

Station Road, Bargoed

Landscape and Ecological Management

Plan

Langstone Construction

61538

September 2026



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List of Abbreviations

Abbreviation	Full Description
CA	Contract Administrator
CCBC	Caerphilly County Borough Council
LEMP	Landscape and Ecological Management Plan
LPA	Local Planning Authority
SuDS	Sustainable Drainage Systems

1 INTRODUCTION

1.1 Background

1.1.1 TACP UK Ltd (TACP) was commissioned by Langstone Construction Group Ltd to set up a Landscape and Ecological Management Plan (LEMP) for a new residential development in Station Road, Bargoed, Caerphilly County Borough (hereafter referred to as 'the Proposed Development'). The Site is centred on OS Grid Reference SO 15107 00101.

1.2 Purpose of this document

1.2.1 A Landscape and Ecological Management Plan (LEMP) is a strategic document used to ensure that landscape features and ecological value of a site are protected, enhanced, and properly managed over time.

1.2.2 This document should be read in conjunction with:

- Preliminary Ecological Assessment¹
- GI Statement (61331_REP_GIStatement_F1)²

1.2.3 This LEMP aims to:

- Ensure effective establishment and long-term maintenance of soft landscape elements, including shrub, grassland, and tree planting.
 - Management will be structured through an initial 12-month defects liability period followed by a maintenance period of up to five years, eventually transferring to an estate management body (CODI) for long-term stewardship.
 - Specific monitoring metrics will include plant survival rates, establishment success, and species diversity, with annual inspections conducted during the spring and summer.
- Support biodiversity enhancement using native planting and retention of key ecological features, including the southern boundary woodland.
 - The strategy focuses on retaining the semi-natural broadleaved woodland along the southern and western boundaries to maintain ecological connectivity with the Rhymney River corridor.
 - Enhancements include creating a layered habitat structure through mixed native shrub and grassland planting, alongside the installation of bird and bat boxes and deadwood elements.
- Integrate Sustainable Drainage Systems (SuDS), including rain gardens and swales, to manage surface water runoff in accordance with site constraints.
 - Due to the presence of Made Ground and contamination, SuDS features are designed as shallow attenuation and bio-retention systems rather than infiltration-based solutions.

- Rain gardens will temporarily store runoff from hardstanding, while swales direct surface water flow across the site using moisture-tolerant, native marginal planting.
- Improve site resilience to climate conditions, including rainfall variability and urban heat effects.
 - The design incorporates urban greening and local cooling through integrated planting to provide shading and moderate the local microclimate.
 - The selection of native and drought-tolerant species ensures the landscape can adapt to changing weather patterns while managing runoff during flash flooding events.
- Provide an attractive, safe, and functional landscape setting for residents, including a communal external space environment.
 - The plan includes communal seating areas and amenity lawns designed to promote wellbeing and social interaction.
 - Safety is prioritised through clear pedestrian routes and the use of low-height planting to maintain visibility across parking and circulation areas.
- Ensure that landscape design responds appropriately to site-specific conditions, including underlying Made Ground and contamination, using clean imported soils and engineered planting systems.
 - All soft landscape areas will undergo remediation by capping the Made Ground with a minimum 600mm of clean imported material to prevent exposure to underlying polycyclic aromatic hydrocarbons.

This LEMP has been prepared to guide the long-term management of the proposed landscape works and is proportionate to the scale and nature of the development. It establishes clear objectives, maintenance requirements and responsibilities to ensure the landscape scheme is successfully delivered and maintained over time.

1.3 Site Description

- 1.3.1 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.
- 1.3.2 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.
- 1.3.3 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.
- 1.3.4 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.
- 1.3.5 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).
- 1.3.6 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).

- 1.3.7 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).
- 1.3.8 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.
- 1.3.9 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.

Figure 1: Red line boundary of the Site



1.4 Proposed Works

- 1.4.1 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 top of the gabion wall, 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.
- 1.4.2 Climbing and trailing planting, will be planted at the top of the gabion wall to support vertical greening and integration of the retaining system into the landscape, as well as tree planting at the base of the gabion wall.
- 1.4.3 The exposed facing stone within the gabion baskets shall comprise locally appropriate sandstone, reflective of the geological character of Wales and, where practicable, sourced from the local area to ensure integration with the surrounding landscape and vernacular materials, for visual integration.
- 1.4.4 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.
- 1.4.5 Soft landscape areas are formed using clean imported soils to support 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.

- 1.4.6 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).

1.5 Policy context

Planning Policy Wales (PPW)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.

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.

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.'

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.'

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

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.'

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.'

Section 6.3: Landscape requires 'ensuring that the value of all landscapes for their distinctive character and special qualities is protected;'

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.'

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

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."

The TAN supports protection of both designated and non-designated habitats, including SINCs, and stresses the importance of linking core habitats through development.

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)

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.

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

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.

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 SINC 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

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

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 SINCC corridor.

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.

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.

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.

2 LANDSCAPE AND ECOLOGICAL OBJECTIVES

2.1 Landscape Objectives

- Enhance the visual quality of the development through a well-maintained landscape design.
- Provide a functional and attractive setting for residential use, including communal external space and associated circulation areas.
- Establish and maintain a consistent, high-quality landscape character across all planted areas.
- Soften the built environment through structured planting within defined and localised areas along building edges, circulation areas and boundaries, including the green vegetated retaining structure.

2.2 Ecological Objectives

- Enhance biodiversity using native planting and retention of key ecological features, including the north-eastern and southern boundary woodland.
- Provide habitat opportunities for birds, invertebrates and small mammals through layered planting and habitat features.
- Support ecological connectivity by retaining existing woodland and introducing hedging and boundary planting.
- Ensure the existing pond is retained and protected without alteration to its ecological or hydrological condition.

2.3 Climate Resilience Objectives

- Improve resilience to rainfall and surface water through the integration of SuDS features, including a shallow rain garden and swales.
- Manage surface water runoff using attenuation-based drainage systems in response to site constraints.
- Support plant establishment and long-term resilience through appropriate soil remediation and planting techniques.
- Contribute to local microclimate regulation through planting that provides seasonal shelter, shading and cooling.

3 HABITAT CREATION AND PLANTING STRATEGY

3.1 Baseline Summary

- 3.1.1 Baseline information has been gathered through a series of technical assessments, including a Preliminary Ecological Appraisal (PEA) and Ground Investigations.

