BIODIVERSITY NET GAIN DESIGN STAGE ASSESSMENT

JANUARY 2025

The Eagle at Barrow
Clitheroe Road
Barrow
Lancashire
BB7 9AQ

URBAN GREEN

QUALITY MANAGEMENT

Project No.:	UG2650				
Project:	The Eagle at Barrow				
Location:	Clitheroe Rd, Clitheroe, Barrow BB7 9AQ				
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Revision Status

Rev	Date	Comment	Prepared	Checked
02	22/01/2025	Addressing client comments.	WG	SP

CONTENTS

1 Executive Summary

1.1.1.1 Fence Gate Limited are proposing to develop land at The Eagle at Barrow in Clitheroe (hereafter referred to as 'the site'). The proposals include the construction of a hotel within the existing car park/grassland area of The Eagle at Barrow public house. There will also be associated soft landscaping to maximise onsite gain potential.

1.1.1.2 Urban Green has been appointed to carry out a Biodiversity Net Gain Design Stage Assessment to support a full planning application for the development of the site.

1.1.1.3 This assessment was conducted using the Statutory Biodiversity Metric to calculate the pre- and post-development biodiversity habitat units of the site for the proposed development.

1.1.1.4 The proposed development produces a net gain of 0.12 area habitat units (16.43%), a gain of 0.37 linear hedgerow units, and no net loss in watercourse habitat units.

1.1.1.5 The trading rules have met for all habitat types present.

1.1.1.6 The development complies with local and national planning policy for area habitats and linear hedgerow habitats. However, the watercourse does not achieve the required 10% net gain.

1.1.1.7 An additional 0.002 units of watercourse habitat will need to be created through offsite mitigation to achieve a 10% net gain. As the potential for biodiversity has been maximised onsite, this will be achieved through offsite mitigation.

1.1.1.8 To ensure that the habitats proposed as part of the post-development design of this site reach the condition detailed within this report and the full gain in value to the environment is achieved by this site, a management plan should be implemented post-development (Urban Green, 2024a).

2 Introduction

2.1 Scope

2.1.1.1 Urban Green has been instructed by Fence Gate Limited to carry out a Biodiversity Net Gain Assessment at The Eagle at Barrow in Clitheroe, Lancashire (hereafter referred to as 'the site') and produce our findings in a report.

2.1.1.2 The proposals include the construction of a hotel within the existing car park/grassland area of The Eagle at Barrow public house. There will also be associated soft landscaping to maximise onsite gain potential.

2.2 Site Context

2.2.1.1 The site is located at National Grid Reference SD 73510 37587 and comprises a total area of approximately 0.4ha (see Figure 1).

2.2.1.2 The site is located in the village of Barrow, immediately west of Clitheroe Road. The Eagle at Barrow pub/restaurant is located onsite, and Clitheroe town is around 4km to the north. The River Calder is located approximately 1.5km south of the site, a tributary of the River Ribble located approximately 2.4km west of the site. The surrounding area can be characterised by mixed use development with agriculture being the primary commercial operation, and the village of Whalley approximately 1km south of the site.

2.3 Purpose of Report

2.3.1.1 The report has been produced to document the methods, results and conclusions of a Biodiversity Net Gain Design Stage Assessment that was undertaken on site. The advice herein is based on both desk and field-based studies and intends to fulfil the following purposes:

- Ensure the core principles of Biodiversity Net Gain including the mitigation hierarchy are applied;
- Identify the baseline habitats present on site (pre-development), assess the condition and provide an indication of the ecological value of those habitats;
- Identify the post development habitats present on site, assess the possible target condition and provide an indication of the likely importance of those habitats;
- Calculate the overall change in biodiversity score from pre- to post-development habitats (measured as habitat units).

Legend:

Red Line Boundary

0.85

Kilometers

N

Client: Stantec	Issue: 01	Figure: 01	
Project: The Eagle at Barrow	Scale @ A4: 1:10,000		
Title: Site Context	Approved by: CL	Checked by: MK	
Drawing Ref: UG_2650_SITE_CONTEXT	Author: CL	Date: 30/07/2024	

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2.4 Legislation and Policy

2.4.1.1 In England, a minimum of 10% BNG is mandatory under Schedule 7A of the Town and Country Planning Act 1990 (Appendix 1).

2.4.1.2 Ribble Valley Borough Council produced a Core Strategy for 2008-2028 which outlines a Local Plan for the Ribble Valley area. The Council also produced a Housing and Economic Development DPD following the Core Strategy, which sets out more detailed policy coverage for matters relating to housing and economy to fully implement the policies of the Core Strategy.

2.4.1.3 The Housing and Economic Development DPD did not highlight the site as being allocated for housing, or as any ecologically important site.

2.4.1.4 The Core Strategy does not directly address Biodiversity Net Gain but has planning policies relating to Biodiversity and Geodiversity.

2.4.1.5 KEY STATEMENT EN4: BIODIVERSITY AND GEODIVERSITY states:

2.4.1.6 **Development proposals that adversely affect a site of recognised environmental or ecological importance will only be permitted where a developer can demonstrate that the negative effects of a proposed development can be mitigated, or as a last resort, compensated for. It will be the developer's responsibility to identify and agree an acceptable scheme, accompanied by appropriate survey information, before an application is determined. There should, as a principle, be no net loss of biodiversity.**

2.4.1.7 These sites include

- Sites of Special Scientific Interest (SSSIs)
- Local Nature Reserves (LNRs)
- Local Biological Heritage sites (CBHs)
- Special Areas of Conservation (SACs) and Special Protection Areas (SPAs)
- Local Geodiversity Heritage Sites
- Ancient Woodlands
- Lancashire Biodiversity Action Plan priority habitats and species
- European Directive on Protected Species and Habitats - Annexe 1 Habitats and Annexe II Species
- Habitats and Species of Principal Importance in England

3 Methods

3.1.1.1 The Biodiversity Net Gain Assessment and Report follows the user guidance produced by Department for Environment, Food & Rural Affairs (2024a) and the good practice methodology as detailed within the *Biodiversity Net Gain: Good Practice Principles for Development* (Baker, et al., 2019).

