

Bargoed, Station Road

Green Infrastructure Statement

Langstone Construction Group

61538

September 2026





Bargoed, Station Road

Green Infrastructure Statement

Langstone Construction Group

September 2026

TACP (UK) Ltd
4th Floor James William House
9 Museum Place
CARDIFF
CF10 3BD

Project Number: **61538**

Version: **P2**

Status: **FI**

Version	Status	Completed by	Checked by	Approved by	Date of version
P1	S3	SD	SN	LC	29.06.2026
P2	FI	SD	SN	LC	02.09.2026

This report will be deemed to be accepted by the client as final if no comments are received within two weeks of issue.

S0 – Work in progress

S1 – For coordination

S2 – For information

S3 – For review and comment

S4 – For approval

FI – Final

CONTENTS

1.	INTRODUCTION	1
2.	SITE DESCRIPTION	1
2.1	EXISTING FEATURES	1
2.2	HOW BARGOED FITS INTO WIDER LANDSCAPE	5
2.3	RELEVANT LOCAL PLANNING POLICIES	9
3.	GREEN INFRASTRUCTURE STRATEGY: THE PROPOSED DEVELOPMENT	13
4.	SURVEY FINDINGS AND PROTECTION IN PLACE: GI BASELINE	15
4.1	ECOLOGICAL SURVEYS	15
5.	MITIGATION AND ENHANCEMENT MEASURES GREEN INFRASTRUCTURE STRATEGY	18
5.2	APPLICATION OF THE STEPWISE APPROACH	21
5.3	DECCA ASSESSMENT – SUPPORTING ECOSYSTEM RESILIENCE	22
6.	BENEFITS AND OUTCOMES	24
6.1	ENVIRONMENTAL BENEFITS	24
6.2	SOCIAL BENEFITS	25
6.3	ECONOMIC BENEFITS	25
6.4	CONTRIBUTION TO ECOSYSTEM SERVICES	25
7.	MONITORING AND MANAGEMENT	28
7.1	MONITORING EFFECTIVENESS	28
7.2	LONG-TERM MANAGEMENT STRATEGIES	29
7.3	PROGRAMME FOR IMPLEMENTATION	30
7.4	MANAGEMENT, AFTERCARE PERIOD, AND RESPONSIBILITY	32
8.	CONCLUSION	33
9.	REFERENCES	33
	APPENDICES	34
	DRAWING PROPOSALS	35
	SITE PHOTOGRAPHS	37

FIGURES

Figure 1: Site Context Plan – Existing Features	4
Figure 2: Bargoed Site connection to the wider landscape	7
Figure 3: Bargoed Landscape GA Plan	36
Figure 4: Site photo positions	38
Figure 5: Exploratory Hole, Trial Pit and Borehole Investigation Locations Showing TP01 Remediation Area (Extract from Geoenvironmental Site Investigation Report)	43

Tables

Table 1: Bargoed site Enhancements (See Appendix A for Landscape GA drawings)	18
Table 2: Ecosystem Services	25
Table 3: Key Monitoring Categories	28
Table 4: Implementation Programme	30

List of Abbreviations

Abbreviation	Full Description
BS	British Standards
CCBC	Caerphilly County Borough Council
CIEEM	Chartered Institute for Ecology and Environmental Management
DECCA	Diversity, Extent, Condition, Connectivity, and Aspects
EcIA	Ecological Impact Assessment
GI	Green Infrastructure
LDP	Local Development Plan
NPPF	National Planning Policy Framework
PEA	Preliminary Ecological Assessment
PPW	Planning Policy Wales
RPA	Root Protection Area
RPZ	Root Protection Zone
SAC	Special Area of Conservation
SINC	Site of Importance for Nature Conservation
SPG	Supplementary Planning Guidance
SSSI	Site of Special Scientific Interest
SuDS	Sustainable Drainage Systems
TPO	Tree Preservation Order

1. INTRODUCTION

- 1.1.1 The Green Infrastructure (GI) Statement describes how the green infrastructure of the site (trees, hedges, and Sustainable Drainage Systems (SuDs)) has been incorporated into the upgrades for a proposed development site at a Station Road, Aberbargoed, Bargoed, Caerphilly County Borough Council (CCBC), Wales, CF81 (OS Survey Grid reference SO 15143 00087).
- 1.1.2 A GI Statement is required on all developments in accordance with PPW12, the Environment (Wales) Act 2016 Section 6 to show that the development has a net benefit to biodiversity and green infrastructure. This information is not appropriate to seek 'retrospectively' by way of a condition and must be provided as part of the planning application process. The GI Statement is to be proportionate to the scale and nature of the development, and in the case of minor development such as householder applications, PPW12 states that this should not be an onerous requirement for applicants.
- 1.1.3 This GI Statement has been prepared by TACP (UK) Ltd. It is a simple statement proportionate to the scale and nature of the development proposed and describes how green infrastructure has been incorporated into the proposal.

2. SITE DESCRIPTION

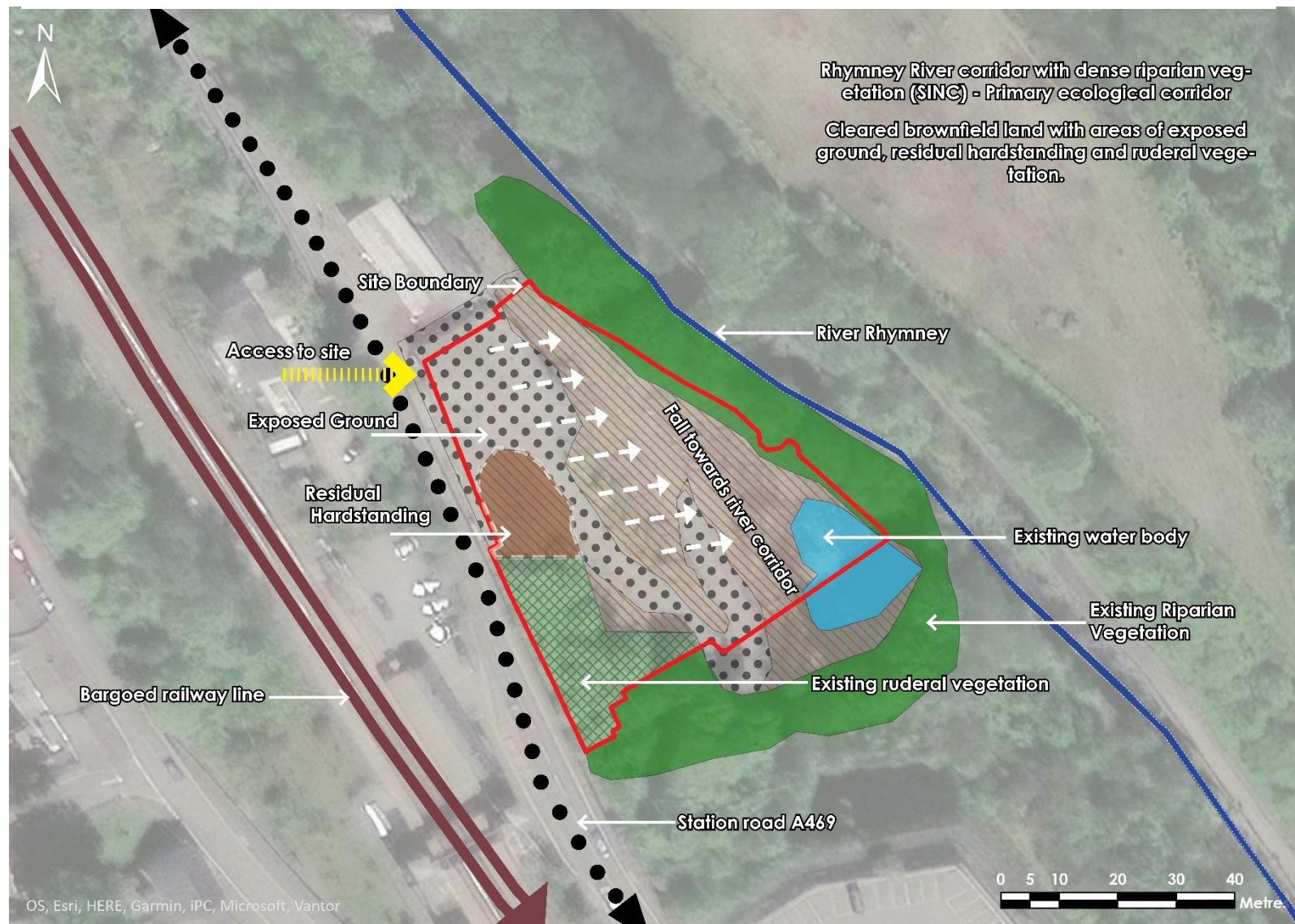
2.1 Existing Features

- 2.1.1 For the purposes of this assessment, the "Site" is defined as the red line boundary of the proposed development, as illustrated on the accompanying Figure 3 in Appendix A. The Site comprises a brownfield site located along Station Road (A469), which was previously developed and has since been cleared following demolition of former structures. The Site is positioned between the railway corridor to the west and a vegetated river corridor associated with the Rhymney River to the east.
- 2.1.2 The Site is currently characterised by cleared and disturbed brownfield land, with areas of exposed ground, residual hardstanding and remnants of former development. These are interspersed with ruderal vegetation, including scattered grasses, opportunistic species and unmanaged groundcover typical of post-demolition conditions.
- 2.1.3 Vegetation within the Site is limited and largely of low ecological quality, apart from localised areas of dense scrub and tall ruderal species. Evidence from site observations and mapping indicates the presence of invasive species, including *Reynoutria japonica* (Japanese knotweed), which is primarily located along boundary edges and within unmanaged areas. The presence of invasive species was noted during the site visit and is considered a prominent feature of the Site in its current condition.

