

CASSEL HOTELS
(CAMBRIDGE) LIMITED



ECOLOGYSOLUTIONS

Part of the ES Group

HOTEL FELIX,
WHITEHOUSE LANE,
CAMBRIDGE

Biodiversity Net Gain Report

February 2021
9153.BNGreport.vf

COPYRIGHT

The copyright of this document
remains with Ecology Solutions
The contents of this document
therefore must not be copied or
reproduced in whole or in part
for any purpose without the
written consent of Ecology Solutions.

CONTENTS

1	INTRODUCTION	1
2	BIODIVERSITY METRIC 2.0	2
3	RESULTS AND DISCUSSION OF METRIC	3
4	EVALUATION	5
5	POLICY AND LEGAL CONTEXT	8
6	SUMMARY AND CONCLUSIONS	10

APPENDICES

APPENDIX 1	Topographical Survey, Drawing No.: 36289_T Rev 0
APPENDIX 2	Landscape General Arrangement, Drawing No.: LD-PLN-200-201

1. INTRODUCTION

1.1. Background & Proposals

- 1.1.1. Ecology Solutions was commissioned by Cassel Hotels (Cambridge) Limited to undertake work to ascertain that the proposed development at Hotel Felix, Whitehouse Lane, Cambridge delivers a long-term net gain for biodiversity through the application of the Biodiversity Metric 2.0 Calculation Tool¹.
- 1.1.2. The current proposals for the site are for the development of an 80-bed residential care home with associated access, car park and landscaping (including residents' gardens, a formal courtyard and a sensory garden). The proposals require the demolition of the existing buildings.

1.2. Site Characteristics

- 1.2.1. The site comprises the existing built form of Hotel Felix, alongside associated buildings and significant areas of car parking and access. Areas of established amenity planting and amenity grassland are present across the site alongside scattered trees and amenity hedgerows. Further hedgerows and semi-mature trees are present on the margins of the site.
- 1.2.2. The site is located in the northwest of the city of Cambridge; Whitehouse Lane separates the site from residential dwellings, which also lie to the west of the site and form the village of Girton. Immediately north and south lie arable fields, and further to the north and west lie the M11 motorway and the A14 trunk road approximately 1.1km west and 0.9km north of the site respectively.

1.3. Biodiversity Net Gain Report

- 1.3.1. This document assesses the level of Biodiversity Net Gain within the site. This report has been prepared with due consideration to the guidance published by the Chartered Institute of Ecology and Environmental Management (CIEEM)²³ in relation to Biodiversity Net Gain. This assessment has been based around the results of the 2020 habitat surveys.

¹ Natural England (2019). *The Biodiversity Metric 2.0 – Calculation Tool – Beta Test December 2019*.

² CIEEM (2019). *Biodiversity Net Gain. Good Practice Principles for Development, A Practical Guide*.

³ CIEEM, CIRIA, IEMA (2016). *Biodiversity Net Gain: Good Practice Principles for Development*.

2. BIODIVERSITY METRIC 2.0

2.1. The Biodiversity Metric 2.0 uses habitat features as a proxy measure for capturing the value and importance of nature. It uses calculations to assess the importance of each habitat based on its size, ecological condition, location and its connectivity.

2.2. Methodology

2.2.1. Measurements for habitats pre-development were calculated using the Topographical Survey (Drawing No.: 36289_T Rev 0, see Appendix 1). Information regarding the habitats present as well as their condition were based on survey results obtained in 2020. The Biodiversity Technical Supplement⁴, as well as professional judgment, was used to inform the habitats' condition criteria, as well as any connectivity score.

2.2.2. Preliminary calculations were undertaken using LUC's (Land Use Consultants) Landscape General Arrangement, Drawing No.: LD-PLN-200-201 (see Appendix 2). Final figures for the proposed habitats were later provided by LUC.

⁴ Natural England (2019). *The Biodiversity Metric 2.0, Auditing and Accounting for Biodiversity, Technical Supplement, Beta Edition*. Natural England Joint Publication JP029.