3.2 Ecological Baseline

- 3.2.1 The site is a brownfield parcel characterized by post-demolition conditions, including residual hardstanding and areas of previously disturbed ground.
- 3.2.2 **Habitats:** The site is dominated by ruderal and tall-herb vegetation (e.g., rosebay willowherb, mugwort) and localized areas of scrub and scattered trees. A significant semi-natural broadleaved woodland is located along the southern boundary and extends into the adjacent river corridor, dominated by species such as oak, silver birch, and goat willow.
- 3.2.3 **Standing Water:** A shallow, ephemeral pool is present in the southern portion, supporting marginal aquatic species like watercress and water mint.
- 3.2.4 **Invasive Non-Native Species (INNS):** Japanese knotweed (*Reynoutria japonica*) is widespread across the site, forming dense stands that suppress native vegetation. Other recorded INNS include Himalayan balsam and wall cotoneaster.
- 3.2.5 **Designated Sites:** No statutory designations (SAC, SSSI) overlap the site. However, the Rhymney River SINC (Site of Importance for Nature Conservation) lies immediately adjacent to the eastern boundary. The Aberbargoed Grasslands SAC/SSSI is located approximately 200–400m to the east.
- 3.2.6 **Protected Species Potential:** The woodland and scrub provide suitable habitat for foraging and commuting bats, nesting birds, and common reptile and amphibian species associated with damp, disturbed ground.

3.3 Landscape Baseline

- 3.3.1 The site is situated within the Rhymney Valley floor, set into a sloping landform that has been modified into two plateaus using fill and demolition material.
- 3.3.2 **Landscape Character:** It functions as a transitional urban-edge landscape, bound by strong linear infrastructure: the railway corridor to the west and the vegetated river corridor to the east.
- 3.3.3 **Physical Features:** A prominent, largely unvegetated brick retaining wall defines the northern boundary. The eastern vegetation forms a visually strong screen that provides containment and links the site to the wider valley backdrop.
- 3.3.4 **Designations:** The site lies within the Gelligaer Special Landscape Area (SLA) and is identified as a Visually Important Local Landscape (VILL) in the Caerphilly Local Development Plan. Two Grade II listed buildings (a war memorial and a railway viaduct) are located within 250m.

3.4 Constraints

- 3.4.1 **Ground Conditions:** The site is underlain by variable Made Ground up to 6m deep, which includes ashy materials and man-made obstructions like concrete pads and a buried red brick wall.
- 3.4.2 **Contamination:** Soil testing identified elevated levels of Polycyclic Aromatic Hydrocarbons (PAHs) in the near-surface Made Ground.
- 3.4.3 **Drainage Limitations:** Due to the thick Made Ground and risk of contaminant leaching, infiltration-based SuDS (soakaways) are prohibited; drainage must instead rely on attenuation and conveyance systems.
- 3.4.4 **Invasive Species Management:** The extensive Japanese knotweed infestation requires a specialist management plan and strict biosecurity to prevent spread during groundworks.
- 3.4.5 **Ecological Protection:** Retaining the southern woodland is critical for maintaining bat flight paths and ecological connectivity. Clearance must be timed to avoid the bird nesting season.
- 3.4.6 **Topography and Stability:** The sloping nature of the valley and the presence of Made Ground necessitate the use of engineered piling for foundations and specific consideration for slope stability.

3.5 Opportunities

- 3.5.1 **Sustainable Drainage Systems (SuDS):** Integrating rain gardens and swales provides a multifunctional opportunity to manage surface water while creating new wetland habitats for biodiversity.
- 3.5.2 **Habitat Creation:** Introducing native shrub and grassland planting will establish a layered habitat structure, supporting pollinators and urban wildlife.
- 3.5.3 **Enhanced Connectivity:** Retaining boundary vegetation and introducing a native hedge will strengthen corridors between the Rhymney River SINIC and the railway woodland.
- 3.5.4 **Site Remediation and Greening:** Capping contaminated areas with 600mm of clean imported soil allows for safe landscape establishment and significant visual improvement of previously derelict land.
- 3.5.5 **Social Wellbeing:** The inclusion of communal seating areas and amenity lawns provides residents with accessible green space and contact with nature.
- 3.5.6 **Ecological Enhancements:** Installation of bird and bat boxes and the retention of deadwood elements will further increase the site's value for local species

3.6 Ecological and Landscape Strategy

Ecological Enhancement Measures

- 3.6.1 **Deadwood Habitats:** Felled trees will be retained on-site and used to create deadwood habitat piles. These will provide essential refugia for saprophytic invertebrates, fungi, reptiles, and small mammals, and may also function as hibernation features for reptiles.
- 3.6.2 **Habitat Piles (Reptile Refugia):** In addition to deadwood retention, habitat piles comprising logs, brash, and, where appropriate, stone will be created in suitable locations. These features will provide sheltering, basking, and overwintering opportunities for reptiles and other fauna.
- 3.6.3 **Bat and Bird Boxes:** Bat and bird boxes will be installed in suitable locations within adjacent woodland to compensate for the loss of immature trees and enhance roosting and nesting opportunities. Box type and placement will be appropriate to target species and installed under the guidance of a suitably qualified ecologist.
- 3.6.4 **Pollinator-Friendly Planting:** Native, nectar-rich planting will be incorporated throughout landscaped areas to enhance foraging resources for pollinators, including bees, butterflies, and other invertebrates.
- 3.6.5 **Habitat Connectivity:** Landscaping will be designed to maintain and enhance connectivity between retained habitats, including woodland edges, scrub, and grassland, facilitating movement of fauna including reptiles, invertebrates, and small mammals across the Site.
- 3.6.6 **INNS Management:** Japanese Knotweed has been recorded on site. All Japanese Knotweed will be removed and disposed of in accordance with best practice guidance.
- 3.6.7 **Sensitive Lighting Design:** Where applicable, external lighting will be designed to minimise light spill onto retained habitats, particularly woodland edges and sheltering features, to reduce disturbance to bats and other nocturnal species.

