Oriel

Metric 2.0 Biodiversity Net Gain Assessment

October 2020

File: ORL-INF-XX-XX-RP-PL-160-Metric 2.0 Biodiversity Net Gain Assessment

Oriel
Creating the centre for advancing eye health

Moorfields Eye Hospital NHS Foundation Trust

NHS

Moorfields Eye Charity

UCL INSTITUTE OF OPHTHALMOLOGY

Oriel
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Oriel
Metric 2.0 Biodiversity Net Gain Assessment

Prepared for:

Moorfields Eye Hospital NHS Foundation Trust
UCL Institute of Ophthalmology
Moorfields Eye Charity

Prepared by:

AECOM Limited

Contents

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Tables

1 Introduction

1.1.1 AECOM has been appointed by Moorfields Eye Hospital NHS Foundation Trust, on behalf of Oriel[1], to complete a Biodiversity Net Gain Assessment (BNG) to accompany a planning application for a new facility that would allow the existing Moorfields Eye Hospital (Moorfields at City Road) and University College London (UCL) Institute of Ophthalmology (IoO) services at Bath Street to relocate d into a single building at the existing St. Pancras Hospital site (hereafter referred to as the 'Proposed Development').

1.1.2 The site of the Proposed Development comprises part of the existing St. Pancras Hospital and is located between St Pancras Way and Granary Street in the London Borough of Camden (LBC) (hereafter referred to as the 'Site').

1.1.3 This report sets out the following:

- Section 2: Relevant planning policy and emerging legislation;
- Section 3: Overview of the existing Site and the Proposed Development;
- Section 4: Methodology for the assessment;
- Section 5: Results; and
- Section 6: Conclusions.

2 Planning Policy and Emerging Legislation

2.1 Emerging Legislation

2.1.1 The Environment Bill (Ref. 1)[2], first published by the Department for Environment, Food & Rural Affairs in October 2019 and updated in August 2020, includes proposals to make BNG a mandatory requirement within the planning system in England. Once enshrined in law all developments which fall under the Town and Country Planning Act 1990 will be required to achieve a minimum 10% net gain in biodiversity units relative to the site's existing or baseline biodiversity.

2.2 National Policy

2.2.1 The revised National Planning Policy Framework (NPPF) (Ref. 2) states that planning decisions should minimise impacts on and provide net gain for biodiversity.

[1] Oriel is a joint venture between Moorfields Eye Hospital NHS Foundation Trust, University College London Institute of Ophthalmology and Moorfields Eye Charity
[2] The Environment Bill is currently being considered by The House of Commons

2.2.2 Green infrastructure has the potential to provide significant enhancement of biodiversity as part of infrastructure developments. In many urban areas, green space can be limited, and habitats of biodiversity value can be far and few between. The importance of urban biodiversity and green infrastructure to sustainability, the economy, the environment, and the health and wellbeing of people has been well documented (Ref. 3).

2.3 Regional Policy

2.3.1 Policy 5.2.1 of the Mayor's London Environment Strategy (Ref. 4) states the need to "*Protect a core network of nature conservation sites and ensure a net gain in biodiversity*".

2.3.2 Additionally, Policy G5 set out in the London Plan (Intend to Publish 2019) (Ref. 5) states that *"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".*

2.4 Local Policy

2.4.1 The Camden Local Plan 2017 (Ref. 6) also states the need for development to include green infrastructure solutions.

2.4.2 Policy CC2 Adapting to Climate Change states that *"All development should adopt appropriate climate change adaptation measures such as incorporating bio-diverse roofs, combination green and blue roofs and green walls where appropriate ".*

2.4.3 Policy A3 Biodiversity states that the Council will protect and enhance sites of nature conservation and biodiversity. Ways in which this will be achieved include through assessing developments against *"their ability to realise benefits for biodiversity through the layout, design and materials used in the built structure and landscaping elements of a proposed development, proportionate to the scale of development proposed".*

2.4.4 In addition, the following Camden planning guidance is of relevance:

- Camden Planning Guidance 2018 (CPG): Biodiversity (Ref. 7); and
- Camden Biodiversity Action Plan 2013 – 2018 (Ref. 8).

2.5 Guidance

2.5.1 The BNG assessment has been undertaken to quantify the overall effects of the Proposed Development on biodiversity using Natural England's Biodiversity Metric 2.0 Calculation Tool, in accordance with, the accompanying guidance (Ref. 9) and best practice principles (Ref. 10).

3 Existing Site and Proposed Development

3.1 Existing Site

3.1.1 The Site comprises the north-west part of St. Pancras Hospital and contains six existing buildings, hardstanding, managed areas of introduced shrub and scattered trees. The Site is bounded by Granary Street to the north and St Pancras Way to the west, and the remainder of the St. Pancras Hospital is situated to the east and south. St Pancras Gardens lies directly to the south of the hospital, 75m from the Site, and is designated as a Site of Importance for Nature Conservation (SINC). The Site is defined as being all land within the site boundary depicted within the Phase 1 Habitat Plan (see Appendix A) and covers an area of 1.33 hectares (ha).

3.1.2 The Site is in proximity to the Regent's Canal, located approximately 95m to the east, and Camden High Street is approximately 800m to the west. Part of London's Canals at St. Pancras Lock Site of Metropolitan Importance for Nature Conservation (SMINC) is located 100m north east of the Site and Camley Street Local Nature Reserve is located 230m south east of the Site.

3.2 The Proposed Development

3.2.1 The Proposed Development comprises a single building, between seven and ten storeys in height (including Ground Level and Lower Ground Level, as well as plant at Roof Level), as well as provision of public realm at ground level, blue badge parking, and vehicular drop off points along St Pancras Way. The building is arranged around a central atrium and connection space. There is also a roof terrace on the Sixth Floor Level on the south-western corners of the building.