3. RESULTS AND DISCUSSION OF METRIC

3.1. This section should be read in conjunction with the Biodiversity Metric calculation tool which can be viewed below.

3.2. Baseline Habitat (Pre-Development)

3.2.1. Table 3.1 below summarises the habitats present on site.

Baseline habitat	Baseline Biodiversity Units	Ecological Features	Impact	After works
Urban - Amenity Grassland	1.370	A small area of grassland is present throughout the site. The grassland is currently not subject to any management regime; however, it does support a good range of common grassland species.	Some areas of grassland will be retained as part of the development, whilst the incorporation of new wildflower grassland will compensate for the loss of some of this habitat.	0.13 units retained, 1.25 units lost
Urban - Street Tree	0.770	A number of semi-mature trees are present across the site, associated with amenity planting, the site boundaries, amenity grassland adjacent to the main hotel building and along the roadside.	The majority of the trees within the site (62) will be retained, whilst 9 are proposed for relocation and 13 will be removed. Additional trees, including native and fruit-bearing species, will be planted throughout the site post development.	0.66 units retained, 0.11 units lost
Urban - Introduced Scrub	0.380	Areas of amenity planting are present along the boundaries of the site as well as within the car park areas.	Areas of amenity planting will be lost as part of the development. However, the loss of this habitat will be compensated by the planting of new native species, as well as the planting of other amenity species.	0.1 units retained, 0.28 units lost
Urban - Developed Land; Sealed Surface	0.000	A significant proportion of the site comprises hardstanding. Buildings are also present in the centre of the site and to the northwest.	The buildings will be demolished and replaced whilst a variety of hardstanding (i.e. gravel, paving, tarmac) will replace current surfaces.	N/A
Native Hedgerow	0.706	Amenity hedgerows are present throughout the site, separating the car park, adjacent road and amenity planting and grassland areas.	Lengths of amenity hedgerows will be lost as part of the development. However, the losses will be compensated by the planting of new native hedgerows.	0.312 units retained, 0.394 units lost
Native Species Rich Hedgerow with Trees	6.584	Hedgerows are present throughout the site, primarily associated with the site boundaries in the north and south.	Additional native hedgerows are proposed as part of the development.	6.584 units retained, 0 units lost

Table 3.1 Summary of Baseline Habitats.

3.3. Post-Development

- 3.3.1. Table 3.2 below summarises the habitats that will be present on-site post-development.
- 3.3.2. Overall, there is an increase of 1.88 habitat biodiversity units, which results in a gain of 74.49% for habitat units.
- 3.3.3. There is also a gain in linear features i.e., hedgerows. A gain of 2.82 hedgerow units has been achieved through the provision of ornamental and native hedgerows, a gain of 38.72%.

Newly Created Habitats		
Newly Created Habitat	Biodiversity Units Delivered	Ecological Features
Urban - Amenity Grassland	0.18	Grasslands will be sown a shade tolerant mix, e.g. Emorsgate EG23 Shade Tolerant Lawn Grass Mixture or similar, and will be frequently managed grassland which is likely to be subject to moderate to heavy disturbance.
Grassland - Other Neutral Grassland	2.41	Areas of wildflower meadow are proposed throughout the site, and will be sown with a mix, e.g. Emorsgate EM1 General Purpose Meadow Mixture, Emorsgate EM5 Meadow Mixture for Loamy Soils or Emorsgate EL1 Flowering Lawn Mixture or similar.
Urban - Introduced Shrub	0.86	A diverse range of introduced and native species will be included within this habitat.
Urban - Intensive Green Roof	0.00	The development includes areas of species-rich biodiverse roof. The green roofs will comprise a number of wildflowers, herbs and flowering perennials.
Urban – Ground Based Green Wall	0.01	A mix of climbing plants, including Honeysuckle, Jasmine and Clematis 'Jackmanii' will be trained against building facades or pergolas within the development.
Urban - Street Tree	0.05	A diverse mix of native and fruit-bearing trees will be widespread throughout the development.
Hedge Ornamental Non Native	0.00	The hedgerows will be planted throughout the development, and will comprise a mixture of native species and non-native ornamental species.
Native Hedgerow	3.22	The hedgerows will be planted around the proposed sensory garden and arrival courtyard, and will compose of the native species Beech, to compliment the hedgerows already present.
Urban - Developed land; sealed surface	0	Includes the new buildings and associated parking areas, footpaths and access roads.

Table 3.2 Summary of Post-development Habitats.

4. EVALUATION

4.1. The Principles of Evaluation

Biodiversity Net Gain – Good Practice Principle for Development

- 4.1.1. CIRIA, CIEEM and IEMA have developed principles of good practice to achieve Biodiversity Net Gain. These principles provide a framework that helps improve the UK's biodiversity by contributing towards strategic priorities to conserve and enhance nature through sustainable development. There are ten principles in total, and all principles must be applied together as one approach. The ten principles are set out below.
- 4.1.2. **Principle 1. Apply Mitigation Hierarchy.** Do everything possible to first avoid and then minimise impacts on biodiversity. Only as a last resort, and in agreement with external decision makers where possible, compensate for losses that cannot be avoided. If compensation for losses within the development footprint is not possible or does not generate the most benefits for nature conservation, then offset biodiversity losses by gains elsewhere.
- 4.1.3. **Principle 2. Avoid losing biodiversity that cannot be offset by gains elsewhere.** Avoid impacts on irreplaceable biodiversity; these impacts cannot be offset to achieve no net loss or net gain.
- 4.1.4. **Principle 3. Be inclusive and equitable.** Engage stakeholders early, and involve them in designing, implementing, monitoring and evaluation the approach to net gain. Achieve Net Gain in partnership with stakeholders where possible and share the benefits fairly among stakeholders.
- 4.1.5. **Principle 4. Address risks.** Mitigate difficulty, uncertainty and other risks to achieving Net Gain. Apply well accepted ways to add contingency when calculating biodiversity losses and gains in order to account for any remaining risks, as well as to compensate for the time between the losses occurring and the gains being fully realised.
- 4.1.6. **Principle 5. Make a measurable net gain contribution.** Achieve a measurable, overall gain for biodiversity and the services ecosystems provide while directly contributing towards nature conservation priorities.
- 4.1.7. **Principle 6. Achieve the best outcomes for biodiversity.** Achieve the best outcomes for biodiversity by using robust, credible evidence and local knowledge to make clearly-justified choices when:
- Delivering compensation that is ecologically equivalent in type, amount and condition, and that accounts for the location and timing of biodiversity losses.
 - Compensating for losses of one type of biodiversity by providing a different type that delivers greater benefits for nature conservation.
 - Achieving net gain locally to the development while also contributing towards nature conservation priorities at local, regional and national levels.
 - Enhancing existing or creating new habitat.