Landscape Mitigation and Enhancement Measures

- 3.6.8 For the purpose of this document the soft landscape mitigation and enhancement measures will be categorised as follows and are detailed on the Landscape General Arrangement drawing (LandscapeGAPlan (Appendix A));

Category	Description
Native Planting	T1: Individual Trees S1: Shrubs H1: Hedge Planting HB1: Heather Based mix GC1: Ground Cover mix SW1: Swale Planting GW1: Retaining Wall Planting
Grasslands	G1: Flowering Lawn mix G2: Slope Seeding mix

T1: Individual Trees

3.6.9 **Species Mix:** The proposed planting palette has been selected to reflect native and naturalistic character, comprising *Sorbus aucuparia* (Rowan), *Prunus avium* (Wild Cherry), *Salix caprea* (Goat Willow), *Betula pendula* (Silver Birch) and *Alnus incana* (Grey Alder). This mix provides seasonal interest, biodiversity value, structural variation and resilience within the landscape.

Table 1: T1- Tree species

Trees	No.	Height (cm)	Girth (cm)	Type
<i>Sorbus aucuparia</i> (Rowan)	2	250-300	10-12	RB
<i>Prunus avium</i> (Wild cherry)	1	250-300	10-12	RB
<i>Salix caprea</i> (Goat willow)	5	250-300	10-12	RB
<i>Betula Pendula</i> (Silver birch)	2	350-400	10-12	RB
<i>Alnus Incana</i> (Grey Alder)	3	350-400	10-12	RB

3.6.10 **Purpose:** The proposed tree planting will fulfil a range of landscape, visual, and environmental functions. The trees will soften and filter views of the development, helping it to integrate more effectively within the surrounding landscape. They will also provide dappled shade to communal lawn areas, enhancing their usability and comfort during warmer periods, improving user experience, contributing to microclimatic regulation, and supporting overall landscape quality and biodiversity.

3.6.11 **Installation:** Due to underlying made ground and contamination, all trees are planted within engineered tree pits with imported growing medium, in accordance with site investigation recommendations. Green Spaces The plans indicate a small amount of green space around the development. It is recommended that all small bushes are kept to a maximum height of 1m. Any larger trees should be undercut to 2m. This then allows at minimum a 1m line of sight and surveillance across the site.

S1: Shrub Planting

3.6.12 **Purpose:** To establish and maintain localised areas of structural shrub planting and heather-based groundcover that contribute to biodiversity, visual quality and seasonal interest. Structural planting comprises *Cornus sanguinea*, *Viburnum opulus* and *Rosa canina*, while the groundcover layer includes *Calluna vulgaris*, *Erica cinerea*, *Festuca ovina* and *Molinia caerulea*. Low-level edging planting using *Geranium 'Rozanne'* provides additional seasonal interest, definition and ground-level coverage.

Table 2: S1 - Shrub and Groundcover Planting

Latin name	Common name	Height (cm)	Density/m2	Type
<i>Cornus sanguinea</i>	Dogwood	40-60	2-3	2L
<i>Viburnum opulus</i>	Guelder rose	40-60	2-3	2L
<i>Rosa canina</i>	Dog rose	40-60	2-3	2L

Latin name	Common name	Height (cm)	Density/m2	Type
<i>Calluna vulgaris</i>	Heather	20-40	4-6	9cm
<i>Erica cinerea</i>	Bell heather	20-40	4-6	9cm
<i>Festuca ovina</i>	Sheep's fescue	20-30	6-8	9cm
<i>Molinia caerulea</i>	Purple moor-grass	40-60	3-5	9cm
<i>Geranium 'Rozanne'</i>	Cranesbill ('Rozanne')	30-40	4-5	2L

H1: Hedge Planting

3.6.13 **Purpose:** The proposed hedge planting will provide a vegetated barrier along the top edge of the retaining wall, helping to enhance site safety by discouraging access to the wall edge. Planted alongside the fence line, the hedge will soften the appearance of the boundary infrastructure and create a more attractive and integrated landscape edge. In addition to its safety and visual functions, the hedge will deliver ecological benefits by providing habitat, nesting opportunities, shelter, and foraging resources for birds, pollinators, and other wildlife, thereby contributing to the overall biodiversity value of the site.

Table 3: H1 - Hedge Planting

Latin name	Common name	Height (cm)	Density/m2	Type
<i>Crataegus monogyna</i>	Hawthorn	60-80	4-5	Bare root
<i>Corylus avellana</i>	Hazel	60-80	4-5	Bare root
<i>Ligustrum vulgare</i>	Wild privet	60-80	4-5	Bare root

HB1: Heather Based Mix

3.6.14 **Purpose:** The proposed heather-based planting mix will provide a resilient and visually cohesive groundcover layer throughout the Site. The mix has been selected to deliver year-round structure, seasonal interest and biodiversity value while maintaining a low-growing form appropriate to the residential setting. The inclusion of heather, grasses and flowering species will provide habitat and foraging opportunities for pollinators and other invertebrates, whilst helping to suppress weeds, stabilise soils and soften the interface between hard and soft landscape areas. Low-level edging planting will provide additional seasonal colour and definition to planting beds.

Table 4: HB1 – Heather Based Mix

Latin Name	Common Name	Height (cm)	Density/m²	Type
<i>Calluna vulgaris</i>	Heather	20-40	4-6	9cm
<i>Erica cinerea</i>	Bell Heather	20-40	4-6	9cm
<i>Festuca ovina</i>	Sheep's Fescue	20-30	6-8	9cm

<i>Molinia caerulea</i>	Purple Moor-grass	40–60	3–5	9cm
<i>Geranium 'Rozanne'</i>	Cranesbill ('Rozanne')	30–40	4–5	2L

3.5.5 Sustainable Drainage (SuDS)

3.6.15 The proposed development integrates a coordinated Sustainable Drainage System (SuDS) within the car park design to manage surface water effectively while delivering ecological and landscape benefits. These measures form an integral component of the wider landscape proposals.

3.6.16 **SuDS Swales:** Swales will be seeded using a SuDS meadow mix in accordance with the landscape specification. The planting palette comprises native wildflowers, grasses and sedges selected for their tolerance of periodically wet conditions. These features will attenuate surface water runoff, improve water quality and provide valuable wildlife habitat, contributing to the Site's green infrastructure network.

