



Preliminary Ecological Appraisal and
Biodiversity Net Gain Assessment

Angel Way Car Park, Romford

For

Mercury Land Holdings Ltd

Report Ref.: MER003-002-011/001/002

December 2025

Guildford

Compass House
Surrey Research Park
Guildford
GU2 7AG
t: +44 (0)1483 466 000

North East

Unit 4, Carrwood Park
Selby Road
Leeds
LS15 4LG
t: +44 (0)113 518 2121

North West

Kennedy House
31 Stamford St
Floor 1
Altrincham
Greater Manchester
WA14 4DZ
t: +44 (0)1483 466 00

Cardiff

Sophia House
28 Cathedral Road
Cardiff
CF11 9LJ
t: +44 (0)2920 660180

Birmingham

605 Holly Court
Holly Farm Business Park
Honiley
Kenilworth
CV8 1NP
t: +44 (0)121 827 3180

East

70-72 The Havens
Ransomes Industrial Estate
Ipswich
IP3 9BF
t: +44 (0)1483 466 000

Enquiries

e: enquiries@thomsonec.com

w: www.thomsonec.com



Project Number	Report Number
MER003-002-011	002

Revision No.	Date of Issue	Author	Reviewer	Approver
001 (Update to previously issued MER003-002-001/001/002 report as a result in change of red-line boundary)	02/05/2025	Evie Hyland	Mate Vakarcs	
002 (Minor amendments to BNG calculations due to scheme re-design)	09/12/2025	Leo Aston	Callum Salter	

Disclaimer:

Copyright Thomson Environmental Consultants Limited. All rights reserved.

No part of this report may be copied or reproduced by any means without prior written permission from Thomson Environmental Consultants Limited. If you have received this report in error, please destroy all copies in your possession or control and notify Thomson Environmental Consultants Limited.

This report has been prepared for the exclusive use of the commissioning party and unless otherwise agreed in writing by Thomson Environmental Consultants Limited, no other party may use, make use of or rely on the contents of the report. No liability is accepted by Thomson Environmental Consultants Limited for any use of this report, other than for the purposes for which it was originally prepared and provided.

Opinions and information provided in the report are on the basis of Thomson Environmental Consultants Limited using due skill, care and diligence in the preparation of the same and no explicit warranty is provided as to their accuracy. It should be noted and it is expressly stated that no independent verification of any of the documents or information supplied to Thomson Environmental Consultants Limited has been made.

Contents

1.	Summary and Main Recommendations	6
1.1	Summary	6
1.2	Main Recommendations	7
2.	Introduction	9
2.1	Development Background	9
2.2	The Brief and Objectives	9
2.3	Limitations	10
2.4	Surveyors	10
3.	Methodology - Preliminary Ecological Appraisal	11
3.1	Desk Study	11
3.2	Habitat Survey	11
4.	Methodology - Biodiversity Net Gain Assessment	14
4.1	Background	14
4.2	Baseline Formula	14
4.3	Post-development Formula	15
5.	Results - Preliminary Ecological Appraisal	18
5.1	Background	18
5.2	Desk Study	18
5.3	Habitat Survey	26
6.	Biodiversity Metric	28
6.1	Habitat Baseline (Including Retention and Enhancement)	28
6.2	Post-Development Scenario	30
6.3	Biodiversity Net Change	32
7.	Legislation and Planning Policy Considerations	33
7.1	Background	33
7.2	Biodiversity Net Gain	33
7.3	Designated Sites	33
7.4	Priority Habitats	34
7.5	Protected Species	34
7.6	Invasive Plant Species	35
7.7	Ecological Enhancement	35
8.	Potential Further Ecological Considerations	36
8.1	Background	36
8.2	Protected Species	36

9. Recommendations.....	37
9.1 Background	37
9.2 Bats	37
9.3 Common birds	38
9.4 Pollution Prevention	38
9.5 Invasive Plant Species	38
9.6 Additional Ecological Enhancements	38
10. Conclusion	39
11. References.....	40
Appendix 1: Assessment Methodology	41
Appendix 2: Plant Species and Abundance	44
Appendix 3: Baseline Habitat Condition Assessments	45
Appendix 4: Post Development Habitat Condition Assessments	46
Appendix 5: Landscape Masterplan.....	51
Table 1 Survey meta-data.....	12
Table 2 Biodiversity net gain trading rules	16
Table 3 Designated Sites	19
Table 4 Species records derived from the desk study	23
Table 5 Habitat baseline, retention and enhancement	29
Table 6 Watercourse baseline, retention and enhancement	29
Table 7 Habitat Creation	31
Table 8 Hedgerow Creation	31
Table 9 Biodiversity net change	32
Figure 1: Site Location	
Figure 2: Site Location, Study Area and Desk Study Results (Angel Way)	
Figure 3: UKHabitat Classification Survey Results (Angel Way)	
Figure 4: Post Development Plan (Retained Habitats)	
Figure 5: Post Development Plan (Created Habitats)	
Figure 6: Photographs of the Site	

1. Summary and Main Recommendations

1.1 Summary

- 1.1.1 Mercury Land Holdings Ltd proposes the potential re-development of a car park site on Angel Way in Romford, within the London Borough of Havering (see Figure 1). The development will be located on the site of a multi-storey car park (Grid Reference TQ 51042 88851), off St Edwards Way and High Street within Romford town centre.
- 1.1.2 A full planning application is being sought for the demolition of the Angel Way multi-storey car park, commercial units and all structures, and the redevelopment of the site for a residential led, mixed-use scheme. The scheme will provide 106 dwellings with car parking, landscaping and related infrastructure, including a new sub-station.
- 1.1.3 Thomson Environmental Consultants was commissioned to undertake a Preliminary Ecological Appraisal (PEA) of the site, comprising an ecological desk study and extended UKHab Classification (UKHab) survey, as well as a baseline and post-development Biodiversity Net Gain (BNG) assessment.
- 1.1.4 This report supersedes the previously issued Thomson report (ref: MER003-002-011/001/001), submitted to Mercury Land Holdings Ltd on 2nd May 2025, following minor changes to the boundary. This report provides an update to the post-development biodiversity net gain units achieved by the most up-to-date development proposal.

Preliminary Ecological Appraisal

- 1.1.5 The main findings of the desk study were one statutory designated site, a Local Nature Reserve (LNR) named The Chase which is approximately 2km to the south of the site. The desk study also recorded nine non-statutory sites, the closest being Railsides West of Romford SINC which is 0.65km from the site. The sites are shown on Figure 2.
- 1.1.6 The desk study found records of priority habitats for nature conservation within the 2km study area, including deciduous woodland, with the closest parcel being 1.37km from the site.
- 1.1.7 Twenty-five records of protected and priority species were found within 1km of the study area, including records for amphibians, reptiles, birds, mammals, invertebrates and invasive non-native species (INNS). The closest INNS records were ring-necked parakeet, 0.93km from the site and Japanese knotweed, 0.95km from the site. The River Rom passes underneath the site and extends north.
- 1.1.8 A habitat survey was undertaken during a site visit carried out by a suitably qualified ecologist on 14th August 2023. The dominant habitats on site were found to be buildings and developed land, sealed surface. Habitat survey results are displayed on Figure 3 and photographs are shown on Figure 6.

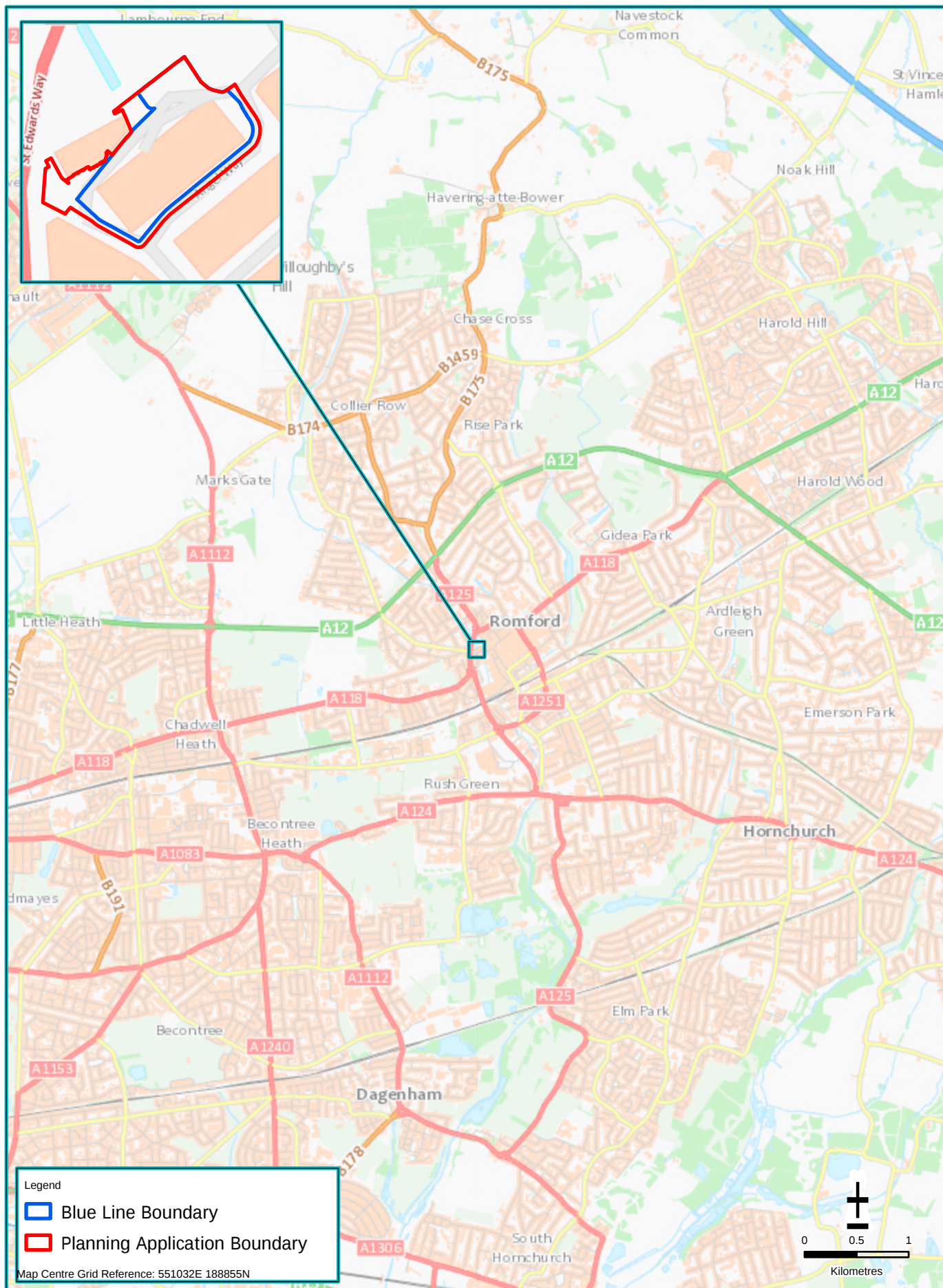
Biodiversity Net Gain

- 1.1.9** The site was found to have a **baseline biodiversity value of 0.07 habitat units, no hedgerow units and 0.10 watercourse units.**
- 1.1.10** The post-development plan for the site is shown in Figure 4. Post-development, the site will aim to deliver an increased **1.13 habitat units** and **0.08 hedgerow units** and the same **0.10 watercourse units.**
- 1.1.11** The outcome is a biodiversity **net percentage change of +1637.46% for habitat units**, therefore the development proposal provides sufficient habitat units to achieve the required statutory biodiversity net gain of 10%. As there were no linear habitats on site prior to the development, but ornamental hedgerows have been included in the development plan, linear habitat unit net gain has also been met.
- 1.1.12** At design stage, it was investigated whether the culverted River Rom beneath the site could be opened up as part of the development. It was decided that due to the risk of off-site flooding as a result, the culvert could not feasibly be opened. As a result, 10% net gain on watercourse units has not been achieved and compensation should be sought through off site provision of **0.01 units**, either through:
- Enhancement of an off-site watercourse;
 - Purchase of units through a biodiversity bank; or,
 - Purchase of statutory credits, as a last resort.
- 1.1.13** As the client has provided a landscaping masterplan for the scheme [23025-GUA-DR-L-XXX-XX-004 P08 Hard and Soft Landscape_ Furniture & Boundary Treatment Proposals] (see Appendix 5), this updated report has been completed to consolidate the proposals and confirm overall BNG change. If the proposals change, resulting in deviation from the landscape masterplan on which this assessment is based, further updates to this assessment will be required.