- Enhancing ecological connectivity by creating more, bigger, better and joined areas for biodiversity.
- 4.1.8. **Principle 7. Be additional.** Achieve nature conservation outcomes that demonstrably exceed existing obligations (i.e. do not deliver something that would occur anyway).
- 4.1.9. **Principle 8. Create a net gain legacy.** Ensure net gain generates long-term benefits by:
- Engaging stakeholders and jointly agreeing practical solutions that secure net gain in perpetuity.
 - Planning for adaptive management and securing dedicated funding for long-term management.
 - Designing net gain for biodiversity to be resilient to external factors, especially climate change.
 - Mitigating risks from other land uses.
 - Avoiding displacing harmful activities from one location to another.
 - Supporting local-level management of net gain activities.
- 4.1.10. **Principle 9. Optimise sustainability.** Prioritise Biodiversity Net Gain and, where possible, optimise the wider environmental benefits for a sustainable society and economy.
- 4.1.11. **Principle 10. Be transparent.** Communicate all net gain activities in a transparent and timely manner, sharing the learning with all stakeholders.

Lawton's Principle

- 4.1.12. Principles for enhancing England's wildlife sites were developed as part of the Lawton Review⁵. Across the UK, these principles can be used to design Biodiversity Net Gain activities to boost wildlife sites. They are:
- Improving the quality of wildlife sites;
 - Increasing the size of the wildlife sites;
 - Enhancing connections between, or joining up wildlife sites;
 - Creating new wildlife sites; and
 - Reducing pressure on wildlife sites.

4.2. Post-Development Evaluation

- 4.2.1. The site's contribution to Biodiversity Net Gain has been assessed with due regard to the principles outlined and discussed above.
- 4.2.2. The site delivers a net gain of 74.49% in habitat units; there is also a gain in linear feature i.e. a net gain of 38.72% in hedgerow units.
- 4.2.3. The site delivers significant gains for biodiversity through the provision of new wildflower meadows, grassland, introduced native shrubbery, trees and biodiverse roofs.

⁵ Department for Environment, Food and Rural Affairs (2010). *Making Space for Nature: A Review of England's Wildlife Sites*. DEFRA.

- 4.2.4. In addition to the landscaping and enhancement of existing habitats, a number of bat and bird boxes will also be installed across the site and on suitable trees to increase nesting / roosting opportunities, whilst the installation of invertebrate boxes and the establishment of log piles for saproxylic species could also provide further enhancements on site for invertebrates.

5. POLICY AND LEGAL CONTEXT

- 5.1. The planning policy framework that relates to Biodiversity Net Gain at the site is issued nationally through the National Planning Policy Framework (NPPF), and locally through the local planning policies of the Cambridge Local Plan.
- 5.2. On 15 October 2019, the government introduced a new Bill to Parliament, the Environment Bill. This Bill is expected to become law in 2023.

5.3. National Policy

National Planning Policy Framework (February 2019)

- 5.3.1. Guidance on national policy for Biodiversity Net Gain is provided by the NPPF, published in March 2012, revised on 24 July 2018 and updated on 19 February 2019. The following sections of the policy relate to Biodiversity Net Gain:
- 5.3.2. Paragraph 170(d) states that planning policies and decisions should contribute to and enhance the natural and local environment by minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current future pressures.
- 5.3.3. Paragraph 174(b) states that to protect and enhance biodiversity and geodiversity, plans should promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.
- 5.3.4. Paragraph 175(b) states that when determining planning application, local planning authorities should apply the following principle; development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

5.4. Local Planning Policy

South Cambridgeshire Local Plan (Adopted 2018)

- 5.4.1. The South Cambridgeshire Local Plan was adopted on 27 September 2018 and is the principal development plan document guiding development in South Cambridgeshire. It updates and replaces the South Cambridgeshire Local Development Framework which was adopted between January 2007 and January 2010 and covered the period up to 2016. The Local Plan's policies and proposals cover the period 2011 to 2031. It contains five policies of particular relevance to nature conservation issues.
- 5.4.2. **Policy NH/4: Biodiversity** is concerned with permitting developments where the primary objective is to conserve or enhance biodiversity through maintenance, enhancement, restoration or addition to achieve positive gain through the form and design of development.