3.2 Desk Study

3.2.1.1 Sources of information used in the desk study are presented in Table 1.

Table 1 – Desk Study Sources of Information

Source	Date Consulted	Information Sought
MAGiC website (www.magic.gov.uk)	21/10/24	Locations of statutory designated sites within 1km of the site boundary. Locations of Natura 2000 sites (Ramsar, Special Area of Conservation (SAC) and Special Protection Area (SPA)) within 5km of the site boundary. Locations of European Protected Species Licences (EPSL) and Class Licences within 1km.
Natural England (https://designatedsites/.naturalengland.org.uk/)	21/10/24	Relevant statutory designated site citations.
JNCC (https://jncc.defra.gov.uk/)	21/10/24	Information on European wildlife sites. Details of relevant Section 41 species and habitats.
The Statutory Biodiversity Metric	21/10/24	The Statutory Biodiversity Metric, including the tool itself, user guides and reference documentation associated with the tool.
Lancashire Biodiversity Action Plans	25/10/24	Species and habitats which are given special conservation status at the local level.
Preliminary Ecological Appraisal (Urban Green, 2024b)	25/10/24	Notable species, habitats and designations identified on site and within a 1km radius.

Source	Date Consulted	Information Sought
Arb report (Urban Green, 2024c)	25/10/24	Tree Root Protection Areas (RPA) for existing trees on site and details of trees scheduled for removal/retention as part of the development on site.
Soft Landscape Plan (Urban Green, 2024d)	29/10/24	Habitat areas and conditions as to be included within the planning layout (post-development) for site.

3.3 Site Mapping

3.3.1 Existing Habitats

3.3.1.1 The site was subject to a field survey on 13th August 2024, by Jake Healy, Ecologist at Urban Green. The weather conditions were 18°c, clear (2/8 oktas), wind speed 2 Beaufort scale.

3.3.1.2 Plant species were identified and recorded, flora species listed as protected in the Wildlife and Countryside Act 1981 (as amended) and species which are indicators of important and/or uncommon habitats, were searched for during the survey. Any invasive species, including those listed on the revised (April 2010) Schedule 9 of the Wildlife and Countryside Act 1981 and the Invasive Alien Species (Enforcement and Permitting) Order 2019 were also searched for during the field survey.

3.3.1.3 Habitat types were identified and recorded using the Coreo habitat mapping application (V2.0) which utilises UKHab classifications (Butcher et al., 2023). Habitat types were based on the UKHab guidance provided and the assessor's best judgment while using these guidelines. Habitats were identified using primary codes and additional secondary codes have been used to record further information regarding various aspects of the site.

3.3.1.4 These habitats were subsequently mapped using ESRI ArcGIS Pro software, and habitat areas and lengths were calculated to demonstrate habitats within the proposed development and the surrounding area. The baseline habitat map is displayed in Appendix 2. A summary of primary and secondary codes can be found in Appendix 3.

3.3.2 Post-Development Habitats

3.3.2.1 The proposed landscape plan was provided by Urban Green (see Appendix 4) in PDF and DWG format, detailing planting mixes and the areas of the proposed habitats. These were used to categorise the proposed habitats to inform the assessment. Calculations for areas relating to each habitat were also provided.

3.4 The Statutory Biodiversity Metric

3.4.1.1 While the site satisfies some criteria to be assessed using the Small Sites Metric (<0.5ha in size and <10 dwellings), there are various Priority Deciduous Woodland habitats which are located within 500m of the site. As the site is within 500m of Priority Habitat it does not qualify for assessment using the Small Sites Metric.

3.4.1.2 Therefore, the BNG calculation was undertaken utilising The Statutory Biodiversity Metric from the Department for Environment, Food & Rural Affairs, using data obtained from the field surveys.

3.4.1.3 The calculation was performed by a technically competent and experienced person as detailed in British Standard BS8683 - Suitably qualified person – definition in BS8683:2020.

3.4.1.4 The Statutory Biodiversity Metric uses habitat features as a proxy measure for capturing the value and importance of nature. The metric considers the size, ecological condition, location and proximity to nearby 'connecting' features. The metric enables assessments to be made of the present and forecast future biodiversity value of a site.

3.5 Habitat Scoring

3.5.1.1 The Statutory Biodiversity Metric supplies reference documents and user guides to accurately evaluate and assess the different habitats on site. The methodology for the baseline and post development calculations are demonstrated in the following sections.

3.5.2 Minimum Mapping Units (MMU)

3.5.2.1 The UKHab classification system can be applied at various levels – fine scale, suitable for smaller sites, and large scale, used for broader landscapes. The fine scale level, which acknowledges areas of minimum 25m² and lengths of 5m, is considered appropriate for this site.

3.5.3 Baseline Units

3.5.3.1 To assess the quality of a habitat, and therefore calculate the units scored, the Statutory Biodiversity Metric utilises three scoring factors detailed as follows:

3.5.3.2 Condition

3.5.3.3 The condition of a habitat is assessed utilising the Condition Sheets provided for each habitat type (Department for Environment, Food & Rural Affairs, 2024b). These list positive indicators for each habitat and indicate how many of these indicators need to be present to meet certain thresholds of condition.

3.5.3.4 Condition assessment results for each habitat have been provided within the 'user comments' column of the associated Statutory Biodiversity Metric (Urban Green, 2024e).

3.5.3.5 A MoRPh5 River Condition Assessment was conducted to assess the condition of the watercourse onsite (Section 3.6).

3.5.3.6 Distinctiveness

3.5.3.7 The distinctiveness of each habitat is automatically assigned by the tool, based upon national records of the occurrence and rarity of each habitat. Table 2 provides the basis of the distinctiveness assessment for area habitats.

Table 2 – Distinctiveness Assessment for Habitats

Distinctiveness Categories		
Category	**Scores**	**Multiplier**
Very High	8	Priority habitats as defined in Section 41 of the Natural Environment and Rural Communities (NERC) Act that are highly threatened, internationally scarce and require conservation action e.g. blanket bog.
High	6	Priority habitats as defined in Section 41 of the NERC Act requiring conservation action e.g. lowland fens.
Medium	4	Semi-natural habitats not classed as a Priority Habitat.
Low	2	Habitat of low biodiversity value. Temporary grass and clover ley; intensive orchard; rhododendron scrub.
Very Low (hedgerows)	1	Lowest biodiversity value possible e.g. non-native and ornamental hedgerow
Very Low (area and watercourse)	0	Little or no biodiversity value e.g. hard standing or sealed surface.

3.5.3.8 Strategic Significance

3.5.3.9 The idea of strategic significance works at a landscape scale. It gives additional unit value to habitats that are in preferred locations for biodiversity and other environmental objectives. Strategic significance utilises published local plans and objectives to identify local priorities for targeting biodiversity and nature improvement, such Nature Recovery Areas, local biodiversity plans, National Character Area 14 objectives and green infrastructure strategies (see Table 3).

