

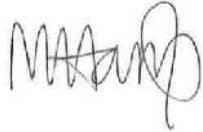





QA

Cambridge Road Estate – Biodiversity Impact Assessment

Issue/Revision:	Draft	Final
Date:	November 2020	November 2020
Comments:		
Prepared by:	Daniel Perlaki	Daniel Perlaki
Signature:		
Authorised by:	Mike Harris	Mike Harris
Signature:		
File Reference:	551291dpOct20DV01_BIA	551291dpNov20FV02_BIA

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1.0 EXECUTIVE SUMMARY

- 1.1 Greengage Environmental Ltd was commissioned to undertake a Biodiversity Impact Assessment by Cambridge Road (RBK) LLP of the Cambridge Road Estate in the Royal Borough of Kingston upon Thames.
- 1.2 This document is a report of this assessment and has been produced to support a hybrid Outline Planning Application for a mixed use development, including demolition of existing buildings and erection of up to 2,170 residential units (Use Class C3), 290sqm of flexible office floorspace (Use Class E), 1,395sqm of flexible retail/commercial floorspace (Use Class E/Sui Generis), 1,250sqm community floorspace (Use Class F2), new publicly accessible open space and associated access, servicing, landscaping and works.
- 1.3 Detailed permission is sought for access, layout, scale, appearance and landscaping of Phase 1 for erection of 452 residential units (Use Class C3), 1,250sqm community floorspace (Use Class F2), 290sqm of flexible office floorspace (Use Class E), 395sqm of flexible retail/commercial floorspace (Use Class E/Sui Generis), new publicly accessible open space and associated access, servicing, parking, landscaping works including tree removal, refuse/recycling and bicycle storage, energy centre and works (“the Proposed Development”).
- 1.4 The baseline ecological value of the Phase 1 area of the site is 1.98 biodiversity units. Under the development proposals, Phase 1 of the proposed development stands to result in a net gain of 1.4 biodiversity units associated with area-based habitats from pre-development levels, which constitutes a 70.77% increase. In order to demonstrate compliance with emerging legislation and planning policy a net gain of 10% in biodiversity units is required. Therefore, proposals significantly exceed the targets of emerging legislation.
- 1.5 The baseline ecological value of the masterplan site (Phase 1-5 of the proposed development) is 7.26 biodiversity units. A high-level assessment of the likely change in ecological value for the masterplan site (Phase 1-5 of the proposed development) yields a net gain of 6.99 biodiversity units, which constitutes a 96.26% net gain. Furthermore, upon development of detailed design, the proposals at the masterplan scale will likely generate in excess of scores predicted within this report owing to conservative assumptions made regarding proposed street tree numbers and size.
- 1.6 Detail on habitat creation should be provided within an Ecological Management Plan, which could be secured through a planning condition to ensure that the required habitat condition is met. Should these recommendations be adhered to, the proposals stand to be compliant with emerging legislation and existing planning policy.

2.0 INTRODUCTION

- 2.1 Greengage was commissioned to undertake a Biodiversity Impact Assessment (BIA) by Cambridge Road (RBK) LLP of the Cambridge Road Estate in the Royal Borough of Kingston upon Thames.
- 2.2 This document is a report of this assessment and has been produced to support a hybrid Outline Planning Application for a mixed use development, including demolition of existing buildings and erection of up to 2,170 residential units (Use Class C3), 290sqm of flexible office floorspace (Use Class E), 1,395sqm of flexible retail/commercial floorspace (Use Class E/Sui Generis), 1,250sqm community floorspace (Use Class F2), new publicly accessible open space and associated access, servicing, landscaping and works.
- 2.3 Detailed permission is sought for access, layout, scale, appearance and landscaping of Phase 1 for erection of 452 residential units (Use Class C3), 1,250sqm community floorspace (Use Class F2), 290sqm of flexible office floorspace (Use Class E), 395sqm of flexible retail/commercial floorspace (Use Class E/Sui Generis), new publicly accessible open space and associated access, servicing, parking, landscaping works including tree removal, refuse/recycling and bicycle storage, energy centre and works (“the Proposed Development”).
- 2.4 This assessment aimed to establish the change in ecological value of the site in light of the proposed development, taking into account direct and indirect impacts. Emerging legislation will mandate a 10% uplift in biodiversity value. This report will monitor compliance against this requirement.
- 2.5 This report details separate BIAs for Phase 1 of the development (the detailed planning application boundary) and the masterplan site (Phases 1-5 including the detailed application boundary of Phase 1). A phase plan is shown in Figure 1.

SITE DESCRIPTION

- 2.6 The survey area extends to approximately 9 hectares and is centred on National Grid Reference TQ190690, OS Co-ordinates 519074, 169085.
- 2.7 The estate is located within the Norbiton Ward in the Royal Borough of Kingston upon Thames, approximately 850m east of Kingston town centre. The site is bound to the north by A2043 – Kingston Road and to the south by Kingston Cemetery and Crematorium. The estate currently contains 832 residential homes distributed across:
- J Four 15-storey residential tower blocks;
 - J Sixteen 5/4-storey terraced flats; and
 - J Numerous areas of 2-storey terraced housing.

-
- 2.8 The estate and assessment boundary also includes the Bull and Bush Hotel and Piper Community Hall.
- 2.9 The site is situated in a residential area, sub-urban in character. Residential development dominates land use to the north, east and west of the site, including a newly constructed student accommodation adjacent the site to the north. South of the site is the cemetery, beyond which lies the Hogsmill River (300m south). Southeast of the site features outdoor recreation areas. Green infrastructure provision in the area is formed by street trees, the cemetery, Hogsmill River, recreation grounds and residential gardens.

ECOLOGICAL CONTEXT

- 2.10 Greengage undertook a Preliminary Ecological Appraisal (PEA) of the estate on 17th and 19th June 2019 to appraise its ecological value, identify and map any habitats on the site and identify its potential to support notable and/or protected species (document reference: 551291dpNov19FV02_PEA). An update walkover survey of the site was completed on the 12th October 2020 to assess any change in habitats and overall ecological value on site since the June 2019 survey. The update walkover survey concluded that there had been no significant change on site and that the recommendations and conclusions made within the PEA report (document reference: 551291dpNov19FV02_PEA) were still correct and valid.
- 2.11 Habitats across the site were noted to be common and widespread, being composed of almost exclusively buildings, hardstanding, introduced shrub and amenity grassland.