- 5.4.3. **Policy NH/5: Sites of Biodiversity or Geological Importance** is concerned with developments which may have an adverse impact on land within or adjoining a Site of Biodiversity or Geological Importance. Exceptions to this may be made only where the benefits of the development clearly outweigh any adverse impacts.
- 5.4.4. **Policy NH/6: Green Infrastructure** will aim to conserve and enhance green infrastructure within the district. The policy also states that proposals which cause loss or harm to the green infrastructure network will not be permitted unless the needs for and benefits of the development demonstrably and substantially outweigh any adverse impacts. All new developments are also required to contribute towards the enhancement of the green infrastructure network within the district. These contributions will include the establishment, enhancement and the on-going management costs.
- 5.4.5. **Policy NH/8: Mitigating the Impact of Development In and Adjoining the Green Belt** states that developments within the Green Belt must not have an adverse effect on the openness and rural character of the Green Belt. Where development proposals are permitted, landscaping conditions will be attached to the planning permission to safeguard, and mitigate impacts upon, the Green Belt. The policy also states that “*developments on the edges of settlements which are surrounded by the Green Belt must include careful landscaping and design measures of a high quality*”.
- 5.4.6. **Policy NH/9: Redevelopment of Previously Developed Sites and Infilling in the Green Belt** states that redevelopments within the greenbelt will be considered inappropriate unless the buildings are re-used, replacements are not proportionally larger than the original, infilling is limited, and the redevelopment does not have a greater impact on the openness of the Green Belt than the existing development.
- 5.5. **Environment Bill**
- 5.5.1. A Government statement made on 23 July 2019 outlines further details about how the Biodiversity Net Gain requirement will be defined. The Government proposes that the requirement will come into force after a two-year transition period after the new Environment Bill for England receives royal assent.

6. SUMMARY AND CONCLUSIONS

- 6.1. Ecology Solutions was commissioned by Cassel Hotels (Cambridge) Limited to undertake work to assess whether the proposed site plan for Hotel Felix, Whitehouse Lane, Cambridge, delivers long-term net gain for biodiversity.
- 6.2. The proposals for the site are for the development of an 80-bed residential care home with associated access, gardens, car park and landscaping (including residents' gardens, a formal courtyard and a sensory garden). The proposals require the demolition of the existing buildings.
- 6.3. The site is currently dominated by a large building and several areas of hardstanding, with small areas of amenity planting, amenity grassland and hedgerows also present. No notable or protected plant species were recorded within the site.
- 6.4. The landscape scheme has been designed to ensure that gains for biodiversity are achieved. Proposals will increase the floristic diversity across the site, which in turn will attract a greater diversity and density of invertebrates and subsequently provide additional resources for foraging bats and birds. The proposed habitats also provide opportunities for nesting birds.
- 6.5. Overall, when based against the Biodiversity Metric version 2.0, the site delivers a net habitat gain of 74.49% and a net hedgerow gain of 38.72%.

Natural England's Biodiversity Metric 2.0 for Hotel Felix, Whitehouse Lane, Cambridge – Headline Results

On-site baseline	<i>Habitat units</i>	2.53
	<i>Hedgerow units</i>	7.29
	<i>River units</i>	0.00

On-site post-intervention (Including habitat retention, creation, enhancement & succession)	<i>Habitat units</i>	4.41
	<i>Hedgerow units</i>	10.11
	<i>River units</i>	0.00

Off-site baseline	<i>Habitat units</i>	0.00
	<i>Hedgerow units</i>	0.00
	<i>River units</i>	0.00

Off-site post-intervention (Including habitat retention, creation, enhancement & succession)	<i>Habitat units</i>	0.00
	<i>Hedgerow units</i>	0.00
	<i>River units</i>	0.00

Total net unit change (including all on-site & off-site habitat retention/creation)	<i>Habitat units</i>	1.88
	<i>Hedgerow units</i>	2.82
	<i>River units</i>	0.00

Total net % change (including all on-site & off-site habitat creation + retained habitats)	<i>Habitat units</i>	74.48%
	<i>Hedgerow units</i>	38.72%
	<i>River units</i>	0.00%

Natural England's Biodiversity Metric 2.0 for Hotel Felix, Whitehouse Lane, Cambridge – Site Baseline

Hotel Felix
A-1 Site Habitat Baseline

Condense / Show Columns Condense / Show Rows

Main Menu Instructions

Ref	Broad Habitat	Habitats and areas			Habitat distinctiveness	Habitat condition	Ecological connectivity	Strategic significance	Suggested action to address habitat losses	Ecological baseline	Retention category biodiversity value						
		Habitat type	Area (hectares)	Distinctiveness	Condition	Ecological connectivity	Strategic significance	Total habitat units		Area retained	Area enhanced	Area succession	Baseline units retained	Baseline units enhanced	Baseline units succession	Area lost	Units lost
1	Urban	Urban - Developed land; sealed surface	0.602	V.Low	N/A - Other	Low	Area/compensation not in local strategy/ no local	Compensation Not Required	0.00				0.00	0.00	0.00	0.60	0.00
2	Urban	Urban - Introduced shrub	0.095	Low	Moderate	Low	Area/compensation not in local strategy/ no local	Same distinctiveness or better habitat required	0.38	0.026			0.10	0.00	0.00	0.07	0.28
3	Urban	Urban - Amenity grassland	0.687	Low	Poor	Low	Area/compensation not in local strategy/ no local	Same distinctiveness or better habitat required	1.37	0.063			0.13	0.00	0.00	0.62	1.25
4	Urban	Urban - Street Tree	0.1935	Low	Moderate	Low	Area/compensation not in local strategy/ no local	Same distinctiveness or better habitat required	0.77	0.166			0.66	0.00	0.00	0.03	0.11
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
		Total site area ha	1.38														
								Total Site baseline	2.53	0.26	0.00	0.00	0.89	0.00	0.00	1.32	1.63