Table 3 – Strategic Significance Assessment for Habitats

Strategic Significance Categories	
Category	**Score**
High strategic significance Identified in Local Nature Recovery Strategy (LNRS) and delivers specified priorities, or identified local plans as ecologically important	1.15
Medium strategic significance Where LNRS is not available, good potential but not in area defined in local policy – using professional judgment	1.1
Low Strategic Significance Definitions for high or medium not met, i.e., does not deliver specific priorities outlined in LNRS/local plans	1

3.5.3.10 A Local Nature Recovery Strategy is currently being drafted by Lancashire County Council; therefore, MAGiC and local documentation have been used to assess the strategic significance.

3.5.3.11 A desk-based study using MAGIC was also performed to identify any statutory or non-statutory sites in the area using a 1km radius. The search did not identify any statutory or non-statutory sites within this radius.

3.5.3.12 However, the site lies within a Site of Specific Interest (SSSI) Impact Risk Zone, the SSSI being Light Clough located approximately 1.7km east of the site.

3.5.3.13 There are no priority habitats present onsite; therefore, all existing habitats present onsite have been allocated a **low strategic significance.**

3.5.4 Post-Development

3.5.4.1 Post-development habitats are subject to the same condition assessments as baseline habitats, based on information provided by the proposed landscape layout (Appendix 4). Two additional factors are considered within post-development landscapes which are detailed below.

3.5.4.2 Temporal Multiplier

3.5.4.3 For post development habitat creation or enhancement, a risk multiplier will be automatically applied by the tool to account for the period of diminished ecological value while the habitat reaches the targeted post development condition. This time and therefore risk multiplier differs between habitat types, if the habitat is being created or enhanced and how the habitat is to be managed. The predetermined multiplier is based on the average time to meet targeted condition assuming good practice principles and appropriate management strategies are applied.

3.5.4.4 Difficulty Multipliers

3.5.4.5 A risk multiplier will be automatically applied by the tool to account the 'difficulty' of habitat-specific enhancement or creation. There are two separate difficulty multipliers assigned to each habitat, one for creation and one for enhancement/restoration, recognising that the technical challenges will not necessarily be the same for both.

3.6 MoRPh River Survey

3.6.1.1 A small section of watercourse is present to the west of the site, arriving from a culvert and leaving the site onto private land to the west.

3.6.1.2 This watercourse has been assessed by a Modular River Physical Survey (MoRPh Survey) undertaken by a certified ecologist. Assessment of watercourse condition is based on the extent and diversity of a number of physical features, within both the river channel and riparian zone, as well as the extent and type of any human modifications. This assessment is implemented in two parts:

- A field based sub-reach scale assessment that captures channel dimensions, physical features / habitats, vegetation structural features, and human interventions to assess the condition of the river at the development site, taking into account the type of river.
- A desk-based reach-scale assessment to define river type of the homogenous reach of the river to be affected by development.

3.6.1.3 The field element of the assessment included five MoRPh field surveys conducted on contiguous lengths (modules) of river. Each MoRPh module covers a river length that is approximately twice the river width, with five modules making up a sub reach. The MoRPh survey must include at least 20% of the total length of the river that lies within the red line boundary of the site. If this is not achieved with one module then additional modules must be completed.

3.6.1.4 The values for the width, module length and sub reach length for the watercourse are summarised within Table 4.

Table 4 - Watercourse width, module length and sub reach length

Watercourse	Approx. River Width	Module Length	Sub Reach Length
Unnamed stream	<5m	10m	50m

3.6.1.5 The River Condition Assessment captures information on sediments, vegetation, morphological and water-related features; and the extent and severity of physical modification within the channel, channel margins, banks, and riparian zone.

3.7 Lifespan of Report

3.7.1.1 In accordance with CIEEM's Advice Note on the Lifespan of Ecological Reports and Surveys (CIEEM, 2019), the details of this report will remain valid for a period of **18 months** from the date of the survey (i.e. until **13/02/2026**). After this date, this assessment should be reviewed to determine whether any updated surveys are required.

3.8 Constraints to the Survey

3.8.1.1 Whilst every effort has been made to provide a comprehensive description of the site, no investigation could ensure the complete characterisation and prediction of the natural environment.

3.8.1.2 Best possible effort was made during the mapping process to ensure that the habitat map accurately represents the area of habitats present on site. Some margin of error is possible due to the continuous and difficult to define nature of habitat boundaries, however this margin of error has been minimised using professional opinion of experienced ecologists and

up to date aerial imagery. As such this is not expected to be a significant constraint and affect the overall Biodiversity Net Gain Calculation provided within this report.

3.8.1.3 The conclusions and recommendations detailed in this report are based upon the site redline boundary and the development proposals as outlined by the client at the time of writing. Should there be any changes to the site redline boundary or development proposals at a later stage, this assessment should be reviewed to determine whether any amendments or additional survey work is required.

3.8.1.4 There is only 6m of the watercourse present onsite; the upstream section is culverted, and the downstream section is on private land which was inaccessible during the site visit. The MoRPH5 Assessment should ideally be completed on a 50m stretch for this watercourse; however, this was not possible. Therefore, the assessment was completed on the 6m section and the results duplicated five times. However, the results are still considered to be an accurate assessment of the condition of this watercourse.

4 Pre-Development Habitat Assessment

4.1.1.1 Baseline habitats were assessed following the methodology outlined in Section 3 and is supported by data from the Preliminary Ecological Appraisal (Urban Green, 2024b) and the Arboricultural Impact Assessment (Urban Green, 2024c).

4.1.1.2 Habitat descriptions are provided below, and the results of the condition assessment are provided in the accompanying Statutory Biodiversity Metric (Urban Green, 2024e).

4.1.1.3 Habitats with comparable structure and condition assessment results have been grouped for simplicity. The habitats have been given reference numbers for clarity regarding in-text and the metric calculation illustrates the numerical data.

4.1.1.4 Photographs of the habitats present onsite are included in Appendix 5.

4.2 Area Habitats

4.2.1 1) Urban - Developed Land: Sealed Surface (u1b6)

4.2.1.1 The site is predominantly comprised of hardstanding, functioning as a carpark for the pub located beyond the northern boundary of the site.

4.2.1.2 Hardstanding is classified as developed land; sealed surface within the Statutory Biodiversity Metric, which is automatically allocated a condition score of **N/A**.

