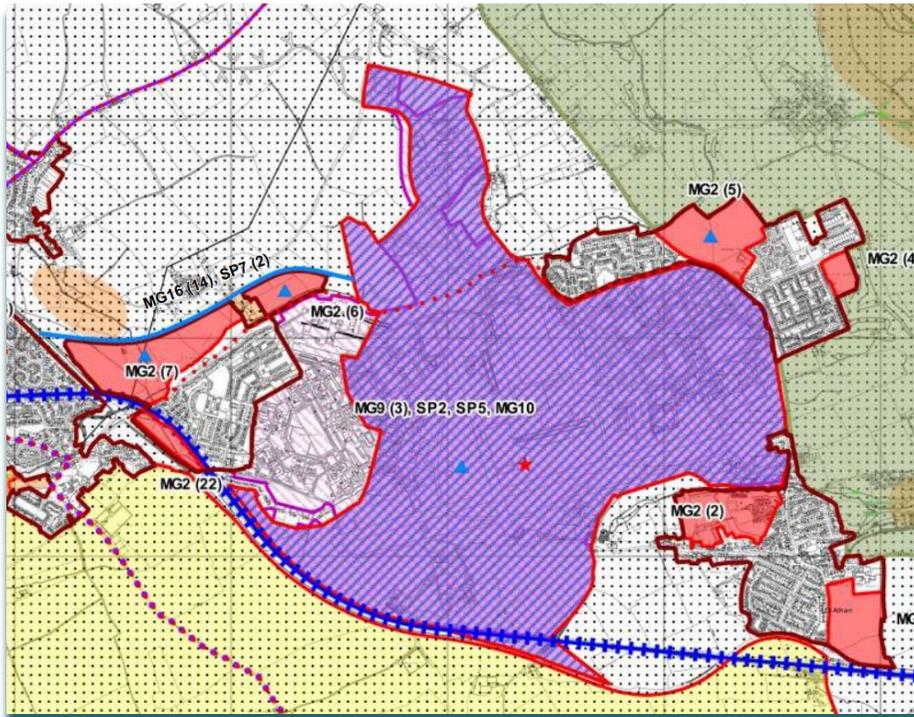


Figure 2: Extract from LDP Proposals Map

Policy MG10 sets out the policy criteria for the Cardiff Airport and St Athan Enterprise Zone allocation, stating that:

“Land is allocated adjacent to Cardiff Airport and Port Road, Rhoose (77 ha) and at the aerospace business park St Athan (305ha) for the development of 382 hectares of strategic

employment land (class B1, B2 and B8) forming part of the St Athan – Cardiff Airport Enterprise Zone. The development of the enterprise zone will be guided by a masterplan to include the following elements...

- *A business park for aviation support services at Picketston (11.79 ha);*
- *An aerospace business park north and south of the runway at St Athan;*
- *Provision of sustainable transport infrastructure;...*”

Policy SP10 (Built and Natural Environment) outlines that development proposals must preserve and where appropriate enhance the rich and diverse built and natural environment and heritage of the Vale of Glamorgan including inter alia, important archaeological and geological features (Part 6 of Policy SP10).

Policy MD2 deals with the design of new development, setting out specific criteria for assessing design matters, including providing a safe and accessible environment for all users, giving priority to pedestrians, cyclists and public transport users; and having no unacceptable impact on highway safety nor causing or exacerbating existing traffic congestion to an unacceptable degree. Due to the nature of the proposed development, the criteria within Policy MD2 are not wholly relevant however the proposed development does not conflict with the provisions of Policy MD2 in that the external appearance of the proposed substation building would be appropriate to the surrounding airport infrastructure context.

Policy MD7 Environmental Protection requires development proposals to demonstrate that they will not result in an unacceptable impact on people, residential amenity, property and / or the natural environment. The provision of new and upgraded above and below ground utilities and associated infrastructure is not considered to present any issues in this regard.

Policy MD8 Historic Environment, requires development proposals to protect the qualities of the built and historic environment of the Vale of Glamorgan, which includes sites of archaeological interest. For such sites, the policy requires development proposals to preserve or enhance archaeological remains and where appropriate, their settings.

Planning Policy Wales

PPW notes at paragraph 5.3.18 that “Planning authorities should recognise the strategic and local importance of airports and their potential as centres of economic activity.” PPW goes on to note at Paragraph 5.4.4 that “Wherever possible, planning authorities should encourage and support developments which generate economic prosperity and regeneration. Sites identified for employment use in a development plan should be protected from inappropriate development.”