Natural England's Biodiversity Metric 2.0 for Hotel Felix, Whitehouse Lane, Cambridge – Habitat Creation

Hotel Felix
A-2 Site Habitat Creation

Condense / Show Columns Condense / Show Rows

Main Menu Instructions

Post development/ post intervention habitats																	
Proposed habitat	Area (hectares)	Distinctiveness	Score	Condition	Score	Ecological connectivity			Strategic significance			Temporal multiplier		Difficulty multipliers		Habitat units delivered	
						Ecological connectivity	Connectivity	Connectivity multiplier	Strategic significance	Strategic significance	Strategic position multiplier	Time to target condition/years	Time to target multiplier	Difficulty of creation category	Difficulty of creation multiplier		
Urban - Amenity grassland	0.092	Low	2	Poor	1	Low	Unconnected habitat	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	1	0.965	Low	1	0.18	
Urban - Developed land; sealed surface	0.407	V.Low	0	N/A - Other	0	N/A	Assessment not appropriate	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	0	1.000	Low	1	0.00	
Grassland - Other neutral grassland	0.431	Medium	4	Moderate	2	Low	Unconnected habitat	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	10	0.700	Low	1	2.41	
Urban - Street Tree	0.0348	Low	2	Moderate	2	Low	Unconnected habitat	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	27	0.382	Low	1	0.05	
Urban - Introduced shrub	0.363	Low	2	Poor	1	Low	Unconnected habitat	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	1	0.965	Low	1	0.70	
Urban - Introduced shrub	0.047	Low	2	Poor	1	Low	Unconnected habitat	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	1	0.965	Low	1	0.09	
Urban - Introduced shrub	0.007	Low	2	Poor	1	Low	Unconnected habitat	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	1	0.965	Low	1	0.01	
Urban - Introduced shrub	0.029	Low	2	Poor	1	Low	Unconnected habitat	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	1	0.965	Low	1	0.06	
Urban - Intensive green roof	0.001	Low	2	Moderate	2	Low	Unconnected habitat	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	5	0.837	Low	1	0.00	
Urban - Ground based green wall	0.006	Low	2	Poor	1	Low	Unconnected habitat	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	1	0.965	Medium	0.67	0.01	
Totals	1.38															Total Units	3.52

Check Areas- Area of development and habitat creation must match the area of habitats lost

Natural England's Biodiversity Metric 2.0 for Hotel Felix, Whitehouse Lane, Cambridge – Hedge Baseline

Hotel Felix
B-1 Site Hedge Baseline

Condense / Show Columns Condense / Show Rows
 Main Menu Instructions

Baseline ref	UK Habitats - existing habitats			Habitat distinctiveness		Habitat condition		Ecological connectivity			Strategic significance			Ecological baseline Total hedgerow units	Retention category biodiversity value						
	Hedge number	Hedgerow type	length KM	Distinctiveness	Score	Condition	Score	Ecological connectivity	Connectivity	Connectivity multiplier	Strategic significance	Strategic significance	Strategic position multiplier		Suggested action to address habitat losses	Length retained	Length enhanced	Units retained	Units enhanced	Length lost	Units lost
1	Amenity	Native Hedgerow	0.353	Low	2	Poor	1	Low	Unconnected habitat	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	0.706	0.156		0.312	0	0.197	0.394
2	Native	Native Species Rich Hedgerow with trees	0.823	Medium	4	Moderate	2	Low	Unconnected habitat	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Like for like or better	6.584	0.823		6.584	0	0	0
3																					
4																					
5																					
6																					
7																					
Total Site length/KM			1.18											Total Site baseline	7.29	0.98	0.00	6.90	0.00	0.20	0.39

Natural England's Biodiversity Metric 2.0 for Hotel Felix, Whitehouse Lane, Cambridge – Hedge Creation

Hotel Felix
B-2 Site Hedge Creation

Condense / Show Columns

Condense / Show Rows

Main Menu

Instructions

		Multipliers															Hedge units delivered
		Spatial quality									Temporal multiplier		Difficulty of creation multiplier				
		Proposed habitats			Habitat distinctiveness		Habitat condition		Ecological connectivity			Strategic significance					
Baseline ref	New hedge number	Habitat type	Length km	Distinctiveness	Score	Condition	Score	Ecological connectivity	Connectivity	Connectivity multiplier	Strategic significance	Strategic significance	Strategic position multiplier	Time to target condition/years	Time to target multiplier		
1		Hedge Ornamental Non Native	0.05	V.Low	0	Moderate	2	Low	Unconnected habitat	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	5	0.837	1	0.00
2		Native Hedgerow	0.961	Low	2	Moderate	2	Low	Unconnected habitat	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	5	0.837	1	3.22
3																	
4																	
5																	
6																	
7																	
		Creation Length/KM	1.01														3.22

APPENDICES

APPENDIX 1

Topographical Survey, Drawing No.: 36289_T Rev 0



Station Information:

Station	Easting (m)	Northing (m)	Level (m)
GH1	543240.372	260521.406	21.332
GH2	543214.176	260486.528	21.912
GH3	543186.968	260455.676	22.482
GH4	543191.841	260556.872	21.197
GH5	543153.871	260580.873	21.959
GH6	543105.889	260606.595	22.014
GH7	543082.200	260564.485	22.232

OS Note:
Some services may have been omitted due to parked vehicles.