4.2.2 2) Grassland - Modified Grassland (g4 516)

4.2.2.1 This grassland parcel is present at the south of the site and spreads up both western and eastern boundaries of the site around the base of the carpark.

4.2.2.2 Species present within this grassland were perennial ryegrass (*Lolium perenne*), Yorkshire fog (*Holcus lanatus*), cock's foot (*Dactylis glomerata*), sweet vernal grass (*Anthoxanthum odoratum*), white clover (*Trifolium repens*), dandelion (*Taraxacum sp.*), creeping buttercup (*Ranunculus repens*), daisy (*Bellis perennis*) and common selfheal (*Prunella vulgaris*).

4.2.2.3 This habitat was assessed as poor condition.

4.2.3 3) Urban - Introduced Shrub (u 847)

4.2.3.1 A linear strip of introduced shrub is present across the centre of the site, through the carpark.

4.2.3.2 Introduced shrub habitats are predominantly planted using non-native, ornamental species that provide amenity value.

4.2.3.3 The species of shrub was small boxwood (*Buxus sempervirens*).

4.2.3.4 Introduced shrub is automatically allocated a condition score of N/A within the metric.

4.2.4 4) Urban – Introduced Shrub (u 847)

4.2.4.1 A small garden area is present to the west of the site, comprising ornamental shrubbery planted for aesthetic purposes. A bench is also present upon a hardstanding surface.

4.2.4.2 There are also multiple trees present (see section 4.2.5) as well as a stream (see section 4.3) that will be assessed separately.

4.2.4.3 Species present in this area include small boxwood, rose (*Rosa sp.*), privet (*Ligustrum sp.*), full moon maple (*Acer japonicum*), Japanese maple (*Acer palmatum*), Buddleia (*Buddleja davidii*), Japanese meadowsweet (*Spiraea japonica*), Lauristinus vibernum (*Viburnum tinus*), ivy (*Hedera helix*), pendulous sedge (*Carex pendula*), horsetail (*Equisetum sp.*) and ferns (*Pteridophytes* sp.).

4.2.4.4 Introduced shrub is automatically allocated a condition score of N/A within the metric.

4.2.5 5) Grassland - Modified Grassland (g4 516 108)

4.2.5.1 This grassland parcel is present at the north-east corner of the site, parallel to Clitheroe Road.

4.2.5.2 Species present within this grassland were consistent with the species composition of the grassland to the south of the site (see Section 4.4.2).

4.2.5.3 This habitat was assessed as poor condition.

4.2.6 7-9) Individual Trees – Urban Trees

4.2.6.1 A total of 17 trees are present onsite. Their locations are based on the Tree Constraints Plan from the Arboricultural Impact Assessment (Appendix 6). Trees with the same condition score have been grouped within the BNG metric.

Table 5 – Summary of Individual Trees

Tree Location	Species	No. of Trees	Size in Metric	Condition Criteria*						Overall Condition	Comments
				A	B	C	D	E	F		
T1	Cherry (*Prunus sp.*)	1	Small							Moderate	
T2	Dead	1	Small							Moderate	This tree is dead. Unable to identify species.
T3	Goat Willow (*Salix capera*)	1	Medium							Poor	
G4	Himalayan birch (*Betula utilis* var. 'Jaquemontii')	3	Small							Poor	
G5	Weeping willow (*Salix babylonica*)	4	Small							Poor	
T6	Cherry (*Prunus sp.*)	1	Medium							Moderate	
G7	Goat willow (*Salix caprea*)	2	Small							Poor	
T8	Maidenhair Tree (*Ginkgo biloba*)	1	Small							Poor	
G9	Japanese maple (*Acer palmatum*)	3	Small							Poor	

Condition Criteria A = The tree is a native species (or more than 70% within the block are native species); Condition Criteria B = Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion); Condition Criteria C = The tree is mature (or more than 50% within the block are mature); Condition Criteria D = There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height; Condition Criteria E = Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark; Condition Criteria F = More than 20% of the tree canopy area is oversailing vegetation beneath.

Condition Assessment Key: Pass = Fail =

4.3 Watercourse Habitats

4.3.1 1) Other Rivers and Streams

4.3.1.1 A small section of an unnamed watercourse is present to the west of the site. The upstream section of the watercourse is culverted, and the downstream continues past a wooden fence into private land. A drainpipe also directs water into the stream from the adjacent car park.

4.3.1.2 The banks of the watercourse are reinforced with material matting. The adjacent area is managed as an ornamental garden, and is dominated by trees and ornamental planting, with extensive bare ground and soil (see Section 4.2.3).

4.3.1.3 The bed of the watercourse is comprised of cobbles and pebbles, and the water flow is imperceptible.

4.3.1.4 This habitat has been assessed as fairly poor condition.

Table 6 – Condition Assessment for Other Rivers and Streams

Name	**Unnamed Brook**		
UK Hab Classification	**Other Rivers and Streams**		
Condition Assessment	**River MoRPH5 Survey**		
River Category	Other River	Reach Valley Gradient	0.056
Braiding Index	1	Bedrock Reach	No
Sinuosity Index	1	Coarsest Bed Material	Cobble
Anabranching Index	1	Average Bed Material	Silt
Level of Confinement	Confined	Condition Score	0.283

Condition Score	Fairly Poor
Distinctiveness	High
Extent of watercourse encroachment	Minor
Extent of riparian encroachment	Major/Major

5 Retained Habitats

5.1.1.1 The proposed landscape layout and the Statutory Biodiversity Metric were used to calculate the units associated with the habitats which are to be retained on site. This is demonstrated in a Habitat Retention and Loss Plan (Appendix 7).

5.1.1.2 By retaining these habitat types the landscape proposals adhere to the principles stated within the Biodiversity Gain Hierarchy.

5.2 Area Habitats

5.2.1.1 Part of the hardstanding carpark will be retained and improved.

5.2.1.2 The area of introduced shrub within the north-west of the site will be retained. In addition, while the section of introduced shrub will be replaced with a new species mix, it will reach the same condition within two years. Therefore, following the Statutory Biodiversity Metric User Guidance, it can be classified as retained.

5.2.1.3 All the trees will be retained as part of the development, and the small grassland parcel on the side of Clitheroe Road will also be retained.

5.2.1.4 Table 7 shows a summary of the area habitats and their corresponding area (ha) and unit score to be retained on site.