3.0 METHODOLOGY

DEFRA METRIC 2.0

- 3.1 To calculate the ecological value of the pre- and post-development sites, the DEFRA Metric 2.0 methodology was utilised, following best practice guidance from DEFRA^{1,2} and joint guidance from CIEEM, IEMA and CIRIA³.
- 3.2 This metric uses Biodiversity Units as a proxy for the ecological value of area or linear based habitats. The areas of each habitat parcel are measured, with each parcel assigned a 'Distinctiveness' and 'Condition' score. Distinctiveness is a default score for that habitat classification, representing its inherent ecological value, whereas condition refers to the state each parcel is in relative to a predetermined set of criteria outlined in the supplementary Defra Metric 2.0 guidance.
- 3.3 For post-development habitat areas, additional multipliers are applied taking into account the time taken to reach maturity and difficulty of creation of the habitats, and whether the habitat creation is in a strategically beneficial location.
- 3.4 An assessment of the predicted change in ecological value is undertaken comparing the Biodiversity Units and assessing percentage change. Changes in broader habitat types (for example, 'Urban', 'Woodland' and 'Grassland' habitats) are also tracked, and trading habitats is discouraged unless specifically targeted within a local strategy. Trading down of habitats is not permitted.
- 3.5 In order to quantify the ecological value of street trees within the DEFRA Metric 2.0, the stem diameter (DBH) of each tree is used to determine its size, which in turn generates a standard area equivalent in hectares.

Table 3.1 Street Tree Area Calculations

Size	DBH (mm)	Area equivalent (ha)
Small	0-300	0.0005
Medium	300-500	0.0041
Large	>500	0.0113

- 3.6 Street trees are then given default distinctiveness scores of 'low' and default condition scores of 'moderate'.

PRE-DEVELOPMENT CALCULATION

- 3.7 To calculate pre-development Biodiversity Units, data collected during a Preliminary Ecological Appraisal (PEA) undertaken by Greengage was assessed (document ref: 551291dpNov19FV02_PEA). Areas of each habitat type were taken from the Phase 1

Habitat Map (Figure 2) and data relating to the condition of habitat parcels was collected in the field.

PROPOSED DEVELOPMENT CALCULATION

- 3.8 Drawings of the proposed development used for this assessment were:
- J 503-PTA-MP-RF-DR-A-1241_S2-P03 (Figure 3), which shows the softscape strategy for both Phase 1 and the Masterplan area (Phase 1 -5 inclusive); and
 - J 503-PTA-MP-RF-DR-A-1218_S2-P05 (Figure 4) which provides information on proposed tree removals and retention.
- 3.9 Areas of each habitat type were measured from this plan and targeted/likely condition scores used, taking into account the likely future use of each area.

COMPETENCIES

- 3.10 Daniel Perlaki, who undertook the surveys at site and prepared this report, has an undergraduate degree in Ecology (BSc Hons), a Master's degree in Conservation Science and Policy and is a Graduate member of CIEEM.
- 3.11 Mike Harris, who reviewed this report, has a Bachelor's degree in Environmental Biology (BSc Hons), a Natural England Great Crested Newt Licence (2015-17819-CLS-CLS) and Dormouse Licence (2016-21291-CLS-CLS), is a Chartered Environmentalist (CEnv) and is a Full member of CIEEM. Mike has over 17 years' experience in ecological surveying and has undertaken and managed numerous ecological surveys and assessments.
- 3.12 This report was written by Daniel Perlaki and reviewed and verified by Mike Harris who confirms in writing (see the QA sheet at the front of this report) that the report is in line with the following:
- J Represents sound industry practice;
 - J Reports and recommends correctly, truthfully and objectively;
 - J Is appropriate given the local site conditions and scope of works proposed; and
 - J Avoids invalid, biased and exaggerated statements.

CONSTRAINTS

- 3.13 The assessment methodology does not incorporate ecological features beyond area and linear based habitats. The potential for the site to support protected species, for example, is not captured by this assessment. As such this report should be read in conjunction with all other ecological reports for the site. The mitigation hierarchy in relation to protected and notable habitats and species must be followed. This report should accordingly be read in conjunction with the PEA and any other appropriate protected species surveys.

-
- 3.14 The BIA at this stage is predictive in nature. To ensure delivery of biodiversity net gains, requirements outlined within this report must be adhered to, and a rigorous programme of monitoring and maintenance must be implemented.

4.0 RESULTS

PHASE 1 (DETAILED PLANNING APPLICATION)

Baseline Biodiversity Units

- 4.1 The baseline biodiversity value for Phase 1 of the proposed development is calculated to be 1.98 biodiversity units. A breakdown of this calculation is provided in Table 4.1 below:

Table 4.1 Phase 1 Baseline Biodiversity Units

Habitat Type	Area (Hectares)	Distinctiveness	Condition	Biodiversity Units
Urban – Introduced Shrub	0.1153	Low	Poor	0.83
Urban – Amenity Grassland	0.4173	Low	Poor	0.24
Urban – Developed Land/Sealed Surface	0.6262	N/A	N/A	0.00
Urban – Developed Land/Sealed Surface	0.9935	N/A	N/A	0.00
Urban – Street tree	0.2279	Low	Moderate	0.91
Total:				1.98

- 4.2 All habitats pre- and post-development have no multiplier added for strategic significance as the area is not located within a local biodiversity strategy.
- 4.3 Introduced shrub was considered to be in poor condition owing to it failing 3/4 of the condition assessment criteria for urban habitats.
- 4.4 Amenity grassland was assessed under the grassland habitats condition assessment criteria rather than urban habitats criteria. It is considered to be poor condition as it fails 3/6 of the condition assessment criteria.
- 4.5 There are no hedgerows or rivers on site, therefore hedgerow units and river units are 0.00. Hedgerows and rivers are not considered further within this assessment.
- 4.6 0.203ha of Urban – Street tree habitat is retained as part of the scheme.
- 4.7 Assessment Criteria for the above habitats is given in Appendix 1.

Post-Development Biodiversity Units

- 4.8 Based on Phase 1 drawings, Phase 1 of the proposed development is predicted to generate 2.56 biodiversity units for area-based habitats. Including the habitats retained (0.203ha of urban – street tree which equates to 0.81 biodiversity units retained), the

total phase 1 biodiversity unit score is 3.38 units, which equates to a net gain of 1.4 units or 70.77% net gain.

Table 4.2 Phase 1 Post-Development Biodiversity Units Created

Proposed habitat	Area (Hectares)	Distinctiveness	Condition	Biodiversity Units
Urban – Amenity Grassland	0.1328	Low	Poor	0.26
Heathland and shrub – Mixed Scrub	0.0162	Medium	Moderate	0.12
Urban – Introduced Shrub	0.3249	Low	Poor	0.63
Grassland – Other Neutral Grassland	0.0335	Medium	Moderate	0.19
Urban – Intensive green roof	0.0743	Low	Poor	0.14
Urban – Extensive green roof	0.1775	Medium	Moderate	1.19
Urban - Developed land/sealed surface	1.3931	N/A	N/A	0.00
Urban – Street tree	0.0253	Low	Moderate	0.04
Total:				2.56

- 4.9 All habitats pre- and post-development have no multiplier added for strategic significance as the area is not located within a local strategy.
- 4.10 To ensure the required biodiversity units are generated through this habitat creation, the post-development habitats must meet the condition criteria set out in Appendix 1.
- 4.11 Mixed scrub is used to describe the 'native buffer planting' typology within landscaping documents. Introduced shrub has been used to describe 'ground cover planting', 'ornamental planting', 'tall perennials', 'courtyard ground cover' and 'buffer planting for privacy' within the landscaping documents. Other neutral grassland describes the 'wildlife meadow' typology within landscaping plans. Street trees are assessed in the masterplan site calculation (Phases 1-5 inclusive).
- 4.12 All proposed street tree planting has assumed 'small' size, as a conservative estimate.