Surveyed Buildings

This survey has been orientated to the Ordnance Survey (O.S.) National Grid (OSGB36) via Global Navigational Satellite Systems (GNSS) and the O.S. Active Network (OS Net).
A true OSGB36 coordinate has been established near to the site centre via a transformation using the OSTN15GB & OSGB15GB transformation models.
The survey has been correlated to this point and a further one or more OSGB36 (15) points established to create a true O.S. bearing for angle orientation.
No scale factor has been applied to the survey therefore the coordinates shown are arbitrary & not true O.S. Coordinates which have a scale factor applied.
Please refer to Survey Station Table to enable establishment of the on-site grid and datum.

Legend:

Symbol	Description	Symbol	Description
[Symbol]	Topographical Surveys	[Symbol]	Measured Building Surveys
[Symbol]	Site Engineering	[Symbol]	3D Laser Scanning
[Symbol]	Utility / CCTV Surveys	[Symbol]	Revit & BIM Models

Code	Description	Code	Description



- Topographical Surveys
- Site Engineering
- Utility / CCTV Surveys
- Measured Building Surveys
- 3D Laser Scanning
- Revit & BIM Models

Rowan House
Duffield Road
Little Eaton
Derby
DE21 5DR
Tel (01332) 830044 Fax (01332) 830055
admin@greenhatch-group.co.uk
www.greenhatch-group.co.uk

St Albans Unit B, The Courtyard Alban Park Hertfordshire AL4 0LA t. (01727) 854481	Newcastle 24 Riverside Studios Newcastle Bus Park Newcastle City Tyne NE4 7YL t. (01912) 736391	London 27, Cornwall Terrace House Regent Park London NW1 3LJ t. (02072) 241806
---	--	---

CLIENT
Meedhurst Project Management Ltd

PROJECT
**Hotel Felix
Huntingdon Road
Girton, Cambridge, CB3 0LX**

TITLE
Topographical Survey

SCALE
A1@ 1: 500

DATE
03.03.20

DRAWN
JK2

QUALITY REF
GH7099

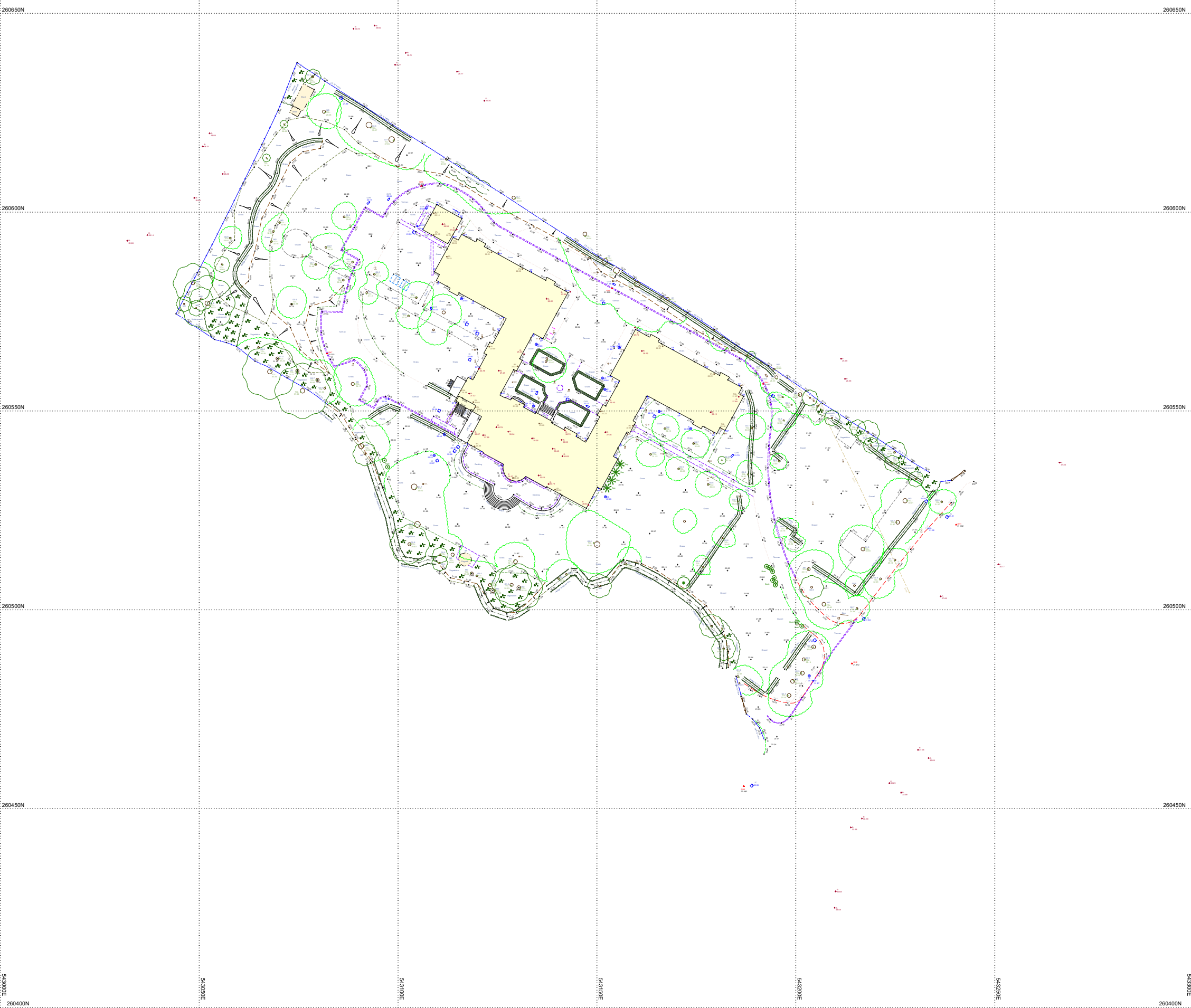
Level datum
Grid orientation
Job number
Drawing No.