3. APPLICATION PROPOSALS

Use

This substation project has been prepared to support the Welsh Government in the development of Bro Tathan. Bro Tathan is embarking on the next phase in its exciting evolution to create a groundbreaking destination for business offering a range of development and occupational opportunities.

The proposal seeks permission for the demolition of buildings and structures including the removal of hazardous materials, foundations and associated utility disconnections and the installation of a 132kV electricity substation. The substation is required to transform high-voltage electricity transmitted for Aberthaw Power Station into lower-voltage power suitable for local distribution across the Bro Tathan site.

This infrastructure is essential to provide a reliable and adequate electricity supply to a range of existing and proposed developments within the site, enabling both current operations and future growth. Provision of a robust power network will support a wider variety and scale of commercial and industrial uses, helping to attract new businesses, diversify industry, and create a broader range of employment opportunities within the area, in line with the existing and emerging LDP allocation.

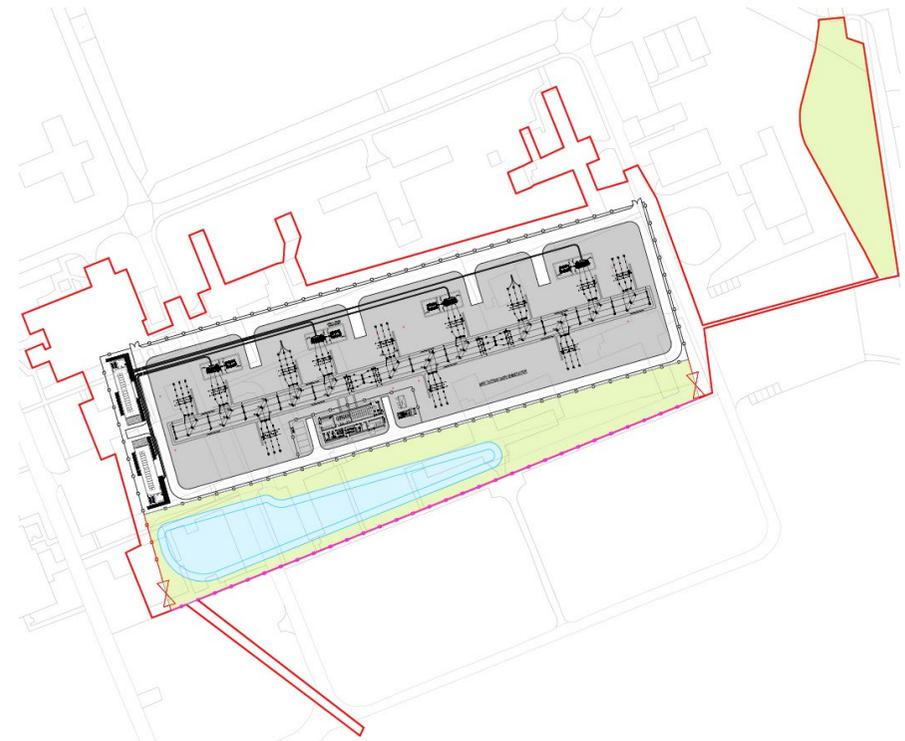


Figure 3: General Layout

Character

Substation Elevations:

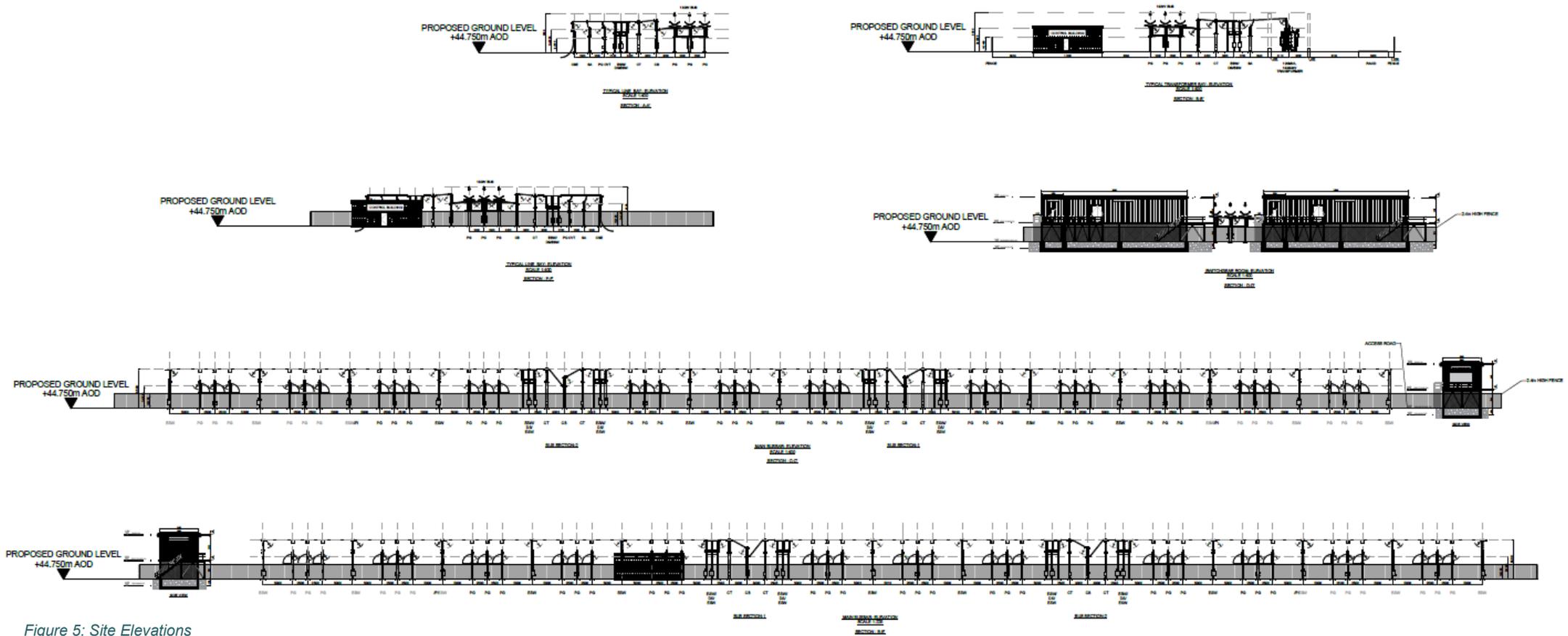


Figure 5: Site Elevations

Character

Layout:

- The form and appearance of the Proposed Development are largely determined by the functional and safety requirements associated with its operation as a substation.
- The design includes only those components essential to ensure the substation operates effectively, efficiently and safely.

Amount, Scale and Appearance:

- The principal components of the proposed substation are shown on the applications plans and comprise:
 - Two switchgear rooms (33kV and 11kV) each measuring 24.3m x 6.4m, with a height of 7.5m;
 - One 132kV control room measuring 28.12m x 11.5m, with a height of 4.2m;
 - Four ground-level transformers, each approximately 3.8m in height; and
 - Above-ground cable connections linking all components, 6.5m in height.
- The compound will be enclosed by a 2.4m high security fence and will incorporate a 4-5m wide internal perimeter roadway for operational access. To the south of the compound, an attenuation basin will be formed at close to existing ground levels, with a maximum depth of 1m, providing sustainable drainage capacity.

Access & Movement

The site is located on land at Bro Tathan East.

Access and egress to the substation site will be via the existing private road network on the Bro Tathan site, which connects to the public highway at Eglwys Brewis Road approximately 1.25km northwest.