Table 7 – Area habitats to be retained on site

Habitat Parcel Reference	Total Area (ha)	Total Units	Area Retained (ha)	Units Retained
1) Developed land; sealed surface	0.260	0.00	0.116	0.00
3) Introduced shrub	0.004	0.01	0.004	0.01
4) Introduced shrub	0.017	0.04	0.012	0.02
5) Modified grassland	0.007	0.01	0.007	0.01
7) Urban tree	0.007	0.28	0.007	0.28
8) Urban tree	0.024	0.20	0.020	0.16
Total	0.382	0.53	0.23	0.48

5.3 Watercourse Habitats

5.3.1.1 The watercourse will be retained in its current condition as part of the development.

5.3.1.2 Table 8 shows a summary of the watercourse habitats and their corresponding length (km) and unit score to be retained on site.

Table 8 – Watercourse habitats to be retained on site

Habitat Parcel Reference	Total Length (km)	Total Units	Length Retained (km)	Units Retained
1) Other rivers and streams	0.006	0.02	0.006	0.02
Total	0.006	0.02	0.006	0.02

6 Lost Habitats

6.1.1.1 The proposed landscape layout and the Statutory Biodiversity Metric were used to calculate the units associated with the habitats which are to be lost on site.

6.2 Area Habitats

6.2.1.1 The southern modified grassland parcel will be fully lost, a section of hardstanding and the introduced shrub to the west will all be lost to accommodate for the development. In addition, the dead individual tree will be lost.

6.2.1.2 Proposed mitigation strategies have been set out to demonstrate how and if the loss of these habitat types will be mitigated for following the Biodiversity Gain Hierarchy.

6.2.1.3 Table 9 shows a summary of the area habitats and their corresponding area (ha) and unit score to be lost on site.

Table 9 – Area habitats to be lost on site

Habitat Parcel Reference	Total Area (ha)	Total Units	Area Lost (ha)	Units Lost	Proposed Mitigation
1) Developed Land; sealed surface	0.260	0.00	0.144	0.00	The area of hardstanding lost will be made into a new carpark and the hotel itself. No mitigation is required as developed land has no value within BNG.
2) Modified grassland	0.114	0.23	0.114	0.23	New areas of grassland will be created as well as medium distinctiveness habitats to offset the loss of this grass.
4) Introduced shrub	0.018	0.04	0.018	0.01	New low and medium distinctiveness habitats will be created to offset this loss.
8) Urban Tree	0.024	0.20	0.004	0.03	Removal of T2 due to it being dead. Eleven new trees will be planted within the landscape plan.
Total	**0.416**	**0.47**	**0.27**	**0.27**	

7 Pre-Development Habitat Summary

7.1.1.1 Using the Statutory Biodiversity Metric, the habitat units of the existing site habitats were calculated; the habitat units to be retained within site development were calculated; and the habitat units that are anticipated to be lost in site development were calculated.

7.1.1.2 The results of these calculations are presented in the Table 10.

Table 10 - Pre-Development Unit Summary

	On-site baseline	Retained	Lost	Enhanced
Area Habitat Units	0.76	0.48	0.27	0
Watercourse Habitats	0.02	0.02	0	0

8 Post-Development Habitat Assessment

8.1.1.1 Proposed habitats were assessed following the methodology outlined in Section 3.

8.1.1.2 Habitat descriptions are provided below, and the results of the condition assessment are provided in the accompanying Statutory Biodiversity Metric (Urban Green, 2024e).

8.1.1.3 Habitats with comparable structure and condition assessment results have been grouped for simplicity. The habitats have been given reference numbers for clarity regarding in-text and the metric calculation illustrates the numerical data.

8.1.1.4 For a detailed species list refer to the planting schedule within the landscape proposals.

8.2 Area Habitats

8.2.1 1 & 2) Individual Trees – Urban Trees

8.2.1.1 A total of 16 trees will be planted onsite. They will mainly be planted on the periphery of the site, while three will be planted within ornamental shrub across the centre of the carpark.

8.2.1.2 Species will be freeman maple (*Acer freemanii*), silver birch (*Betula pendula*) and wild cherry (*Prunus avium*). Freeman maple is non-native species whereas silver birch and wild cherry are native.

8.2.1.3 The silver birch and wild cherry are expected to achieve **moderate** condition, whereas the freeman maple is expected to achieve **poor** condition as it is a non-native species.

8.2.2 3) Heathland and Shrub – Mixed Scrub

8.2.2.1 Lengths of semi-native scrub will be planted along the base of the site and up the west side of the site too.

8.2.2.2 Species include native hawthorn, guelder-rose (*Vibernum opulus*), common dogwood (*Cornus sanguinea*), hazel (*Corylus avellana*) as well as non-native rubella (*Skimmia japonica*) and flowering current (*Ribes sanguineum*).

8.2.2.3 This habitat is expected to reach **poor** condition.

8.2.3 4) Grassland – Modified Grassland

8.2.3.1 Four small areas will be planted with superior pollen and nectar wildflower mix from Habitat Aid. This includes 21 different native wildflower species.

8.2.3.2 While the composition of this grassland matches the other neutral grassland classification, due to the location of the grassland, it is expected to receive regular management through mowing and to experience high levels of disturbance. Therefore, classification as modified grassland is more realistic.

8.2.3.3 This grassland is expected to achieve **moderate** condition.

8.2.4 5) Urban – Rain Garden

8.2.4.1 Three small areas of purple and white rain garden mix will be planted.

8.2.4.2 The species present are native mint (*Mentha piperita*), 'snowdrift' (*Astilbe sp.*), purple willow (*Salix purpurea*) and great wood-rush (*Luzula sylvatica*) as well as non-native Honorine Jobert (*Anemone x hybrida*), Siberian iris (*Iris sibirica*), purple coneflower (*Echinacea purpurea*), plantain lily (*Hosta sp.*), Japanese laurel (*Aucuba japonica*), mock orange (*Philadelphus sp.*) and reed canary grass (*Phalaris arundinacea* var. *picta*).

8.2.4.3 This habitat is expected to reach **good** condition.

8.2.5 6) Urban – Introduced Shrub

8.2.5.1 A bed of ornamental shrub will be planted to the south-east of the site to provide visual and amenity value.

8.2.5.2 The species within the shrub are all non-native, such as Oregon grape (*Mahonia aquifolium*) and Kew Green (*Skimmia x confusa*).

8.2.5.3 Introduced shrub is automatically allocated a condition score of **N/A** within the Statutory Biodiversity Metric.