1.2 Main Recommendations

- 1.2.1** Recommendations designed to enable compliance of the project with legislation and planning policy in relation to ecological features and biodiversity include:
- Off-site units being sought to achieve a 10% biodiversity net gain in watercourse units;
 - Further survey to determine the suitability of the multi-storey car park for bats and potential further surveys, should the buildings be deemed suitable;
 - Should feral pigeons be nesting within the structure prior to demolition, a pre-works check by an ecologist should be undertaken to determine whether any eggs are present. Should eggs be present, these should be left in situ until young have fledged;
 - It is not anticipated that vegetation clearance is required as part of the works, as the individual tree on site is to be retained. Should this change, clearance should be undertaken outside of the bird nesting season where possible. If not possible, an Ecological Clerk of Works (ECoW) should carry out a watching brief;
 - The butterfly-bush on site should be removed as it is considered an invasive species in London; and,

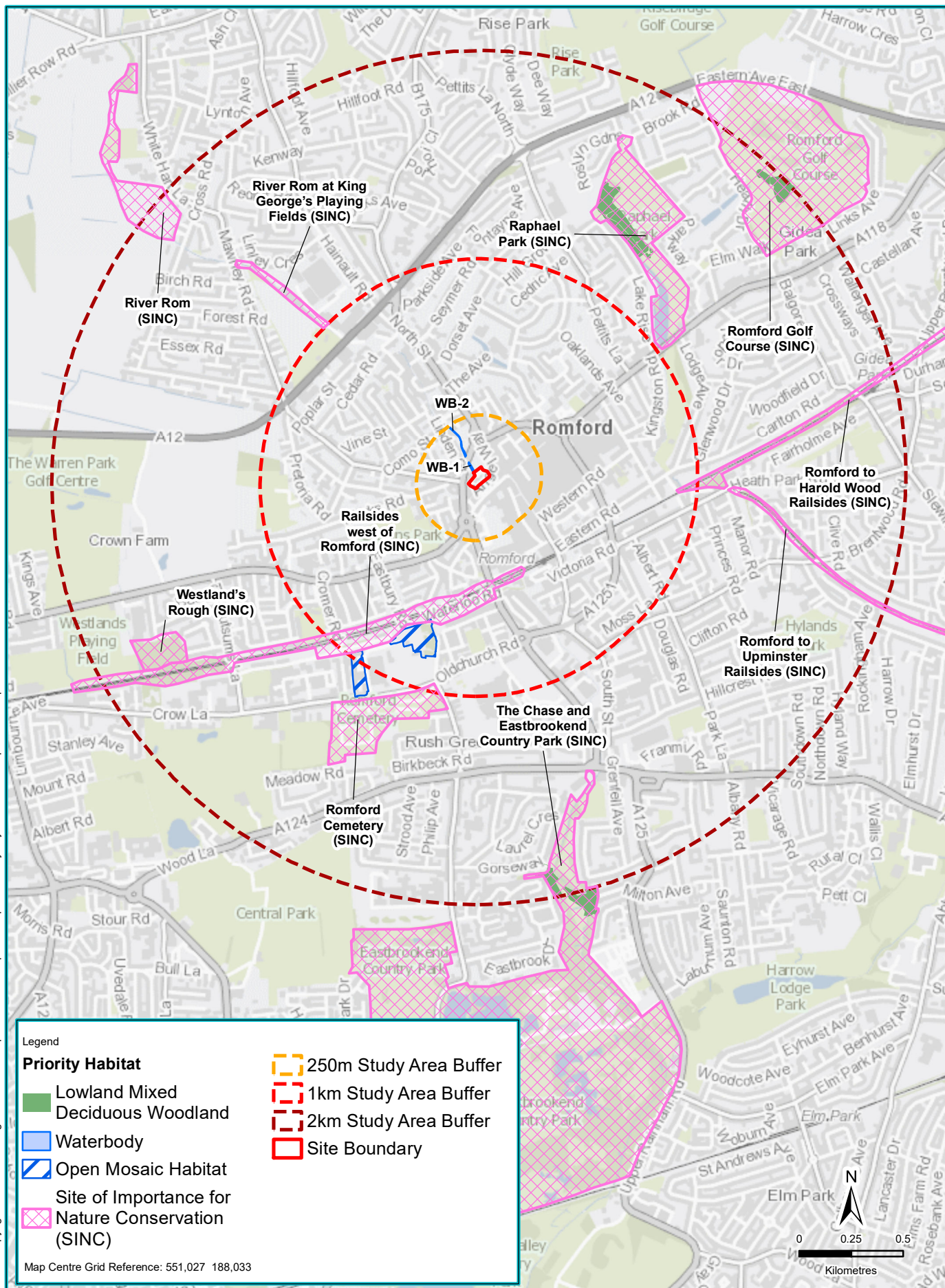
- Additional enhancements could be made to proposed buildings and gardens such as using native species in planting, invertebrate nesting boxes, bird boxes and fencing to be sympathetic to commuting mammals, as well as planting of wildflowers.



Client	Mercury Design and Build Ltd	Drawing Ref	MER003-002/407230/1	Thomson environmental consultants www.thomsonec.com enquiries@thomsonec.com		
Figure Number	1	Scale at A4	1:50,000			
Figure Title	Site Location	Drawn	KC		Checked	AS
		Date	25/04/2025		Date	25/04/2025

Thomson
 environmental
 consultants

www.thomsonec.com
 enquiries@thomsonec.com



Client	Mercury Land Holdings Ltd	Drawing Ref	MER003-002/403310/1	Thomson environmental consultants www.thomsonec.com enquiries@thomsonec.com
Figure Number	2	Scale at A4	1:25,000	
Figure Title	Site Location, Study Area and Desk Study Results (Angel Way)	Drawn	Checked	
		YL	AS	
		Date	Date	
		04/09/2023	04/09/2023	

Thomson
environmental
consultants

www.thomsonec.com
enquiries@thomsonec.com

Filepath: M:\Live Projects\Terrestrial Ecology\Birmingham\MER003-002_1 - LBH Disposal Sites\Mapping\Working\Angel Way\MER003_002_BNG_Figures_KC_190325.aprx

Legend

- ! Urban Trees
- u1 (851) – Culvert
- u1b - Developed Land, Sealed Surface
- u1b5 - Buildings
- u1b6 - Other Developed Land
- u1c - Artificial Unvegetated Unsealed Surface
- Blue Line Boundary
- Planning Application Boundary

Map Centre Grid Reference: 551025E 188855N

This map has been drawn at a sufficient level of accuracy to fulfil the requirements of a UK Habitat Classification Survey. The level of accuracy depends on both the size of the area involved and the base mapping. Every effort has been made to create a map that is as accurate as possible. However, this map is not intended to represent a scaled landscape survey so should not be used to pin-point accurate engineering work or as a basis for detailed site planning.

Contains Ordnance Survey data
© Crown copyright and database right 2025.

This map must not be copied or reproduced by any means without prior written permission from Thomson Environmental Consultants.

Drawing Ref
MER003-002/407231/1

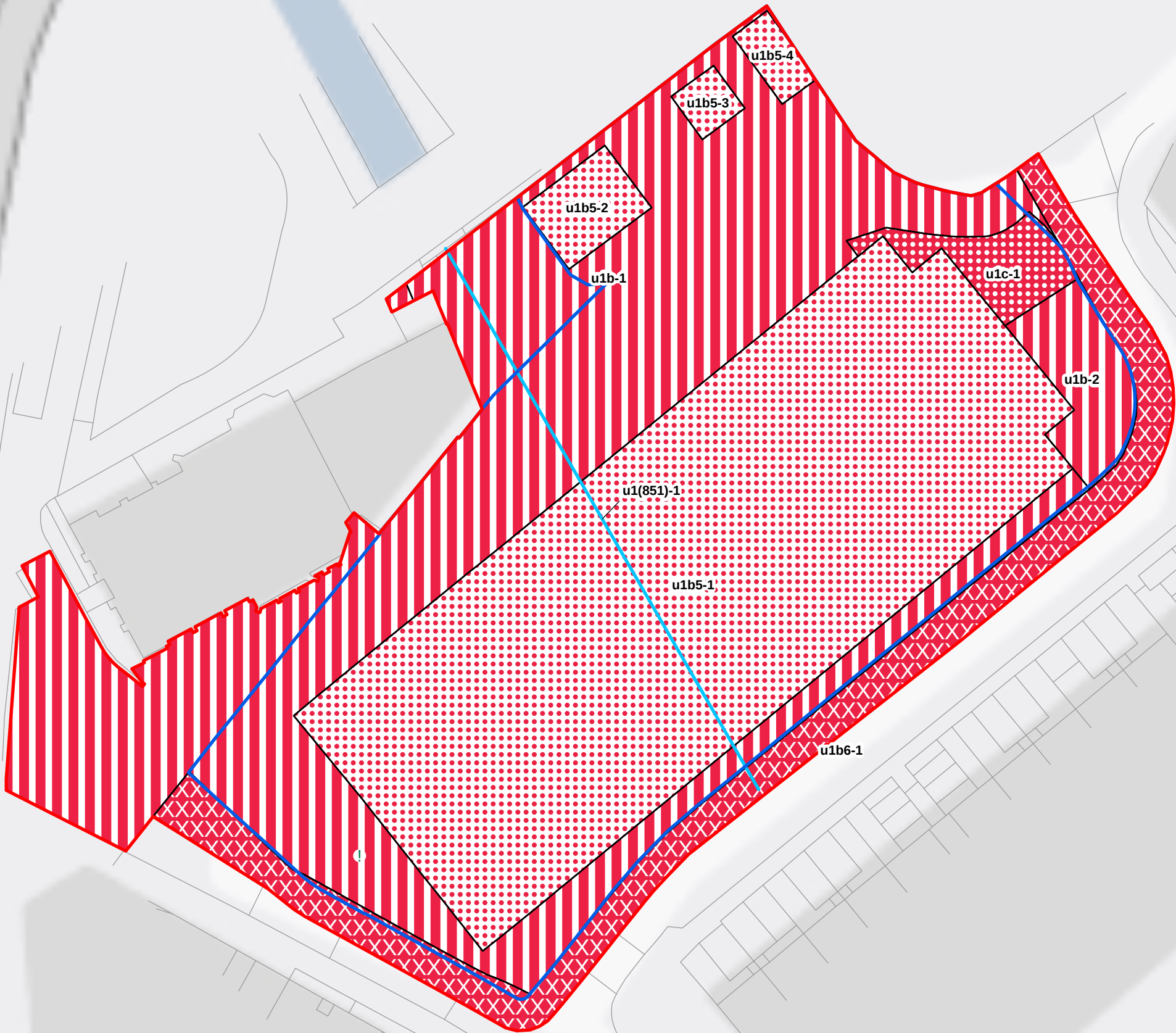
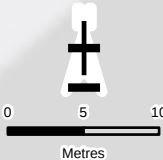
Scale at A3
1:500