- 2.1.4 The eastern boundary of the Site is defined by a linear corridor of semi-natural vegetation associated with the adjacent river channel. This corridor comprises mature and semi-mature trees, dense scrub and riparian planting, forming a visually strong and ecologically important feature. It provides a high degree of visual containment, limits views towards the river, and contributes significantly to local habitat connectivity.
- 2.1.5 To the west and south-western edges of the Site, additional areas of semi-natural woodland and tree cover are present, associated with the railway corridor and adjoining land parcels. These woodland areas form a secondary layer of enclosure, strengthening the Site's sense of containment within the valley landscape and providing further ecological connectivity. To the west and south-western edges of the Site, additional areas of semi-natural woodland and tree cover are present, associated with the railway corridor and adjoining land parcels. These woodland areas form a secondary layer of enclosure, strengthening the Site's sense of containment within the wider valley landscape and providing further ecological connectivity. These surrounding landscape features are illustrated within the Site Context Plan (Figure 1).
- 2.1.6 The railway corridor immediately to the west forms a dominant physical and visual boundary, including rail infrastructure, station platforms and associated buildings. This infrastructure strongly influences the character of the Site, creating separation from adjacent urban areas and limiting permeability and views in that direction. The railway corridor immediately to the west forms a dominant physical and visual boundary, including rail infrastructure, station platforms and associated built elements. This corridor strongly influences the character of the Site, creating separation from adjacent urban areas and limiting permeability and views in this direction. The relationship between the Site and this infrastructure is illustrated within the Site Context Plan (Figure 1).
- 2.1.7 The Site is enclosed in parts by existing boundary treatments, including metal palisade fencing along sections of the perimeter. This fencing is typically accompanied by dense vegetation growth, including climbing and scrambling species, contributing to partial screening of the Site. The Site is partially enclosed by existing boundary treatments, including sections of metal palisade fencing associated with previous development. This fencing is typically accompanied by dense vegetation growth, including climbing and scrambling species, contributing to partial screening of the Site in its current brownfield, post-demolition condition. These boundary features are identified within the Site Context Plan (Figure 1).
- 2.1.8 Topography across the Site is relatively level, although the surrounding landscape context reflects the broader valley landform, with the river corridor to the east occupying a slightly lower elevation. Surface water behaviour is influenced by the proximity of the river corridor and existing drainage patterns, although no open water bodies are present within the Site itself. Topography across the Site is relatively level, although the surrounding landscape reflects the broader valley landform, with the river corridor to the east occupying a slightly lower elevation. Surface water behaviour is influenced by the proximity of the river corridor, existing drainage patterns and localised ground conditions, with runoff likely directed towards lower-lying areas and the adjacent watercourse to the east. This relationship has informed the proposed landscape strategy, with SuDS features including rain gardens and swales positioned to intercept, convey and attenuate surface water runoff in response to the site's drainage patterns and proximity to the river corridor.

- 2.1.9 Overall, the Site represents a previously developed and partially vegetated parcel of land within an urban edge setting, defined by strong linear infrastructure and adjacent vegetated corridors, with a mix of hardstanding, ruderal vegetation and boundary features influencing its current character. The Site is characterised as a brownfield, previously developed parcel of land located at a settlement edge transition, where urban infrastructure meets adjacent vegetated corridors.
- 2.1.10 Its current character reflects a combination of post-demolition conditions, including residual hardstanding, exposed ground and ruderal vegetation, alongside strong linear infrastructure such as the railway corridor and defined boundary features. These elements collectively establish a transitional landscape with limited ecological value within the Site itself but strong visual and spatial relationships to adjacent green infrastructure corridors.
- 2.1.11 In terms of ecological designations, no SACs, SSSIs or SINC's overlap the site. Aberbargoed Grasslands SAC/SSSI lies approximately 0.5–1.5 km to the north and northeast, forming a key ecological resource within the immediate area. The River Usk SAC lies approximately 30–40 km to the east, separated from the site by distance, intervening development, and catchment boundaries. SSSIs and SINC's occur within the wider Bargoed and Rhymney Valley area, typically associated with valley side grassland, woodland and river corridors. Woodland and green spaces in proximity to the site, including Bargoed Country Park, are likely functionally linked to nearby SINC's and designated habitats, contributing to habitat connectivity, although impacts on designated sites are considered unlikely, subject to further ecological appraisal where required. In terms of landscape and ecological designations, the Site lies within the Gelligaer Special Landscape Area (SLA) and is also identified within a Visually Important Local Landscape (VILL), as defined within the Caerphilly Local Development Plan. These designations recognise the wider Rhymney Valley landscape as an area of significant visual and landscape value.
- 2.1.12 No Special Areas of Conservation (SACs), Sites of Special Scientific Interest (SSSIs) or Sites of Importance for Nature Conservation (SINC's) are located within the Site boundary itself. However, the Rhymney River corridor immediately adjacent to the Site is designated as a Site of Importance for Nature Conservation (SINC), forming a continuous green infrastructure corridor through the valley. This corridor represents a key ecological feature, providing riparian habitat, ecological connectivity and species movement routes.
- 2.1.13 Aberbargoed Grasslands SAC and SSSI lie approximately 200–400m to the east of the Site, representing nationally and internationally important ecological designations in proximity. Their proximity increases the sensitivity of the surrounding landscape context, although no direct functional relationship with the Site is anticipated.
- 2.1.14 The Site is also located within a wider network of connected landscape and ecological features, including Parc Cwm Darran and Parc Coetir Bargod, which contribute to a continuous system of woodland, parkland and river corridor habitats across the Rhymney Valley.
- 2.1.15 While the Site itself is of limited ecological value in its current brownfield, post-demolition condition, its immediate adjacency to the SINC-designated river corridor and proximity to higher-level ecological designations present both constraints and opportunities. These relationships have directly informed the proposed landscape and SuDS strategy, including the integration of rain garden and swale features to respond to hydrological conditions and enhance ecological connectivity at a local level.