8.3 Linear Hedgerow Habitats

8.3.1 1) Native Hedgerow

8.3.1.1 A length of native hedgerow will be planted along the southern and western boundaries of the site.

8.3.1.2 Species will include hawthorn (*Crataegus monogyna*), hazel, dogwood, holly (*Ilex aquifolium*) and dog rose (*Rosa canina*).

8.3.1.3 The hedgerow is expected to achieve **moderate** condition.

9 Post-Development Habitat Summary

9.1.1.1 Using the Statutory Biodiversity Metric, the habitat units of the proposed and created habitats were calculated; the habitat units to be retained within site development were calculated; and the habitat units that are anticipated to be lost in site development were calculated.

9.1.1.2 The results of these calculations are presented in the Table 11.

Table 11 - Post Development Biodiversity Net Gain Calculation

		Habitat Unit Change					Net change in Biodiversity	
	On-site baseline	Retained	Lost	Enhanced	Created	On-site post development	Habitat units	%
Area Habitat Units	0.76	0.48	0.27	-	0.40	0.88	+0.12	**+16.43**
Linear Hedgerow Units	-	-	-	-	0.37	0.37	+0.37	**N/A**
Watercourse Units	0.02	0.02	-	-	-	0.02	N/A	**N/A**

.

9.1.1.3 As illustrated in Table 11, the proposed development produces a net gain of 0.12 area habitat units (16.43%), a gain of 0.37 linear hedgerow units (no percentage change as baseline was zero), and no net change in watercourse habitat units.

9.1.1.4 The trading rules have met for all habitat types present.

9.1.1.5 The development complies with local and national planning policy for area habitats and linear hedgerow habitats. However, the watercourse does not achieve the required 10% net gain.

9.1.1.6 An additional 0.002 units of watercourse habitat will need to be created through offsite mitigation to achieve a 10% net gain. As the potential for biodiversity has been maximised onsite, this will be achieved through offsite mitigation.

9.1.1.7 To ensure that the habitats proposed as part of the post-development design of this site reach the condition detailed within this report and the full gain in value to the environment is achieved by this site, a long-term management plan (usually 30 years) is required.

9.1.1.8 This length of management plan is required due to the complex nature of the habitats to be enhanced/created on site and the high value they will provide to the environment. This management plan is provided by Urban Green (Urban Green, 2024a) as a separate document and covers the recommended management practices for the proposed habitats discussed in this report.

10 References

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Urban Green (2024b). Preliminary Ecological Appraisal (PEA). Ref: UG_2650_ECO_PEA_02.

Urban Green (2024c). Arboricultural Impact Assessment (AIA). Ref: UG_2650_ARB_AIA_REV_01_FINAL.

Urban Green (2024d). Proposed Landscape Plans. Ref: UG_2650_LAN_GA_DRW_01.

Urban Green (2024e). Biodiversity Net Gain Metric. Ref: UG_2650_ECO_BNG_CALC_01.

Appendix 1 – National Biodiversity Net Gain Legislation

Biodiversity Net Gain (BNG) is a way of creating and improving natural habitats. BNG makes sure development has a measurably positive impact ('net gain') for biodiversity, compared to what is present onsite prior to development.

BNG is now a mandatory condition for any new development of land in England (specific exemptions apply), as of 12th February 2024. In order for planning permission to be granted, the development must be able to achieve at least a **10% net gain in biodiversity** for each type of habitat unit present (i.e., area habitats, linear hedgerow habitats and watercourse habitats) and meet the trading rules.

Where a 10% net gain cannot be achieved onsite, offsite mitigation will be necessary and must be carried out under a conservation covenant or planning obligation.

In England, BNG is mandatory under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021).

Schedule 14 the Environment Act (2021) states:

Overview

1 (1)This Schedule makes provision for grants of planning permission in England to be subject to a condition to secure that the biodiversity gain objective is met.

(2)Paragraphs 2 to 12 have effect for the purposes of this Schedule.

Biodiversity gain objective

2 (1) The biodiversity gain objective is met in relation to development for which planning permission is granted if the biodiversity value attributable to the development exceeds the pre-development biodiversity value of the onsite habitat by at least the relevant percentage.

(2) The biodiversity value attributable to the development is the total of—

(a) the post-development biodiversity value of the onsite habitat,

(b) the biodiversity value, in relation to the development, of any registered offsite biodiversity gain allocated to the development, and

(c) the biodiversity value of any biodiversity credits purchased for the development.

(3) The relevant percentage is 10%.

(4) The Secretary of State may by regulations amend this paragraph so as to change the relevant percentage.

The National Planning Policy Framework (NPPF, 2023) supports the requirements of the Environment Act:

Paragraph 180 of the NPPF states:

Planning policies and decisions should contribute to and enhance the natural and local environment by:

d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

Appendix 2 – Baseline Habitat Map

URBAN GREEN

373400 373420 373440 373460 373480 373500 373520 373540 373560 373580 373600

437600 437580 437560 437540 437520 437500 437480 437460 437440

373400 373420 373440 373460 373480 373500 373520 373540 373560 373580 373600

437600 437580 437560 437540 437520 437500 437480 437460 437440

U R B A N
G R E E N

N

- Red Line Boundary
- Other rivers and steams
- Modified grassland
- Other developed land
- Urban
- Target Notes

TN1 - Pile of grass cuttings

0 5 10 20 Meters

Client: Stantec			
Project: The Eagle at Barrow			
Title: Baseline Habitat Map			
Issue: 01		Figure: 00	
Drawn: CL	Checked: SP	Approved: SP	
Project: UG2650	Scale @ A3: 1:650	Date: 01/11/2024	
Dwg No: UG_2650_ECO_HM_01		Revision: 01	

Appendix 3 - Primary and Secondary Codes

Primary Code	Definition
g4	Modified grassland
r2b	Other rivers and streams
u	Urban
u1b6	Other developed land
Secondary code	**Definition**
108	Frequently mown
516	Active management
847	Introduced shrub

Appendix 4 – Proposed Landscape Plan

URBAN GREEN

KEY

Hard Works

Vehicular Asphalt Surfacing
To car park
Black colour. *To engineer specification & recommendation*

Existing Vehicular Asphalt Surfacing
To roads and car park
To be retained and made good.

Pedestrian Asphalt Surfacing
Black colour. *To engineer specification & recommendation*

Concrete plank paving
80x600x150mm. Colour - Silver (or similar approved)

Concrete flag paving
50x450x450mm. Colour - Cara Slate Ground Textured

Concrete tactile paving:
400x450mm Blister

Permeable Block Paving
To parking bays

Existing Brick Wall
To be retained.