MASTERPLAN SITE (PHASES 1-5 INCLUSIVE)

Baseline Biodiversity Units

- 4.13 The baseline ecological value of the masterplan site is 7.26 biodiversity units. A breakdown of this calculation is shown in Table 4.3:

Table 4.3 Baseline Biodiversity Units of the Masterplan Site

Habitat Type	Area (Ha)	Distinctiveness	Condition	Biodiversity Units
Heathland and shrub - Bramble scrub	0.0105	Medium	Poor	0.04
Urban - Amenity grassland	1.1785	Low	Poor	2.36
Urban - Developed land; sealed surface	4.2422	N/A	N/A	0
Urban - Developed land; sealed surface	2.4957	N/A	N/A	0
Urban - Street Tree	0.9111	Low	Moderate	3.64
Urban - Suburban/ mosaic of developed/ natural surface	0.6099	Low	Poor	1.22
Total:				7.26

4.14 All habitats pre- and post-development have no multiplier added for strategic significance as the area is not located within a local biodiversity strategy.

4.15 There is a proposed retention of approximately 0.5833 hectares of Urban - Street Tree habitat.

Post-Development Biodiversity Units

4.16 Based on the masterplan (Phase 1 to Phase 5 inclusive), the masterplan is predicted to generate 11.92 biodiversity units for area-based habitats. Including the habitats retained (0.5833ha of urban – street tree which equates to 2.33 biodiversity units retained), the total masterplan (Phase 1 to Phase 5 inclusive) biodiversity unit score is 14.25 biodiversity units, which equates to a net gain of 6.99 units or 96.26% net gain.

Table 4.4 Post-Development Biodiversity Units Created on the Masterplan Site

Proposed habitat	Area (Hectares)	Distinctiveness	Condition	Biodiversity Units
Urban – Brown roof	0.9378	Moderate	Moderate	4.21
Urban - Developed land/sealed surface	4.2642	N/A	N/A	0.00
Urban – Amenity grassland	0.4728	Low	Poor	0.91
Urban – Introduced shrub	1.8968	Low	Poor	3.66
Urban – Sustainable urban drainage feature	0.1255	Low	Moderate	0.30
Urban – Intensive green roof	0.5948	Low	Poor	1.15
Urban – Street tree	0.113	Low	Moderate	0.17
Urban – Allotments	0.0493	Medium	Moderate	0.38
Grassland – Other neutral grassland	0.2032	Medium	Moderate	1.14
			Total:	11.92

4.17 As the proposals are only at outline stage, exact numbers of proposed street tree planting is not available. As a conservative estimate, 250 'small' street trees have been used for the purpose of this calculation.

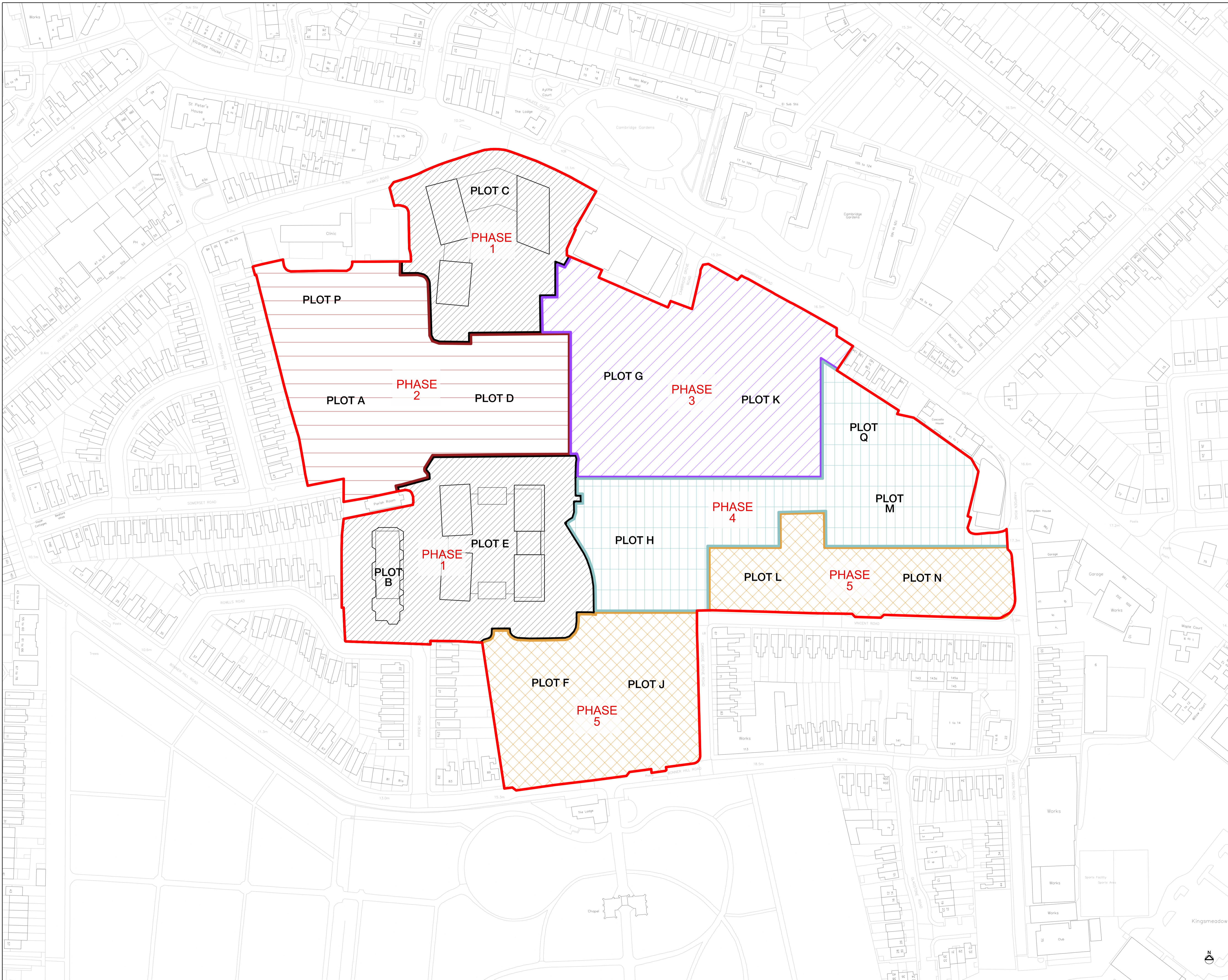
5.0 EVALUATION AND DISCUSSION

- 5.1 Under the development proposals, the proposed development of Phase 1 stands to result in a net gain of 1.4 biodiversity units associated with area-based habitats from pre-development levels. This constitutes a 70.77% increase.
- 5.2 A high-level assessment of the likely change in ecological value of the masterplan site (Phases 1-5inclusive) yields a net gain of 6.99 biodiversity units, which constitutes a 96.26% net gain. Furthermore, upon development of detailed design, the proposals will likely generate in excess of scores predicted within this report owing to conservative assumptions made regarding proposed street tree numbers and size.
- 5.3 Emerging legislation and local planning policy mandate a 10% uplift in biodiversity units as a consequence of development. Therefore, assuming the target conditions set out are met the proposals stand to be fully compliant and significantly exceed emerging legislation.
- 5.4 To ensure the biodiversity unit figures calculated and presented within this report are delivered on site, an Ecological Management Plan (EMP) should be secured through planning condition. This should also detail all protection/mitigation measures required for the proposed development, as covered in the accompanying protected species survey reports.