Drawn	Checked
KC	AS
Date	Date
25/04/2025	25/04/2025

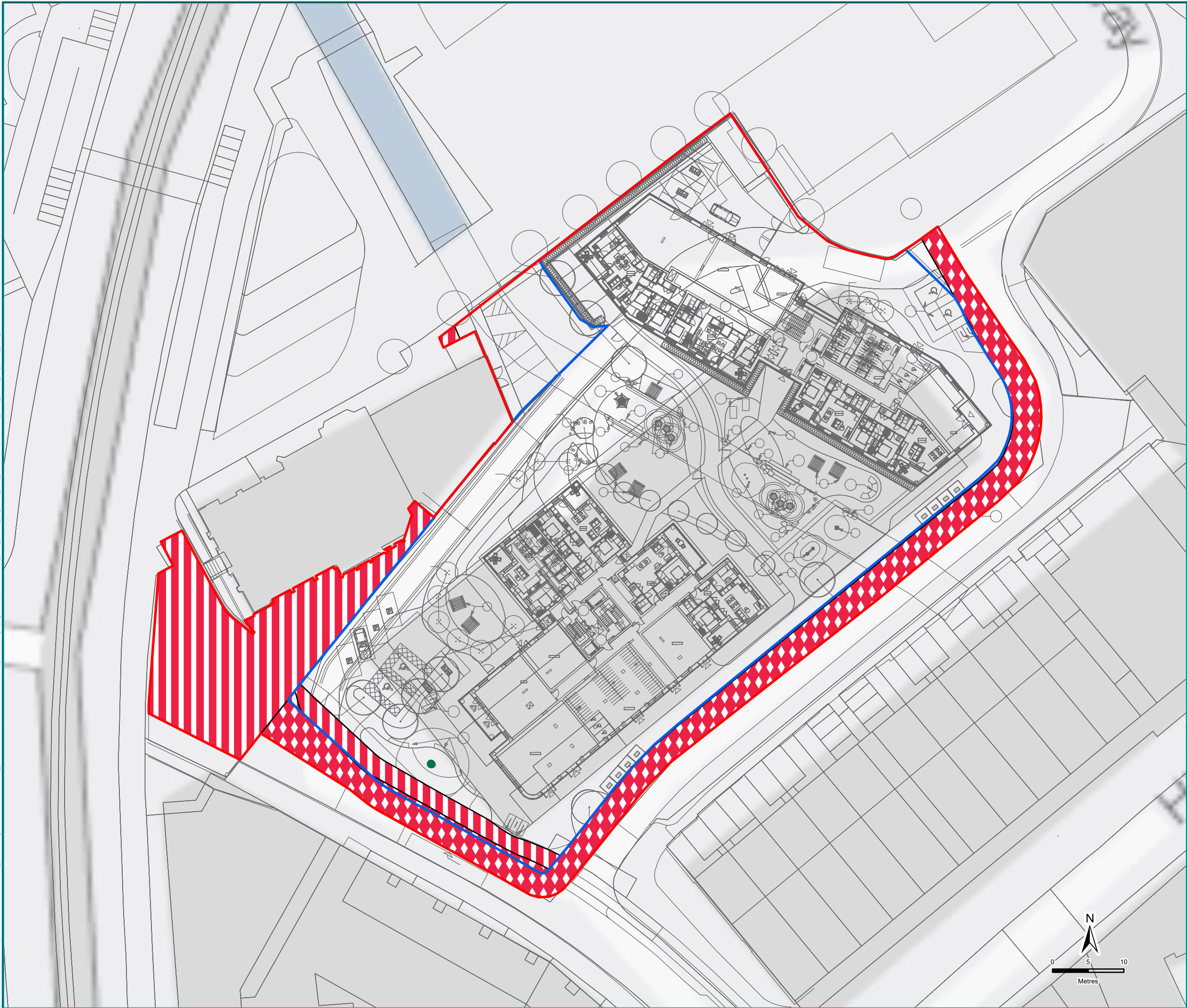
Client
Mercury Land Holdings Ltd

Figure Number
3

Figure Title
UK Habitat Classification
Survey Results
(Angel Way)



Filepath: M:\Live Projects\Terrestrial Ecology\Birmingham\MER003-002_1 - LBH Disposal Sites\Mapping\Working\Angel Way\MER003_002_BNG_Figures_KC_190325.aprx



- Legend
- Retained Tree
 - u1b - Developed Land, Sealed Surface
 - u1b6 - Other Developed Land
 - Blue line boundary
 - Planning application boundary

Map Centre Grid Reference: 551025E 188855N

This map has been drawn at a sufficient level of accuracy to fulfil the requirements of a Biodiversity Net Gain Assessment. The level of accuracy depends on both the size of the area involved and the base mapping. Every effort has been made to create a map that is as accurate as possible. However, this map is not intended to represent a scaled landscape survey so should not be used to pin-point accurate engineering work or as a basis for detailed site planning.

Contains Ordnance Survey data© Crown copyright and database right 2025.

This map must not be copied or reproduced by any meanswithout prior written permission from Thomson Environmental Consultants.

Drawing Ref	
MER003-002/407232/1	
Scale at A3	
1:500	
Drawn	Checked
KC	AS
Date	Date
02/12/2025	02/12/2025
Client	
Mercury Land Holdings Ltd	
Figure Number	
4	
Figure Title	

Post Development Plan
(Retained Habitats)

Filepath: M:\Live Projects\Terrestrial Ecology\Birmingham\MER003-002_1 - LBH Disposal Sites\Mapping\Working\Angel Way\MER003_002_BNG_Figures_KC_190325.aprx

- Legend
- Proposed Tree
 - h2b Non-native and Ornamental Hedgerow
 - g4 - Modified Grassland
 - u1 (847) - Introduced shrub
 - u1b - Developed Land, Sealed Surface
 - u1b5 - Building
 - u1b5 (86) - Green Roof
 - u1b5 (87) - Biodiverse Green Roof
 - u1b6 - Other Developed Land
 - u1c - Artificial Unvegetated Unsealed Surface
 - Blue Line Boundary
 - Planning Application Boundary

Map Centre Grid Reference: 551025E 188855N

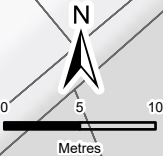
This map has been drawn at a sufficient level of accuracy to fulfil the requirements of a Biodiversity Net Gain Assessment. The level of accuracy depends on both the size of the area involved and the base mapping. Every effort has been made to create a map that is as accurate as possible. However, this map is not intended to represent a scaled landscape survey so should not be used to pin-point accurate engineering work or as a basis for detailed site planning.

Contains Ordnance Survey data© Crown copyright and database right 2025.

This map must not be copied or reproduced by any means without prior written permission from Thomson Environmental Consultants.

Drawing Ref	
MER003-002/407233/1	
Scale at A3	
1:500	
Drawn	Checked
KC	AS
Date	Date
02/12/2025	02/12/2025
Client	
Mercury Land Holdings Ltd	
Figure Number	
5	
Figure Title	

Post Development Plan
(Created Habitats)





Photograph 1: u1c artificial unsealed surface



Photograph 2: u1b built structures



Photograph 3: u1b built structures



Photograph 4: u1b built structures



Photograph 5: u1b built structures



Photograph 6: u1b built structures



Photograph 7: u1b built structures



Photograph 8: Urban Tree

Client	Mercury Land Holdings Ltd	Drawing Ref		MER003-002/001/002		Thomson environmental consultants www.thomsonec.com enquiries@thomsonec.com	
Figure Number	6	Drawn	GP	Checked	JR		
Figure Title	Photographs of the Site		Date				26/03/2025

2. Introduction

2.1 Development Background

- 2.1.1** Mercury Land Holdings Ltd proposes the potential re-development of a car park site on Angel Way in Romford, within the London Borough of Havering, into a residential led, mixed-use scheme which will provide 106 dwellings with car parking, landscaping and related infrastructure, including a new sub-station.
- 2.1.2** The development will be located on the site of a multi-storey car park which has an area of approximately 0.59ha (Grid Reference TQ 51042 88851), off St Edwards Way and High Street within Romford town centre, see Figure 1. The area affected by the development is hereafter referred to as ‘the site.’
- 2.1.3** A full planning application is being sought by Mercury Land Holdings Ltd. The site is located within the London Borough of Havering, the local plan of which stipulates that developers must *“demonstrate that the impact of proposals on protected sites and species have been fully assessed when development has the potential to impact on such sites or species, within their local plan. Appropriate mitigation and compensation measures will also need to be identified where necessary”*. As such, ecological surveys to assess the developments impact of protected sites and species have been undertaken to assess the impact of the proposed development on priority habitats, designated sites and protected species. The findings of this assessment is detailed in this report and further survey is recommended where required.

2.2 The Brief and Objectives

- 2.2.1** Mercury Land Holdings Ltd commissioned Thomson Environmental Consultants on 11th July 2023 to undertake a Preliminary Ecological Appraisal (PEA) of the development site and Biodiversity Net Gain calculations pre and post development. The brief was to:
- Carry out an ecological desk study to obtain records of designated sites and protected species held by third parties;
 - Undertake an extended UKHab survey of the site, recording the main habitats present on site and their condition to inform BNG baseline calculations;
 - Make an assessment of the potential of the site to support protected species or species of conservation concern¹;
 - Complete biodiversity metric calculations using Defra’s 4.0 biodiversity metric for calculating biodiversity net gain value (which has since been updated in 2023 to the Statutory metric and therefore this has been used);
 - Provide a combined report giving the methods and results of the survey and biodiversity calculations, discussion of the legal and planning policy issues and our recommendations, including opportunities for biodiversity enhancement; and
 - Provide digitised mapping of the survey results.

¹ Species of conservation concern are species identified on published lists as being rare, vulnerable or declining.

2.2.2 The objective of the PEA is to identify any known or potential ecological constraints to the proposed development, identify any requirements for further ecological survey and provide outline recommendations for avoidance, mitigation, compensation and enhancement measures as appropriate. The report will be submitted to the local planning authority to inform the planning decision.

2.2.3 On 26th November 2025, Mercury Land Holdings Ltd commissioned Thomson Environmental Consultants to produce an updated PEA and BNG report following small changes to the scheme design. The brief was to produce:

- Updated GIS mapping figures and exports to enable BNG calculations to be updated;
- Updated BNG calculations based on the finalised landscaping plan (Ref: 23025-GUA-DR-L-XXX-XX-004 P08 Hard and Soft Landscape_ Furniture & Boundary Treatment Proposals); and,
- An updated BNG report.

2.3 Limitations

2.3.1 The PEA, including a data search for protected and priority species within 1km, was completed in August 2023. The Chartered Institute for Ecology and Environmental Management's (CIEEM's) Good Practice Principles for Biodiversity Net Gain (CIEEM, 2016) state that update surveys should be completed after a year to ensure the on-site baseline has not changed. Surveyors attended site in May 2025 to complete bat emergence surveys and confirmed the baseline habitats had not changed, so a specific walkover to assess habitats has not been completed and the site is not anticipated to support any additional species not discussed in this report.

2.3.2 The species data collated during the desk study is mainly derived from records submitted by members of the public and *ad hoc* surveys undertaken by volunteers. Therefore, it should not be taken as a definitive list of the protected species and other species of conservation concern that occur in the local area.

2.3.3 On 31st of July 2023, UKHab 2.0 was released, which was after Thomson Environmental Consultants were instructed by the client to undertake the survey. The survey was undertaken using the 1.0 habitat codes which is not considered to be a limitation as the habitats recorded have not changed since the update.

2.3.4 This report and post-development scenario is based on the finalised landscaping plan scheme [23025-GUA-DR-L-XXX-XX-004 P08 Hard and Soft Landscape_ Furniture & Boundary Treatment Proposals] provided by Guarda Landscape on 25th November 2025 (See Appendix 5. Subsequent changes to this layout will result in a requirement to reassess the biodiversity metric calculations for the site.

2.4 Surveyors

2.4.1 The survey was completed by Ecological Consultant Tamsin Harper BSc ACIEEM.

2.4.2 Updated Biodiversity Net Gain calculations were completed by Ecological Consultant Leo Aston BSc (Hons).

3. Methodology - Preliminary Ecological Appraisal

3.1 Desk Study

- 3.1.1 A study area was defined as an area that encompassed the site and all land within 2km of the perimeter of the site, see Figure 2.
- 3.1.2 Sources of information were as follows:
- The Multi-Agency Geographical Information for the Countryside (MAGIC);
 - London Borough of Havering's Local Plan; and
 - Greenspace Information for Greater London CIC (GiGL).
- 3.1.3 Records of designated sites were sought for the full study area, whereas records for species were sought for part of the study area encompassing the site and within 1km of the perimeter of the site. A search for waterbodies within 250m of the site was also undertaken.
- 3.1.4 This study area has been selected based on an assessment of the potential 'Zone of Influence' of the development, considering the size and type of the development and its potential impacts on features of biodiversity interest. The 'Zone of Influence' is defined as "*the area over which ecological features may be affected by biophysical changes as a result of the proposed project and associated activities*" (CIEEM, 2018).
- 3.1.5 Requests for information were sent to GiGL on 7th August 2023 with responses returned on the same day.
- 3.1.6 The standard search area for protected and priority species², and other species of conservation concern is 1km. The standard approach was adopted for this report due to the size of the proposed development.

3.2 Habitat Survey

- 3.2.1 A survey area was defined as the entirety of areas within the planning application boundary, which is shown on Figure 3.
- 3.2.2 A survey using the UKHab (Butcher *et al.*, 2020a; Butcher *et al.*, 2020b) was conducted throughout the survey area. This is a nationally recognised habitat classification system that is compatible with the DEFRA Biodiversity Metric for calculating biodiversity net gain values (Panks *et al.*, 2023a).
- 3.2.3 The UKHab has five hierarchical levels and includes the identification of priority habitats (Habitats of Principal Importance listed under the Natural Environment and Rural Communities Act 2006) and Annex I habitats as listed under the European Habitats Directive. The five levels are:
- Level 1 - Biomes/major ecosystems (terrestrial, freshwater and coastal);

² Priority species are species listed on the Section 41 list of the Natural Environment and Rural Communities Act 2006 (the NERC Act) as Species of Principal Importance in England (Section 42 list of the NERC Act as Species of Principal Importance for Conservation of Biological Diversity in Wales) or listed in local Biodiversity Action Plans

- Level 2 - Ecosystem types (i.e., woodland, grassland, heathland and scrub);
- Level 3 - Broad Habitats, based on those of the UK Biodiversity Action Plan (UKBAP);
- Level 4 - Habitats, including 47 priority habitats; and
- Level 5 - Habitats, including Annex I habitats.