3.2.2 The Proposed Development will be up to 69.15 metres (m) Above Ordnance Datum (AOD) and will have a gross external area of approximately 48,851 square metres (sq m) and a gross internal area of approximately 46,468 sq m.

3.2.3 The Proposed Development will comprise a mix of uses including clinical, research and education purposes, including accident and emergency (A&E) department, outpatients, operating theatres, research areas, education space, café and retail areas, facilities management, office space and plant space.

3.2.4 Further details are provided in the Design and Access Statement that is submitted with the planning application.

4 Methodology

4.1 Natural England's Metric 2.0

4.1.1 A BNG assessment involves making a comparison between the biodiversity value of habitats present within a site prior to a development (the "baseline") and the biodiversity value of habitats present following the completion of the development ("post-development"). The comparison is undertaken in terms of 'biodiversity units', with a 'biodiversity metric' providing the mechanism to allow biodiversity values to be calculated and compared.

4.1.2 Natural England's Biodiversity Metric 2.0 (Ref. 9) calculates the overall loss or gain of biodiversity of development projects by assessing the distinctiveness (i.e. type of habitat and its value), condition, extent, ecological connectivity and strategic significance of habitats on site pre- and post-development.

4.1.3 To achieve biodiversity net gain, the biodiversity unit score must have a post-development score higher than the baseline score. When calculating the post-development biodiversity units, the metric includes a series of standard 'risk multipliers' to account for the inherent risk of creating and restoring habitats, the time taken to establish habitats and the location of the mitigation in relation to the habitats lost on site. The risk multipliers have the effect of reducing the value of the proposed habitats, which means larger areas, habitats of higher distinctiveness, and/or condition are required to achieve net gain.

4.1.4 The metric assesses and generates separate outputs for area-based habitats and linear-based habitats (including hedgerows and rivers). For the purpose of the BNG assessment, the output with the lowest value is used to determine whether a development has achieved BNG. A development cannot claim to achieve net gain until BNG is predicted across all area-based and linear based habitats. The results of the assessment can be used to inform the requirements for habitat mitigation to enable the scheme to achieve the minimum 10% target BNG.

4.2 Biodiversity data

4.2.1 Information collected during a Phase 1 habitat survey of the Site undertaken by AECOM in August 2020 ('the baseline') has been utilised to determine the baseline area-based, the Phase 1 Habitat Plan is provided in Appendix A. Further details on the Phase 1 habitat survey are presented in the Preliminary Ecological Appraisal which is submitted with the planning application. Information on the species, condition and age of trees within the Site has been obtained from the Arboricultural Impact Assessment (AIA) report which is also submitted with the planning application.

4.2.2 All baseline habitats defined within the Site were assigned a condition, informed retrospectively by baseline survey information gathered for the Site, using professional judgement and application of the condition assessment criteria outlined in the Biodiversity Metric 2.0 – Technical Supplement (Ref. 9).

4.2.3 All habitats within the baseline plan were first assigned an appropriate Joint Nature Conservation Committee (JNCC) Phase 1 habitat category (Ref. 11), before being digitised using Geographical Information System (GIS) to provide area and length measurements. Habitats were converted to UK Habitat Classification habitat categories, before being inputted into the metric under one of the three broad habitat types. The data was utilised to determine the baseline biodiversity units.

4.2.4 The proposed Landscape Plan (refer to Appendix B, with further details provided in the Landscape Design Report submitted with the planning application) has been used to determine the extent of proposed habitats on the Site post-development in order to calculate the biodiversity units likely to be generated by those habitats retained, or created, as part of the Proposed Development. Before the data could be inputted into the metric calculator, the proposed Landscape Plan was first converted into GIS where habitat area and length were calculated and the data was utilised to determine the post-development biodiversity units. The target conditions and timescales have been selected in accordance with the Natural England Biodiversity Metric 2.0 Use Guide and Technical Supplement (Ref. 9) and professional judgement.

4.2.5 The following information has been captured within the calculation tool:

- All baseline and post development area-based and hedgerow habitats categorised using UK Habitat Classification;
- The area in ha of all area-based habitats;
- Distinction between which baseline habitats are to be lost or retained;
- Habitats proposed for creation within the Landscape plan;
- Condition scores of all baseline habitats;
- Target condition scores of all habitats proposed for creation or enhancement;
- Connectivity score of all habitats; and
- Strategic significance of all habitats.

4.3 Connectivity

4.3.1 Connectivity scores for all habitats are required for Metric 2.0. The connectivity scores were determined following the approach outlined within the Biodiversity Metric 2.0 – Technical Supplement (Ref. 9). Utilising this guidance, all habitats with high or very high distinctiveness were attributed a connectivity of ‘medium’, with all habitats with a distinctiveness of moderate to very low being attributed ‘low’ connectivity.

4.4 Strategic Significance

4.4.1 The Biodiversity Metric 2.0 requires the strategic significance of all baseline and proposed habitats to be defined. Strategic significance refers to areas of local priority for biodiversity and nature improvement, identified in local planning policies. As part of this assessment, the following local planning

policy documents were reviewed to determine the strategic significance of the Site's habitats.

- Camden Biodiversity Action Plan 2013 – 2018 (Ref. 8);
- CPG: Biodiversity 2018 (Ref. 7); and
- Camden Local Plan 2017 (Ref. 5).