Table 5: SW1 - Swale Planting (Emorsgate Seed mix EM8) - Sowing rate 4g/m²

Latin name	Common name	%
<u>Wildflowers 20%</u>		
<i>Achillea millefolium</i>	Yarrow	1.00
<i>Agrimonia eupatoria</i>	Agrimony	0.40
<i>Angelica sylvestris</i>	Wild Angelica	0.10
<i>Betonica officinalis</i>	Betony	2.00
<i>Centaurea nigra</i>	Common Knapweed	3.00
<i>Filipendula ulmaria</i>	Meadowsweet	0.80
<i>Galium verum</i>	Lady's Bedstraw	1.60
<i>Lathyrus pratensis</i>	Meadow Vetchling	0.40
<i>Leontodon hispidus</i>	Rough Hawkbit	0.20
<i>Leucanthemum vulgare</i>	Oxeye Daisy (Moon Daisy)	1.60
<i>Lotus corniculatus</i>	Birdsfoot Trefoil	0.20
<i>Lotus pedunculatus</i>	Greater Birdsfoot Trefoil	0.10
<i>Plantago lanceolata</i>	Ribwort Plantain	0.40
<i>Primula veris</i>	Cowslip	2.00
<i>Prunella vulgaris</i>	Selfheal	2.00
<i>Ranunculus acris</i>	Meadow Buttercup	2.00
<i>Rumex acetosa</i>	Common Sorrel	0.60
<i>Silene flos-cuculi</i>	Ragged Robin	1.00
<i>Taraxacum officinale</i>	Dandelion	0.40
<i>Vicia cracca</i>	Tufted Vetch	1.00

Grasses 80%		
<i>Agrostis capillaris</i>	Common Bent	8.00
<i>Carex echinata</i>	Star Sedge (wetland)	4.80
<i>Cynosurus cristatus</i>	Crested Dogtail	36.00
<i>Deschampsia cespitosa</i>	Tufted Hair-grass (wetland)	3.20
<i>Festuca rubra</i>	Red Fescue	20.00
<i>Phleum bertolonii</i>	Smaller Cat's-tail (wetland)	1.60
<i>Poa pratensis</i>	Smooth-stalked Meadow-grass	6.40

Table 6: SW1 – Swale Base Plug Planting

Species	Common Name	Height
<i>Cardamine pratensis</i>	Cuckooflower	0.3–0.5m
<i>Lychnis flos-cuculi</i>	Ragged Robin	0.4–0.8m
<i>Filipendula ulmaria</i>	Meadowsweet	0.8–1.2m
<i>Succisa pratensis</i>	Devil's-bit Scabious	0.3–0.8m
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	0.6–1.2m
<i>Carex nigra</i>	Common Sedge	0.2–0.6m
<i>Juncus inflexus</i>	Hard Rush	0.6–1.0m
<i>Iris sibirica</i>	Siberian Iris	0.6–0.9m

3.6.18 These features will enhance biodiversity, provide seasonal interest and contribute to the Site's green infrastructure network while supporting surface water attenuation, conveyance and water quality improvement.

GW1: Gabion Wall

3.6.1 The exposed facing stone within the gabion baskets shall comprise locally appropriate sandstone, reflective of the geological character of Wales and, where practicable, sourced from the local area to ensure integration with the surrounding landscape and vernacular materials. *Hedera helix* (common ivy) shall be planted along the crest of the gabion retaining wall and maintained to establish trailing growth that cascades over the wall face, softening the appearance of the structure, enhancing its integration within the landscape, and providing ecological benefits.

Table 7: GW1 - Retaining Wall Planting

Latin name	Common name	Height (cm)	Density/m2	Type
<i>Hedera helix</i>	Ivy	20–40	3-5	2L

G1: Wildflower Lawn

- 3.6.2 **Purpose** : Flowering lawn areas will be established within communal and open space areas of the Site using a species-rich flowering lawn mix with seasonal bulb planting. The planting will provide seasonal colour, enhance biodiversity, support pollinators and create visual interest throughout the year while maintaining a manageable and attractive landscape setting suitable for residential use.
- 3.6.3 The flowering lawn will be supplemented with seasonal bulb planting, including *Narcissus* spp., *Galanthus nivalis* and *Crocus* spp., to provide early seasonal interest and additional pollinator value.

Table 8: G1 - Flowering Lawn Mix (Emorsgate Seed mix EL1) - Sowing rate 4g/m²

Latin name	Common name	%
<u>Wildflowers 20%</u>		
<i>Anthyllis vulneraria</i>	Kidney Vetch	1.00
<i>Betonica officinalis</i>	Betony	1.00
<i>Centaurea nigra</i>	Common Knapweed	1.60
<i>Galium album</i>	Hedge Bedstraw	1.00
<i>Leucanthemum vulgare</i>	Oxeye Daisy	1.40
<i>Lotus corniculatus</i>	Birdsfoot Trefoil	0.10
<i>Medicago lupulina</i>	Black Medick	0.70
<i>Plantago lanceolata</i>	Ribwort Plantain	2.40
<i>Primula veris</i>	Cowslip	1.00
<i>Prunella vulgaris</i>	Selfheal	1.20
<i>Ranunculus acris</i>	Meadow Buttercup	1.60
<i>Silene vulgaris</i>	Bladder Champion	1.00
<i>Taraxacum officinale</i>	Dandelion	0.40
<i>Trifolium repens</i>	White Clover (ag)	5.60
<u>Grasses 80%</u>		
<i>Agrostis capillaris</i>	Common Bent	8
<i>Cynosurus cristatus</i>	Crested Dogtail	28
<i>Festuca rubra</i>	Red Fescue	24
<i>Phleum bertolonii</i>	Smaller Cat's-tail	4
<i>Poa pratensis</i>	Smooth-stalked Meadow-grass	16

G2: Slope Seeding Mix

- 3.6.4 **Purpose:** The proposed slope seeding mix will be established on sloping areas of the Site to provide long-term ground stabilisation, erosion control and visual integration with the surrounding landscape. The EM2 mix has been selected to create a species-rich vegetation community comprising native wildflowers and grasses suitable for exposed and free-draining conditions. The mix will enhance biodiversity, provide pollinator resources, improve soil stability and contribute to the overall ecological network of the Site. Seasonal bulb planting will provide early seasonal interest and additional ecological value.