Figure 1: Site Context Plan – Existing Features

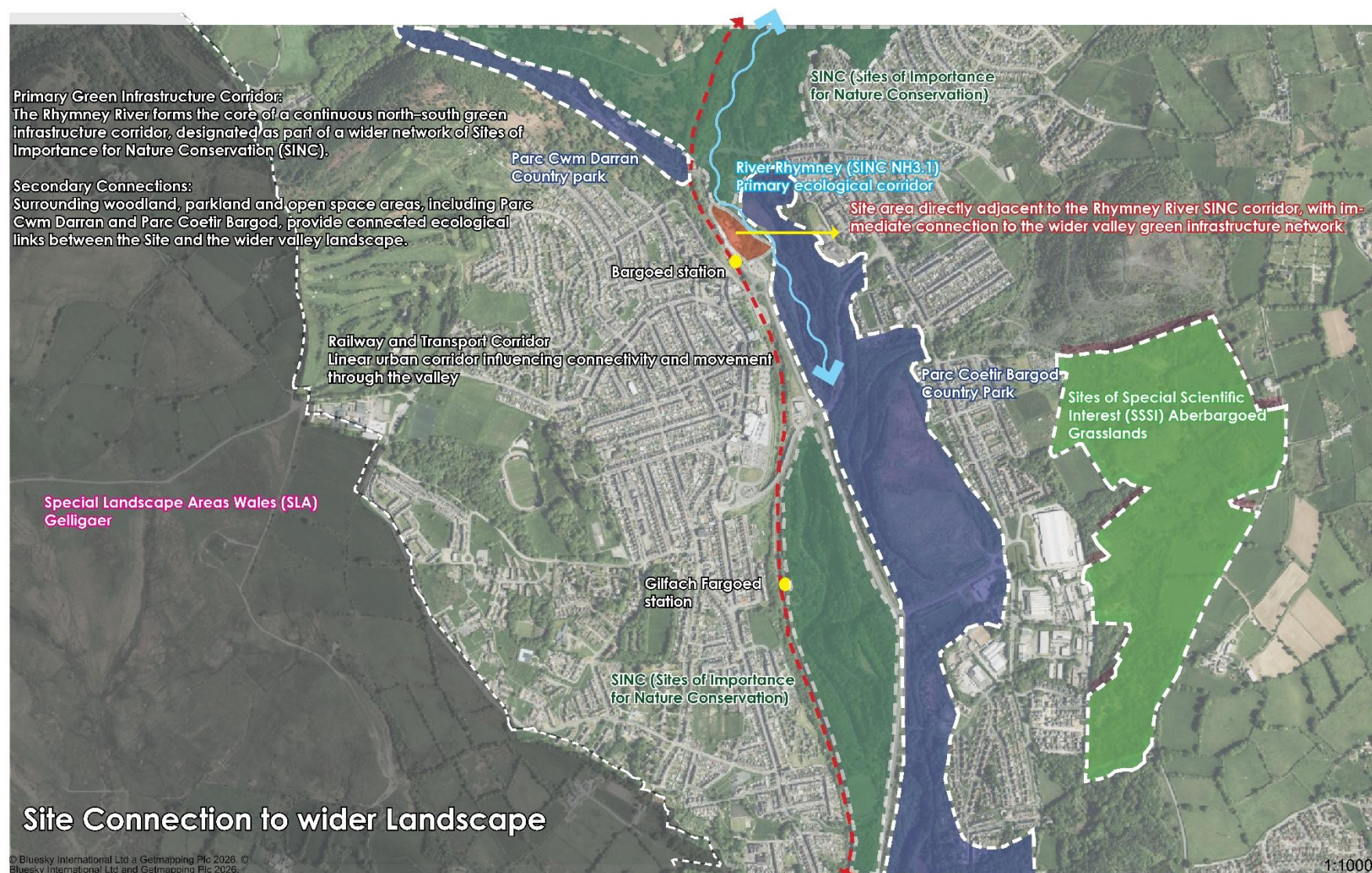


2.2 How Bargoed fits into wider landscape

- 2.2.1 The site sits within the characteristic valley landscape of the Rhymney Valley, where settlement patterns are strongly shaped by the valley landform, transport corridors, and historic industrial development. Positioned within the urban area of Aberbargoed along Station Road, the site forms part of the established settlement fabric while maintaining a relationship with nearby green infrastructure, including Bargoed Country Park and surrounding vegetated corridors that contribute to the wider landscape character.
- 2.2.2 Set within a valley floor and lower valley-side context, the site relates to the prevailing landform, with its position allowing localised views through the surrounding urban area while tree cover and adjacent built form limit long-distance visual prominence. Vegetated areas and nearby green spaces provide a visual backdrop, helping to soften built form and reduce contrast with the surrounding environment.
- 2.2.3 The surrounding tree cover, landscaped areas and connected green spaces, including those associated with Bargoed Country Park, integrate the site into a wider green infrastructure network extending through the valley and into the surrounding uplands. This network promotes landscape cohesion, ecological connectivity, and a sense of place, ensuring the site functions as part of a connected green landscape rather than an isolated parcel of land.
- 2.2.4 Local development reflects the established valley settlement pattern, with residential and mixed-use development following the valley floor and lower slopes, interspersed with trees, open space and garden planting. The site contributes to this mosaic of built form and green space, with boundary vegetation, street trees and nearby landscaped areas helping to blur the distinction between developed areas and adjoining green infrastructure.
- 2.2.5 Within the wider landscape, the Site functions as a transitional brownfield parcel at the settlement edge, positioned between urban infrastructure and the adjacent river corridor and connected green infrastructure network.
- 2.2.6 Visually, the Site is characterised by its post-demolition condition, comprising exposed ground, residual hardstanding and ruderal vegetation, and is partially enclosed by vegetation associated with the adjacent Rhymney River corridor. This vegetation forms a defining feature along the eastern boundary, providing visual containment and linking the Site to the wider valley landscape, as illustrated in Figure 2.
- 2.2.7 Ecologically, the Site itself has limited intrinsic value; however, it lies immediately adjacent to the Rhymney River SINC corridor and therefore sits alongside an established ecological network. This position presents opportunities to enhance connectivity through targeted landscape interventions rather than acting as a core habitat in its current state.
- 2.2.8 Socially, the Site benefits from proximity to accessible green infrastructure, including the river corridor and nearby open spaces such as Parc Cwm Darran, supporting recreation and wellbeing.

- 2.2.9 Climatically and functionally, the Site provides opportunities for surface water management, shading and local cooling through the integration of SuDS features, including rain gardens and swales, alongside proposed planting. These functions demonstrate how the Site can contribute to multifunctional green infrastructure in a site-specific and design-responsive manner.

Figure 2: Bargoed Site connection to the wider landscape



- 2.2.10 Although the valley landscape is moderately sensitive to change due to its landform, urban context and visual connectivity, it also has capacity for sensitively designed development where existing landscape structure, particularly tree cover and adjacent green infrastructure associated with Bargoed Woodland Park and the River Rhymney corridor is retained and enhanced.
- 2.2.11 In summary, the site is integrated into the wider Rhymney Valley landscape, reflecting the established pattern of development within a predominantly mixed urban and green framework and reinforcing landscape continuity, ecological connectivity, and visual amenity at both local and wider scales.
- 2.2.12 **North-South corridors:** These are defined by the linear green infrastructure associated with the Rhymney Valley, including Bargoed Woodland Park, the River Rhymney corridor, and the Rhymney Line railway which runs through Bargoed and Aberbargoed. These corridors connect upland areas beyond Gylfach Fargoed and Gelligaer to lower valley locations and form part of a continuous network that supports wildlife movement, landscape continuity and visual connectivity. This alignment reflects the natural drainage patterns and historic development distribution typical of the South Wales Valleys, with the River Rhymney forming a key spine through the valley landscape.
- 2.2.13 **East-West links:** These are more fragmented, but are provided through a combination of tree belts, roadside planting along Station Road and the A469 corridor, garden vegetation, development plots and informal green spaces associated with residential and mixed-use development in Aberbargoed and Bargoed town centre. These features facilitate lateral connectivity across the valley, linking parallel green infrastructure features such as Bargoed Woodland Park and the slopes around Aberbargoed Grasslands, and allowing movement between habitats. Although less continuous than the north-south corridors, these east-west links remain functionally important at a local scale.
- 2.2.14 **Core habitat areas:** Semi-natural habitats associated with Bargoed Woodland Park and Aberbargoed Grasslands, including areas of woodland, grassland and riparian vegetation along the River Rhymney. These areas represent the most ecologically valuable components of the local landscape, supporting higher biodiversity value and providing refuge and breeding habitat for a range of species. Secondary habitats, including tree groups along Station Road, landscaped areas, and managed grassland within the surrounding urban area, function as connecting or buffering features between these core areas

2.3 Relevant Local Planning Policies

Planning Policy Wales (PPW)¹

- 2.3.1 Planning Policy Wales (PPW) (Edition 12, February 2024) is the current national planning policy framework for Wales. PPW represents the overarching document for National Planning Policy in Wales and supports the Spatial Plan for Wales as set out in Future Wales: The National Plan 2040. The Well-being of Future Generations (Wales) Act 2015 influences the way new developments are planned; it demands that development and use of land contribute to improving the economic, social, environmental, and cultural well-being of Wales.
- 2.3.2 PPW aligns with the Well-being of the Future Generations (Wales) Act 2015 to the achievement of sustainable development through appropriate planning. Identifying four overarching objectives – cultural, social, economic and environmental to be pursued in mutually supportive ways through the planning system.
- 2.3.3 The Future Wales Outcomes of specific relevance in relation to sustainability, the natural environment, landscape and green infrastructure are:
- 9 ...in places that sustainably manage their natural resources and reduce pollution. 'The environmental, social and cultural value of our resources will be managed, maintained and enhanced, while economic benefits will be utilised sustainably and appropriately by promoting nature-based solutions and a circular economy.'
 - 10 ...places with biodiverse, resilient and connected ecosystems. 'The planning system will ensure wildlife is able to thrive in healthy, diverse habitats, both in urban and rural areas, recognising and valuing the multiple benefits to people and nature.'
- 2.3.4 PPW (Edition 12) sets out the land use planning policies of the Welsh Government with the primary objective, '*...to ensure that 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 Planning (Wales) Act 2015, the Well-Being of Future Generations (Wales) Act 2015 and other key legislation and resultant duties such as the Socio-economic Duty.*'
- 2.3.5 Of relevance in relation to landscape, green infrastructure and visual considerations are the environmental objectives as set out in Section 6: Distinctive and Natural Places, specifically addressing:
- Long term and chronic decline in biodiversity and habitat loss
 - Adaptation to the effects of climate change, and;
 - Recognising and addressing the factors influencing landscape change

- 2.3.6 It recognises that, *'The special and unique characteristics and intrinsic qualities of the natural and built environment must be protected in their own right, for historic, scenic, aesthetic and nature conservation reasons. These give places their unique identity and distinctiveness and provide for cultural experiences and healthy lifestyles.'*
- 2.3.7 [Section 6.2: Green Infrastructure](#) notes that, *'The components of green infrastructure, by improving the resilience of ecosystems, can result in positive benefits to well-being including flood management, water purification, improved air quality, reduced noise pollution and local climate moderation, climate change mitigation and food production.'* and that, *'The quality of the built environment should be enhanced by integrating green infrastructure into development through appropriate site selection and use of creative design.'*
- 2.3.8 [Section 6.3: Landscape](#) requires *'ensuring that the value of all landscapes for their distinctive character and special qualities is protected;'*
- 2.3.9 [Section 6.4: Biodiversity and Ecological Networks](#) seeks to *'...secure the maintenance and enhancement of ecosystem resilience and resilient ecological networks by improving diversity, extent, condition, and connectivity',* and confirms that *'A proactive and creative approach towards facilitating the delivery of biodiversity and ecosystem resilience outcomes must be taken by all those participating in the planning process.'*
- 2.3.10 These principles form the basis for Local Development Plans and supporting guidance prepared by the relevant local authority, providing detailed policy context for development proposals within Caerphilly County Borough.