4.5 Assumptions

4.5.1 In undertaking the calculation, the following assumptions were made:

- The habitats types used in the BNG calculations have been assumed based on the Phase 1 habitat plan and the proposed Landscape Plan. The habitats reported in these plans have been converted to the most appropriate UK Habitat Classification types through professional judgement by a suitably experienced ecologist, the habitat conversion table is provided in Appendix C;
- Habitat condition assessments were completed retrospectively using the baseline information obtained during the Phase 1 survey in August 2020. The rationale for each habitat condition is shown in Appendix C;
- Baseline condition scores have been assigned adopting a reasonable precautionary approach, to prevent underestimating the value of the baseline habitat for the purpose of the assessment;
- Habitats in the area of the Site stated as having importance in the Camden Local Plan (Ref. 5) are classed as having a high strategic significance;
- Habitats created as part of the Proposed Development will be subject to ongoing management to ensure the target conditions assumed in the BNG calculation can be reached;
- Retainment or loss of baseline habitats was determined by comparing the baseline and the landscape plan; habitats present within the same area in both plans indicated retainment;
- All post development habitats have been assigned a target condition of 'moderate';
- The Biodiversity Metric 2.0 'street tree calculator' was used to account for the scattered street trees in the pre and post development data. The UK Habitat Classification 'street tree' category once added into the metric will account for the associated biodiversity units of the trees but will not alter the total area of the site to avoid any double counting of habitats; and
- A discrepancy of 0.04 ha in the post development habitat area is due to the vertical structure of the "Urban - Ground based green wall" being entered as an area-based habitat (0.03 ha). An area of 0.01 ha of additional "Urban - Developed land; sealed surface" is also included in the total habitat area due to the overhanging structure of the building.

4.6 Constraints

4.6.1 There were no constraints when carrying out the BNG assessment. However, the Biodiversity Metric 2.0 is in beta test phase, and a final version of the metric and calculation tool is expected in autumn 2020, therefore there is potential for the calculations that underpin the metric to change in the final version.

5 Results and Discussion

5.1 Biodiversity Metric 2.0 Calculation Tool Output

Baseline habitats

5.1.1 The baseline habitats at the Site cover a total area of 1.33 ha, the habitat types and areas are listed in Table 5-1. The habitats identified within the baseline ranged in ecological value from very low to low distinctiveness. Low distinctiveness habitats included amenity grassland, introduced scrub and street trees. No hedgerow or river habitats were present within the baseline.

5.1.2 In total, the baseline biodiversity value was 0.47 area-based units (refer to Table 5-1).

Table 5-1 Baseline Biodiversity value for the Site

Habitats	*Area (ha)*	*Distinctiveness*	*Condition*	*Connectivity Score*	*Strategic Significance*	*Biodiversity Units*
Urban - Introduced shrub	0.07	Low	Poor	Low	Area/compensation not in local strategy/ no local strategy	0.14
Urban - Amenity grassland	0.05	Low	Poor	Low	Area/compensation not in local strategy/ no local strategy	0.10
Urban - Street Tree	0.05	Low	Moderate	Low	Within area formally identified in local strategy	0.23
Urban - Developed land; sealed surface	1.22	V. Low	NA	NA	Area/compensation not in local strategy/ no local strategy	0.00
Total Area	1.33 (excludes area of street trees)				***Total Units***	0.47

Post-development habitats

5.1.3 The Proposed Development includes the provision of several created habitats, these include: Urban - Intensive green roof (0.06 ha), Urban - Introduced shrub (0.01 ha), Urban - Brown roof (0.02 ha), Urban - Ground based green wall (0.03 ha), Urban - Street Tree (0.07 ha) and Urban - Developed land; sealed surface (1 ha). The created habitats are listed in Table 2.

5.1.4 Additionally, the Proposed Development includes provision of retained Urban - Developed land; sealed surface (0.26 ha).

5.1.5 The habitats to be created within the Proposed Development range in ecological value from very low to medium distinctiveness. The medium distinctiveness habitat is due to the inclusion of proposed Urban - Brown roof (0.02 ha).

5.1.6 In total, the Proposed Development is predicted to have a biodiversity value of 0.58 area-based units.

Table 5-2 Habitats created within the Proposed Development

Habitats	*Area (ha)*	*Distinctiveness*	*Condition*	*Connectivity Score*	*Strategic Significance*	*Time to target condition/years*	*Difficulty of creations*	*Biodiversity Units*
Urban - Intensive green roof	0.06	Low	Moderate	Low	Within area formally identified in local strategy	5	Medium	0.23
Urban - Introduced shrub	**0.01**	Low	Moderate	Low	Area/compensation not in local strategy/ no local strategy	1	Low	0.04
Urban - Developed land; sealed surface	1	Very Low	NA	NA	Area/compensation not in local strategy/ no local strategy	0	Low	0
Urban - Brown roof	0.02	Medium	Moderate	Low	Within area formally identified in local strategy	5	Medium	0.10
Urban - Ground based green wall	0.03	Low	Moderate	Low	Within area formally identified in local strategy	3	Medium	0.08
Urban - Street Tree	0.07	Low	Moderate	Low	Within area formally identified in local strategy	27	Low	0.12
Total Area	1.12 (excludes area of street trees)						*Total Units*	0.58

Calculation results

5.1.7 The baseline habitats existing within the Site in comparison to the habitats to be provided by the Proposed Development, including lost, retained and created habitats, are presented within the accompanying biodiversity metric calculation tool assessment (refer to Appendix D). A summary of the results is shown in Table 5-3, and the headline results of the metric are shown in Figure 5-1.

5.1.8 The on-site mitigation to be implemented results in a gain of 0.11 biodiversity units as a result of the Proposed Development.

Table 5-3 Summary of Outcomes for each habitat Pre and Post development

Habitats	*Number of hectares*			*Biodiversity units*		
	Before works	*After works*	*Net change*	*Before works*	*After works*	*Net change*
Urban - Introduced shrub	0.07	0.01	-0.06	0.14	0.04	-0.10
Urban - Amenity grassland	0.05	0	-0.05	0.1	0	-0.1
Urban - Street Tree	0.05	0.07	+0.02	0.23	0.12	-0.11
Urban - Intensive green roof	0	0.06	+0.06	0	0.23	+0.23
Urban - Brown roof	0	0.02	+0.02	0	0.10	+0.10
Urban - Ground based green wall	0	0.03	+0.03	0	0.08	+0.08
Urban - Developed land; sealed surface	0.96	1	+0.04	0	0	0

Figure 5-1 Biodiversity Metric 2.0 Output. 'Total net % change' relates to the overall gain/loss of biodiversity units.