3.2.4 In addition, non-hierarchical secondary codes were used to provide supplementary information. These included mandatory codes for habitat mosaics/complexes, priority and Annex I habitats that occur in multiple primary habitats and habitat origins (codes 10 - 41), plus any additional relevant secondary codes.

3.2.5 During the field survey, the habitat map was ground-truthed, with all habitats mapped to the highest level possible.

3.2.6 Table 1 below shows the meta-data used for this survey.

Table 1 Survey meta-data

Scope and purpose of the survey	Preliminary Ecological Appraisal (PEA)
Area surveyed	Angel Way Car Park
Edition of UKHab used	UKHab-Professional
Minimum Mapping Unit (MMU)	25m ² for areas, 5m for linear features
Level of UKHab Primary Hierarchy used	Level 5, where possible
List of Secondary Code groups recorded	All secondary codes
Additional attributes recorded	N/A
Map projection and units	Figure 3
Date of survey	14 th August 2023
Organisation and individual undertaking the survey	Tamsin Harper BSc ACIEEM, Thomson Environmental Consultants
References for any existing datasets that have been used	The Multi-Agency Geographical Information for the Countryside (MAGIC) www.magic.gov.uk ; GiGL

3.2.7 The dominant and readily identified species of higher plant species from each habitat type within the survey area were recorded and their abundance was assessed on the DAFOR scale:

- D Dominant;
- A Abundant;
- F Frequent;
- O Occasional; and

- R Rare.

3.2.8 These scores represent the abundance within the defined area only and do not reflect national or regional abundances. Plant species nomenclature follows Stace (2019).

3.2.9 Target notes were made for any features which were too small to map or are of particular ecological interest. However, no specific faunal surveys were undertaken.

3.2.10 Further details on the methodology are set out in Appendix 1.

4. Methodology - Biodiversity Net Gain Assessment

4.1 Background

- 4.1.1 The calculations were carried out using the statutory biodiversity metric calculation tool (Defra, 2024a).
- 4.1.2 The metric calculation tool determines the net change in BNG units by subtracting the baseline biodiversity value score from the post-development biodiversity value. If this number is positive, the works have achieved a biodiversity net gain. If the number is negative, there is a net loss.
- 4.1.3 Area based habitats, hedgerows and rivers/streams are considered separately to account for the differences in their ecological values and functions.
- 4.1.4 This assessment also follows the Chartered Institute for Ecology and Environmental Management's (CIEEM's) Good Practice Principles for Biodiversity Net Gain (CIEEM, 2016).

4.2 Baseline Formula

- 4.2.1 The baseline biodiversity value calculation represents the pre-development biodiversity value of the site as it was at the time that the baseline habitat survey was undertaken.
- 4.2.2 To calculate the baseline biodiversity value, habitat distinctiveness and condition are given numerical 'scores' which are multiplied with hectares or kilometres of habitat. The formula for calculating baseline biodiversity units is as follows:

$$(A \times D \times Q \times S) = AHBU$$

4.2.3 Where:

- A = Area (ha) or length (km)
- D = Distinctiveness
- Q = Condition
- S = Strategic significance
- AHBU = Area or length-based habitat biodiversity units

Distinctiveness

- 4.2.4 Each habitat parcel is assigned a multiplier based on habitat distinctiveness. This includes *'consideration of species richness and rarity; the extent to which the habitat is protected by designations; and the degree to which a habitat supports species rarely found in other habitats'* (Defra, 2024b).
- 4.2.5 Habitats such as hard standing and buildings are assumed to have very low distinctiveness and are not included.

Condition

- 4.2.7** To enable the calculation of BNG units, an assessment of the condition of each habitat was made in the field in accordance with the statutory biodiversity metric condition assessments (Defra, 2024c). These sheets provide a series of condition assessment criteria, specific to each habitat type. Once all applicable criteria have been assessed, a condition score of Good, Moderate or Poor is applied, based on the scoring instructions provided within the condition sheets.
- 4.2.8** The condition of habitats such as hard standing and buildings is not assessed.

Strategic Significance

- 4.2.9** The location of habitat parcels is factored into the calculation based on whether it has been identified as significant for nature conservation within local plans and strategies.

4.3 Post-development Formula

Habitat Creation

- 4.3.1** The first formula covers habitat creation

$$((AxDxQxS)x(RxT)x(S)) = AHBU$$

- 4.3.2** Where:

- A = Area (ha) or length (km)
- D = Distinctiveness
- Q = Condition
- R = Difficulty/risk factor
- T = Time to target factor
- S = Strategic significance
- AHBU = Area or length-based habitat biodiversity units

Habitat Retention and Enhancement

- 4.3.3** The second formula is used to calculate habitat retention and enhancement. This is where a habitat is retained but the condition is improved. This is calculated as follows:

$$(((APxDPxQP) - (ABxDBxQB))x(RxT)) + (ABxDBxQB)x(S) = AHBU$$

- 4.3.4** If some habitat is retained, but the condition remains the same, then the following formula applies:

$$(APxDPxQP) - (ABxDBxQB)$$

- 4.3.5** In both cases:

- A = Area (ha) or length (km)
- D = Distinctiveness

- Q = Condition
- R = Difficulty/risk factor
- T = Time to target factor
- S = Strategic significance
- P = Post-development
- B = Baseline
- AHBU = Area or length-based habitat biodiversity units

4.3.6 Distinctiveness, condition and strategic significance are all scored as for the baseline calculations.

Difficulty/Risk Factor

4.3.7 The risk associated with the creation or enhancement of a given habitat is assigned a difficulty multiplier to account for the uncertainty and risk of failure inherent in any action to create new habitat due to the unique physical and ecological features of every site.

Time to Target Factor

4.3.8 The time scale of the creation/enhancement of habitats is assigned a temporal risk multiplier (0-30years+) to compensate for the fact that there will not be an instant change in habitats or conditions and there may be a biodiversity deficit until the habitat has matured.

Trading Rules

4.3.9 The trading rules are in place to ensure habitat creation and enhancement compensate for specific habitat losses, Table 2 below details the trading rules.

Table 2 Biodiversity net gain trading rules

Baseline Habitat Distinctiveness	Area	Hedgerow	Watercourse
Very High	Priority should be given to replacing losses with area habitat units of the same habitat type	Losses must be replaced with hedgerow units of the same habitat type	Priority should be given to replacing losses with watercourse units of the same habitat type
High	Losses must be replaced with area habitat units of the same habitat type	Losses must be replaced with hedgerow units of the same habitat type or of a higher band	Losses must be replaced with watercourse units of the same habitat type

Baseline Habitat Distinctiveness	Area	Hedgerow	Watercourse
Medium	Losses must be replaced by area habitat units of either medium band habitats within the same broad habitat type or, any habitat from a higher band from any broad habitat type	Losses must be replaced with hedgerow units of the same or of a higher band	Losses must be replaced with watercourse units of the same habitat type
Low	Losses must be replaced with area habitat units of the same or higher band	Losses must be replaced with hedgerow units of the same or of a higher band	Losses must be replaced with watercourse units of a higher band
Very Low	Not applicable	Losses must be replaced with hedgerow units of the same or of a higher band	Not applicable

5. Results - Preliminary Ecological Appraisal

5.1 Background

- 5.1.1 The contents of the results section are the factual results of the desk study and extended UKHab survey. Excluded from this section is the assessment of the site to support species of conservation concern not recorded during the survey. Instead, potential further ecological issues are discussed in Section 8.

5.2 Desk Study

- 5.2.1 Responses were received from Greenspace Information for Greater London CIC (GiGL) on 7th August 2023.
- 5.2.2 The results are summarised below and the locations of designated sites, priority habitats and waterbodies are shown on Figure 2.

Designated Sites

- 5.2.3 The desk study returned a record of one Local Nature Reserve (LNR) named The Chase; however, its boundary lies outside of the study area at 2.1km from the site, therefore it has not been included on Figure 2. It has been included for consideration below due to its close proximity to the boundary and protected species it supports.
- 5.2.4 The desk study also returned records of nine non-statutory sites, all Sites of Importance for Nature Conservation (SINCs). The sites are listed and described in Table 3 below.

Table 3 Designated Sites

Site Designation	Grid Reference	Area (ha)	Distance to Site (km)	Description
County and Local Sites (LNR)				
The Chase	TQ 515 860	45.54	2.1km S	The Chase is of interest principally for its birds. Kingfisher (<i>Alcedo atthis</i>), skylark (<i>Alauda Arvensis</i>), little ringed plover (<i>Charadrius dubius</i>) and lapwing (<i>Vanellus sp.</i>) all breed here. Teal (<i>Anas crecca</i>), snipe (<i>Gallinago gallinago</i>) and shoveler (<i>Anas clypeata</i>) visit in winter. The River Rom flows down its eastern fringe which supports water voles (<i>Arvicola amphibius</i>).
Non Statutory Sites (SINCs)				
Railsides west of Romford	TQ 508 882	15.16	0.5km SW	Havering's railsides form a network of valuable undisturbed habitats, acting as corridors to facilitate the movement of wildlife around the borough. The total area of rail side land makes them a significant habitat in their own right. There are good areas of habitat along all the borough's railways, with cuttings and embankments generally supporting the widest and best habitats.
River Rom at King George's Playing Fields	TQ 501 897	0.68	1km NW	The Rom is quite narrow and fast flowing within this stretch. Within this site the river flows between an avenue of trees and shrubs chiefly composed of crack willow (<i>Salix fragilis</i>) and hawthorn. The associated vegetation is considerably more diverse than in other sections of the river and includes unbranched bur-reed (<i>Sparganium submersum</i>), fool's watercress (<i>Apium nodiflorum</i>), watercress (<i>Rorippa nasturtium-aquatica</i>), reed canary-grass (<i>Phalaris arundinacea</i>), water pepper (<i>Persicaria hydropiper</i>), Russian comfrey (<i>Symphytum x uplandicum</i>) and abundant Indian balsam (<i>Impatiens glandulifera</i>). The banks are covered in a mosaic of semi-improved neutral grassland, amenity grassland and tall herbs.
Raphael Park	TQ 518 899	17.1	1km NE	Much of Raphael Park is covered in amenity grassland with scattered trees and planted shrubbery. However, the western fringe is managed as a nature area and is cut infrequently. The grassland here contains a substantial quantity cock's-foot (<i>Dactylis glomerata</i>) and parts are becoming colonised by bramble, hogweed (<i>Heracleum sphondylium</i>) and cow parsley (<i>Anthriscus sylvestris</i>). A number of native trees and shrubs have been planted including hawthorn (<i>Crataegus monogyna</i>), field maple (<i>Acer campestre</i>), ash (<i>Fraxinus excelsior</i>) and oak (<i>Quercus sp.</i>). Dead wood is left in situ here. Breeding birds include spotted flycatcher (<i>Muscicapa striata</i>), goldcrest (<i>Regulus regulus</i>) and all three British woodpeckers. The park's lake is attractive to common water birds; great crested

Site Designation	Grid Reference	Area (ha)	Distance to Site (km)	Description
				grebe and tufted duck breed regularly, and mute swan does so occasionally. There are two islands, both covered in woodland of sycamore (<i>Acer pseudoplatanus</i>), oak (<i>Quercus sp.</i>), horse chestnut (<i>Aesculus hippocastanum</i>) and common lime (<i>Tilia x europaea</i>).
Romford to Harold Wood Railsides	TQ 531 894	28.26	1.1km E	Most of the railsides are wooded. Scrub of elm (<i>Ulmus spp.</i>) and hawthorn (<i>Crataegus monogyna</i>) is also widespread. Rough grassland and tall herbs are also widespread, mainly dominated by false oat-grass (<i>Arrhenatherum elatius</i>), nettle (<i>Urtica dioica</i>), rosebay willowherb (<i>Chamerion angustifolium</i>), cow parsley (<i>Anthriscus sylvestris</i>) and Chinese mugwort (<i>Artemisia verlotiorum</i>), often intermingled with bramble (<i>Rubus fruticosus agg.</i>). Finer grassland of bents and fescues, with wild flowers such as wild carrot (<i>Daucus carota</i>), hoary ragwort (<i>Senecio erucifolius</i>), field scabious (<i>Knautia arvensis</i>) and common knapweed (<i>Centaurea nigra</i>), can be found in a few places.
Romford to Upminster Railsides	TQ 537 879	9.82	1.2 W	Havering's railsides form a network of valuable undisturbed habitats, acting as corridors to facilitate the movement of wildlife around the borough. The total area of rail side land makes them a significant habitat in their own right. There are good areas of habitat along all the borough's railways, with cuttings and embankments generally supporting the widest and best habitats. Includes Hornchurch Cutting SSSI.
The Chase and Eastbrookend Country Park	TQ 512 863	147.07	1.5km S	Mosaic of grazed wetland and terrestrial habitats. Shallow pools support a rich aquatic vegetation. The dry acid grassland supports one of London's few populations of spiny retharrow (<i>Ononis spinosa</i>). Lapwing, little ringed plover, little grebe, yellowhammer and skylark all breed. Beds of reed sweet-grass (<i>Glyceria maxima</i>) and tall herbaceous vegetation beside the river attract breeding warblers and water rail. The site is also regularly visited by a long list of passage species, some nationally rare. Several mature black poplars (<i>Populus nigra ssp. betulifolia</i>) grow near the river, at one of the very few native London sites for this nationally declining tree (a UK and London Biodiversity Action Plan priority species). Rare invertebrates include the hornet robber-fly (<i>Asilus crabroniformis</i>), a BAP Priority Species. Mammals include the declining harvest mouse and the specially-protected water vole.