Table 9: G2 – Slope Seeding Mix (Emorsgate EM2 or Similar Approved)

Latin Name	Common Name	% of Mix
Wildflowers 15%		
<i>Achillea millefolium</i>	Yarrow	0.60
<i>Betonica officinalis</i>	Betony	1.35
<i>Centaurea nigra</i>	Common Knapweed	2.10
<i>Daucus carota</i>	Wild Carrot	0.75
<i>Galium album</i>	Hedge Bedstraw	0.75
<i>Galium verum</i>	Lady's Bedstraw	0.90
<i>Geranium pratense</i>	Meadow Crane's-bill	0.30
<i>Leucanthemum vulgare</i>	Oxeye Daisy	1.35
<i>Medicago lupulina</i>	Black Medick	0.45
<i>Primula veris</i>	Cowslip	0.75
<i>Prunella vulgaris</i>	Selfheal	1.35
<i>Ranunculus acris</i>	Meadow Buttercup	1.20
<i>Rhinanthus minor</i>	Yellow Rattle	0.90
<i>Silene dioica</i>	Red Champion	0.60
<i>Silene vulgaris</i>	Bladder Champion	1.20
<i>Vicia cracca</i>	Tufted Vetch	0.45
Grasses 85%		
<i>Agrostis capillaris</i>	Common Bent	8.50
<i>Cynosurus cristatus</i>	Crested Dogstail	29.75
<i>Festuca rubra</i>	Red Fescue	25.50
<i>Phleum bertolonii</i>	Smaller Cat's-tail	4.25
<i>Poa pratensis</i>	Smooth-stalked Meadowgrass	17.00

Supplementary Bulb Planting

Latin Name	Common Name
<i>Narcissus pseudonarcissus</i>	Wild Daffodil
<i>Galanthus nivalis</i>	Snowdrop
<i>Crocus tommasinianus</i>	Early Crocus

- 3.6.5 Seasonal bulb planting shall be incorporated within the seeded areas in informal drifts to provide early seasonal colour, pollinator value and visual interest.

4 IMPLEMENTATION AND PHASING

4.1 Pre-Construction (Year 0)

- 4.1.1 The following pre-construction measures will be implemented to ensure that ecological constraints are identified and appropriate protection measures implemented prior to the commencement of works:
- Ecological toolbox talks will be delivered to all contractors prior to the commencement of works.
 - Pre-construction ecological checks will be undertaken for nesting birds and bats where required;
 - Root Protection Zones (RPZs) will be established, with protective fencing installed around retained trees.
 - Exclusion zones will be clearly marked to protect retained habitats and ecological features.
 - An appropriately qualified ecologist will supervise the clearance of reptile habitat, in accordance with the Reptile Method Statement (TACP (UK) Ltd, 2026).

4.2 Construction (Year 0)

- 4.2.1 The following construction phase measures will minimise impacts on retained habitats and species during active works through the implementation of best practice procedures:
- Installation of SuDS infrastructure and permeable surfacing (gravel).
 - No storage of machinery, materials or spoil within Root Protection Areas (RPAs).
 - Pollution prevention controls will be implemented during the construction phase.
 - External lighting will be designed to minimise light spill onto retained habitats.
 - Vegetation clearance undertaken outside bird nesting season (March to August inclusive) where practicable or supervised by a suitably qualified ecologist.

4.3 Post-Construction (0 – 12 months)

- 4.3.1 The following post-construction measures focus on establishing and enhancing habitats created as part of the development to deliver long-term ecological enhancements:
- Soft landscaping will be undertaken, including installation of ecological enhancement features such as bird and bat boxes and log piles (Refer to the PEA² and Reptile Mitigation Report⁸).
 - Planting should be undertaken during the recognised planting season i.e. between late November and mid-March, dependant of weather conditions and water availability. Avoid planting during prolonged periods of dry weather, excessive heat or when the ground is frozen or waterlogged.

5 MANAGEMENT, MONITORING AND REVIEW

The Principal Contractor is responsible for installation and initial aftercare (Years 1).

Following this, long-term responsibility transitions to CODI for Years 1-5 and 6-20

5.1 Construction Phase

The Principal Contractor is responsible for the day-to-day implementation of environmental controls, overseen by the Project Manager

Table 10: Construction Phase (Year 0)

Feature	Management Requirements	Criteria for Success	Monitoring	Remedial Actions
General	Strict adherence to Guidance for Pollution Prevention (GPP) is required. All hazardous substances must be stored in bunded areas (110% capacity) away from drainage inlets. Refuelling must occur only in designated areas using drip trays Any excavations left open overnight must be covered or provided with escape ramps to prevent entrapment of mobile species.	No accidental discharge of sediment, fuel, or cementitious materials into the surface water system or nearby watercourses Adherence to all planning conditions	The Site Manager will conduct daily checks of fuel storage, spill kit availability, drainage protection, and general site housekeeping.	In the event of a spill, the "Stop, Contain, Notify" procedure must be followed immediately. Works in the affected area will cease until the Project Manager assesses the severity and implements clean-up measures
Existing Trees	Existing trees shall be protected throughout the construction period in accordance with the	Protective fencing remains intact and effective	Monitoring shall be undertaken by the Site Manager and a suitably qualified arboriculturist	Cease works where tree protection measures have been compromised until

	approved Arboricultural Impact Assessment, Arboricultural Method Statement and British Standards Institution BS 5837:2012 Before works begin, protective fencing, which complies with British Standard BS 5837 2012, must be installed around Root Protection Zones (RPZs) for all trees. No materials, plant, or vehicles are permitted within these zones. The objective is to prevent damage to tree stems, crowns, roots and surrounding soil, ensuring that retained trees remain healthy and structurally stable following completion of the development.	throughout the construction period. No unauthorised access or works occur within Root Protection Areas. No significant damage occurs to retained tree stems, branches, roots or surrounding soils. Retained trees remain healthy and structurally stable following completion of construction. No decline in tree health attributable to construction activities is observed.	throughout the construction period. Inspection of tree protection fencing prior to commencement of works. Weekly visual inspections by the Site Manager to ensure fencing remains secure and exclusion zones are maintained. Arboricultural inspections at key construction stages: i. before works commence, ii. during operations adjacent to retained trees, iii. prior to removal of protective fencing. Inspection following severe weather or accidental impacts affecting retained trees or protective fencing. Recording of all inspections, observations, incidents and corrective actions.	corrective measures have been implemented. Reinstate or repair damaged protective fencing. Remove unauthorised materials, plant or spoil from Root Protection Areas. Undertake an arboricultural assessment of any damaged trees. Carry out remedial pruning or other arboricultural works where recommended by the project arboriculturist. Alleviate soil compaction within Root Protection Areas using approved arboricultural techniques where appropriate. Record all incidents and remedial works within the site management records and review construction practices to prevent recurrence.
INNS	The objective is to prevent the spread of Japanese Knotweed, reduce its extent, and ultimately achieve eradication where practicable. Management shall be undertaken in	Successful containment and removal of INNS with no evidence of spread within or beyond the site boundary	Inspections during the growing season, typically between April and October.	Additional herbicide applications where regrowth is identified. Repeat excavation or removal of persistent infestations where appropriate.

	accordance with all relevant legislation and current best practice guidance.			
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5.2 Aftercare Phase (Years 1-5)

Long-term responsibility transitions to CODI.