On-site baseline	*Habitat units*	0.47
	Hedgerow units	0.00
	River units	0.00
On-site post-intervention (Including habitat retention, creation, enhancement & succession)	*Habitat units*	0.58
	Hedgerow units	0.00
	River units	0.00
Off-site baseline	*Habitat units*	0.00
	Hedgerow units	0.00
	River units	0.00
Off-site post-intervention (Including habitat retention, creation, enhancement &	*Habitat units*	0.00
	Hedgerow units	0.00
	River units	0.00
Total net unit change (including all on-site & off-site habitat retention/creation)	*Habitat units*	0.11
	Hedgerow units	0.00
	River units	0.00
Total net % change (including all on-site & off-site habitat creation + retained habitats)	*Habitat units*	23.16%
	Hedgerow units	0.00%
	River units	0.00%

6 Conclusion

6.1.1 The results of the assessment demonstrate that the Proposed Development is predicted to result in a net gain of 0.11 area-based biodiversity units (23.16%) (see Figure 5-1). Providing 13.16% greater biodiversity units than the minimum value of 10% required by the forthcoming Environment Bill (Ref. 1).

6.1.2 Following implementation of the Proposed Development there is predicted to be an overall net gain in area-based biodiversity units of Urban - Intensive green roof (+0.23), Urban - Brown roof (+0.10), Urban - Ground based green wall (+0.08) (Table 5-3). A loss is predicted in area-based biodiversity units of Urban - Introduced shrub (-0.10), Urban - Amenity grassland (-0.1), Urban - Street Tree (-0.11) (Table 3). Resulting in an overall net gain of 0.11 area-based biodiversity units (23.16%) (see Figure 1).

6.1.3 The outcome of the assessment is based on the assumption that appropriate management would be secured to ensure that the habitats created reach the assigned target condition.

6.1.4 The inclusion of the urban green infrastructure into the design will increase the biodiversity of the Site, enabling urban wildlife to use the Site as a steppingstone between the London's Canals SMINC, and St Pancras Gardens SINC.

References

Ref. 1. Department for Environment, Food and Rural Affairs (DEFRA). (2020) The Environment Bill (2019) https://www.gov.uk/government/publications/environment-bill-2020 [accessed September 2020]

Ref. 2. Department for Communities and Local Government (DCLG) (2019). 'The National Planning Policy Framework'. DCLG. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

Ref. 3. DEFRA's Enabling a Natural Capital Approach (ENCA) for a variety of data sources

Ref. 4. Greater London Authority (2018). 'London Environment Strategy'. Available at: https://www.london.gov.uk/sites/default/files/london_environment_strategy_0.pdf

Ref. 5. Greater London Authority (2019) Draft London Plan – Intend to Publish Version https://www.london.gov.uk/sites/default/files/intend_to_publish_-_clean.pdf

Ref. 6. London Borough of Camden (2017), 'Camden Local Plan'

Ref. 7. London Borough of Camden (2018), Camden Planning Guidance (CPG): Biodiversity. https://www.camden.gov.uk/documents/20142/4823269/Biodiversity+CPG+March+2018.pdf/daf83dad-d68d-6964-99b4-aef65d639304 [accessed September 2020]

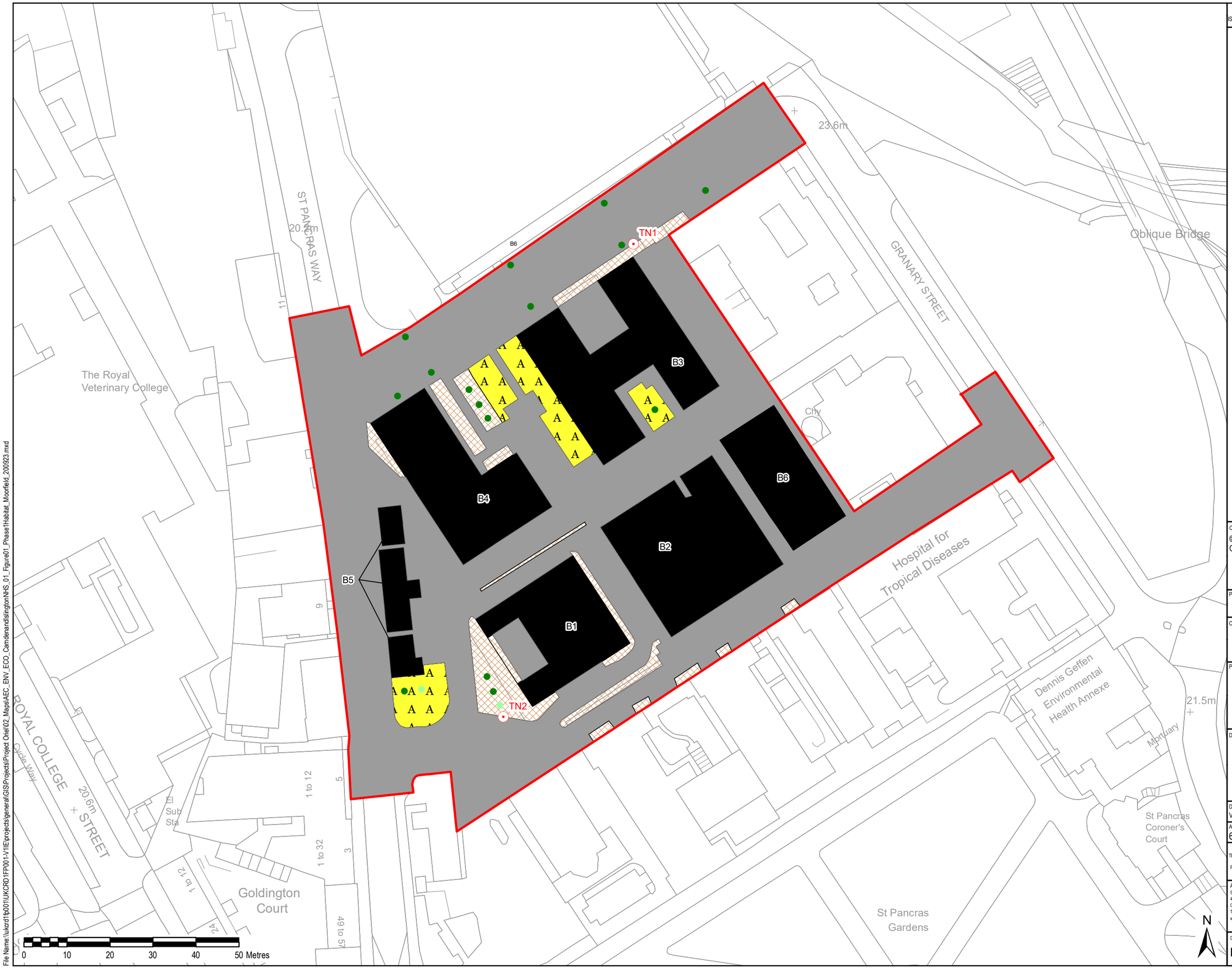
Ref. 8. London Borough of Camden. Camden Biodiversity Action Plan 2013 – 2018. https://www.camden.gov.uk/documents/20142/15817034/CD8.4+Biodiversity+Action+Plan+2013-18.pdf/8c85d9d5-107b-7fa2-8164-eaea203f0a19 [accessed September 2020)