Site Designation	Grid Reference	Area (ha)	Distance to Site (km)	Description
Romford Golf Course	TQ 524 903	43.28	1.8km NE	The site includes several woodland areas, likely to be of value to nesting birds. More interesting woodland of oak and hornbeam (<i>Carpinus betulus</i>) occurs in the north of the site with the good grassland areas and old hedges. The site contains several ponds. A pond in a patch of woodland in the centre of the site contains abundant ivy-leaved duckweed (<i>Lemna trisulca</i>), a rare plant in London, and has an associated sand bank.
Romford Cemetery	TQ 505 876	9.83	1.31km SW	A large cemetery with the grassland between graves closely cut but quite diverse. Red fescue (<i>Festuca rubra</i>) and creeping bent (<i>Agrostis stolonifera</i>) dominate the sward that also contains an abundance of common wild flowers such as daisy (<i>Bellis perennis</i>), autumn hawkbit (<i>Leontodon autumnale</i>), cat's-ear (<i>Hypochaeris radicata</i>), yarrow (<i>Achillea millefolium</i>) and clovers (<i>Trifolium spp.</i>). Fungi are abundant in the grassland. A number of graves around the chapel are quite old and have been colonised by stonecrops (<i>Sedum spp.</i>), fleabane (<i>Pulicaria dysenterica</i>) and mosses. The site contains good numbers of mature trees, including rows of common lime (<i>Tilia x europaea</i>) and horse chestnut (<i>Aesculus hippocastanum</i>). Scrub of hazel (<i>Corylus avellana</i>), hawthorn, elm (<i>Ulmus sp.</i>) and cherry (<i>Prunus sp.</i>) occurs adjacent to the allotment gardens and the field to the south."
Westland's Rough	TQ 495 880	3.3	1.7km SW	This open site is of interest because of its varied habitat structure, which comprises tussocky grassland, dominated by false oat-grass (<i>Arrhenatherum elatius</i>) with patches of tall herbs and scattered trees. In addition, the western perimeter includes a ditch lined with crack willow. Numerous self-sown saplings are growing in the vicinity of the scrub and trees.

Waterbodies

- 5.2.5** The River Rom lies within 250m of the site (split into WB1 and WB2 on Figure 2), passing underneath the site within a culvert and extending north. The culverted section of the river is shown on Figure 3 as 'u1 (851)'.

Ancient Woodland outside Designated Sites

- 5.2.6** No ancient woodlands were located within 2km of the site during the desk study.

Priority Habitats outside Designated Sites

- 5.2.7** A search on MAGIC identified 9 parcels of deciduous woodland within 2km, the closest of which is 0.74ha in size and 1.37km north-east of the site at Raphael Park SINC.

Protected Species

- 5.2.8** Records of protected species and those of conservation concern obtained from GiGL are summarised in Table 4.
- 5.2.9** To ensure the data is relevant at the time of writing, only records within 1km of the site from the last ten years have been included. Where multiple records exist for the same species, the closest record has been included.
- 5.2.10** Twenty-five protected and priority species were identified during the desk study. Four invasive non-native species (INNS) records were also returned.

Table 4 Species records derived from the desk study

Common Name	Scientific Name	CHSR ³ Schedule 2 or 5	WCA ⁴ Schedule 1, 5 or 8	National Priority Species ⁵	Local Priority/ BAP Species	Red Data Book/ BoCC ⁶	Other	Grid Ref.	Distance from Site (km)	Source
Amphibians										
Common frog	<i>Rana temporaria</i>		Sale only					N/A	0.63	GiGL
Common toad	<i>Bufo bufo</i>		Sale only		✓			N/A	1.14	GiGL
Reptiles										
Common lizard	<i>Zootoca vivipara</i>		✓	✓	✓			N/A	1.46	GiGL
Birds										
Dunnock	<i>Prunella modularis</i>				✓			N/A	0.96	GiGL
Fieldfare	<i>Turdus pilaris</i>		✓			✓		N/A	0.96	GiGL
Greenshank	<i>Tringa nebularia</i>		✓					N/A	0.96	GiGL
Hen Harrier	<i>Circus cyaneus</i>		✓				NERC Act Section 41			GiGL
Honey-buzzard	<i>Pernis apivorus</i>		✓				Annex 1			GiGL
House martin	<i>Delichon urbicum</i>					✓		N/A	0.96	GiGL
Linnet	<i>Linaria cannabina</i>						Local species of	N/A	0.96	GiGL

³ Conservation of Habitats and Species Regulations 2017, as amended

⁴ Wildlife and Countryside Act 1981, as amended

⁵ Species of Principal Importance within the relevant country of the United Kingdom

⁶ Birds of Conservation Concern 5: the status of all regularly occurring birds in the United Kingdom, Channel Islands and the Isle of Man (Stanbury *et al.*, 2021)

Common Name	Scientific Name	CHSR ³ Schedule 2 or 5	WCA ⁴ Schedule 1, 5 or 8	National Priority Species ⁵	Local Priority/ BAP Species	Red Data Book/ BoCC ⁶	Other	Grid Ref.	Distance from Site (km)	Source
							conservation concern			
Little ringed plover	<i>Charadrius dubius</i>		✓		✓			N/A	1.79	GiGL
Marsh harrier	<i>Circus aeruginosus</i>		✓				Annex 1	N/A	0.96	GiGL
Mediterranean gull	<i>Ichthyaetus melanocephalus</i>		✓				Annex 1	N/A	0.96	GiGL
Peregrine	<i>Falco peregrinus</i>		✓		✓		Annex 1	N/A	N/A	GiGL
Pochard	<i>Aythya ferina</i>		✓		✓	✓		N/A	0.96	GiGL
Red Kite	<i>Milvus milvus</i>		✓				Annex 1	N/A	0.96	GiGL
Reed bunting	<i>Emberiza schoeniclus</i>		✓	✓	✓			N/A	0.96	GiGL
Ring ouzel	<i>Turdus torquatus</i>		✓	✓	✓			N/A	0.96	GiGL
Skylark	<i>Alauda arvensis</i>		✓		✓	✓		N/A	0.96	GiGL
Wood warbler	<i>Phylloscopus sibilatrix</i>		✓		✓	✓		N/A	0.96	GiGL
Mammals										
Pipistrelle	<i>Pipistrellus pipistrellus</i>	✓	Sch 5	✓	✓			N/A	1.83	GiGL
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	✓	Sch 5	✓	✓			N/A	1.83	GiGL

Common Name	Scientific Name	CHSR ³ Schedule 2 or 5	WCA ⁴ Schedule 1, 5 or 8	National Priority Species ⁵	Local Priority/ BAP Species	Red Data Book/ BoCC ⁶	Other	Grid Ref.	Distance from Site (km)	Source
West European hedgehog	<i>Erinaceus europaeus</i>	✓			✓			N/A	1.3	GiGL
Invertebrates										
Small heath	<i>Coenonympha pamphilus</i>		✓	✓	✓	✓		N/A	1.19	GiGL
Stag beetle	<i>Lucanus cervus</i>		✓	✓	✓			N/A	0.01	GiGL
INNS										
Ring-necked parakeet	<i>Psittacula krameri</i>						WCA Sch 9	TQ 529865	0.93	GiGL
Cherry laurel	<i>Prunus laurocerasus</i>							TQ 52366 88606	1.97	GiGL
Himalayan balsam	<i>Impatiens glandulifera</i>						WCA Sch 9	TQ 5486 8587	N/A	GiGL
Japanese Knotweed	<i>Reynoutria japonica</i>						WCA Sch 9	TQ 5511 8607	0.95	GiGL

5.3 Habitat Survey

Habitats and Flora

5.3.1 The following UKHab habitat types were identified on site, with secondary codes given in brackets:

- u1b5 (89) - Buildings (Car park);
- u1b (89, 612) - Developed land, sealed surface (Car park, Fence);
- u1c - Artificial unvegetated unsealed surface;
- u1 (851) - Culvert; and,
- Urban trees.

5.3.2 Photographs of the habitats can be seen on Figure 6.

u1b5 (89) - Buildings (car park)

5.3.3 The site supported four buildings. The largest of which was a multi-storey car park (u1b5-1 on Figure 3) located within the centre of the site (approximately 0.25ha in area). The remaining three buildings comprised single storey stand-alone garages along the northern boundary of the site.

5.3.4 This habitat type is not subject to condition assessment under the Statutory Biodiversity Metric.

u1b (89, 612) - Developed land, sealed surface (car park, fence)

5.3.5 The site was dominated by sealed hardstanding that took the form of access roads, pedestrian pavement and an open-air carpark (approximately 0.57ha). Along the site's northern boundary this habitat type was bounded by palisade fencing. In the south-west of the site a single urban sycamore was present (Photograph 8 on Figure 6). Scattered occasionally throughout this habitat, introduced shrub species butterfly-bush was found.

5.3.6 This habitat type is not subject to condition assessment under the Statutory Biodiversity Metric.

u1c - Artificial unvegetated unsealed surface

5.3.7 A small area of paved land was present at the north-east of the site (approximately 0.01ha). This area was a pedestrian zone at the base of the multi-storey carpark. This is shown in photograph 1 of Figure 6.

5.3.8 This habitat type is not subject to condition assessment under the Statutory Biodiversity Metric.

u1 (851) - Urban (Culvert)

5.3.9 An approximate 70m section of the River Rom is culverted underneath the site.

5.3.10 This habitat type is not subject to condition assessment under the Statutory Biodiversity Metric.

Urban trees

- 5.3.11** A single sycamore tree was recorded to the south-west of the site (see Figure 3).
- 5.3.12** Following a condition assessment the tree is Poor condition, scored down as it does not meet the criteria for Moderate condition; a native species, natural ecological niches for vertebrates and invertebrates are present and more than 20% of the canopy is oversailing vegetation beneath.

Fauna

- 5.3.13** No fauna was identified during the survey.

Target Notes

- 5.3.14** No specific target notes of ecological interest or health and safety concerns were recorded during the survey.

6. Biodiversity Metric

6.1 Habitat Baseline (Including Retention and Enhancement)

6.1.1 The following habitats are included in the baseline, as shown on Figure 4. The full list of plant species and abundance are provided in Appendix 2 and the condition assessments of each habitat are provided in Appendix 3.

- 0.655 ha of u1b - Developed land, sealed surface. The condition for this habitat type is set at 'N/A';
- 0.012 ha of u1c - Artificial unvegetated, unsealed surface. The condition for this habitat type is set at 'N/A'; and,
- 1 medium tree of Poor condition, amounting to 0.016ha; and,
- a 0.07km section of culvert. The condition for this habitat type is set at 'N/A'.

6.1.2 The total baseline area habitat units for the site are 0.07 as shown in Table 5, provided by a single urban tree. This tree is to be retained.