[Technical Advice Note 5 \(TAN 5\): Nature Conservation and Planning](#)

- 2.3.11 TAN 5 requires planning authorities and applicants to:
- "Integrate nature conservation into all planning decisions" and seek no net loss, and where possible, a net gain for biodiversity."*
- 2.3.12 The TAN supports protection of both designated and non-designated habitats, including SINC's, and stresses the importance of linking core habitats through development.
- 2.3.13 Development at Station Road, Aberbargoed responds to these objectives by sitting within the existing green infrastructure network associated with Bargoed Woodland Park, the River Rhymney corridor and nearby designated sites such as Aberbargoed Grasslands, maintaining and reinforcing functional connectivity between key habitat areas.

[Technical Advice Note 15 \(TAN 15\): Development, Flooding and Coastal Erosion \(Updated March 2026\)](#)

- 2.3.14 TAN 15 provides guidance on managing flood risk through:
- Avoiding inappropriate development in flood-risk areas and using natural processes and green infrastructure to manage surface water.

- 2.3.15 The site is not located within a defined flood zone but is influenced by the Rhymney Valley drainage system associated with the River Rhymney catchment. Retention of vegetation, incorporation of permeable surfaces and appropriate drainage design supports TAN 15's emphasis on natural flood management and climate adaptation.

Local Planning Policy - Caerphilly Local Development Plan

- 2.3.16 The proposed development at Station Road, Aberbargoed is assessed against the Caerphilly County Borough Local Development Plan (LDP) and associated Supplementary Planning Guidance (SPG), including policies relating to placemaking, amenity, landscape character and countryside development.
- 2.3.17 The proposed development at Station Road, Aberbargoed is assessed against the Caerphilly County Borough Local Development Plan (LDP) and associated Supplementary Planning Guidance (SPG), with reference to policies relating to placemaking, landscape character, ecological protection and green infrastructure. Relevant Policies:
- **Policy SP6 – Placemaking:** This policy requires development to demonstrate high quality design that responds to local context, including form, scale and integration with surrounding green infrastructure and built form. For the Site, this includes responding to its position at the settlement edge and its relationship with the adjacent river corridor.
 - **Policy CW2 – Development in the Countryside:** This policy is relevant in considering the Site's location at the edge of the settlement, requiring development to respond appropriately to transition between built form and the surrounding landscape.
 - **Policy CW7 – Trees, Woodlands and Hedgerows:** This policy supports the protection and integration of trees, woodland and hedgerows, which is reflected in the proposed landscape strategy and incorporation of planting within the design.
 - **Policy CW11 – Open Space:** This policy supports the provision and enhancement of accessible open space, which is reflected in the inclusion of communal seating areas, amenity lawn and accessible green infrastructure within the Site.
 - **Policy CW15 – General Design Considerations:** This policy requires development to respect the character, scale and environmental context of its location, including its relationship with the Rhymney Valley landscape and surrounding green infrastructure corridors.
 - **Policy CW6 – Nature Conservation and the Protection of Species:** This policy is particularly relevant given the Site's immediate adjacency to the Rhymney River SINCC corridor, requiring protection and enhancement of ecological networks and ensuring no adverse impact on designated habitats.
 - **Policy CW8/CW9 – Landscape Character and Settlement Context:** These policies require development to respond to the character of the wider landscape and settlement form, including the valley setting and the Site's position within a Special Landscape Area.

Supplementary Planning Guidance - SPG10: Buildings in the Countryside

- 2.3.18 No Supplementary Planning Guidance relating specifically to rural or countryside development is considered directly applicable to the Site, given its location within a brownfield, urban-edge context.

- 2.3.19 However, principles relating to landscape integration, biodiversity protection and green infrastructure delivery remain key considerations within both the Local Development Plan and associated guidance. In particular, development must respond to the Site's position within the Gelligaer Special Landscape Area (SLA), Visually Important Local Landscape (VILL), and its immediate adjacency to the Rhymney River SINC corridor.
- 2.3.20 In this context, the proposed development seeks to integrate with the surrounding landscape through a site-responsive design approach, incorporating structured planting, enhancement of green infrastructure and the delivery of SuDS features including rain gardens and swales.
- 2.3.21 These measures support the protection of adjacent ecological assets, reinforce landscape character, and ensure that development responds appropriately to the environmental sensitivities identified within local planning policy.
- 2.3.22 Overall, the proposed design aligns with the aims of relevant planning guidance by balancing development with landscape, ecological and green infrastructure considerations appropriate to the Site's location.

3. GREEN INFRASTRUCTURE STRATEGY: THE PROPOSED DEVELOPMENT

- 3.1.1 The proposed development (Refer to Appendix A) comprises a residential scheme on a brownfield, previously developed site, incorporating associated access, parking and landscaped open space. The landscape strategy is structured to respond to the Site's position at the settlement edge and its relationship with the adjacent Rhymney River corridor, integrating green infrastructure, SuDS features and planting to form a cohesive and site-responsive design. The proposed landscape design responds to site constraints, with existing woodland along the southern boundary retained and protected to maintain ecological continuity with the adjacent river corridor. The scheme responds to areas of previously disturbed ground, with intervention focused within defined planting zones, SuDS features and circulation areas. A structured planting approach is introduced, incorporating low-growing planting within parking areas to maintain visibility, alongside localised structural shrub planting positioned within discrete areas to provide habitat value and soften built edges. These elements contribute to visual integration with the surrounding landscape while maintaining functional clarity across the Site. A linear native hedge is proposed along the Gabion wall vegetated retaining system, forming a reinforced and planted boundary edge. This creates a transitional landscape interface between the developed Site and the adjoining vegetated corridor, enhancing ecological value and visual continuity.
- 3.1.2 Climbing and trailing planting, including evergreen and herbaceous species, is incorporated within the Gabion wall structure to support vertical greening and integration of the retaining system into the landscape.
- 3.1.3 The Gabion wall vegetated retaining system enables integrated planting within the structure, providing a softer, planted alternative to a traditional hard retaining wall and contributing to both visual integration and ecological value.
- 3.1.4 The system incorporates engineered soil zones within its structure, allowing for planting establishment across the face. Topsoil is provided at an average depth of approximately 300mm and is lightly tamped to maintain porosity and support vegetation growth. Structural fill is located behind the system to ensure stability while enabling planted outer zones, resulting in a vegetated and visually permeable structure that integrates with the surrounding landscape.
- 3.1.5 Soft landscape areas requiring remediation will be provided with clean imported soils in accordance with the remediation strategy, supporting safe planting establishment within the brownfield context. Tree planting is limited and carefully positioned, with all trees installed within engineered planting pits to ensure successful long-term growth.

- 3.1.6 The SuDS strategy incorporates integrated rain garden and swale features within the layout to manage surface water runoff. Rain garden areas function as shallow attenuation features designed to temporarily store runoff from adjacent hardstanding, while swales operate as linear conveyance features that direct and manage surface water flow across the Site. Planting within SuDS areas consists of moisture-tolerant, low-maintenance vegetation selected to perform under fluctuating wet and dry conditions, supporting both water management and biodiversity objectives. Overall, the scheme delivers a coordinated green infrastructure strategy that integrates planting, surface water management and ecological enhancement. The approach responds directly to the Site's brownfield condition, its adjacency to the river corridor and its position within the wider valley landscape, contributing to long-term environmental resilience and landscape integration. Refer to Proposed Landscape GA Plan (**Appendix A**).

4. SURVEY FINDINGS AND PROTECTION IN PLACE: GI BASELINE

4.1 Ecological surveys

4.1.1 Preliminary Ecological Appraisal (PEA)²

Key aspects of the Preliminary Ecological Appraisal (PEA) include:

Purpose: The PEA was undertaken to establish baseline ecological conditions on site and to identify habitats and species that could influence the design and implementation of the proposed development.