6.0 SUMMARY AND CONCLUSION

- 6.1 Greengage Environmental Ltd was commissioned to undertake a Biodiversity Impact Assessment by Cambridge Road (RBK) LLP of phase 1 of the Cambridge Road Estate in the Royal Borough of Kingston upon Thames. This assessment sought to quantify the change in ecological value of the site as a consequence of the proposed development
- 6.2 This report demonstrates that the development proposals for Phase 1 will result in a net gain of 1.4 habitat units which equates to a net gain of 70.77%.
- 6.3 A high-level assessment of the likely change in ecological value of the masterplan site (Phases 1-5 inclusive) yields a net gain of 6.99 biodiversity units, which constitutes a 96.26% net gain.
- 6.4 Assuming targets relating to post-construction habitat condition are met, the proposals stand to be in full compliance and to significantly exceed emerging local planning policy and legislation requirements.

FIGURE 1 PHASING PLAN



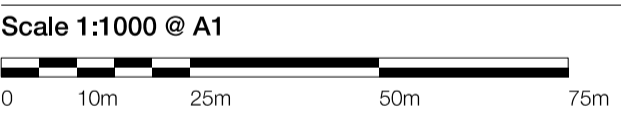
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Client
 Countryside
 79 Enfield Road
 London
 W3 3RB

Architect
 Patel Taylor
 48 Rawstorne Street
 London
 EC1V 7ND

- Legend**
- Cambridge Road Estate (CRE) planning application boundary
 - Development Plot
 - PHASE 2
 - PHASE 1 showing building plots B/C/E within the detailed component
 - Phase 2
 - Phase 3
 - Phase 4
 - Phase 5



Issue Record

By	Chk	Date
P07	For information	CW PE 23.10.2020
P06	Ph2/3 - Madingley back in Ph3	RM - 14.10.2020
P05	Phase 1 boundary line amended to match detailed component area	RM - 08.10.2020
P04	*Detailed component* omitted	RM - 07.10.2020
P03	For information	PE RM 28.08.2020
P02	For information	PE RM 14.08.2020
P01	For information	AK PE 11.08.2020

Title
 Masterplan Illustrative Plan
 Development Phasing plan

Project
 Cambridge Road

Scale
 1:1000 @ A1 1:2000 @ A3

Status
 For Information

Drawing Number **Revision**
 503-PTA-MP-XX-DR-A-5407 P07

Patel Taylor
 48 Rawstorne Street
 London EC1V 7ND
 T +44 (0)20 7278 2323
 www.patel-taylor.co.uk

FIGURE 2 PHASE 1 HABITAT MAP

CAMBRIDGE ROAD ESTATE



- Masterplan Site Boundary
- ⊙ Target Notes
- Habitats**
- A J1.2 - Cultivated/disturbed land - amenity grassland
- X J1.4 - Introduced shrub
- J3.6 - Buildings
- J3.6.1



Greengage Environmental Ltd
9 Holyrood Street, London SE1 2DL

www.greengage-env.com

Fig 1.0 Phase 1 Habitat Map

Project Number 551291
November 2020
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Basemap Data: Google Earth

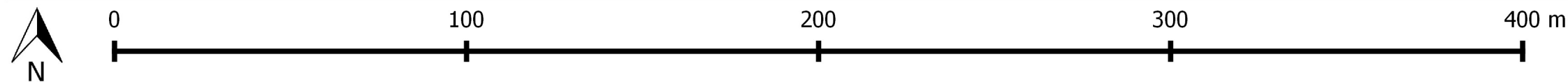
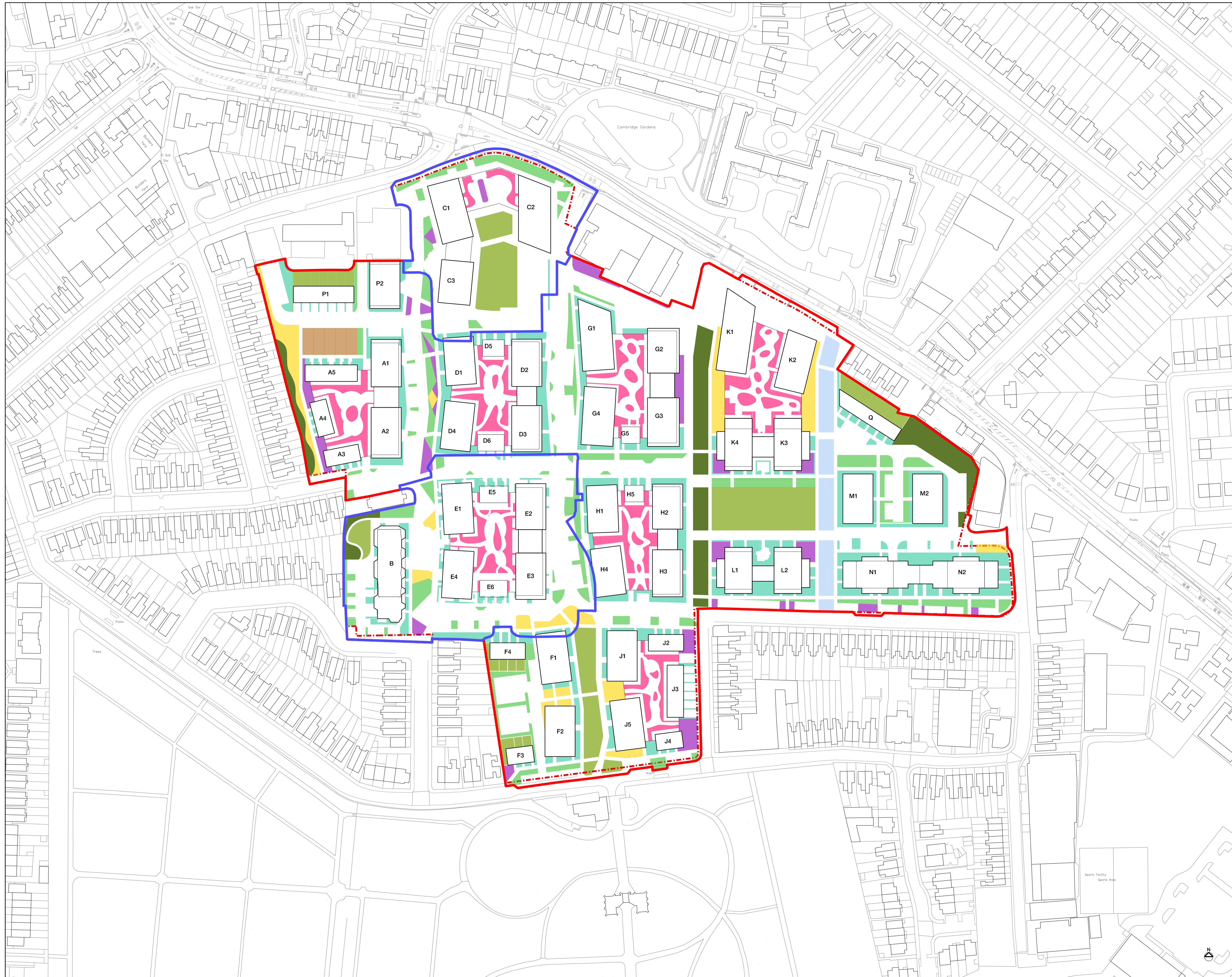
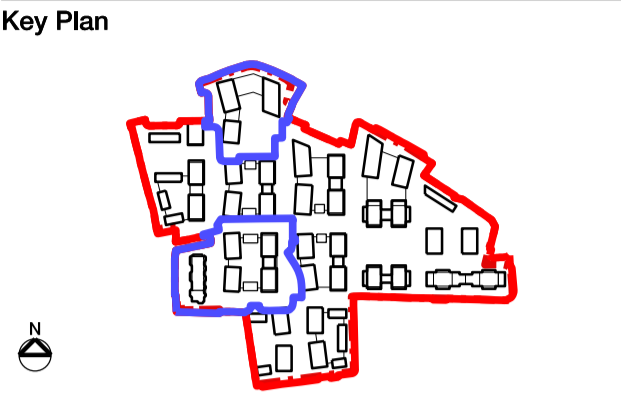