6.1.3 The total baseline hedgerow units for the site are 0.00, as there are no linear habitat features on site.

6.1.4 The total watercourse units for the site are 0.10, as shown in Table 6, due to a culvert running below the site.

Table 5 Habitat baseline, retention and enhancement

Habitat Type	Area (ha)	Distinctiveness	Condition	Strategic Significance	Baseline (habitat units)	Area Retained	Area Enhanced	Units Retained	Baseline Units for Enhancement	Area Lost	Units Lost
u1b Developed land, sealed surface	0.655	0	0	1	0.00	0.137	0.00	0.00	0.00	0.52	0.00
u1c - Artificial unvegetated, unsealed surface	0.012	0	0	1	0.00	0.00	0.00	0.00	0.00	0.01	0.00
Individual trees (Urban trees)	0.016	4	1	1	0.07	0.0163	0.00	0.07	0.00	0.00	0.00
Total habitat area	0.68				0.07	0.15	0.00	0.07	0.00	0.53	0.00
Site Area (Excluding area of individual trees)	0.67										

Table 6 Watercourse baseline, retention and enhancement

Habitat Type	Length (km)	Distinctiveness	Condition	Strategic Significance	Watercourse Encroachment	Riparian Encroachment	Total Watercourse Units	Length Retained	Length Enhanced	Units Retained	Units Enhanced	Length Lost	Units Lost
u1 (851) - Culvert	0.07	2	1	1	0.68	1	0.10	0.07	0	0.10	0.00	0.00	0.00
Totals	0.07				0.18	0.078	0.10	0.07	0.00	0.10	0.00	0.00	0.00

6.2 Post-Development Scenario

- 6.2.1 The proposed habitat types and areas to be created are listed below in Tables 7 and 8. Multipliers have been applied for distinctiveness, condition, strategic significance, difficulty/risk and time to target, as described in Section 4.
- 6.2.2 For target condition assessment criteria of proposed post development habitats, see Appendix 4.

Table 7 Habitat Creation

Habitat Type	Area (ha)	Distinctiveness	Condition	Strategic Significance	Time to Target	Difficulty Multiplier	Habitat Units Delivered
Individual trees	0.122	4	1	1	10	1	0.34
u1b5 (87) - Biodiverse green roof	0.081	4	2	1	5	0.67	0.36
u1b5 (86) - Other green roof	0.042	2	1	1	1	1	0.00
u1c - Artificial unvegetated, unsealed surface	0.011	0	0	1	0	1	0.00
u1b - Developed land, sealed surface	0.278	0	0	1	0	1	0.00
u1 (847) - Introduced shrub	0.102	2	1	1	1	1	0.20
g4 - Modified grassland	0.024	2	2	1	4	1	0.08
Total habitat area	0.66						1.07

Table 8 Hedgerow Creation

Habitat Type	Length (km)	Distinctiveness	Condition	Strategic Significance	Time to Target	Time to Target Multiplier	Difficulty Multiplier	Hedgerow Units Delivered
h2b - Non-native ornamental hedgerow	0.042	1	1	1	1	0.965	1	0.04
h2b - Non-native ornamental hedgerow	0.026	1	1	1	1	0.965	1	0.03
h2b - Non-native ornamental hedgerow	0.018	1	1	1	1	0.965	1	0.02
Totals	0.09							0.08

6.3 Biodiversity Net Change

6.3.1 The biodiversity net change estimation associated with the proposed landscape plan is shown below. Under this scenario there is a **net gain of +1637.46% habitat units**. No percentage change could be calculated for hedgerow units due to there being no linear habitats on the baseline and there is no percentage net gain achieved for watercourse units. These results are shown in Table 9.

Table 9 Biodiversity net change

		On-site post-intervention (Including habitat retention, creation & enhancement)							
Unit Type	Baseline Units	Units Retained		Units Enhanced		Units Created		Post-development Units	On-site net % change
Habitat	0.07	0.07	+	0.00	+	1.07	=	1.13	1637.46%
Hedgerow	0.00	0.00	+	0.00	+	0.08	=	0.08	N/A
Watercourse	0.10	0.10	+	0.00	+	0.00	=	0.10	0.00%

6.3.2 For area and linear units, no additional units are required to meet the target, as 10% gain has been exceeded and trading rules have been satisfied.

6.3.3 At present, no net change in watercourse units have been investigated. Compensation should be sought through off site provision of **0.01 watercourse units**, either through:

- Enhancement of an off-site watercourse;
- Purchase of units through a biodiversity bank; or,
- Purchase of statutory credits, as a last resort.

7. Legislation and Planning Policy Considerations

7.1 Background

- 7.1.1 The content of this section is the legislation and planning policy considerations that we know are relevant based on this desk study and extended UKHab survey. The legislation and policy considerations that might arise following further surveys are excluded. Potential further ecological considerations are discussed in Section 8. A detailed description of the method for this section is given in Appendix 1.

7.2 Biodiversity Net Gain

- 7.2.1 The Environment Act 2021 provides a framework to improve and protect the natural environment. Section 90a states that ‘*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 [10%].*’
- 7.2.2 The Act also requires that both on-site and off-site enhancements will need to be maintained for a period of at least 30 years following completion of a development.
- 7.2.3 The National Planning Policy Framework (NPPF) (Department for Levelling Up, Housing & Communities, 2024) sets out the Government’s planning policies for England and how these should be applied. In relation to BNG, it states:
- 7.2.4 Paragraph 180: ‘*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 and future pressures.*’
- 7.2.5 Paragraph 186: ‘*When determining planning applications, local planning authorities should apply... opportunities to improve biodiversity in and around developments... as part of their design, especially where this can secure measurable net gains for biodiversity...*’
- 7.2.6 The above is supported by Havering’s local plan which states, “*Major developments are expected to demonstrate how biodiversity is promoted on site via ecological management plans and strategies*” and “*The Council will protect and enhance the borough’s natural environment and seek to increase the quantity and quality of biodiversity in Havering by...Supporting developments that promote the qualitative enhancement of sites of biodiversity value, by supporting proposals that improve access, connectivity, and the creation of new habitats. Measures include maintaining trees, native vegetation, and improving and restoring open spaces and green infrastructure for the benefit of wildlife*”.

7.3 Designated Sites

- 7.3.1 A single statutory designated site, a LNR, was returned by the data search. This was just over 2km from the site and was considered unlikely to be impacted by the development. The development proposals will therefore be compliant with the relevant legislation and policy with respect to statutory designated sites.

7.3.2 Nine SINC's were identified by the data search, of which only five sites were within 2km of the development. It was considered unlikely that the development would impact most of these non-statutory sites due to a lack of connecting habitat or water systems linking them to the development site, however the River Rom runs underneath the site which links the site with both the River Rom SINC and River Rom at King George's Playing Fields SINC to the north. The flow direction of the river is unknown at the time of writing this report, therefore it cannot be ruled out that pollution from the development may enter the River Rom through drainage and subsequently run into these SINC sites, should they be downstream.

7.4 Priority Habitats

7.4.1 No priority habitats were identified within the site boundary during the site visit.

7.4.2 The data search returned records of nine deciduous woodland parcels within 2km of the development site. However, these habitats were not found to be connected to the site by any similar habitat, and therefore the development proposals were considered to pose no threat of impact to these parcels and priority habitats will not be further considered within this report.

7.5 Protected Species

7.5.1 There were no incidental sightings of protected species within the site boundary during the survey visit. However, the desk study returned records of several protected species within 2km of the proposed development.

7.5.2 Several common bird species were found within 1km of the site, some of which could breed on the site as suitable habitat is present in the form of the buildings and an urban tree. All birds, eggs and nests are protected from damage and destruction under the Wildlife and Countryside Act 1981, as amended. Recommendations to ensure legal compliance are discussed in Section 9.

7.5.3 Records of bats within 1km of the site were obtained from the desk study. Suitable roosting habitat is present on site in the form of the multi-storey car park and an urban tree (see Figure 3). All bats and their roosts are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and under Schedule 2 of The Conservation of Habitats and Species Regulations 2017 (as amended). Removal of trees and buildings with roost features has the potential to kill or injure bats and damage or destroy their resting places, therefore recommendations have been provided in Section 9 to ensure legal compliance.

7.5.4 In addition, the Havering Local Plan 2016-2031 states that the presence of protected species is a material consideration in the planning process, which is addressed by Policy 27. This states that, *"the local planning authority may consider the use of conditions and planning obligations which seek to: 1) Facilitate the survival of individual members of the species; 2) Reduce disturbance to a minimum; and 3) Provide adequate alternative habitats to sustain at least the current levels of population"*.

7.5.5 The mitigation measures set out in Section 9 should ensure that the development proposals are compliant with the law and policy with regards to the above species.

7.6 Invasive Plant Species

- 7.6.1 No invasive plant species (INNS) were identified during the survey within the development site boundary however the desk study returned records of Japanese knotweed and Himalayan balsam (*Impatiens glandulifera*) within 1km of the site. Both species are listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). Under the Act it is illegal to plant or otherwise cause to grow in the wild any plant listed. Due to the urban habitats present on site, it is unlikely invasive species will be present at the time of works so INNS have not been considered further.

7.7 Ecological Enhancement

- 7.7.1 The Havering Local Plan 2016-2023 states that the presence of protected species on a site is a material consideration in the planning process, which is addressed by Policy 27. This states that, *“the local planning authority may consider the use of conditions and planning obligations which seek to: 1) Facilitate the survival of individual members of the species; 2) Reduce disturbance to a minimum; and 3) Provide adequate alternative habitats to sustain at least the current levels of population”*.
- 7.7.2 The recommendations laid out in Section 9 include measures to enhance biodiversity and are therefore consistent with these policies.

8. Potential Further Ecological Considerations

8.1 Background

- 8.1.1 The potential further ecological considerations section sets out our assessment of the potential of the site to support protected species and other species of conservation concern which were not detected during the extended UKHab survey, either because their presence is seasonal or because specialist survey techniques are required. Further information on the methods of assessment is given in Appendix 1.

8.2 Protected Species

- 8.2.1 The desk study returned records for bats and common birds within 1km of the site, considerations have been made in Section 9.
- 8.2.2 Due to the lack of suitable habitat on site, Schedule 1 birds identified in the desk study have not been considered further within this report.

9. Recommendations

9.1 Background

- 9.1.1 The recommendations for mitigation measures (including avoidance and compensation) given in this section are based on the findings of the desk study and extended Phase 1 habitat survey. It may include precautionary mitigation measures for some species which could occur on-site but excludes discussion of the mitigation measures that may be required following the results of any further surveys recommended below.

9.2 Bats

Further Survey

- 9.2.1 The desk study returned records of bats within 1km of the site and the car park structure on site is to be demolished. In order to determine the baseline potential of this structure to support roosting bats, a Preliminary Roost Assessment (PRA) should be undertaken by a suitably qualified ecologist prior to demolition. PRA surveys can be undertaken at any time of year.
- 9.2.2 Should suitable roost features be identified, further survey may be required in the form of dusk emergence surveys. According to the Bat Conservation Trust 4th Edition guidelines (Collins, ed. 2023), low potential buildings would require a single dusk survey between May and August; a moderate potential building would require two survey visits between May and September (with at least one visit between May and August) and a high potential building would require three survey visits between May and September (with at least two visits between May and August).
- 9.2.3 Any trees on site were recorded having negligible potential to support roosting bats during the survey; therefore, no further survey is required.
- 9.2.4 At the time of authoring (December 2025), further bat surveys have been completed at the site in the form of a PRA (Report ref: MER003-002-008/001/002) and a single bat emergence survey of a feature identified in the PRA (Report ref: MER003-002-010/001/002).

Best Practice

- 9.2.5 It is recommended that measures should be taken to ensure that bats and other nocturnal animals are safeguarded from light and noise during night hours. We recommend that:
- During the construction phase, works are not to be carried out between the hours of dusk and dawn;
 - Machinery and generators which emit significant noise should not be left running through the night;
 - Use of nocturnal lighting should be minimised where possible;
 - Light spill should be controlled (especially any spill to the north of the site) using hooded shields if necessary; and,
 - Any necessary nocturnal lighting should either be placed on a sensor to avoid constant light throughout the night, or directed away from ecological features and/or hooded to avoid any areas likely to support wildlife.

9.3 Common birds

- 9.3.1** There is limited suitable habitat on site to support common breeding birds, however feral pigeons could nest within the car park structure. Feral pigeons nest year round if weather conditions are favourable. Should feral pigeons be nesting within the structure prior to demolition, a pre-works check by an ecologist should be undertaken to determine whether any eggs are present. Should eggs be present, these should be left in situ until the young have fledged.
- 9.3.2** It is not anticipated that any vegetation clearance is required as part of the works, as the individual tree on site is to be retained. Should this change, vegetation clearance should be undertaken outside of the bird nesting season where possible. If not possible, an Ecological Clerk of Works (ECoW) should carry out a watching brief.

9.4 Pollution Prevention

- 9.4.1** The River Rom runs underneath the site. Control of off-site emissions of sediment, dust and chemicals should be considered during the works to avoid pollution of this waterbody.