Methodology: The appraisal comprised a site walkover survey supported by previous ecological data. Habitats were identified and classified in accordance with standard Phase 1 / UKHab methodology and CIEEM guidance.

Key Findings: The site comprises previously disturbed land characterised by ruderal vegetation, scrub, scattered trees and areas of hardstanding. Invasive species, including Japanese knotweed (*Reynoutria japonica*), are present within parts of the Site, particularly along boundary edges and unmanaged areas.

A semi-natural broadleaved woodland is present along the north-eastern and southern boundaries, forming an important ecological corridor connected to the adjacent river. No permanent water features are present within the Site; however, the adjacent river corridor lies immediately to the east and influences local ecological conditions.

The site provides suitable habitat for a range of species, including:

Foraging and commuting bats associated with woodland edges

Nesting birds within scrub and vegetation

Amphibians and reptiles associated with damp and disturbed habitats

Invasive non-native species are present across the site, including Japanese knotweed, Himalayan balsam and cotoneaster.

Recommendations:

- Vegetation clearance to be undertaken outside the bird nesting season or under ecological supervision
- Precautionary working methods to protect reptiles and amphibians
- Implementation of an invasive species management plan prior to development
- Retention and protection of woodland along the north-eastern and southern boundaries.

4.1.2 Geoenvironmental Site Investigation (SI)³

Key aspects of the Geoenvironmental Site Investigation (SI) include:

Purpose: The Site Investigation was undertaken to assess ground conditions, contamination risks and geotechnical constraints, and to inform the design and development of the site.

Methodology: The investigation comprised boreholes, trial pits and laboratory testing to determine soil composition, contamination levels, and engineering properties. Groundwater and gas monitoring were also undertaken.

Key Findings:

- **Ground Profile:** The site is underlain by thick and variable Made Ground (up to 6m deep) over weathered sandstone bedrock.
- **Obstructions:** Man-made obstructions, including concrete pads and a buried red brick wall, were encountered at shallow depths.
- **Contamination:** Soil testing identified generally low contaminant concentrations across the Site. Localised exceedances of three polycyclic aromatic hydrocarbons (PAHs), namely benzo(a)pyrene, benzo(b)fluoranthene and dibenzo(ah)anthracene, were identified within a discrete area of the Site, requiring targeted remediation measures. No asbestos was detected.
- **Ground Gas:** Monitoring identified a "very low risk" from standard land gases (methane and carbon dioxide). However, the site is in a Radon Affected Area, with 5% to 10% of properties estimated to be above the action level.
- **Groundwater:** Water strikes occurred at 5m and 9m depths, but subsequent monitoring found the standpipes to be dry at a 5m install depth

Recommendations:

- Targeted remediation measures, including removal or capping with clean imported soils, will be undertaken within identified areas requiring remediation, in accordance with the remediation strategy and site investigation findings (refer to Appendix C – TP01).
- Hardstanding to act as a barrier to prevent exposure to underlying contamination
- Tree planting to be undertaken within engineered planting pits
- SuDS features/rain gardens to function as shallow attenuation systems rather than infiltration-based solutions
- Incorporation of appropriate radon protection measures into building design

4.1.3 Conclusion for GI Integration:

The proposed development at Station Road, Bargoed adopts a Green Infrastructure strategy informed directly by ecological and geoenvironmental survey findings. The Preliminary Ecological Appraisal identifies the southern woodland corridor and associated habitats as key ecological features, supporting a range of species including bats, birds and amphibians. The retention of this woodland, alongside appropriate mitigation measures such as controlled vegetation clearance and invasive species management, ensures continued habitat function and ecological connectivity across the site. The Site Investigation highlights significant constraints associated with Made Ground, localised contamination hotspots and drainage

limitations. These factors require a design response that incorporates soil remediation, engineered planting systems and non-infiltrating SuDS features. Through the integration of these measures, the scheme delivers a coordinated Green Infrastructure approach that balances ecological enhancement with practical site constraints. The design provides opportunities for biodiversity improvement, supports surface water management and ensures that the site is safe, functional and suitable for long-term use.

5. MITIGATION AND ENHANCEMENT MEASURES GREEN INFRASTRUCTURE STRATEGY

- 5.1.1 Green Infrastructure is defined by the Town and Country Planning Association as follows: "Green infrastructure is a network of multi-functional green space and other green features, urban and rural, which can deliver quality of life and environmental benefits for communities."
- 5.1.2 Key features: The key features of green infrastructure are that it is a network of integrated spaces and features, not just individual elements; and that it is 'multi-functional' – it provides multiple benefits simultaneously. These can be to:
- support people's mental and physical health
 - encourage active travel
 - cool urban areas during heat waves
 - attract investment
 - reduce water run-off during flash flooding
 - carbon storage
 - provide sustainable drainage
- 5.1.3 The extent to which green infrastructure provides these benefits depends on how it is designed and maintained, and the maturity and health of the elements (trees, planting, SuDS etc) that form it.

Table 1: Bargoed site Enhancements (See Appendix A for Landscape GA drawings)

Type	Location	Specifications
Planting Proposals	Within landscape areas surrounding the proposed building, including parking zones, building edges, the Green vegetated retaining structure boundary and the communal external space.	Native, low-maintenance planting is proposed to enhance biodiversity and reflect local character. Low-growing planting and flowering lawn areas will maintain visibility within parking areas, with localised structural planting provided within defined planting areas. Native hedge and climbing vegetation will integrate and soften the Green vegetated retaining structure through planted vegetation and improve habitat value. All planting will be undertaken within a minimum 600mm depth of clean imported soil to address underlying made ground. SuDS planting will comprise moisture-tolerant species selected to perform under fluctuating wet and dry

Type	Location	Specifications
		conditions, supporting both surface water management and biodiversity objectives. Planting associated with the Green vegetated retaining structure will be established within engineered soil pockets integrated into the structure, designed to support vegetation in areas of limited soil depth.
New / Existing Trees	Existing woodland retained along the southern boundary, with new tree planting introduced along the northern edge and within selected planting areas where space allows without impacting building and parking layout.	Existing mature woodland will be retained and protected as a key ecological feature, maintaining connectivity with the adjacent river corridor. New tree planting will be limited and strategically placed to provide structure and shade without affecting visibility or layout. Native or climate-resilient species will be selected to promote biodiversity and avoid monocultures. All new trees will be planted within engineered tree pits with suitable imported growing medium to address underlying made ground conditions.
Habitat connectivity / enhancement	Across the site, with emphasis on the southern boundary woodland, SuDS features, and planted edges including the Green vegetated retaining structure and communal space.	Retention of the southern and western woodland will maintain ecological connectivity with the adjacent river corridor and railway corridor. These vegetated edges also provide a degree of visual filtering from surrounding infrastructure and will help to partially screen and soften views of the proposed development from adjacent areas. Native planting, including localised structural shrub planting, flowering lawn areas

Type	Location	Specifications
		and climbing/trailing species will provide a layered habitat structure across the site. SuDS features, including rain gardens and swales, will support wetland habitat, while native hedge and integrated planting associated with the Green vegetated retaining structure enhance movement corridors for wildlife. Additional habitat features, including bird and bat boxes and deadwood, will provide foraging and shelter opportunities.
SuDS integration	Within defined landscape areas including the rain gardens and swales, parking edges, and planted zones surrounding the proposed development.	SuDS features will be integrated as shallow attenuation and bio-retention systems to manage surface water runoff. Due to underlying made ground and contamination risk, infiltration to ground will be limited. Rain gardens and swales will incorporate moisture-tolerant planting selected to support biodiversity and surface water management supporting biodiversity and water management. The design will control runoff while responding to site constraints and flood risk context.
Lighting	Site of new development	Lighting will be designed to avoid spill onto the southern and western boundary vegetation, including mature trees that may support bat roosting and foraging activity. A low-level, directional lighting approach will be adopted to maintain dark corridors and minimise disturbance to nocturnal species.

5.2 Application of the Stepwise Approach

- 5.2.1 The following stepwise approach, integrated into the Green Infrastructure strategy for the Station Road, Bargoed site, follows the mitigation hierarchy set out in Planning Policy Wales (Edition 12) and the Environment (Wales) Act 2016. The approach prioritises the avoidance of ecological harm, followed by minimisation, mitigation, and where necessary, on-site enhancement to secure biodiversity benefits.

5.2.2 Step 1: Avoid

Design the development to avoid harm to existing habitats, species, and key GI features.

- **Woodland Retention:** The design retains semi-natural broadleaved woodland along the southern and western boundaries, preserving important ecological corridors linked to adjacent vegetation and infrastructure edges.
- **Layout Design:** Built development and parking areas are located to avoid direct impacts on retained vegetation and key ecological features.
- **Sensitive Lighting:** Lighting will be designed to avoid spill onto the southern boundary woodland, maintaining dark corridors for bat foraging and commuting.