Ref. 9. Natural England (2019). The Biodiversity Metric 2.0 – User Guide & Technical Supplement – Beta Test

Ref. 10. Biodiversity Net Gain: Good Practice Principles for Development, A Practical Guide (2019)

Ref. 11. Joint Nature Conservation Committee (2010) Handbook for Phase 1 habitat survey

Appendix A Phase 1 Habitat Plan (Baseline)



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LEGEND

- Red Line Boundary
- Target Note

Phase 1 Habitat

- Individual Broad-leaved Tree
- Individual Coniferous Tree
- Building
- Cultivated/ Disturbed Land - Amenity Grassland
- Hard Standing
- Introduced Shrub

Purpose of Issue
FOR INFORMATION

Client
MOORFIELDS EYE HOSPITAL
NHS FOUNDATION TRUST

Project Title
ORIEL

Drawing Title
PHASE 1 HABITAT MAP

Drawn	Checked	Approved	Date
VC	TG	MW	23/09/2020

AECOM Internal Project No.	Scale @ A3
60588325	1:800

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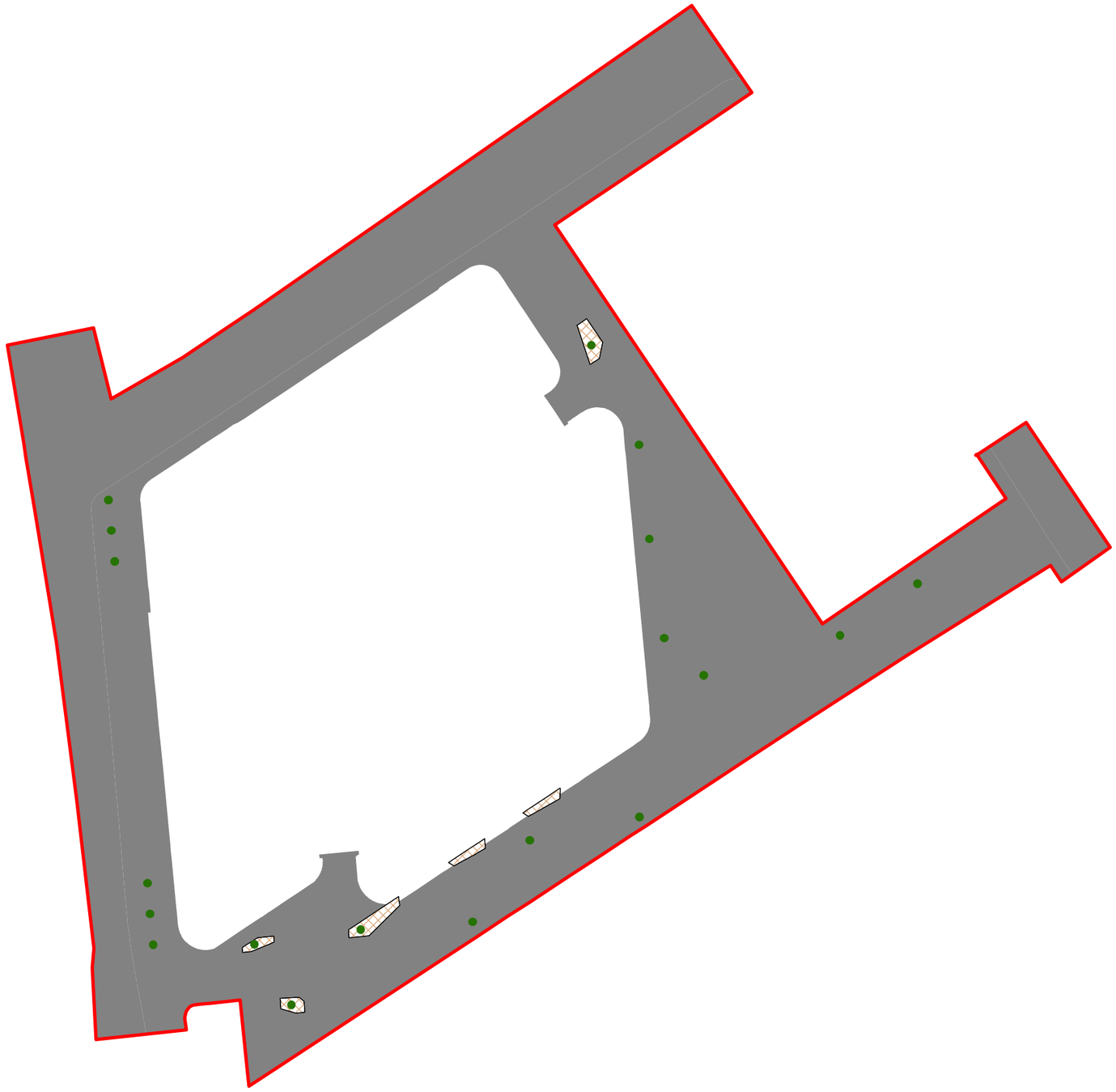
AECOM