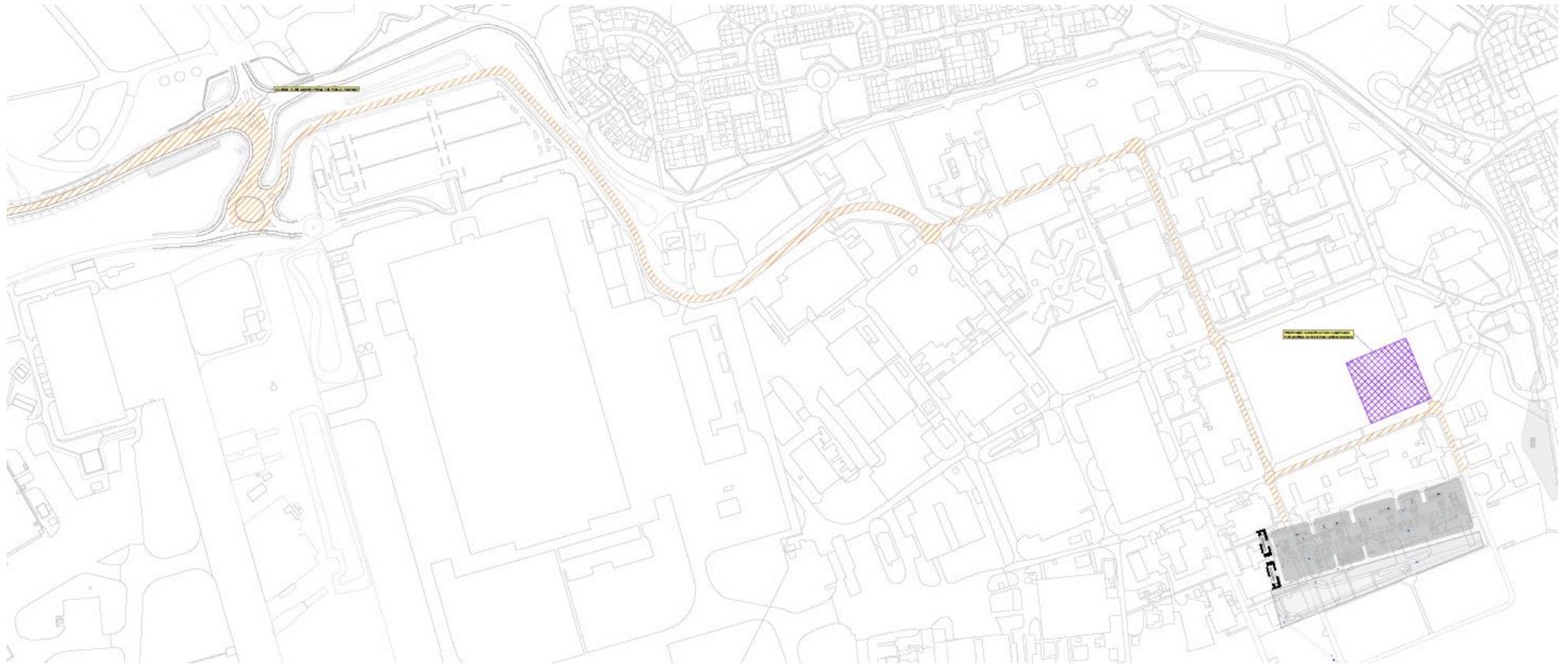


Figure 6: Proposed Access Road Plan

Landscaping

The landscape strategy for the proposed 132kV substation is designed to provide biodiversity and amenity gains while effectively integrating new infrastructure within the existing brownfield context. Central to the landscape design is the inclusion of an attenuation basin to the south of the compound, which will have a maximum depth of 1m to provide sustainable drainage capacity, alongside designated landscaping areas to the south and east.

While the project requires the removal of 8 moderate-quality (Category B) and 25 low-quality (Category C) trees, there will be no loss of high-quality arboricultural features, and the impact is not expected to result in significant adverse visual effects. To ensure a net benefit for biodiversity, a comprehensive replacement tree planting programme will be implemented at a ratio of 3:1, utilizing a diverse mix of native trees and wildflowers.

This approach aligns with the "Step-wise Approach" mandated by Planning Policy Wales, ensuring that habitat connectivity is maintained and enhanced through a strategy that overlaps with wider site mitigation efforts.

Community Safety

The application site is located on private land and is only to be accessed by authorised personnel. The overall site at Bro Tathan benefits from

security arrangements such that the site itself is secure from theft and that unauthorised persons do not enter the site.

The access provisions for authorised personnel allow safe movement throughout. All staff on site are suitably trained and aware of their health and safety responsibilities.

Sustainability

At Bro Tathan, Welsh Government works closely with occupiers, investors and developers to form an integrated, targeted approach to sustainability with social, environmental and economic goals. At a national level, Welsh Government are dedicated to achieving a Low Carbon Wales that puts the welfare of people, the health of the economy, and the protection and enhancement of the natural environment front and centre. Sustainability is a key priority for Bro Tathan. Long-term targets and enabling mechanisms such as skills development and planning arrangements will be put in place to drive sustainability, minimise Bro Tathan's carbon footprint and ultimately provide a better place to live and work.