5.2.3 Step 2: Minimise

Where impacts cannot be fully avoided, design measures are implemented to reduce their extent.

- **Vegetation Clearance:** Any required clearance will be undertaken outside of the bird nesting season or under ecological supervision to minimise impacts on nesting birds.
- **Construction Controls:** Precautionary working methods will be implemented during site clearance to reduce risk to reptiles and amphibians associated with ruderal and damp habitats.
- **Site Layout Efficiency:** The compact development footprint minimises disturbance to surrounding green infrastructure and limits the extent of habitat loss.

5.2.4 Step 3: Mitigate / Restore

Implement measures to address and restore affected habitats or site conditions.

- **Invasive Species Management:** Japanese knotweed and other invasive species will be removed and managed in accordance with a specialist management plan to prevent further spread and improve site condition.

- **Soil Remediation:** Targeted remediation measures, including capping with clean imported soils where required, will be undertaken within identified areas of localised contamination to mitigate risks and support vegetation establishment (refer to Appendix C – TP01). Where the Gabion wall vegetated retaining structure is proposed, soil within the system will be installed in a controlled, non-compacted condition to enable planting establishment and maintain ecological function.
- **Contractor Awareness:** Toolbox talks will be provided to ensure construction personnel are aware of ecological constraints and protection measures during works.

5.2.5 Step 4: On-site Compensation and Enhancement

Provide habitat enhancements within the site to deliver biodiversity gains.

- **Habitat Creation:** Native shrub planting, flowering lawn areas and climbing planting will be introduced to create a layered habitat structure across the site.
- **SuDS Features:** A series of shallow rain gardens and swales will provide wetland habitat and contribute to biodiversity while managing surface water runoff.
- **Habitat Features:** Bird and bat boxes, along with deadwood elements, are proposed as enhancement measures to increase habitat diversity and provide additional foraging and shelter opportunities, in line with general ecological best practice.
- **Boundary Enhancement:** Native hedge planting and integrated vegetation associated with the Green vegetated retaining structure will improve habitat connectivity

5.2.6 Step 5: Off-site Compensation

Where residual impacts remain, consider the need for off-site measures.

- Based on the PEA and SI findings, ecological impacts can be addressed through on-site mitigation and enhancement. Therefore, off-site compensation is not currently required.

5.2.7 Step 6: Refusal

Development should be refused where significant harm cannot be adequately mitigated.

- The scheme is designed to achieve a net benefit for biodiversity in accordance with Planning Policy Wales and the Environment (Wales) Act 2016. Should additional surveys identify significant impacts that cannot be mitigated, further design review would be required to ensure compliance with policy.

5.3 DECCA Assessment – Supporting Ecosystem Resilience

DECCA (Diversity, Extent, Condition, Connectivity, and Aspects of ecosystem resilience) is undertaken in accordance with Planning Policy Wales (PPW12) and the Environment (Wales) Act 2016.

5.3.1 Diversity (Habitats and Species)

- **Habitat Diversity:** The site comprises a mix of habitats including ruderal vegetation, scrub, scattered trees and areas of hardstanding, with a semi-natural broadleaved woodland located along the southern boundary.
- **Species Diversity:** The site supports habitats suitable for a range of species, including birds, invertebrates and small mammals, with additional value provided by the adjacent woodland and river corridor.
- **Protected Species:** There is potential for protected species within the wider site, including foraging bats associated with woodland edges, nesting birds within scrub and vegetation, and amphibians and reptiles associated with damp and disturbed habitats.

5.3.2 Extent (Area and Volume)

The proposed development seeks to retain and enhance the extent of Green Infrastructure where possible within a constrained urban site.

- **Habitat Coverage:** The site is largely characterised by previously disturbed land with limited existing high-value habitat, although the southern woodland forms a significant ecological feature.
- **Retention and Enhancement:** The design retains key boundary vegetation and introduces new planting areas, including shrub planting, flowering lawn areas and SuDS features, to increase the overall extent of functional green infrastructure within the site.

5.3.3 Condition (Habitat Quality and Health)

The proposal includes measures to improve the ecological and physical condition of the site.

- **Existing Condition:** Much of the site comprises disturbed and low-value habitats, with areas of invasive non-native species negatively affecting ecological quality.
- **Ground Conditions:** The presence of Made Ground and localised contamination hotspots presents constraints for planting in specific areas of the Site, requiring targeted remediation measures to create suitable growing conditions (refer to Appendix C – TP01).
- **Enhancement Measures:** The removal of invasive species, combined with targeted remediation measures and the introduction of native planting, will improve overall habitat quality and site condition.
- The integration of planting within the Green vegetated retaining structure contributes to improved habitat condition and structural diversity, supporting biodiversity within an otherwise constrained site.

5.2.4. Connectivity (Spatial Links)

- **Ecological Links:** The southern and western boundary woodland, along with adjacent vegetated areas, connect the site to the wider landscape, including

the river corridor and railway corridor, providing important ecological links for wildlife movement.

- **Wildlife Corridors:** The retention of woodland, along with new planting, a proposed native hedge associated with the Green vegetated retaining structure and rain garden and swales features, will strengthen ecological connectivity across the site and provide opportunities for species movement.
- **Design Integration:** The landscape design integrates planting, and habitat features to reinforce links between retained habitats and newly created areas within the development.

5.2.5. Aspects of Ecosystem Resilience (Adaptability)

The design incorporates measures to improve the long-term resilience of the site's green infrastructure.

- **Constraint Response:** The use of targeted remediation measures, clean imported soils where required and engineered planting systems addresses identified localised contamination hotspots and supports long-term vegetation establishment.
- **Threat Mitigation:** The removal and management of invasive species will prevent further degradation of habitats and support native biodiversity recovery.
- **Climate Resilience:** Native and drought-tolerant planting, combined with rain garden and swales features, will support adaptability to changing climate conditions.
- **Sensitive Design:** Lighting design and habitat enhancement measures, including bird and bat boxes, will support the continued use of the site by wildlife and improve overall ecological resilience.

6. BENEFITS AND OUTCOMES

6.1 Environmental Benefits

- Native planting will support pollinators and provide habitat for urban wildlife, including birds, invertebrates and small mammals.
- Retention of the southern woodland and introduction of new planting will enhance biodiversity and strengthen ecological connectivity with the adjacent river corridor.
- SuDS features, including a series of rain gardens, will manage surface water runoff through attenuation and bio-retention, reducing pressure on existing drainage infrastructure.
- Targeted remediation measures and structured planting will improve site condition and enable long-term vegetation establishment on previously disturbed land.

- The scheme contributes to climate resilience through urban greening, habitat creation and sustainable water management in line with national and local policy objectives.

6.2 Social Benefits

The proposed development enhances the residential environment by providing functional, safe and accessible external spaces supported by integrated landscape design.

- Improved outdoor spaces, including a communal seating area, will promote wellbeing and opportunities for social interaction.
- Access to green infrastructure within the development will support mental and physical health by providing contact with nature.
- Clear and safe pedestrian routes, combined with low-height planting, will improve accessibility and visibility across the site.
- The integration of planting, raingardens and swales will create a visually enhanced and attractive living environment.
- The design promotes inclusive spaces suitable for a range of users, supporting everyday use and community interaction.

6.3 Economic Benefits

- The integration of SuDS features, including rain gardens and swales will reduce long-term surface water management costs by controlling runoff at source.
- Use of durable, low-maintenance native planting will reduce long-term maintenance requirements.
- Targeted remediation of identified contamination hotspots and appropriate ground treatment will ensure the long-term viability and safe use of the Site.
- Investment in high-quality landscape and green infrastructure will enhance the overall value and attractiveness of the development.
- The scheme contributes to wider regeneration objectives by improving previously underutilised land and supporting sustainable development.

6.4 Contribution to Ecosystem Services

Table 2: Ecosystem Services

Building with Nature Standards / Themes	Principles	Alignment
Core Standards	Optimises Multifunctionality and Connectivity	Native planting is introduced across defined landscape areas to enhance biodiversity and connect habitats.

Building with Nature Standards / Themes	Principles	Alignment
	Positively responds to the Climate Emergency Maximises Environmental Net Gain Champions a context-driven approach Creates distinctive places Secures effective place-keeping	Retention of southern woodland and introduction of new planting strengthens ecological connectivity across the site. Rain garden and SuDS features contribute to climate adaptation through sustainable surface water management. The design responds to site constraints, including made ground and localised contamination hotspots. Integrated planting, boundary treatment and communal space create a coherent and distinctive landscape character. Use of durable, low-maintenance native planting supports long-term management and site resilience.
Wellbeing Standards	Brings nature closer to people Supports equitable and inclusive places	Provision of accessible green space, including a communal seating area, encourages interaction with landscape. Integrated planting within parking and surrounding spaces enhances visual amenity and everyday contact with nature. The design promotes safe, accessible and inclusive movement throughout the site. Access to green infrastructure supports wellbeing, social interaction and improved quality of life for residents.
Water Standards	Delivers Climate Resilient Water Management Brings Water Closer to People	Rain garden and SuDS features manage surface water runoff through shallow attenuation and bio-retention systems. SuDS design responds to site constraints by limiting infiltration due to underlying made ground and contamination.