See note
See note
36289
36289_T

Rev:
0

Comments
This plan should only be used for its original purpose. Greenhatch Group accepts no responsibility for this plan if supplied to any party other than the original client.
All dimensions should be checked on site prior to design and construction.
Drainage information (where applicable) has been visually inspected from the surface and therefore should be treated as approximate only.

Notes:



260650N
260600N
260550N
260500N
260450N
260400N

260650E
260600E
260550E
260500E
260450E
260400E

543090E
543100E
543110E
543120E
543130E
543140E
543150E
543160E
543170E
543180E
543190E
543200E

APPENDIX 2

Landscape General Arrangement, Drawing No.:
LD-PLN-200-201



- Hard Landscape**
- PT1 - Buff coloured bound surface - Vehicular
 - PT2 - Concrete Block paving - Vehicular
 - PT3 - Granite setts - Vehicular
 - PT4 - Natural stone paviors, large unit - Pedestrian
 - PT5 - Concrete block paving - Pedestrian
 - PT6 - Resin bound gravel - Pedestrian
 - PT7 - Bonded rubberised surface - Pedestrian
 - PT8 - Natural Stone - Private terraces - Pedestrian
 - PT9 - Natural stone - Shared terraces - Pedestrian
- Soft Landscape**
- T000 - Existing Tree Retained
 - H000 - Existing hedge retained
 - Root protection areas (See arborists information)
 - Proposed Tree
 - Proposed Fruit Tree
 - Existing tree relocated (See landscape chapter for further information)
 - Pleached tree
 - Woodland understory and shrub planting
 - Proposed 0.5m high hedges
 - Proposed 1.2m high hedges
 - Proposed 1.8m high hedges
 - Proposed clipped specimen shrub
 - SL02 - Shrub and herbaceous planting
 - SL03 - Turf
 - SL04 - Wildflower meadow
 - Biodiverse roof
- Boundaries**
- B1 - 1.8m high timber close board fence
 - B2 - 1.8m high metal railing
 - B3 - 1.2m high picket fence
 - B4 - 1.2m high chestnut cleft fencing
 - G1 - Garden Gate
- Other Features**
- RP - Hazel hurdle
 - EG - Existing gazebo retained and relocated
 - P - Pergola
 - TB - Timber Bench
 - GC - Garden Chair
 - GH - Greenhouse