Proposed timber post and 3 rail fence
To replace existing.

Door hoop barriers
BX14/DB (or similar approved) - Finish TBC

Sheffield cycle stands
BXMW/GS/Sheffield-Stand (or similar approved)
- Finish TBC

Soft Works

Existing Vegetation
To be retained

Proposed Tree Planting

Proposed Hedge Planting
Native / ornamental shrubs.

Proposed Semi-Native Shrub Planting
Semi-native shrub mix.

Proposed Species Rich Grass
Species rich grass & wildflower seed mix.

Proposed Rain Garden Planting
Rain garden planting mix.

Proposed Ornamental Shrub Planting
Ornamental shrub mix.

Existing Vegetation
To be retained

Notes:-

REV.	DATE	DESCRIPTION	DRAWN	CHK'D
P03	01/11/24	UPDATED ISSUE	TH	SA
P02	18/10/24	UPDATED ISSUE	TH	SA
P01	19/08/24	FIRST ISSUE	TH	SA

Client: STANTEC	**Project:** THE EAGLE AT BARROW	**Drawn:** TH	**Checked:** SW	**Approved:** SA	**Date:** 19/08/24
Issue: PLANNING	**Title:** GENERAL ARRANGEMENT PLAN	**Dwg No:** UG_2650_LAN_GA_DRW_01		**Scale @ A1:** 1:200	**Revision:** P03

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KEY

Soft Works

Existing Vegetation
To be retained

Proposed Tree Planting

Proposed Hedge Planting
Native / ornamental shrubs.

Proposed Semi-Native Shrub Planting
Semi-native shrub mix.

Proposed Species Rich Grass
Species rich grass & wildflower seed mix.

Proposed Rain Garden Planting
Rain garden planting mix.

Proposed Ornamental Shrub Planting
Ornamental shrub mix.

Existing Vegetation

Plant Schedule

QTY	UNIT	CODE	PLANT NAME	STOCK	SIZE	SPACING
Shrubs						
9	No.	Cor san	Cornus sanguinea	C3L	40-60cm	3/m2
9	No.	Sam BL	Sambucus nigra "Black Lace"	C3L	40-60cm	3/m2

QTY	UNIT	CODE	PLANT NAME	STOCK	FORM	GIRTH/ HEIGHT
Trees						
6	No.	ACE JEF hs	Acer x freemanii 'Jeffersed'	RB	STD	12-14cm
5	No.	BET PEN hs12	Betula pendula	RB	STD	12-14cm
5	No.	PRU AVI hs	Prunus avium	RB	STD	12-14cm

PERCENT	QTY	UNIT	PLANT NAME	STOCK	SIZE
Hedge Mixes					
110m NATIVE HEDGE MIX 1 planted @4/m in a Double Staggered Row					
50%	220	No.	Crataegus monogyna	B Trans	60-80cm
20%	88	No.	Corylus avellana	B Trans	60-80cm
20%	88	No.	Cornus sanguinea	B Trans	60-80cm
5%	22	No.	Ilex aquifolium	C3L	40-60cm
5%	22	No.	Rosa canina	B Trans	60-80cm
To be planted in species groups of approximately 10.					

PERCENT	QTY	UNIT	PLANT NAME	STOCK	SIZE
Plant Mixes					
174m2 SEMI-NATIVE SHRUB MIX 8 planted @3/m2					
25%	131	No.	Crataegus monogyna	B Trans	40-60cm
25%	131	No.	Viburnum opulus	C3L	40-60cm
10%	52	No.	Cornus sanguinea	B Trans	60-80cm
10%	52	No.	Skimmia japonica 'Rubella'	C2L	30-40cm
20%	104	No.	Corylus avellana	C3L	40-60cm
10%	52	No.	Ribes sanguineum	C3L	40-60cm
Individual varieties to be planted in groups of approximately 3-5.					
78m2 POLLEN AND NECTAR WILDFLOWER MIX planted @1/m2					
100%	78	No.	No. Superior Pollen and Nectar Wildflower Seed Mix	Seed	
Seeded at 2g m2 over prepared ground from Habitat Aid					
65m2 PURPLE & WHITE RAIN GARDEN MIX planted @4/m2					
10%	26	No.	Mentha x piperita	C2L	Full pot
10%	26	No.	Anemone x hybrida 'Honorine Jobert'	C2L	Full pot
10%	26	No.	Astilbe 'Snowdrift'	C2L	Full pot
5%	13	No.	Iris sibirica	C2L	Full pot
5%	13	No.	Echinacea purpurea	C2L	Full pot
10%	26	No.	Hosta 'Tall Boy'	C2L	Full pot
5%	13	No.	Aucuba japonica 'Rozannie'	C2L	20-30cm
10%	26	No.	Salix purpurea 'Nana'	C2L	20-30cm
5%	13	No.	Philadelphus 'Belle Etoile'	C2L	20-30cm
15%	39	No.	Phalaris arundinacea 'Feesey'	C2L	Full pot
15%	39	No.	Luzula sylvatica	C2L	Full pot
Individual varieties to be planted in groups of 3 or 5.					
At least 1 of each species to be planted in each rain garden.					
101m2 Ornamental Low Mix planted @4/m2					
20%	81	No.	Hebe 'White Gem'	C3L	30-40cm
20%	81	No.	Mahonia aquifolium 'Apollo'	C3L	30-40cm
15%	61	No.	Skimmia x confusa 'Kew Green'	C3L	30-40cm
15%	61	No.	Spiraea japonica 'Little Princess'	C3L	30-40cm

Notes and Abbreviations

B	=	Bare root (bagged).
C	=	Container (or pot) grown, followed by size of the container (or pot).
FORM	=	Shape of tree as supplied by the nursery.
QTY	=	Quantity
RB	=	Rootballed (balled and wrapped).
SIZE	=	Height or Spread of juvenile plant.
Std	=	(clear stem) Standard.
STOCK	=	Root condition/protection method eg Bare root.
Trans	=	Transplant (or undercut seedling).

- Refer to specification for further information.
- All plants to be completely hardened off
- Substitutions to be agreed with Landscape Architect.