FIGURE 3 PROPOSED SITE LAYOUT



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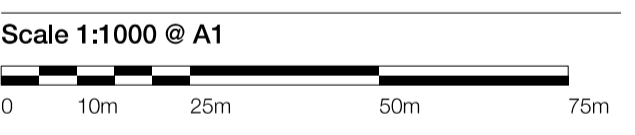
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 Countryside
 79 Enfield Road
 London
 W3 3RB

Architect
 Patel Taylor
 48 Rawstorne Street
 London
 EC1V 7ND

Site Boundary

- - - Title boundary
- Planning boundary
- Phase 1 boundary

Colour Code	Phase 1 Area (Sqm)	Outline Area (Sqm)
Amenity lawn	1,328	3,400
Native buffer planting	162	2,346
Ground cover and ornamental planting	1,453	2,939
Tall perennials	152	1,509
Grassland and/or wildflower meadow	335	1,697
Dry SUDS channel	-	1,255
Community growing space	-	493
Courtyard ground cover and ornamental	727	3,143
Buffer planting for privacy frontage	917	5,620
TOTAL	5,074	22,402



Issue Record

By	Chk	Date
P03	For information	TS RM 28.10.2020
P02	For information	TS RM 26.10.2020
P01	For information	TS RM 12.10.2020

Title
 Softscape strategy

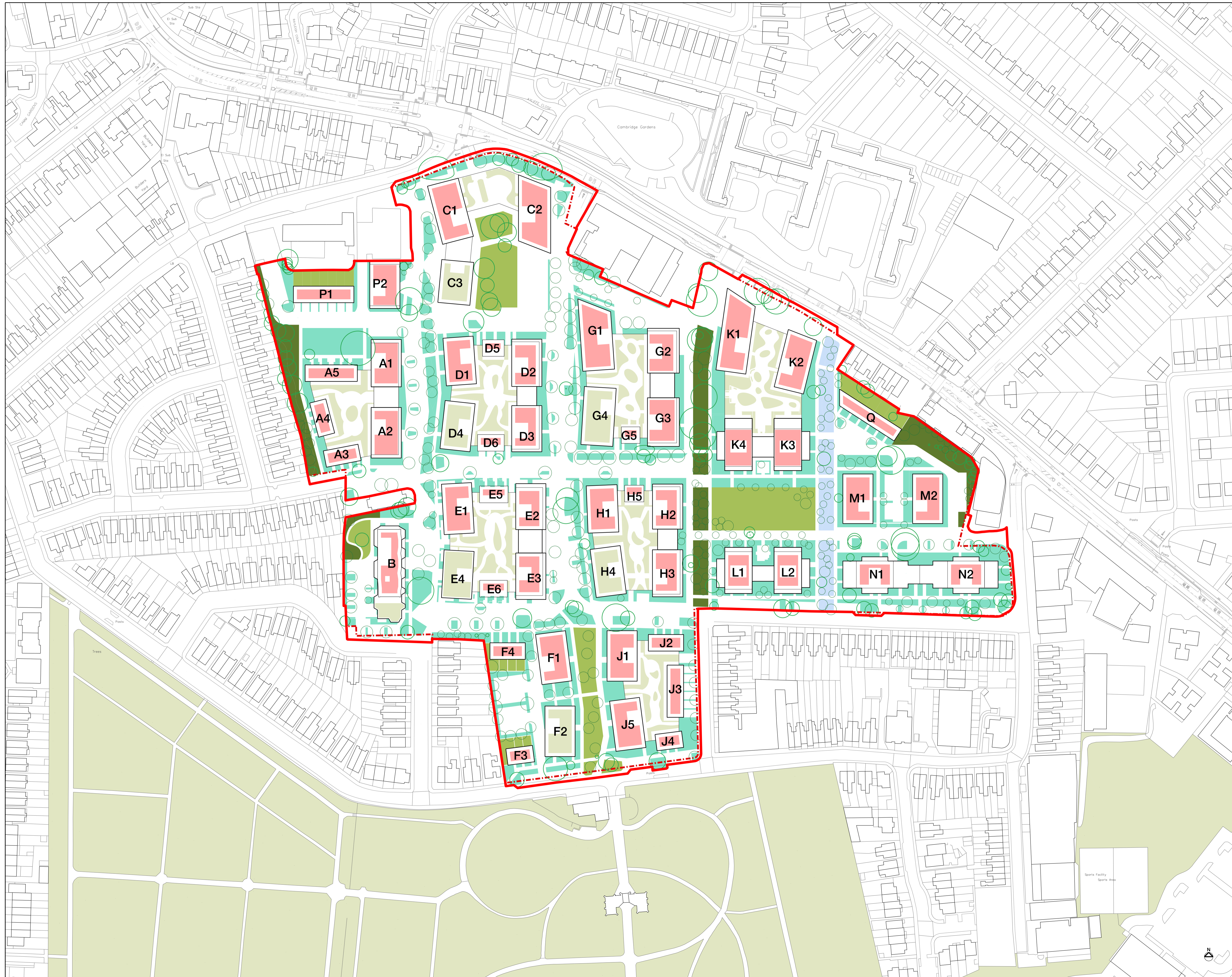
Project
 Cambridge Road

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Status
 For information

Drawing Number **Revision**
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 48 Rawstorne Street
 London EC1V 7ND
 T +44 (0)20 7278 2323
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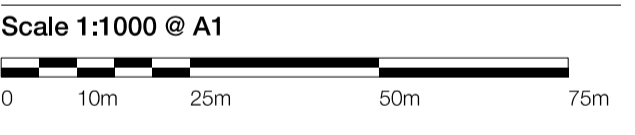