Table 11: Aftercare (Years 1-5)

Feature	Management Requirements	Criteria for Success	Monitoring	Remedial Actions
Hard Landscaping	Hard landscaped areas shall be maintained to ensure they remain safe, functional and visually attractive throughout the five-year aftercare period. Surfaces, paving, kerbs, edging, and associated infrastructure shall be inspected regularly and maintained in accordance with the project specifications.	Hard surfaces remain stable, level and free from significant settlement or trip hazards. Joints remain intact with minimal weed growth. Drainage functions effectively with no standing water resulting from defects. Any defects are rectified promptly to maintain design quality.	Quarterly inspections during Years 1 and 2. Biannual inspections during Years 3–5. Monitor for settlement, cracking, loose paving, weed growth, blocked drainage and damage. Record all maintenance works and repairs undertaken.	Relay or replace sunken or damaged paving. Refill joints and remove weeds. Repair damaged kerbs or edging. Clear blocked drainage channels and gullies. Replace damaged materials with matching specification.
T1: New Individual Trees	To ensure successful establishment and long term growth of new tree planting Newly planted trees require a five-year maintenance period, including regular watering, formative pruning, and mulching to suppress weeds and retain moisture	Trees remain healthy and free from significant pests or disease. Minimum 90% survival at the end of the five-year period. Trees exhibit healthy annual growth and good structural form. Stakes, ties and guards function correctly and are removed when no longer required.	Monthly inspections during the first growing season. Quarterly inspections during Years 2–3. Biannual inspections during Years 4–5. Monitor tree health, stability, irrigation requirements, pests, diseases and damage.	Water during prolonged dry periods. Replace failed trees during the next planting season. Adjust or replace stakes, ties and guards. Stakes to be removed at Year 2, where trees have established sufficient root anchorage and remain stable without support.

				Undertake formative pruning. Treat pests or diseases where necessary.
S1: New Shrub Planting	Promote biodiversity, maintain planting structure and ensure successful establishment Shrub, perennial, hedge and groundcover planting shall be maintained to ensure successful establishment, healthy growth and achievement of the approved landscape design.	Minimum 90% planting survival after five years. Planting achieves intended coverage and appearance. Beds remain substantially free from injurious weeds. Mulch remains effective in suppressing weeds and conserving moisture.	Monthly inspections during the first growing season. Quarterly inspections thereafter. Monitor plant health, weed growth, mulch depth and irrigation requirements. Assess establishment and seasonal performance.	Replace failed planting during the next planting season. Remove weeds manually or using approved control methods. Top up mulch where required. Water during extended dry periods. Prune and cultivate planting to maintain healthy growth.
H1: New Hedge planting	Formative pruning of the linear native hedge along the top of the gabion wall to encourage thick, structural growth.	A continuous, unfragmented hedge that functions as a functional barrier along the top of the retaining wall and wildlife corridor across the site	Annual inspections focusing on the integrity, structure and ecological connectivity of the hedge.	Re-planting of any dead sections to prevent gaps in the movement corridor.
HB1: Heather Based Mix	To ensure successful establishment and long-term performance of the heather-based groundcover planting. Groundcover, grass and edging species shall be maintained to achieve healthy coverage, suppress	Minimum 90% planting survival after five years. Planting achieves intended coverage and appearance. Heather, grass and edging species remain healthy and balanced with minimal weed intrusion. Groundcover provides	Monthly inspections during the first growing season. Quarterly inspections thereafter. Monitor plant health, establishment success, weed growth and seasonal performance.	Replace failed planting during the next planting season. Remove weeds manually or using approved control methods. Water during prolonged dry periods. Prune or lightly trim planting where required to maintain health and appearance.

	weeds and retain the intended landscape character.	continuous visual and ecological function.		
SW1: SuDS Swale Planting	Maintenance of native marginal and grass species specifically selected for bio-retention. Clearing of invasive weeds or excessive silt that could smother marginal plants.	Thriving vegetation that tolerates fluctuating wet and dry conditions while managing surface water runoff.	Twice-annual inspections (spring and autumn) to assess vegetation performance and drainage quality	Replacement of underperforming species with more resilient native varieties.
SuDS Swales	Swales shall be maintained to ensure continued hydraulic performance, water quality treatment and establishment of healthy vegetation.	Swales convey runoff without erosion or prolonged ponding. Vegetation establishes continuous cover. Inlets and outlets remain free from obstruction. Sediment accumulation remains within acceptable limits.	Quarterly inspections during Years 1–2. Biannual inspections during Years 3–5. Additional inspections following significant rainfall events. Monitor vegetation cover, erosion, sediment build-up, invasive species and drainage performance.	Remove accumulated sediment. Repair erosion using appropriate reinstatement measures. Replace failed vegetation. Remove litter and invasive weeds. Reinstate damaged inlet and outlet structures.
INNS	If INNS are found on site, they need to be removed according to the INNS Report ⁷	Successful removal of invasive species with no observed resurgence within the site boundary for a minimum of two years	Monthly inspections for the first 6 months post-removal, followed by quarterly inspections for two years to check for regrowth	Any invasive species regrowth identified during monitoring must be treated immediately with a targeted spot application of a non-persistent glyphosate-based herbicide

5.3 Aftercare Phase (Years 6-20)

Long-term responsibility transitions to CODI.