9.5 Invasive Plant Species

- 9.5.1** Butterfly-bush was identified on site. Although Buddleia is not covered by invasive species legislation it is good practice to prevent its spread on and off site through removal. It is recommended that following clearance, arisings are removed from site and vegetation clearance equipment is brushed clean prior to leaving site.

9.6 Additional Ecological Enhancements

- 9.6.1** In addition to this, further enhancements could be made to the site, such as;
- Invertebrates nesting boxes such as Schwegler Clay and Reed Insect Nest or similar;
 - Bat boxes designed to support species recorded in the desk study;
 - Bird boxes designed to exclude problem bird species, such as 16S Schwegler Swift Box (with Starling Barrier);
 - Planting of native species and wildflower species throughout the site; and,
 - Fencing to be sympathetic to commuting mammals e.g. 'Hedgehog Highways'.
- 9.6.2** It is understood from discussions with the client that they propose to include some or all of the above enhancements during the construction phase of the development or post-development, for example the addition of bat and bird boxes. Wildflower planting has already been considered within the proposed landscaping.

10. Conclusion

- 10.1.1** A PEA including an ecological desk study and BNG calculation was carried out to assess ecological constraints with respect to the proposed development of Angel Way carpark in Romford. This report presents the findings of minor changes to the BNG calculation following changes to the proposed scheme.
- 10.1.2** Mitigation measures have been recommended for bats so that the works consider local policy (in the context of conserving and enhancing biodiversity) and comply with the relevant national legislation.
- 10.1.3** In the scenario set out in this report, the assessment has concluded that a biodiversity net gain of more than 10% will be achieved for both area and linear habitats. A statutory 10% gain in watercourse units has not been achieved by the development and therefore off-site provision must be sought to achieve this.

11. References

Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2020a) The UK Habitat Classification User Manual Version 1.1 at <https://ukhab.org/>.

Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2020b) UK Habitat Classification - Habitat Definitions V1.1 at <https://ukhab.org/>.

CIEEM (2016) Biodiversity Net Gain: Good practice principles for development.

CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland.

Collins, J (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition). The Bat Conservation Trust, London.

Department for Environment Food & Rural Affairs (Defra, 2024a) Statutory biodiversity metric: calculation tool.

Department for Environment Food & Rural Affairs (Defra, 2024b) Statutory biodiversity metric: user guide. February 2024.

Department for Environment Food & Rural Affairs (Defra, 2024c) Statutory biodiversity metric condition assessments.

Department for Levelling up and Housing Communities (2023). National Planning Policy Framework.

Panks, S., White, N., Newsome, A., Nash, M., Potter, J., Heydon, M., Mayhew, E., Alvarez, M., Russell, T., Cashon, C., Goddard, F., Scott, S. J., Heaver, M., Scott, S. H., Treweek, J., Butcher, B., Stone, D. (2023a) Biodiversity metric 4.0: Auditing and accounting for biodiversity - User Guide. Natural England.

Panks, S., White, N., Newsome, A., Nash, M., Potter, J., Heydon, M., Mayhew, E., Alvarez, M., Russell, T., Cashon, C., Goddard, F., Scott, S. J., Heaver, M., Scott, S. H., Treweek, J., Butcher, B., Stone, D. (2023b) Biodiversity metric 4.0: Auditing and accounting for biodiversity - User Guide. Natural England.

Stace, C. (2019) New Flora of the British Isles (fourth edition). C&M Floristics, Middlewood Green, Suffolk.

Stanbury, A. J., Eaton, M. A., Aebischer, N. J., Balmer, D., Brown, A. F., Douse, A., Lindley, P., McCulloch, N., Noble, D.G. & Win, I. (2021) The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. British Birds. 114.

Thomson Environmental Consultants (2025a) Preliminary Roost Assessment (PRA) Survey Report. Report ref: MER003-002-008/001/002.

Thomson Environmental Consultants (2025b) Bat Emergence Survey Report. Report ref: MER003-002-010/001/002.

Appendix 1: Assessment Methodology

Identification of Legal and Planning Policy Issues

Scope of Assessment

The first step is to identify any biodiversity features found on the site that are subject to legal or policy controls, as follows:

Designated Sites

The location of the site is compared to the distribution of sites with a statutory or non-statutory nature conservation designation using information derived from the desk study. Consideration is given to designated sites that could be affected directly or indirectly by the proposed development.

Habitats outside Designated Sites

The habitats known to occur on the site are compared to those which receive some protection, in law or policy, outside of designated sites i.e., hedgerows, uncultivated land and semi-natural areas, habitats listed as priorities in the home nation biodiversity strategies, habitats listed as Habitats of Principal Importance for the Conservation of Biodiversity by the Secretary of State and local priority habitats listed as requiring action (formerly under the Local Biodiversity Action Plans).

Ancient Woodland

The ancient woodland inventory is checked to determine whether any known ancient woodland occurs either on the site or nearby.

Protected Species

The species known to occur on the site as a result of the desk study and UKHab survey are compared with those listed in nature conservation legislation i.e., the Wildlife and Countryside Act 1981, as amended, the Conservation (Habitats &c) Regulations 2010.

In addition, the species known to occur on the site as a result of the desk study and UKHab survey are compared with those listed in animal welfare legislation, i.e., the Badgers Act 1992 and the Wild Mammals (Protection) Act 1996.

Priority Species

The species known to occur on the site are compared with those listed as priority species (i.e., Species of Principal Importance for the Conservation of Biodiversity in the country concerned) or those requiring action on the local priority species lists (Local Biodiversity Action Plans).

Other Species of Conservation Concern

The species known to occur on the site are compared with other nature conservation listings, such as red data books.

Invasive Plant Species

The species of plant present on the site are compared with those listed by government agencies as invasive non-natives, with particular attention given to those listed in the Wildlife and Countryside Act 1981, as amended.

Review of Legislation and Policy

If any of the above are found to occur on or near the site and are likely to be affected by the development in any way, the relevant legislation and planning policy (including national, regional, local policies) are examined to determine whether the proposed development is compliant.

Ecological Enhancement

Planning policy generally requires new developments to be enhanced for biodiversity. The existing proposals are considered to determine whether biodiversity enhancements are offered and whether they are adequate to meet the policy requirements. Again, national, regional and local policies are considered.

Identification of Potential Further Ecological Issues

Further ecological issues are those which cannot be resolved during the preliminary ecological appraisal for any reason, including the following:

- The development is near a designated site and consultation with the relevant regulator is required in order to determine whether further assessment is required;
- Suitable habitat is present on or near the site for a protected species/species of conservation concern and specialist survey techniques are required for their detection;
- Suitable habitat is present on or near the site for a protected species/species of conservation concern and the extended UKHab survey was not undertaken at a suitable time of year for their detection;
- A protected species/species of conservation concern was found on or near the site but further information on population size or distribution is required in order to resolve any legal and planning policy issues (such as obtaining licences).

Discussion of issues raised by 3rd parties, e.g., reports of protected species from the site by local people, may also be discussed under this heading.

The desk study is used as a guide to the protected species/species of conservation in the local area, however, the list is not taken to be exhaustive and it is borne in mind that some species may no longer occur in the locality.

No attempt is made to evaluate the importance of the site for species not yet confirmed to be on or near the site, nor to discuss the implications for the development if the species were to be found on the site.

Appendix 2: Plant Species and Abundance

Urban tree

Common Name	Scientific Name	Abundance
Sycamore	<i>Acer psuedoplatanus</i>	D

Appendix 3: Baseline Habitat Condition Assessments

Condition Sheet 9: Individual trees

Condition Assessment Criteria		Criterion passed (Yes or No)
A	The tree is a native species (or at least 70% within the block are native species).	No (Sycamore)
B	The 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).	Yes
C	The tree is mature (or more than 50% within the block are mature) ¹ .	No
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.	Yes
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	No
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	No (hard standing)
Number of criteria passed		2
Condition Assessment Result (out of 6 criteria)		Condition Assessment Score
Passes 5 or 6 criteria		Good (3)
Passes 3 or 4 criteria		Moderate (2)
Passes 2 or fewer criteria		Poor (1)
Note that 'Fairly Good and Fairly Poor' condition categories are not available for this broad habitat type.		✓

Appendix 4: Post Development Habitat Condition Assessments

Condition Sheet 5: Grassland Habitat Type (low distinctiveness) - Modified grassland

Condition Assessment Criteria		Criterion passed (Yes or No)
A	There are 6-8 vascular plant species per m ² present, including at least 2 forbs (these may include those listed in Footnote 1). Note - this criterion is essential for achieving Moderate or Good condition. Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m ² (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.	Yes Species mix comprises 26 species
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	No Unlikely to meet this criteria, as habitat will be likely frequently mown/managed as part of a residential development.
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble <i>Rubus fruticosus</i> agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Yes Area likely to be frequently mown, supressing scrub
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	No Cannot confirm this criteria will be met, as a result of use for recreation/foot traffic from residents.
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens) ² .	Yes As above
F	Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.	Yes

		Likely to meet this criteria, as habitat will be likely frequently mown/managed as part of a residential development.
G	There is an absence of invasive non-native plant species ³ (as listed on Schedule 9 of WCA ⁴).	Yes
Essential criterion achieved (Yes or No)		As above
Number of criteria passed		Yes
		5
Condition Assessment Result (out of 7 criteria)	Condition Assessment Score	Score Achieved ×/✓
Passes 6 or 7 criteria including passing essential criterion A	Good (3)	
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)	✓
Passes 3 or fewer criteria; OR Passes 4 - 6 criteria (excluding criterion A)	Poor (1)	
Footnotes		
Footnote 1 - Creeping thistle <i>Cirsium arvense</i>, spear thistle <i>Cirsium vulgare</i>, curled dock <i>Rumex crispus</i>, broad-leaved dock <i>Rumex obtusifolius</i>, common nettle <i>Urtica dioica</i>, creeping buttercup <i>Ranunculus repens</i>, greater plantain <i>Plantago major</i>, white clover <i>Trifolium repens</i> and cow parsley <i>Anthriscus sylvestris</i>. Footnote 2 - For example, this could include small, scattered areas of bare ground allowing establishment of new species, or localised patches where not exceeding 10% cover. Footnote 3 - Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement. Footnote 4 - Wildlife and Countryside Act 1981 (as amended).		

Condition Sheet 9: Individual trees

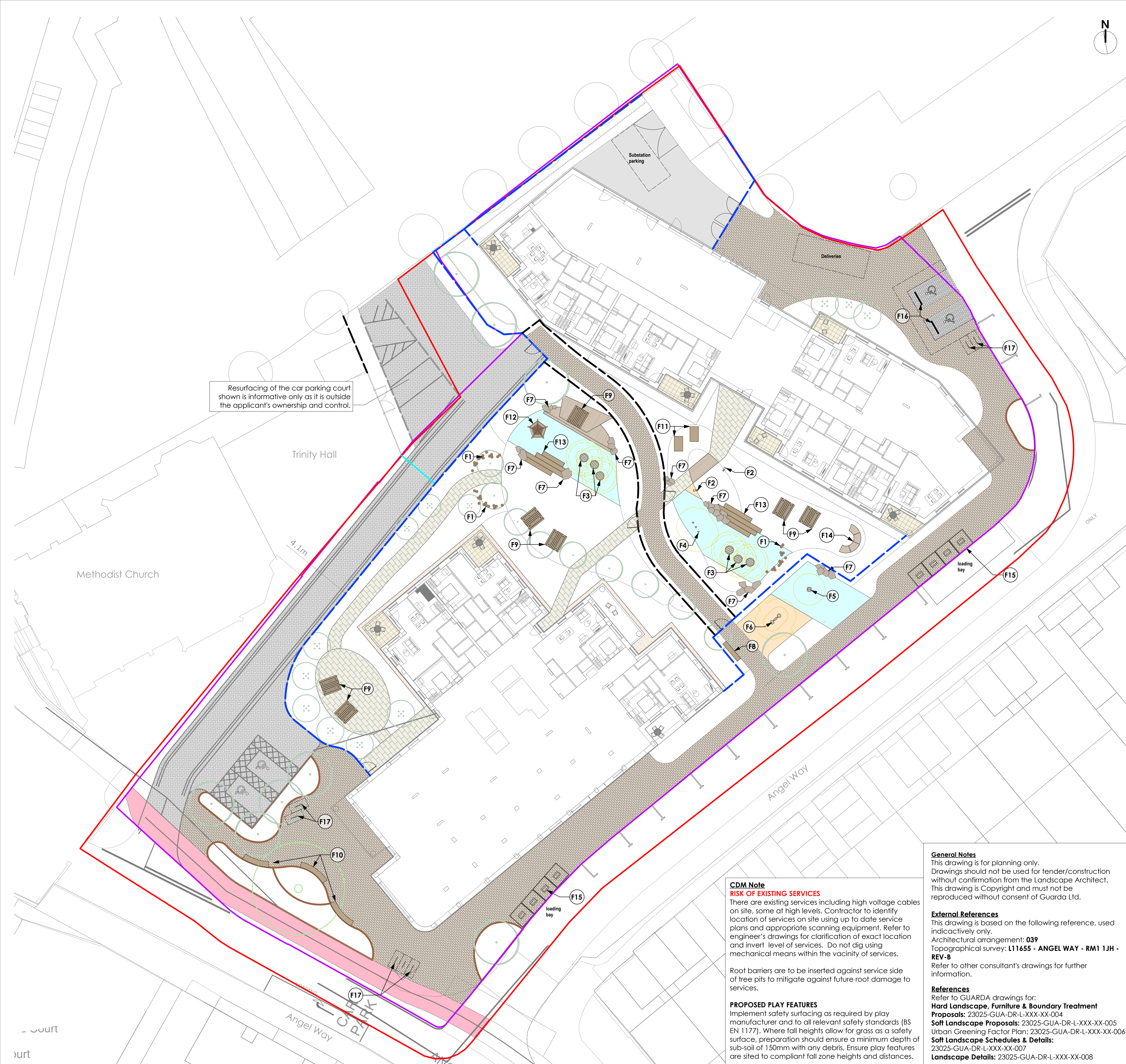
Condition Assessment Criteria		Criterion passed (Yes or No)
A	The tree is a native species (or at least 70% within the block are native species).	No
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Yes
C	The tree is mature (or more than 50% within the block are mature) ¹ .	No
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.	No Pruning likely
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	No Young trees
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Yes
Number of criteria passed		2
Condition Assessment Result (out of 6 criteria)		Condition Assessment Score
Passes 5 or 6 criteria		Good (3)
Passes 3 or 4 criteria		Moderate (2)
Passes 2 or fewer criteria		Poor (1)
Note that 'Fairly Good and Fairly Poor' condition categories are not available for this broad habitat type.		✓