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 Countryside
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 Patel Taylor
 48 Rawstorne Street
 London
 EC1V 7ND

Site Boundary
 - - - - Title boundary
 - - - - Planning boundary

Greening type	UGF	Ratio area
Existing trees retained 9,956 sqm	x 1	= 9,956 sqm
Semi-natural vegetation 3,030 sqm	x 1	= 3,030sqm
Intensive green roof 5,948 sqm	x 0.8	= 4,758 sqm
Rain gardens 1,255 sqm	x 0.7	= 878 sqm
Planting 14,542 sqm	x 0.6	= 8,725 sqm
Trees in pits 7,713 sqm	x 0.6	= 4,642 sqm
Mown amenity lawns 4,728 sqm	x 0.4	= 1,891 sqm
Biodiverse roofs 9,378 sqm	x 0.3	= 2,813 sqm
Total ratio area		= 36,693 sqm
Total site area		= 88,557 sqm
Urban greening score		0.414



Issue Record By Chk Date

P01 For information TS RM 26.10.2020

Title
 Urban greening factor

Project
 Cambridge Road

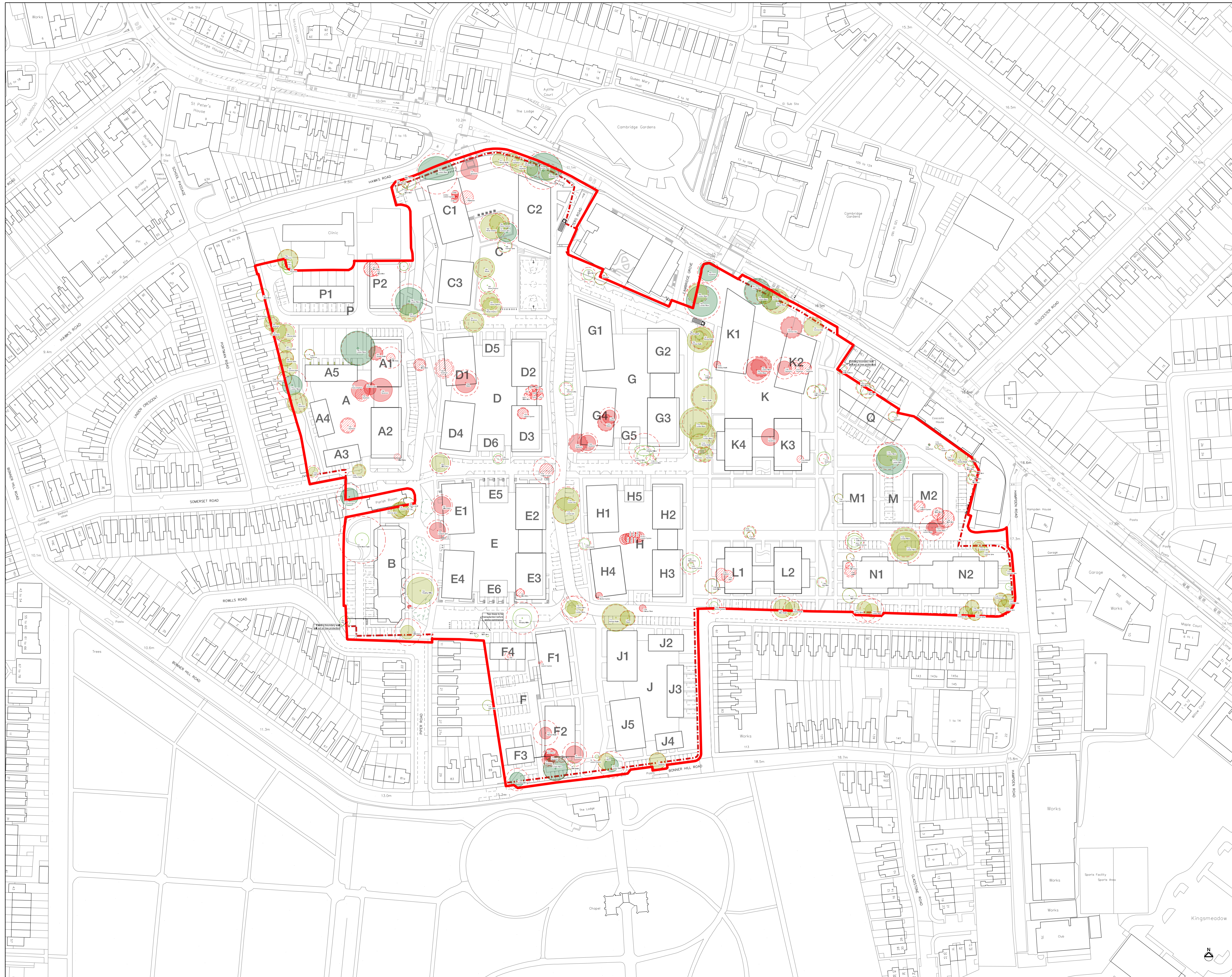
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FIGURE 4 TREE REMOVAL AND RETENTION PLAN



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 79 Enfield Road
 London
 W3 3RB

Architect Patel Taylor
 48 Rawstorne Street
 London
 EC1V 7ND

- Key**
- Root protection area
 - CAT A 16/16 - 100% retained
 - CAT B 62/84 - 73% retained
 - Other 63/113 - 55% retained
 - Total 141/213 - 66% retained
 - Total removals - 72 trees
 - CAT A / B to be removed
 - CAT Other to be removed

- Site Boundary**
- Title boundary
 - Planning boundary

Drawing Notes

Scale 1:1000 @ A1

Issue Record

Issue	By	Chk	Date	
P05	For information	TS	RM	26.10.2020
P04	Masterplan updates	TS	RM	17.09.2020
P03	Masterplan updates	TS	RM	09.09.2020
P02	Plots KLMN updates	TS	RM	16.07.2020
P01	For information	LH	TS	26.11.2019

Title
 Tree removals and retention

Project
 Cambridge Road

Scale
 1:1000 @ A1 1:2000 @ A3

Status
 For information

Drawing Number **Revision**
 503-PTA-MP-RF-DR-A-1218 P05

Patel Taylor
 48 Rawstorne Street
 London EC1V 7ND
 T +44 (0)20 7278 2323
 www.patelptaylor.co.uk

APPENDIX 1 CONDITION ASSESSMENT CRITERIAS FOR PHASE 1 HABITATS

Condition assessment criteria for Grassland Habitats.