Building with Nature Standards / Themes	Principles	Alignment
		Moisture-tolerant SuDS planting improves water quality improve water quality and contributes to biodiversity within SuDS features.
Wildlife Standards	Delivers Wildlife Enhancement Underpins Nature Recovery	Native planting, including shrub, grassland and climber species, provides habitat for birds, invertebrates and small mammals. Retention of the southern woodland supports existing ecological networks and species movement. Introduction of hedge planting and greened boundaries enhances wildlife corridors across the site. Additional features such as bird and bat boxes, and deadwood elements, support habitat diversity and species recovery.

7. MONITORING AND MANAGEMENT

7.1 Monitoring Effectiveness

7.1.1 Objectives:

- Assess ecological, hydrological and social performance of the Green Infrastructure.
- Identify maintenance requirements and potential issues early.
- Ensure landscape design intent and biodiversity targets are achieved.

7.1.2 Key Monitoring Metrics:

Table 3: Key Monitoring Categories

Category	Categories / Indicators	Monitoring Frequency	Reporting
Vegetation Health	Plant survival rates, establishment success, species diversity and overall condition	Annually (spring/summer)	Report with site inspections
Water Management	Surface water performance, ponding levels, drainage function and general water quality	Twice annually (spring/autumn)	Report with visual inspection and maintenance records
Biodiversity	Presence of birds, pollinators and other invertebrates, habitat usage	Annually in summer	Report through ecological observation records
Public Use & Perception	Use of communal space, accessibility, and user satisfaction	Annually	User feedback and site review
Climate Resilience	Performance of planting during extreme weather events (drought and heavy rainfall)	Post-extreme-weather events	Monitoring report with recommendations

7.1.3 Data Collection Methods:

- On-site inspections by landscape or ecological professionals.
- Visual monitoring of planting establishment, SuDS performance and habitat use.
- Collection of user feedback relating to communal space and accessibility.
- Recording of site conditions following extreme weather events.

7.1.4 Reporting:

- Annual Green Infrastructure performance report.

- Periodic review against baseline targets with recommendations for maintenance and improvement.
- Ongoing monitoring records to ensure long-term performance of planting and SuDS features.

7.2 Long-Term Management Strategies

7.2.1 Core Principles:

- Ongoing management and maintenance of landscape and SuDS features, ensuring long-term performance rather than a one-off installation approach.
- Management practices to be reviewed and adapted in response to monitoring results and site observations.
- Maintenance strategies to support the continued health of planting, habitat value and water management systems.
- Long-term stewardship aimed at maintaining high-quality landscape character, ecological function and usability of external spaces.

7.2.2 Management Elements:

- Maintenance Plan: A structured maintenance regime covering watering, pruning, weeding, litter removal, replacement planting and regular inspection of SuDS features including rain gardens and swales.
- Monitoring Plan: Ongoing assessment of planting establishment, habitat condition and surface water management performance to inform maintenance and adaptive management.
- Adaptive Planting: Adjustment of planting palette over time where necessary, introducing resilient species if initial planting underperforms due to site or climatic conditions.
- Habitat Connectivity: Retention and management of woodland, hedging and planted edges to maintain ecological links and support wildlife movement across the site.
- Handover and Management Responsibility: Formal handover from landscape contractors to the site management body (e.g. estate management company), including maintenance guidelines, planting schedules and SuDS management requirements.

7.2.3 Stakeholder Involvement:

- Oversight and coordination managed by the appointed estate or site management company responsible for long-term maintenance.
- Opportunities for community interaction through use of communal space and engagement with green infrastructure.
- Periodic consultation with landscape or ecological specialists to review performance and advise on biodiversity and planting management.

- Potential collaboration with local organisations or consultants to support ongoing ecological monitoring and enhancement.

7.2.4 Funding Mechanisms for Sustainability

Short-Term (first 5 years)

- Landscape establishment and maintenance will be the responsibility of the Developer during the initial establishment period following construction.
- Maintenance activities will be delivered through appointed landscape contractors and will include planting establishment, SuDS maintenance, and routine inspections.
- Funding will be secured through the construction and post-completion maintenance budget to ensure successful early-stage performance of planting and drainage systems.

Long-Term (beyond 5 years)

- Ongoing maintenance and management responsibilities will be transferred to an estate management company or equivalent body responsible for the site.
- Funding will be secured through service charges or management fees associated with the residential development, ensuring continued upkeep of landscape and SuDS features.
- Long-term maintenance will focus on sustaining planting health, managing SuDS performance, and maintaining communal and shared external spaces.
- Opportunities for additional support may include local partnerships or small-scale community-led initiatives to enhance biodiversity and site quality over time.

7.3 Programme for Implementation

Table 4: Implementation Programme

Phase	Timeframe	Key Actions	Responsibility
Pre-Completion	Months -3 to 0	Install GI; establish planting; implement SuDS features including rain garden and swales.	Developer and appointed landscape contractors
Early Aftercare	Year 1-2	Intensive maintenance of planting; regular inspections; monitoring of SuDS performance.	Developer and appointed maintenance contractors (transitioning to estate management responsibility)
Steady-State Maintenance	Year 3-5	Ongoing maintenance; biannual monitoring; replacement planting and adjustments as required.	Estate Management Company or Residents Management Company (or appointed management body)

Phase	Timeframe	Key Actions	Responsibility
Long-Term Stewardship	Year 6+	Annual inspections; ongoing maintenance of planting and SuDS; periodic biodiversity monitoring and review of landscape performance.	Estate management company or site management body
Major Review	Every 5 years	Comprehensive review of landscape and SuDS performance; update management strategies and maintenance requirements as needed.	Estate management company or site management body

7.4 Management, Aftercare Period, and Responsibility

- **Initial Aftercare Period:** Initial aftercare period: 12 months (defects liability period), during which the developer and appointed contractors are responsible for landscape establishment, replacement planting and repair of any defects.
- **Maintenance period:** During the wider maintenance period (typically up to 5 years), responsibility remains with the developer or appointed maintenance contractors to ensure successful establishment of planting and SuDS features.
- **Long-Term Responsibility:** Long-term responsibility will be transferred to an estate management company or site management body responsible for ongoing maintenance of landscape and drainage features.
 - **Lead Responsibility:** Estate management company acting on behalf of residents.
 - **Technical Support:** Landscape contractors, ecologists or specialists commissioned as required for maintenance, inspections and ecological advice.
 - **Resident Role:** Residents contribute indirectly through service charges and responsible use of communal spaces.
 - **Accountability:** Regular site inspections and management reviews undertaken by the estate management body to ensure long-term performance of planting and SuDS features.

8. CONCLUSION

- 8.1.1 The proposed development at Station Road, Bargoed successfully integrates a comprehensive Green Infrastructure (GI) strategy that aligns with Planning Policy Wales (Edition 12) and the Environment (Wales) Act 2016, delivering clear biodiversity and environmental benefits.
- 8.1.2 . The design is informed by ecological, and geoenvironmental constraints identified through the Preliminary Ecological Appraisal and Site Investigation. Key features, including the retention of the southern woodland corridor and the management of invasive species, ensure that important ecological functions are preserved and enhanced. The strategy responds to underlying ground conditions through appropriate soil remediation and engineered planting solutions, enabling safe and long-term landscape establishment.
- 8.1.3 The scheme introduces a simple and robust native planting approach across defined landscape areas, including parking zones, building edges and a communal external space. The incorporation of localised structural planting, alongside a linear native hedge and climbing vegetation associated with the Gabion wall vegetated retaining system, helps to integrate built elements within the landscape and contributes to habitat connectivity.
- 8.1.4 Multifunctional Sustainable Drainage Systems (SuDS), including rain gardens and swales, are integrated within the layout to manage surface water runoff through attenuation and conveyance, while providing additional ecological value.
- 8.1.5 The development demonstrates ecosystem resilience, as supported by the DECCA assessment, by enhancing habitat diversity, improving site condition and strengthening ecological connectivity with the surrounding landscape.
- 8.1.6 Through a coordinated programme of long-term monitoring and management, and the transfer of responsibilities to an estate management body, the scheme will continue to deliver environmental, social and economic benefits. Overall, the development provides a balanced, practical and policy-compliant Green Infrastructure approach appropriate to the site context.