Condition Sheet 22: Urban (Introduced shrub areas and green roofs)

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
Core Criteria - must be assessed for all urban habitat types:			
A	Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area.	No	It is not clear whether structural habitat components e.g. bricks, logs will be included in addition to wildflower seeding/bulb planting. If they are to be included, this criteria will be met and the habitat will achieve Good condition.
B	The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.	Yes	
C	Invasive non-native plant species (listed on Schedule 9 of WCA1) and others which are to the detriment of native wildlife (using professional judgement) ² cover less than 5% of the total vegetated area ³ . Note - to achieve Good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).	Yes	
Additional Criterion - must be assessed for Biodiverse green roofs only:			
G	The roof has a varied depth of 80 - 150 mm; at least 50% is at 150 mm and is planted and seeded with wildflowers and sedums or is pre-prepared with sedums and wildflowers. Note - to achieve Good condition some additional habitat, such as sand piles, stones, logs etc. are present.	Yes	
Essential criteria relevant for habitat type achieved (Yes or No)			Yes
Number of criteria passed			3
Condition Assessment Result		Condition Assessment Score	Score Achieved x/√

Results for Green roofs and Open mosaic habitat on previously developed land (requiring assessment of 4 criteria only - core criteria plus additional criterion specified for habitat type):		
• Passes all 3 core criteria; AND • Meets the requirements for Good condition within criterion C; AND • Passes additional criterion relevant to specific habitat type (D, F or G).	Good (3)	
• Passes 2 or 3 of 4 criteria; OR • Passes 4 of 4 criteria but does not meet the requirements for Good condition within criterion C.	Moderate (2)	✓
• Passes 0 or 1 of 4 criteria.	Poor (1)	
Footnotes		
Footnote 1 - Wildlife and Countryside Act 1981 (as amended).		
Footnote 2 - Sources of information about detrimental non-native species can be found on the GB Non-native Species Secretariat (GBNNSS) website: Home » NNSS (nonnativespecies.org) and Natural England Access to Evidence page should also be checked for up-to-date information: Horizon-scanning for invasive non-native plants in Great Britain - NECR053 (naturalengland.org.uk)		
For criterion C - For green roof habitat types only - buddleia <i>Buddleja davidii</i> should be assessed alongside Schedule 9 species. This species impairs the health of the local ecosystem and reduces the biodiversity potential of the roof. It is also a sign that a roof has not been planted and seeded correctly in subsequent years.		
Footnote 3 - Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.		
Footnote 4 - Use professional judgement. Sources of information about non-native species that are not detrimental to native wildlife can be found on the GBNNSS website: Alternative plants » NNSS (nonnativespecies.org)		

Appendix 5: Landscape Masterplan



- Planning application boundary

Development site boundary

Indicative position of existing trees
- Existing cycle route

Public Realm Paving

Northern Parking Court Paving

Access Road and Parking Court Paving

Building B/ Substation Service Yard Paving

Communal Garden Paving

Feature Decking Platforms/ 'Bridges'

Private Terraces

Resin Bonded Rubber Mulch Safety Surface

Gravel

Raised Planters
- Vertical Metal Bar Railing

Vertical Metal Bar Railing

Vehicle Barrier

- Play features and furniture key
- F1 Stepping logs. 100-300mm upstand. 200-350mm diameter. 100-400mm spacing.
 - F2 Conference Sound Tubes - 2 sound tubes linked but underground pipes to provide a conference between both. Size: 140mm(H), 20mm(W), 55mm(L)
 - F3 Jumping Discs - Timber slats with coated springs.
 - F4 Timber balancing trial climbing logs.
 - F5 Small Spinner - Motion of spinning on a single point. Can be done standing using rail or sifting. Material: stainless steel. Size: 750mm(H), 500mm(Diameter)
 - F6 Toddler swing - Robinia timber with galvanised steel in-ground footings. Low belt seat.
 - F7 Play Boulders. Caledonian Mixed Glacial Boulders to be smooth and rounded with no sharp edges. Sizes to vary between 450mm x 450mm x 450mm to 900mm x 900mm x 900mm. Landscape Architect to approve boulder selection and advise on arrangement on site.
 - F8 Benches - Steel-framed bench with Hardwood FSC Certified timber slats. Frame to be powder coated, colour: brown. To include back rests.
 - F9 Picnic Bench - Steel-framed picnic bench with Hardwood FSC certified timber slats. Frame to be powder coated
 - F10 Public realm benches - fixed to planters with integrated galvanised steel brackets. Cantilevered/top mounted, short slats. Timber: bamboo.
 - F11 Wave shaped lounger. 700mm wide. FSC hardwood timber beams, corten steel base. Anchored to ground.
 - F12 Wooden Teepee - Steel footings.
 - F13 Four tiered seating platform benches. Galvanised steel frame. FSC Hardwood slats.
 - F14 Bench - Steel-framed half circle bench with Hardwood FSC Certified timber slats. Frame to be powder coated.
 - F15 Iceberg bins - refer to refuse strategy for further information.
 - F16 Wheelstops to prevent vehicular overrun across flush surface onto pedestrian routes.
 - F17 Visitor cycle parking. Sheffield stand, 2 x spaces. Roof fixed.

General Notes
This drawing is for planning only. Drawings should not be used for tender/construction without confirmation from the Landscape Architect. This drawing is Copyright and must not be reproduced without consent of Guarda Ltd.

External References
This drawing is based on the following reference, used indicatively only.
Architectural arrangement: **039**
Topographical survey: **L11&55 - ANGEL WAY - RM1 1JH - REV-B**
Refer to other consultant's drawings for further information.

References
Refer to GUARDA drawings for:
Hard Landscape, Furniture & Boundary Treatment Proposals: 23025-GUA-DR-L-XXX-XX-004
Soft Landscape Proposals: 23025-GUA-DR-L-XXX-XX-005
Urban Greening Factor Plan: 23025-GUA-DR-L-XXX-XX-006
Soft Landscape Schedules & Details: 23025-GUA-DR-L-XXX-XX-007
Landscape Details: 23025-GUA-DR-L-XXX-XX-008

CDM Note
RISK OF EXISTING SERVICES
There are existing services including high voltage cables on site, some at high levels. Contractor to identify location of services on site using up to date service plans and appropriate scanning equipment. Refer to engineer's drawings for clarification of exact location and invert level of services. Do not dig using mechanical means within the vicinity of services.

Root barriers are to be inserted against service side of tree pits to mitigate against future root damage to services.

PROPOSED PLAY FEATURES
Implement safety surfacing as required by play manufacturer and to all relevant safety standards (BS EN 1177). Where fall heights allow for grass as a safety surface, preparation should ensure a minimum depth of sub-soil of 150mm with any debris. Ensure play features are sited to compliant fall zone heights and distances.

P14	10/12/25	Revised to comments	GS	CX
		Revised to agreed red line		
P13	05/12/25	boundary.	GS	
P12	21/11/25	Revised to further comments	GS	CX
Rev	Date	Comments	Dr	Ch

guarda

landscape

Suite F, Second Floor, Queens House,
123-129 Queens Road, Norwich, NR1 3PL
+44 (0)1206 638085 - www.guardalandscape.com

Client

Mercury Design and Build Ltd

Site

Angel Way, Romford

Drawing Title

Hard Landscape, Furniture & Boundary Treatment Proposals

Scale

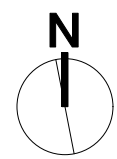
1:200 @ A1

Status

Planning

Project	Drawing Number	Revision
23025	GUA-XX-XX-DR-L-004	P14
Drawn	Checked	Date
GS	RM	January 2025

© GUARDA Ltd. 2024



- Soft Landscape Proposals Key
- Planning application boundary
 - Development site boundary
 - Indicative position of existing trees
 - Proposed tree with irrigation system. Feather trees to be single staked to detail. Standard, heavy standard, extra heavy standard and semi-mature trees to be double staked with tie to detail.
 - Ornamental hedge with 75mm depth bark mulch to specification. SR: Single Row
 - Species Rich Lawn Refer to schedule for specification
 - Ornamental Planting - Building B North with 75mm depth bark mulch to specification
 - Ornamental Planting - Public Realm with 75mm depth bark mulch to specification
 - Ornamental Planting - Central Garden Sun with 75mm depth bark mulch to specification
 - Ornamental Planting - Central Garden Shade with 75mm depth bark mulch to specification
 - Ornamental Planting - Woodland Garden with 75mm depth bark mulch to specification
 - Biodiverse Roof To be seeded/ plug planted with native wildflower mixes to specification. Minimum substrate depth 150mm.
 - Biodiverse Roof To be seeded with native wildflower mixes to specification. Minimum substrate depth 80mm.
 - Roof vegetative breaks 50mm depth 20-50mm size rounded pebbles. Arrangement and widths of fire-breaks shown indicatively only. Final arrangement to be confirmed by the Fire Consultant.

General Notes
This drawing is for planning only. Drawings should not be used for tender/construction without confirmation from the Landscape Architect. This drawing is Copyright and must not be reproduced without consent of Guarda Ltd.

External References
This drawing is based on the following reference, used indicatively only.
Architectural arrangement: **039**
Topographical survey: **L11655 - ANGEL WAY - RM1 1JH - REV-B**
Refer to other consultant's drawings for further information.

References
Refer to GUARDA drawings for:
Hard Landscape, Furniture & Boundary Treatment Proposals: 23025-GUA-DR-L-XXX-XX-004
Soft Landscape Proposals: 23025-GUA-DR-L-XXX-XX-005
Urban Greening Factor Plan: 23025-GUA-DR-L-XXX-XX-006
Soft Landscape Schedules & Details: 23025-GUA-DR-L-XXX-XX-007
Landscape Details: 23025-GUA-DR-L-XXX-XX-008

P08	10/12/25	Revised to comments	GS	CX
P07	05/12/25	Revised to agreed red line boundary.	GS	
P06	21/11/25	Revised to further comments	GS	CX
Rev	Date	Comments	Dr	Ch

Suite F, Second Floor, Queens House,
123-129 Queens Road, Norwich, NR1 3PL
+44 (0)1206 638085 - www.guardalandscape.com

Client

Mercury Design and Build Ltd

Site

Angel Way, Romford

Drawing Title

Soft Landscape Proposals

Scale	Status		
1:200 @ A1	Planning		
Project	Drawing Number	Revision	
23025	GUA-XX-XX-DR-L-005	P08	
Drawn	Checked	Date	
GS	RM	January 2025	

© GUARDA Ltd, 2024