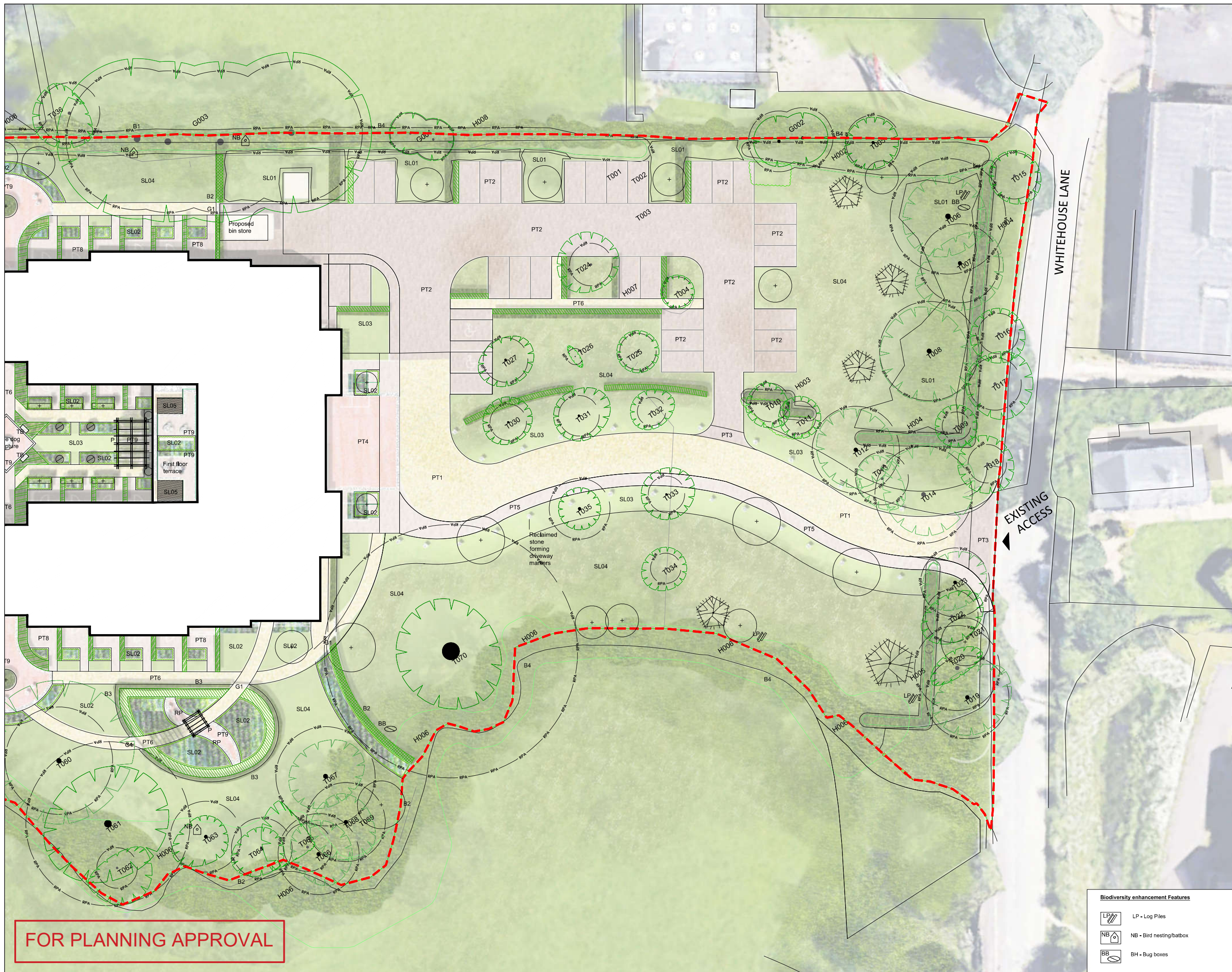
No.	Date	Description	By	CHK
A	10.02.21	For planning		

LUC LUC London
 250 Waterloo Road, London, SE1 6RD
 +44 (0)20 7363 5784
 london@landuse.co.uk
 www.landuse.co.uk

Project Hotel Felix	
Client KYN	
Scale @A1 1:200	Status Planning
Drawing Title Landscape General Arrangement	
Sheet 1 of 2	
Job No 11291	Issue A

- Biodiversity enhancement Features**
- LP - Log Piles
 - NB - Bird nesting/batbox
 - BH - Bug boxes

FOR PLANNING APPROVAL



FOR PLANNING APPROVAL

- Hard Landscape**
- PT1 PT1 - Buff coloured bound surface - Vehicular
 - PT2 PT2 - Concrete Block paving - Vehicular
 - PT3 PT3 - Granite sets - Vehicular
 - PT4 PT4 - Natural stone paviors, large unit - Pedestrian
 - PT5 PT5 - Concrete block paving - Pedestrian
 - PT6 PT6 - Resin bound gravel - Pedestrian
 - PT7 PT7 - Bonded rubberised surface - Pedestrian
 - PT8 PT8 - Natural Stone - Private terraces - Pedestrian
 - PT9 PT9 - Natural stone - Shared terraces - Pedestrian
- Soft Landscape**
- T001 Existing Tree Retained
 - H001 Existing hedge retained
 - +
 Root protection areas (See arborists information)
 - + Proposed Tree
 - ⊕ Proposed Fruit Tree
 - ⊗ Existing tree relocated (See landscape chapter for further information)
 - ⊘ Fleached tree
 - SL01 Woodland understory and shrub planting
 - ▨ Proposed 0.5m high hedges
 - ▩ Proposed 1.2m high hedges
 - ▧ Proposed 1.8m high hedges
 - ⊖ Proposed clipped specimen shrub
 - SL02 Shrub and herbaceous planting
 - SL03 Turf
 - SL04 Wildflower meadow
 - ▩ Biodiverse roof
- Boundaries**
- B1 B1 - 1.8m high timber close board fence
 - B2 B2- 1.8m high metal railing
 - B3 B3 - 1.2m high picket fence
 - B4 B4 - 1.2m high chestnut cleft fencing
 - G1 G1 - Garden Gate
- Other Features**
- RP RP - Hazel hurdle
 - EG EG - Existing gazebo retained and relocated
 - P Pergola
 - TB TB - Timber Bench
 - GC GC - Garden Chair
 - GH GH - Greenhouse

No.	Date	Description	By	CHK

LUC LUC London
 250 Waterloo Road, London, SE1 6RD
 +44 (0)20 7353 5784
 london@landuse.co.uk
 www.landuse.co.uk

Project Hotel Felix	
Client KYN	Status Planning
Scale @A1 1:200	Drawing Title Landscape General Arrangement
Sheet 2 of 2	
Job No 11291	Issue A

- Biodiversity enhancement Features**
- LP LP - Log Piles
 - NB NB - Bird nesting/batbox
 - BB BB - Bug boxes