Notes:-

REV.	DATE	DESCRIPTION	DRAWN	CHK'D
P02	01/11/24	UPDATED ISSUE	IG	SA
P01	31/10/24	FIRST ISSUE	IG	SA

Client: STANTEC	**Project:** THE EAGLE AT BARROW	**Drawn:** IG	**Checked:** SW	**Approved:** SA	**Date:** 31/10/24
Issue: PLANNING	**Title:** SOFT LANDSCAPE PLAN	**Dwg No:** UG_2650_LAN_SL_DRW_02		**Scale @ A1:** 1:200	**Revision:** P02

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Appendix 5 - Photographs of the Site

Photograph 1: South of the site, hardstanding with modified grassland.

Photograph 2: South of the site where the proposed hotel will be.

Photograph 3: Ornamental garden area along western boundary.

Photograph 4: Ornamental garden area along western boundary.

Photograph 5: Ornamental garden area along western boundary.

Photograph 6: Ornamental garden area along western boundary with trees present.

Photograph 7: Ornamental garden area along western boundary.

Photograph 8: Ornamental garden area along western boundary.

Photograph 9: Ornamental garden area along western boundary.

Photograph 10: Ornamental garden area along western boundary.

Photograph 11: Culverted watercourse present in the north-west parcel.

Photograph 12: Culverted watercourse present in the north-west parcel.

Photograph 13: Northern boundary of the site with Eagle at Barrow pub pictured.

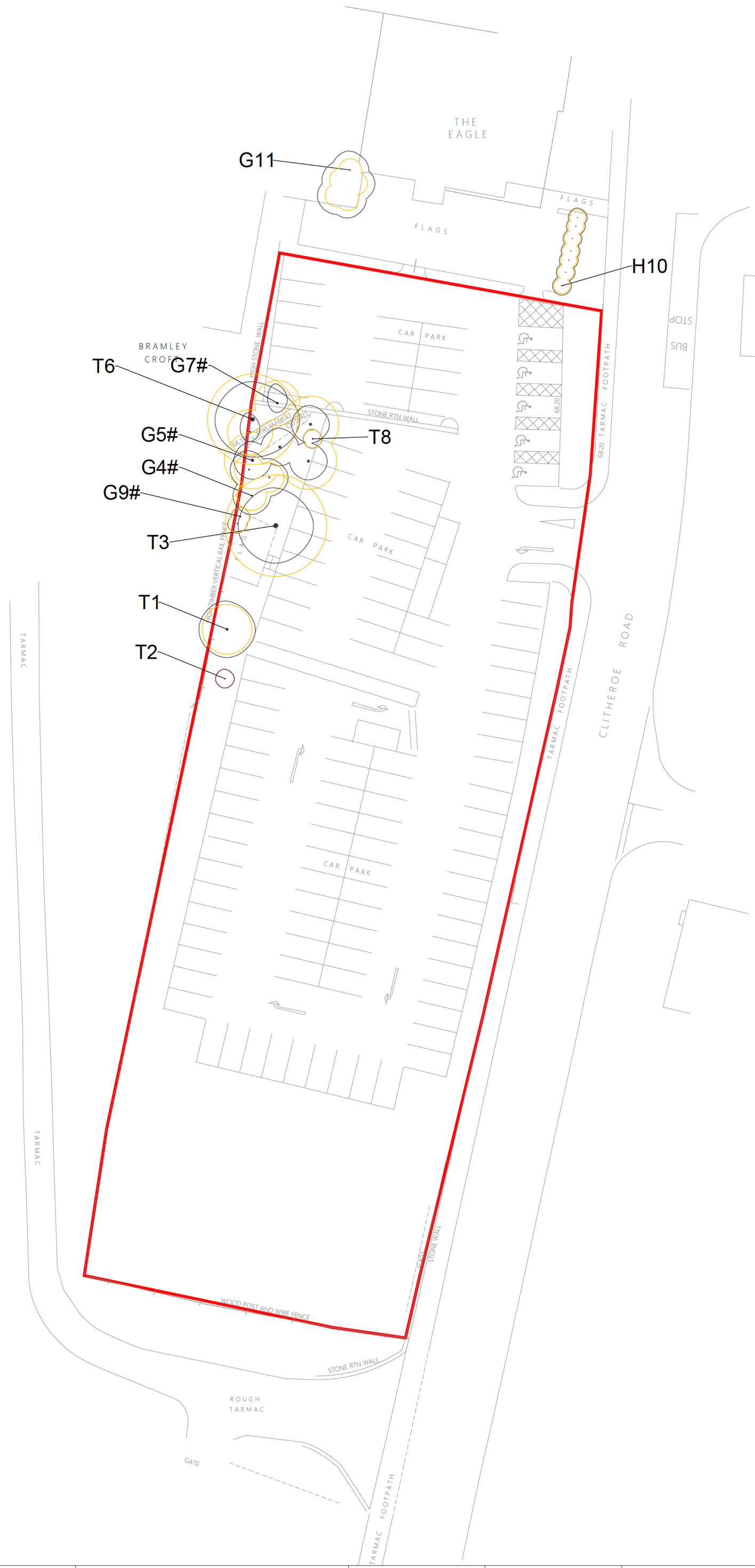
Photograph 14: Modified grassland parcel at the northern boundary of the site.

Photograph 15: Ornamental shrub across hardstanding in centre of site.

Appendix 6 – Tree Constraints Plan

URBAN GREEN

Notes:-



BS 5837: 2012 Retention Category A Tree, Group or Hedge

BS 5837: 2012 Retention Category B Tree, Group or Hedge

BS 5837: 2012 Retention Category C Tree, Group or Hedge

BS 5837: 2012 Retention Category U Tree, Group or Hedge

Root Protection Area (RPA)

\# Position estimated on site

Redline site boundary

REV.	DATE	DESCRIPTION	DRAWN	CHK'D

Client: FENCE GATE LTD.	**Project:** THE EAGLE AT BARROW	**Drawn:** HL	**Checked:** AH	**Approved:** AH	**Date:** 05/09/24
Issue: PLANNING	**Title:** TREE CONSTRAINTS PLAN	**Dwg No:** UG_2650_ARB_TCP_01		**Scale @ A1:** 1:250	**Revision:** 00

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Appendix 7 – Habitat Retention and Loss Plan

URBAN GREEN

URBAN GREEN

Lost
Retained
Protective Fencing

N

0 5 10 20 Meters

Client: Stantec		
Project: The Eagle at Barrow		
Title: Habitat Retention Results		
Issue: 01	Figure: 00	
Drawn: CL	Checked: SP	Approved: SP
Project: UG2650	Scale @ A3: 1:650	Date: 01/11/2024
Dwg No: UG_2650_BNG_HR_01		Revision: 01