Table 12: Aftercare (Years 6-20)

Feature	Management Requirements	Criteria for Success	Monitoring	Remedial Actions
Hard Landscaping	Ongoing maintenance of pedestrian routes and parking surfaces to ensure they remain safe and functional. This includes regular litter removal and clearing of debris from permeable surfaces to maintain drainage performance.	Hard surfaces remain in good repair, free of significant defects or safety hazards, and continue to provide clear, accessible routes for residents.	Annual visual inspections of all hardstanding areas and communal seating to identify wear or damage.	Repair or replacement of damaged paving, seating, or fencing as required to maintain the design intent and site safety.
T1: New Individual Trees	Long-term management focuses on sustaining tree health through crown lifting (for visibility) and removal of dead or diseased wood. Engineered tree pits should be checked periodically to ensure growing mediums remain effective.	Trees reach maturity, provide significant urban shading, and contribute to the site's layered habitat structure and local cooling.	Annual vegetation health checks during spring or summer to assess survival rates and overall condition.	Removal and replacement of trees that fail or become hazardous, ideally using native or climate-resilient species to prevent monocultures.
S1: New Shrub Planting	Pruning to maintain shrubs at low heights—particularly within parking zones—to ensure pedestrian visibility and safety. Maintenance includes weeding and the periodic adjustment of the	Shrubs form dense, healthy cover that effectively softens built edges and provides habitat for urban wildlife and pollinators.	Annual site inspections to evaluate species diversity and plant health.	Gapping up areas of failed growth with replacement specimens and adjusting species selection if specific plants underperform due to site conditions.

	planting palette to respond to climate variability.	Beds remain substantially free from injurious weeds. Mulch remains effective in suppressing weeds and conserving moisture.		Top up mulch where required. Water during extended dry periods. Prune and cultivate planting to maintain healthy growth.
H1: New Hedge planting	Regular trimming to maintain the structure of the linear native hedge along the retaining system. Management should prioritise the hedge's function as a wildlife movement corridor.	A continuous, well-established native hedge that provides ecological connectivity with the adjacent river corridor and screens the development.	Annual reviews of hedge structure and health as part of the long-term stewardship actions.	Re-planting of any dead sections to maintain the continuity of the ecological corridor.
HB1: Heather Based Mix	Heather-based groundcover planting shall be managed to maintain a healthy, visually coherent and species-diverse cover. Management will focus on preventing dominance of individual species, maintaining ground coverage and ensuring long-term vitality of heather, grass and edging species. Selective trimming and removal of dead material may be undertaken where required to maintain the intended form and appearance.	A continuous and healthy groundcover layer is maintained. Heather and associated species remain vigorous and visually attractive. Planting continues to provide seasonal interest, habitat value and effective suppression of undesirable vegetation.	Annual inspections to assess plant health, species balance, coverage, seasonal performance and weed encroachment.	Selective replacement of failed specimens where necessary. Removal of invasive or undesirable species. Light rejuvenation pruning of heather where required. Introduction of replacement planting where gaps occur and coverage declines.

SW1: SuDS Swale Planting	Maintenance of moisture-tolerant marginal and grass species. Requirements include removing invasive weeds and ensuring that plant growth does not impede the flow of surface water.	Native marginal species thrive under fluctuating wet and dry conditions, successfully supporting bio-retention and water purification.	Twice-annual inspections (spring and autumn) focusing on surface water performance and general water quality.	Replacement of marginal species with more resilient varieties if they fail to establish or cope with extreme weather events .
SuDS Swales	Ensuring these linear conveyance features remain unobstructed by sediment or excessive vegetation to direct water flow across the site.	Swales effectively manage runoff during heavy rainfall without excessive ponding or erosion .	Visual inspections twice a year to check for ponding levels and general drainage function.	Desilting or regrading sections of the swale if blockages or erosion occurs .
INNS	The estate management body must maintain a "zero-tolerance" policy for the regrowth of Japanese knotweed (<i>Reynoutria japonica</i>) and other recorded INNS, such as Himalayan balsam and wall cotoneaster. Long-term management requires ensuring that no soil or vegetation management activities accidentally reintroduce or spread these species. All maintenance personnel should be trained in biosecurity protocols to prevent the spread of	Successful removal of invasive species with no observed resurgence within the site boundary for a minimum of two years	Conduct annual visual site walkovers during the peak growing season (May to September) to inspect for any signs of regrowth. Particular attention must be paid to boundary edges and unmanaged areas adjacent to the river corridor where infestations were previously prominent.	If any regrowth is identified, a specialist contractor must be engaged immediately to implement targeted control measures, such as herbicide treatment or excavation, in accordance with the original specialist management plan. The source of any new infestation should be investigated to determine if biosecurity measures or capping layers have been breached.

	dormant rhizomes that may remain beneath remediated capping layers			
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Review

- Annual review of the Landscape Management Plan to assess performance and identify any required adjustments
- Adaptive management approach to respond to plant establishment, site conditions and user behaviour
- Comprehensive evaluation at Year 5 to confirm establishment success and transition to long-term maintenance regime

REFERENCES

1. TACP (UK) Ltd. (2026). Station Road, Bargoed Preliminary Ecological Appraisal. Project Number: 61538, Version: P1, Status: FI. Prepared for Langstone Construction.
2. TACP (UK) Ltd. (2026). Station Road, Bargoed Green Infrastructure Statement. Project Number: 61538, Version: P1, Status: FI. Prepared for Langstone Construction.

APPENDICES

Appendix A

Landscape GA Plan

PLANTING SCHEDULE LIST				
Fl: Trees				
Species	No.	Height (cm)	Girth (cm)	Type
Coffea arabica (C)	5	75-100	15-2	RS
Shorea robusta (S)	2	75-100	15-2	RS
Artocarpus lacucha (A)	2	75-100	15-2	RS
Artocarpus lacucha	2	75-100	15-2	RS
Artocarpus lacucha	3	75-100	15-2	RS

NOTE: Small to medium-sized native trees suitable for urban / parking environments.
All trees to be planted in engineered tree pits.