Grassland Habitats		
Ref	Criteria	Met (Y/N)
1	The area is clearly and easily recognisable as a good example of this type of habitat and there is little difference between what is described in the relevant habitat classifications and what is visible on site.	N
2	The appearance and composition of the vegetation on site should very closely match the characteristics for the specific Priority Habitat [i.e as described by either the Phase 1 Habitat Classification or the UK Habitat Classification], with species typical of the habitat representing a significant majority of the vegetation.	N
3	Wildflowers, sedges and indicator species for the specific Priority grassland habitat are very clearly and easily visible throughout the sward and occur at high densities in high frequency. See relevant Habitat Classification for details of indicator species for specific habitat. 4. Undesirable species and physical damage is below 5% cover.	N
4	Undesirable species and physical damage is below 5% cover	Y
5	Cover of bare ground greater than 10% (including localised areas, for example, rabbit warrens).	Y
6	Cover of bracken less than 20% and cover of scrub and bramble less than 5%.	Y
Condition	Assessment Criteria	Score
Good	<ul style="list-style-type: none"> J Species-rich Grassland of all Priority Habitat Types. Of high to moderate quality. J Wildflower and sedges above 30% excluding white clover Trifolium repens, creeping buttercup Ranunculus repens and injurious weeds. J Meets all the condition criteria with only minor variation. J None of the indicators of poor condition are present (4, 5 & 6) 	3
Moderate	<ul style="list-style-type: none"> J Semi-improved grassland occurs on a wide range of soils and may be derived from higher quality Priority Habitat grassland habitats in poor condition. Often as they deteriorate following nutrient inputs. Typical grasses include: cock's-foot, common bent, creeping bent, crested dog's-tail, false oat-grass, meadow fescue, meadow foxtail, 	2

	<p>red fescue, sweet vernal grass, Timothy, tufted hair-grass and Yorkshire-fog.</p> <ul style="list-style-type: none"> J Total cover of wildflowers and sedges less than 30%, excluding white clover, creeping buttercup and injurious weeds. J Rye-grass cover is less than 25% including amenity grasslands. J OR clearly fails at least 1 of the condition criteria. J OR The grassland type has some differences between what is described in the relevant habitat classifications and what is visible on site. It is a Lower Quality Priority Habitat, but clear Potentially restorable to grassland Priority Habitat with improved management. J Cover of undesirable species at 5- 15%. 	
<p>Poor</p>	<ul style="list-style-type: none"> J Agricultural grasslands is characterised by vegetation dominated by a few fast-growing grasses on fertile, neutral soils. It is frequently characterised by an abundance of rye-grass <i>Lolium</i> spp. (above 25% cover) and white clover <i>Trifolium repens</i>. These grasslands are typically either managed as pasture or mown regularly for silage production or in non-agricultural contexts for recreation and amenity purposes; they are often periodically re-sown and are maintained by fertiliser treatment and weed control. They may also be temporary and sown as part of the rotation of arable crops but they are only included in this broad habitat type if they are more than one year old. J Amenity and Road verge grasslands with similar species to description for agriculture grasslands. J OR Most of the condition criteria are being failed. J Cover of undesirable species above 15%, usually resulting in a dense scrub or tree cover, or high cover of exotic species. 	<p>1</p>

Condition assessment criteria for Urban Habitats

Urban Habitats		
Ref	Criteria	Met (Y/N)
1	Known history of disturbance at the site or evidence that soil has been removed or severely modified by previous use(s) of the site. Extraneous materials/substrates such as industrial spoil may have been added which in turn has led to a low nutrient environment.	N
2	The site contains some vegetation. This will comprise of early successional communities consisting mainly of stress-tolerant species (e.g. indicative of low nutrient status or drought). Early successional communities are composed of (a) annuals, or (b) mosses/liverworts, or (c) lichens, or (d) ruderals, or (e) inundation species, or (f) open grassland, or (g) flower-rich grassland, or (h) heathland.	N
3	The site contains unvegetated, loose bare substrate and pools may be present and desirable.	Y
4	The site shows spatial variation, forming a mosaic of one or more of the early successional communities (a)–(h) above plus bare substrate or pools.	N

Condition	Assessment Criteria	Score
Good	<ul style="list-style-type: none">)] Vegetation provides multiple opportunities for a high number of species to live and breed (complete their life cycles).)] Bare open ground is common throughout the area.)] Plant species are flowering extensively and so providing ready nectar sources for insects.)] Insects and butterflies are common and using the site extensively.)] None of the indicators of poor condition are present.)] The invasive non-native species are low or absent from the site, or in the process of being eradicated if beneficial to wildlife to do so. 	3
Moderate	<ul style="list-style-type: none">)] Cover of undesirable and invasive species at 10-20%.)] OR Some of the condition criteria are being failed.)] The areas of bare ground with little species colonisation are large, with a high potential for improvement with better wildlife management. 	2
Poor	<ul style="list-style-type: none">)] Most of the condition criteria are being failed.)] Cover of undesirable species high above 20% 	1

APPENDIX 2 RELEVANT POLICY

PLANNING POLICY

National

National Planning Policy Framework

The National Planning Policy Framework (NPPF) 2019⁴ sets out the Government's planning policies for England, including how plans and decisions are expected to apply a presumption in favour of sustainable development. Chapter 15 of the NPPF focuses on conservation and enhancement of the natural environment, stating plans should 'identify and pursue opportunities for securing measurable net gains for biodiversity'.

It goes on to state: 'if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused'. Alongside this, it acknowledges that planning should be refused where irreplaceable habitats such as ancient woodland are lost.

Regional

The London Plan: Spatial Development Strategy for Greater London⁵

The London Plan is comprised of separate chapters relating to a number of areas, including London's Places, People, Economy and Transport. The following policies have been identified within the London Plan, which relate specifically to ecology and this development.

Policy 2.18 Green Infrastructure

Policy 2.18 aims to protect, promote, expand and manage the extent and quality of, and access to, London's network of open and green spaces.

Policy 5.10 Urban Greening

This policy encourages the 'greening of London's buildings and spaces and specifically those in central London by including a target for increasing the area of green space (including green roofs etc) within the Central Activities Zone'.

Policy 5.11 Green Roofs and Development Site Environs

Policy 5.11 specifically supports the inclusion of planting within developments and encourages boroughs to support the inclusion of green roofs.

Policy 5.13 Sustainable Drainage

Policy 5.13 promotes the inclusion of sustainable urban drainage systems in developments and sets out a drainage hierarchy that developers should follow when designing their schemes.

Policy 7.19 Biodiversity and Access to Nature

'The Mayor will work with all the relevant partners to ensure a proactive approach to the protection, enhancement, creation, promotion and management of biodiversity in support of the Mayors Biodiversity Strategy.'

The Draft New London Plan (emerging)

Policy G1 Green infrastructure

- A. London's network of green and open spaces, and green features in the built environment such as green roofs and street trees, should be protected, planned, designed and managed as integrated features of green infrastructure.
- B. Boroughs should prepare green infrastructure strategies that integrate objectives relating to open space provision, biodiversity conservation, flood management, health and wellbeing, sport and recreation.
- C. Development Plans and Opportunity Area Planning Frameworks should:
 - 1. identify key green infrastructure assets, their function and their potential function
 - 2. identify opportunities for addressing environmental and social challenges through strategic green infrastructure interventions.