Drawing Number
FIGURE 01

Rev
01

Appendix B Landscape Plan



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LEGEND

- Red Line Boundary
- Tree
- Introduced Shrub
- Hard Standing

Purpose of Issue
DRAFT

Client
MOORFIELDS EYE HOSPITAL NHS FOUNDATION TRUST

Project Title
ORIEL

Drawing Title
POST DEVELOPMENT - GROUND FLOOR

Drawn	Checked	Approved	Date
TG	VC	NY	23/09/2020

AECOM Internal Project No.	Scale @ A3
60588325	1:800

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Drawing Number
FIGURE 01

Rev
01

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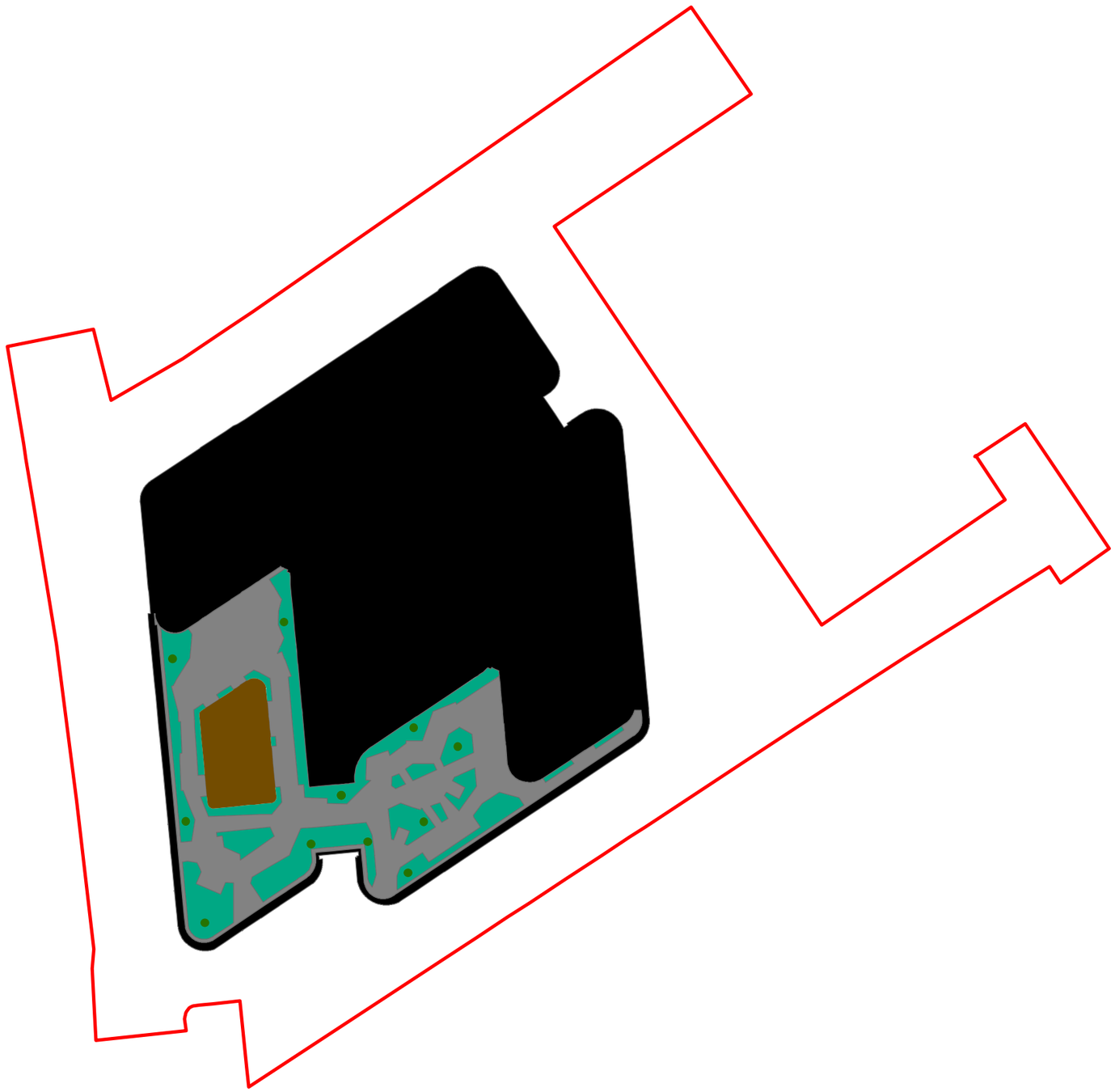

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LEGEND

- Red Line Boundary
- Tree
- Brown Roof
- Building
- Ground Based Green Wall (not shown)
- Hardstanding
- Intensive Green Roof

Purpose of Issue
DRAFT

Client
MOORFIELDS EYE HOSPITAL NHS FOUNDATION TRUST

Project Title
ORIEL

Drawing Title
POST DEVELOPMENT - TOP FLOOR

Drawn	Checked	Approved	Date
TG	VC	NY	23/09/2020

AECOM Internal Project No.: 60588325
Scale @ A3: 1:800

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Drawing Number: FIGURE 02
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File Name:F:\Project Oriel\02_Maps\ProjectOriel_BNG_Figure02_PostDev_TopFloor.mxd