Species	Common name	Height (cm)	Density per m ²	Type	No
<i>Conarus rugosus</i>	Dogwood	40-60	2.2	3L	14
<i>Viburnum woxleyi</i>	Guelder rose	40-60	2.2	3L	51
<i>Geacanthium "Roxburghii"</i>	Chinese (or) parrotree	15-40	6.5	2L	50
<i>Conarus chinensis</i>	Dog wood	40-60	2.2	2L	51

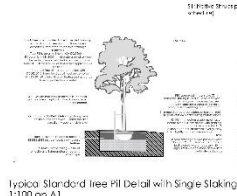
Species	Common name	Height (cm)	Density per m ²	Type	%
<i>Coffea arabica</i>	Espresso	25-40	100	Tree	30
<i>Passiflora</i>	Passiflora	2-3	100	Shrub	10
<i>Passiflora</i>	Passiflora	2-3	100	Shrub	10
<i>Passiflora</i>	Passiflora	2-3	100	Shrub	10
<i>Passiflora</i>	Passiflora	2-3	100	Shrub	10

Species	Common name	Height (cm)	Density per m ²	Type
<i>Adiantum patens</i>	Ivy	25-40	3-2	28

Species	Common name	Height (cm)	Density per m ²	Type	
<i>Carex monogyna</i>	Arrowroot	60-80	4-5	eric root	26
<i>Carex ovalis</i>	Arrow	30-50	6-5	eric root	76
<i>Gaillardia rigida</i>	Wild yarrow	30-50	6-5	eric root	76

[illegible][illegible]

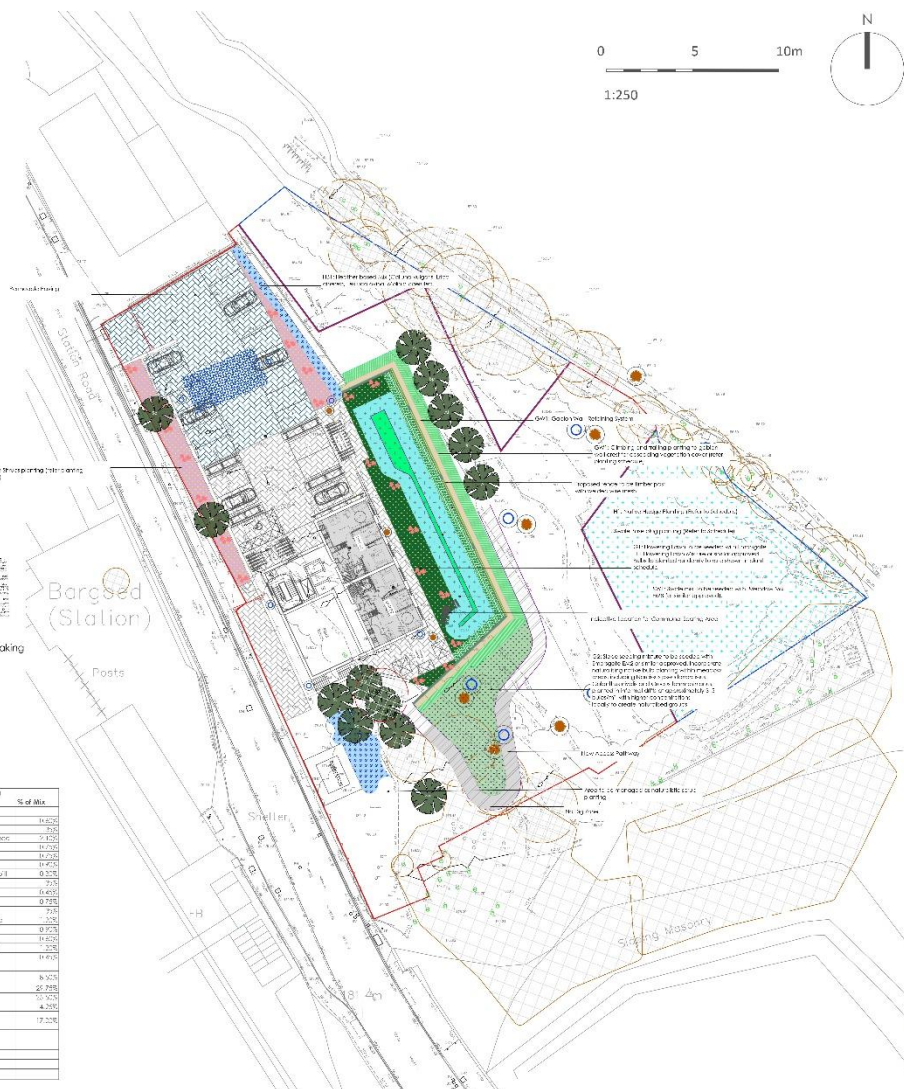
Species	Common Name	Height
<i>Chenopodium amaranticolor</i>	Cockle-blower	0.3-0.5m
<i>Chenopodium album</i>	Cockle-blower	0.4-0.6m
<i>Chenopodium officinale</i>	Medicinal cockle-blower	0.5-1m
<i>Chenopodium polifolium</i>	Field cockle-blower	0.3-0.6m
<i>Chenopodium serotinum</i>	Field cockle-blower	0.6-1.2m
<i>Chenopodium</i>	Cockle-blower	0.3-0.6m
<i>Chenopodium</i>	Cockle-blower	0.3-0.6m
<i>Chenopodium</i>	Cockle-blower	0.3-0.6m



Typical Standard Tree Pit Detail with Single Staking
1:100 on A1

[illegible]

Bulbs	
<i>Marshalla spectabilis</i>	Wild Daffodil
<i>Scilla maritima</i>	Spring Snowflake
<i>Scilla non-scripta</i>	Early Crocus



NOTES:
1. DO NOT SCALE ANY ITEMS OR INFORMATION FROM THIS DRAWING.

TECHNICAL / SDS NOTES

- All soft landscape areas to be formed using clean imported soils in accordance with site conditions
- Tree planting to be undertaken within engineered tree pits on suitable growing medium
- Trees to be located at a minimum of 10m from structural elements
- Root protect areas to function as shallow attenuation systems designed to receive and temporarily store surface water
- Seales to function as shallow in-pit surcumvents/leaves designed to direct and manage surface water flow to drains
- Planting within SUDS areas to include both tree and dry conditions
- Surface water to be managed in accordance with the

KEY

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PI	SS	2005/2006: First-half		DE	DE
SS	2005	2006	2007	2008	2009
SS: -OPR-VIEW					

Langstone Construction
Station Road, Bargoed



General Arrangement Plan

Scale 3 A1: 1:250