9. REFERENCES

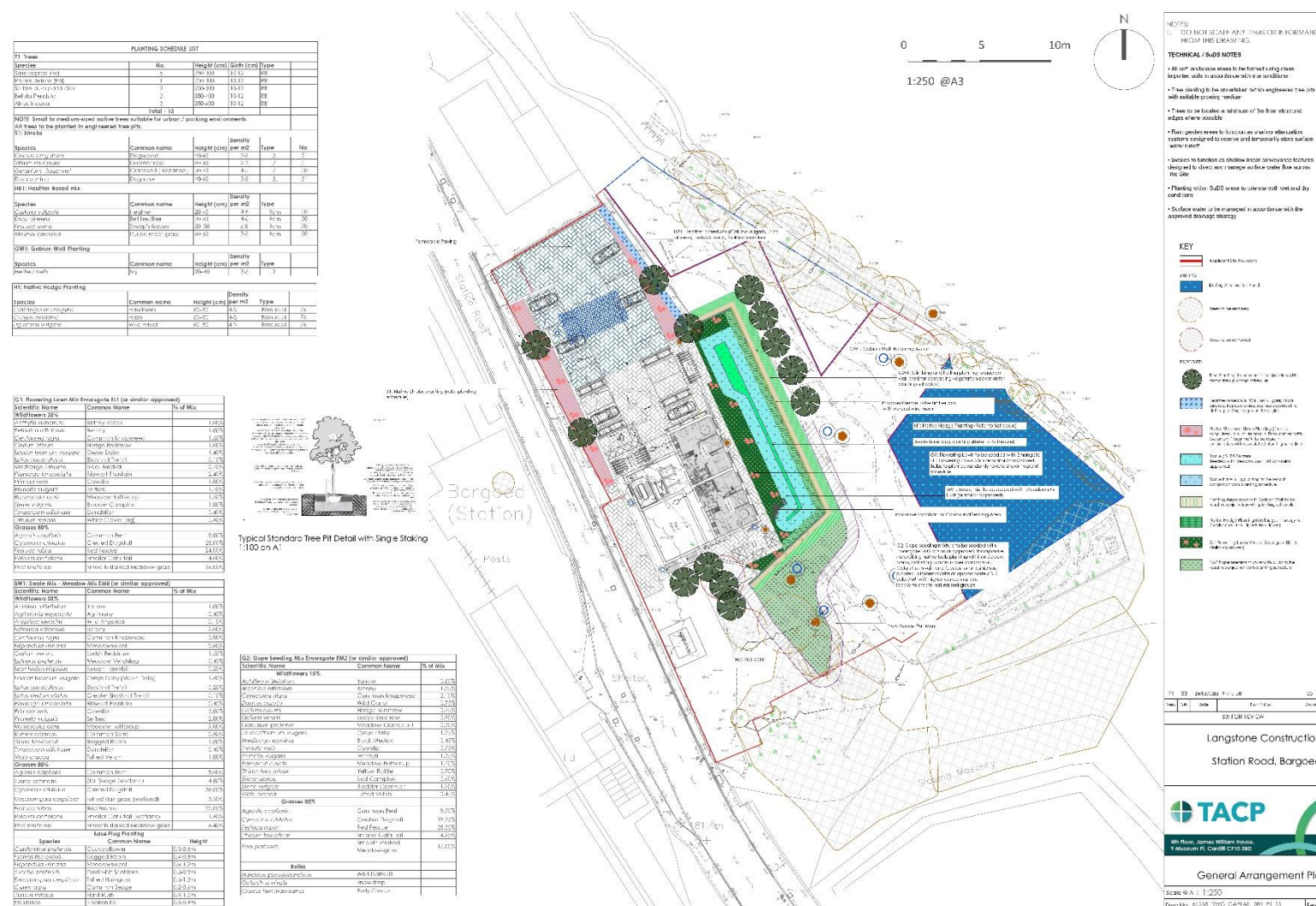
- 1. Welsh Government (2021). Planning Policy Wales (Edition 12). Cardiff: Welsh Government.
- 2. TACP (UK) Ltd (2026). Preliminary Ecological Appraisal: Station Road, Bargoed. Cardiff: TACP (UK) Ltd.
- 3. Earth Environmental & Geotechnical Solutions Ltd (2024). Geoenvironmental Site Investigation Report: B5556 Station Road, Bargoed. Cardiff: EEGSL.

APPENDICES

Appendix A

Drawing Proposals

Figure 3: Bargoed Landscape GA Plan



Appendix B

Site Photographs

Figure 4: Site photo positions

Photo 1: View of the Site from the adjacent car park



Photo 2: Existing site area facing towards the Rhymney River towards the east



Photo 3: Existing western boundary access.



Photo 4: View through existing field looking towards southern boundary.



Photo 5: View through existing field looking towards northwestern boundary.



Photo 6: Existing Japanese Knotweed.



Photo 7: Existing pond in north western corner of the Site



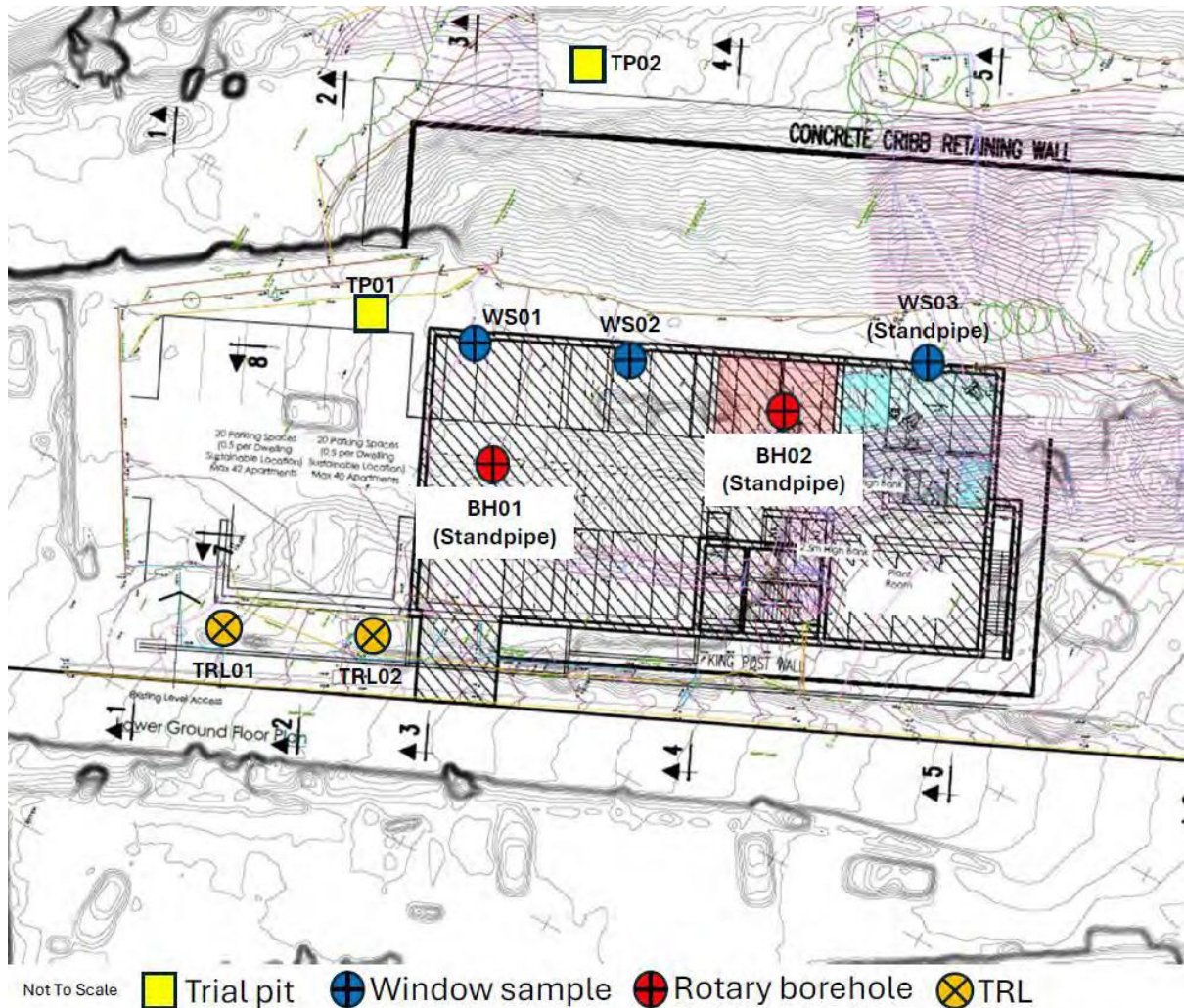
Photo 8: View of Western Boundary



Appendix C

Exploratory Hole Location Plan (TP01)

Figure 5: Exploratory Hole, Trial Pit and Borehole Investigation Locations Showing TP01 Remediation Area (Extract from Geoenvironmental Site Investigation Report)



Source: Adapted from Earth Environmental & Geotechnical Solutions Ltd (2024).
 Geoenvironmental Site Investigation Report: B5556 Station Road, Bargoed. TP01 identifies the investigation location associated with the area requiring targeted remediation measures.