Appendix C Habitat Classification Conversions and Condition

Phase 1 Classification	UK Habitat Classification	Habitat Condition Sheet (Ref. 11)	Assigned condition	Habitat condition assessment (HCA)	Condition justification
J1.2 Cultivated/ Disturbed Land - Amenity Grassland	Urban - Amenity grassland	Grassland	Poor	Retrospective assessment using professional judgement and the phase 1 survey data with the PEA report (August 2020)	Assumed poor condition as the area is maintained for recreation and amenity purposes, assuming maintained by fertiliser and weed control
J1.4 Introduced Shrub	Urban - Introduced shrub	Scrub	Poor	Retrospective assessment using professional judgement and the phase 1 survey data with the PEA report (August 2020)	Assumed poor as the area contains cherry laurel, has no woody species, details on age range missing, and value as stated in the PEA is poor quality
J3.6 Buildings	Urban - Developed land; sealed surface		NA		NA
J5 Hard Standing	Urban - Developed land; sealed surface		NA		NA

Phase 1 Classification	UK Habitat Classification	Habitat Condition Sheet (Ref. 11)	Assigned condition	Habitat condition assessment (HCA)	Condition justification
A3.1 Broadleaved parkland/scattered trees A3.2 - Coniferous parkland/scattered trees	Urban - Street Tree	N/A	Moderate	Retrospective assessment using professional judgement and the Arboricultural Impact Assessment (AIA) report.	Assumed condition based on tree quality information within the AIA report. The minimum condition available for Urban Street Trees within the metric is moderate, based on their biodiversity value. Ten small and three medium trees were assigned poor condition within the AIA report, but are included in the metric as moderate condition using a precautionary approach.

Appendix D Metric 2.0 Calculator

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Headline Results

Return to results menu

On-site baseline	Habitat units	0.47
	Hedgerow units	0.00
	River units	0.00
On-site post-intervention (Including habitat retention, creation, enhancement & succession)	Habitat units	0.58
	Hedgerow units	0.00
	River units	0.00
Off-site baseline	Habitat units	0.00
	Hedgerow units	0.00
	River units	0.00
Off-site post-intervention (Including habitat retention, creation, enhancement & succession)	Habitat units	0.00
	Hedgerow units	0.00
	River units	0.00
Total net unit change (including all on-site & off-site habitat retention/creation)	Habitat units	0.11
	Hedgerow units	0.00
	River units	0.00
Total net % change (including all on-site & off-site habitat creation + retained habitats)	Habitat units	23.16%
	Hedgerow units	0.00%
	River units	0.00%

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A-1 Site Habitat Baseline

Condense / Show Columns | Condense / Show Rows | Main Menu | Instructions

	Habitats and areas			Habitat distinctiveness		Habitat condition		Ecological connectivity			Strategic significance			Suggested action to address habitat losses	Ecological baseline
Ref	Broad Habitat	Habitat type	Area (hectares)	Distinctiveness	Score	Condition	Score	Ecological connectivity	Connectivity	Connectivity multiplier	Strategic significance	Strategic significance	Strategic position multiplier		Total habitat units
1	Urban	Urban - Introduced shrub	0.07	Low	2	Poor	1	Low	Unconnected habitat	1	Area/compensation not in local	Low Strategic	1	Same distinctiveness or better	0.14
2	Urban	Urban - Amenity grassland	0.05	Low	2	Poor	1	Low	Unconnected habitat	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required	0.10
3	Urban	Urban - Street Tree	0.05	Low	2	Moderate	2	Low	Unconnected habitat	1	Within area formally identified in local strategy	High strategic significance	1.15	Same distinctiveness or better habitat required	0.23
4	Urban	Urban - Developed land; sealed surface	0.38	V.Low	0	N/A - Other	0	N/A	Assessment not appropriate	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Compensation Not Required	0.00
5	Urban	Urban - Developed land; sealed surface	0.58	V.Low	0	N/A - Other	0	N/A	Assessment not appropriate	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Compensation Not Required	0.00
6															
7															
8															
9															
10															
		Total site area ha	1.08											Total Site baseline	0.47

Retention category biodiversity value								Bespoke compensation agreed for unacceptable losses	Comments	
Area retained	Area enhanced	Area succession	Baseline units retained	Baseline units enhanced	Baseline units succession	Area lost	Units lost		Assessor comments	Reviewer comments
			0.00	0.00	0.00	0.07	0.14		Introduced shrrub. Assumed poor condition - contains cherry	
			0.00	0.00	0.00	0.05	0.10		Amenity Grassland. Assumed Poor condition- Maintained for recreation and amenity puposes, assuming maintained by fetiliser and weed control	
			0.00	0.00	0.00	0.05	0.23		10 small trees, 4 med and 3 large trees. Assumed minimum condition of moderate. Sat sig - Camden Biodiversity Action Plan.	
			0.00	0.00	0.00	0.38	0.00		Building.	
0.26			0.00	0.00	0.00	0.32	0.00		Hardstanding.	
0.26	0.00	0.00	0.00	0.00	0.00	0.87	0.47			