Policy G2 London's Green Belt

- A. The Green Belt should be protected from inappropriate development:
 - 1. development proposals that would harm the Green Belt should be refused
 - 2. the enhancement of the Green Belt to provide appropriate multi-functional uses for Londoners should be supported.

Policy G5 Urban greening

- A. Major development proposals should contribute to the greening of London by including urban greening as a fundamental element of site and building design, and

by incorporating measures such as high-quality landscaping (including trees), green roofs, green walls and nature-based sustainable drainage.

- B. Boroughs should develop an Urban Greening Factor (UGF) to identify the appropriate amount of urban greening required in new developments. The UGF should be based on the factors set out in Table 8.2, but tailored to local circumstances. In the interim, the Mayor recommends a target score of 0.4 for developments that are predominately residential, and a target score of 0.3 for predominately commercial development.

Policy G6 Biodiversity and access to nature

- C. Where harm to a SINC (other than a European (International) designated site) is unavoidable, the following approach should be applied to minimise development impacts:
1. avoid adverse impact to the special biodiversity interest of the site
 2. minimise the spatial impact and mitigate it by improving the quality or management of the rest of the site
 3. seek appropriate off-site compensation only in exceptional cases where the benefits of the development proposal clearly outweigh the biodiversity impacts.
- D. Biodiversity enhancement should be considered from the start of the development process.
- E. Proposals which create new or improved habitats that result in positive gains for biodiversity should be considered positively, as should measures to reduce deficiencies in access to wildlife sites.

Policy G7 Trees and woodlands

- C. Development proposals should ensure that, wherever possible, existing trees of quality are retained [Category A and B]. If it is imperative that trees have to be removed, there should be adequate replacement based on the existing value of the benefits of the trees removed, determined by, for example, i-tree or CAVAT. The planting of additional trees should generally be included in new developments – particularly large-canopied species which provide a wider range of benefits because of the larger surface area of their canopy.

Supplementary Planning Guidance (SPG): Sustainable Design and Construction 2014

As part of the London Plan 2011 implementation framework, the SPG, relating to sustainable design and construction, was adopted in April 2014 and includes the

following sections detailing Mayoral priorities in relation to biodiversity of relevance to The Site.

Nature conservation and biodiversity

The Mayor's priorities include ensuring 'developers make a contribution to biodiversity on their development Site'.

Overheating

Where priorities include the inclusions of 'measures, in the design of schemes, in line with the cooling hierarchy set out in London Plan policy 5.9 to prevent overheating over the scheme's lifetime'

Urban greening

A Priority is for developers to 'integrate green infrastructure into development schemes, including by creating links with wider green infrastructure network'.

Use less energy

'The design of developments should prioritise passive measures' which can include 'green roofs, green walls and other green infrastructure which can keep buildings warm or cool and improve biodiversity and contribute to sustainable urban drainage'.

London Environment Strategy 2018⁶

The Mayor's Environment Strategy was published in May 2018. This document sets out the strategic vision for the environment throughout London. Although not primarily a planning guidance document, it does set strategic objectives, policies and proposals that are of relevance to the delivery of new development in a planning context, including:

Objective 5.1 Make more than half of London green by 2050

Policy 5.1.1 Protect, enhance and increase green areas in the city, to provide green infrastructure services and benefits that London needs now.

This policy states:

"New development proposals should avoid reducing the overall amount of green cover and, where possible, seek to enhance the wider green infrastructure network to increase the benefits this provides. [...] New developments should aim to avoid fragmentation of existing green space, reduce storm water run-off rates by using sustainable drainage, and include new tree planting, wildlife-friendly landscaping, or features such as green roofs to mitigate any unavoidable loss".

This supports the 'environmental net gain' approach promoted by government in the 25 Year Environment Plan.

Proposal 5.1.1.d The London Plan includes policies to green streets and buildings, including increasing the extent of green roofs, green walls and sustainable drainage.

Objective 5.2 conserving and enhancement wildlife and natural habitats

Policy 5.2.1 Protect a core network of nature conservation sites and ensure a net gain in biodiversity

This policy requires new development to include new wildlife habitat, nesting and roosting sites, and ecologically appropriate landscaping will provide more resources for wildlife and help to strengthen ecological corridors. It states:

"Opportunities should be sought to create or restore priority habitats (previously known as UK Biodiversity Action Plan habitats) that have been identified as conservation priorities in London [and] all land managers and landowners should take BAP priority species into account".

Local

Kingston Core Strategy

Policy CS 3 - The Natural and Green Environment

The Council will protect and improve Kingston's valued natural and green environment by:

- a. seeking to ensure that residents have access to an interconnected network of safe, well managed and maintained areas of open space through the implementation of routes in the 'South West London Greenways Network Expansion - Feasibility Report', Kingston's Green Spaces Strategy, Park Management Plans and Annual Implementation Plans
- b. protecting Kingston's open space network from inappropriate development through its open spaces designations; Green Belt, Metropolitan Open Land (MOL), Thames Policy Area, Sites of Importance for Nature Conservation (SINCs), Local Nature Reserves, Local Open Space, School Open Spaces, Green Corridors, Green Chains and Allotments, as shown on the Proposals Map
- c. facilitating regeneration, infrastructure upgrades and environmental improvement to the Hogsmill Environs
- d. incorporating appropriate elements of public open space into new developments and/or making a financial contribution to improving existing open spaces, with additional facilities and better management to Green Flag standards

e. promoting the management of biodiversity in light of the threats arising from climate change and future development growth, by working in partnership with a range of organisations on projects to protect and enhance Kingston's Open Space Network. This will not only provide increased wildlife habitats, but will also link wider parts of Kingston, allowing easier movement and reducing isolation of habitats.

Policy DM 6 - Biodiversity

The Council will:

- a. ensure new developments protect and promote biodiversity as part of sustainable design, through the inclusion of sustainable drainage, tree planting, soft landscaping, habitat enhancement and/or improvement, green roofs and new or improved semi-natural habitats, where appropriate
- b. require an ecological assessment on major development proposals, or where a site contains or is next to significant areas of habitat or wildlife potential. This should be completed before design work or submission of the planning application.
- c. ensure that new development does not result in a net loss of biodiversity and, where appropriate, should include new or improved habitats and provision for natural and semi-natural public green space, as set out in the Planning Obligations SPD or Community Infrastructure Levy charge.

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- ³ Julia Baker, Rachel Hoskin & Tom Butterworth (2019); Biodiversity Net Gain. Good practice principles for development: A practical guide. CIRIA, London
- ⁴ GOV.UK. (2019). National Planning Policy Framework. [online] Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2> [Accessed 13 June 2019].
- ⁵ Greater London Authority (2016). The London Plan: The Spatial Development Strategy for London Consolidated with Alterations Since 2011. London: Greater London Authority.
- ⁶ Greater London Authority (2018). London Environment Strategy 2018. London: Greater London Authority.