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A-2 Site Habitat Creation

Condense / Show Columns | Condense / Show Rows | Main Menu | Instructions

Post development/ post intervention habitats

Proposed habitat	Area (hectares)	Distinctiveness	Score	Condition	Score	Ecological connectivity			Strategic significance			Temporal multiplier	
						Ecological connectivity	Connectivity	Connectivity multiplier	Strategic significance	Strategic significance	Strategic position multiplier	Time to target condition/years	Time to target multiplier
Urban - Intensive green roof	0.06	Low	2	Moderate	2	Low	Unconnected habitat	1	Within area formally identified in local strategy	High strategic significance	1.15	5	0.837
Urban - Introduced shrub	0.01	Low	2	Moderate	2	Low	Unconnected habitat	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	1	0.965
Urban - Developed land; sealed surface	0.44	V.Low	0	N/A - Other	0	N/A	Assessment not appropriate	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	0	1.000
Urban - Brown roof	0.02	Medium	4	Moderate	2	Low	Unconnected habitat	1	Within area formally identified in local strategy	High strategic significance	1.15	5	0.837
Urban - Developed land; sealed surface	0.56	V.Low	0	N/A - Other	0	N/A	Assessment not appropriate	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	0	1.000
Urban - Ground based green wall	0.03	Low	2	Moderate	2	Low	Unconnected habitat	1	Within area formally identified in local strategy	High strategic significance	1.15	3	0.899
Urban - Street Tree	0.07	Low	2	Moderate	2	Low	Unconnected habitat	1	Within area formally identified in local strategy	High strategic significance	1.15	27	0.382
Totals	1.12												

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

Difficulty multipliers		Habitat units delivered	Comments	
Difficulty of creation category	Difficulty of creation multiplier		Assessor comments	Reviewer comments
Low	1	0.23	No JNCC category. Roof garden - intensive green roof. Mixture of trees, shrubs and perenials.	
Low	1	0.04	Introduced shrub. Ground floor planters. Deep soil, supporting trees and shrubs.	
Low	1	0.00	Hospital building.	
Medium	0.67	0.10	No JNCC category. Brown roof - pre seeded with pollen rich species, created using hardstanding substrates, such as rubble or brick, combining soils and substrate	
Low	1	0.00	Hardstanding.	
Medium	0.67	0.08	No JNCC category. Living wall creted on trelis. Species include Clematis and Passionflower	
Low	1	0.12	No JNCC category. Assumed medium sized trees. 2 small trees, 10 medium and 6 large.	
	Total Units	0.58		

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Detailed Results

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Summary Figures

Net project biodiversity units (including all on-site & off-site habitat retention/creation)		
	Habitat units	0.11
	Hedgerow units	0.00
	River units	0.00

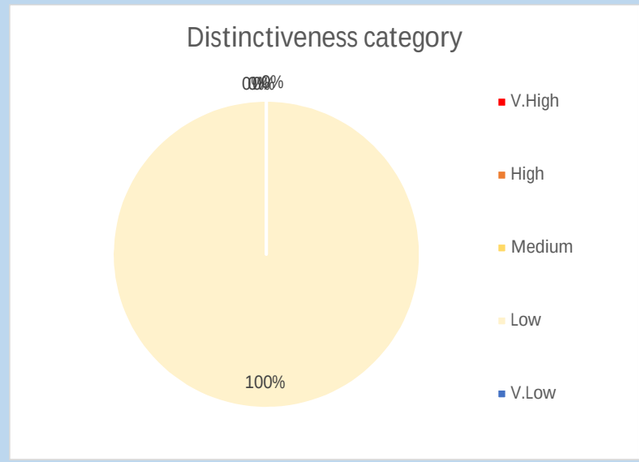
Total project biodiversity % change (including all On-site & Off-site Habitat Creation + Retained Habitats)		
	Habitat units	23.16%
	Hedgerow units	0.00%
	River units	0.00%

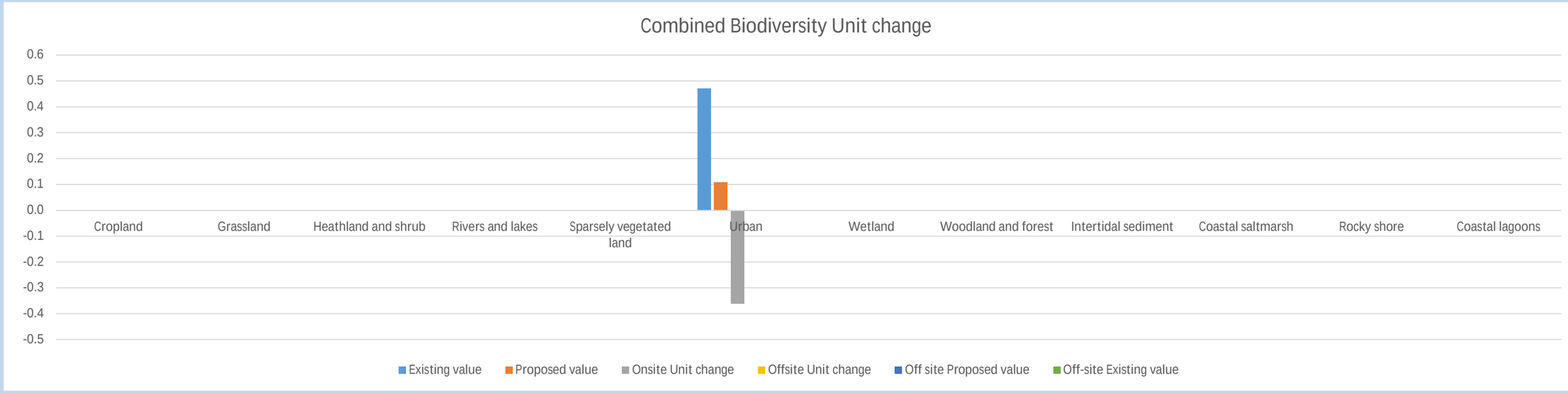
On-site habitat retention and enhancement

	Habitats	Hedgerows	Rivers
Total site area / length	1.08	0.00	0.00
Total site units	0.47	0.00	0.00
Area / length retained	0.26	0.00	0.00
Units Retained	0.00	0.00	0.00
Area / length enhanced	0.00	0.00	0.00
Baseline units enhanced	0.00	0.00	0.00
Area / length succession	0.00		
Units succession	0.00		
Area / length lost	0.87	0.00	0.00
Units lost	0.47	0.00	0.00

l lost by distinctiveness b

Category	Area lost (hectares)	Area lost (%)
V.High	0	
High	0	
Medium	0	
Low	0.17	100
V.Low	0	



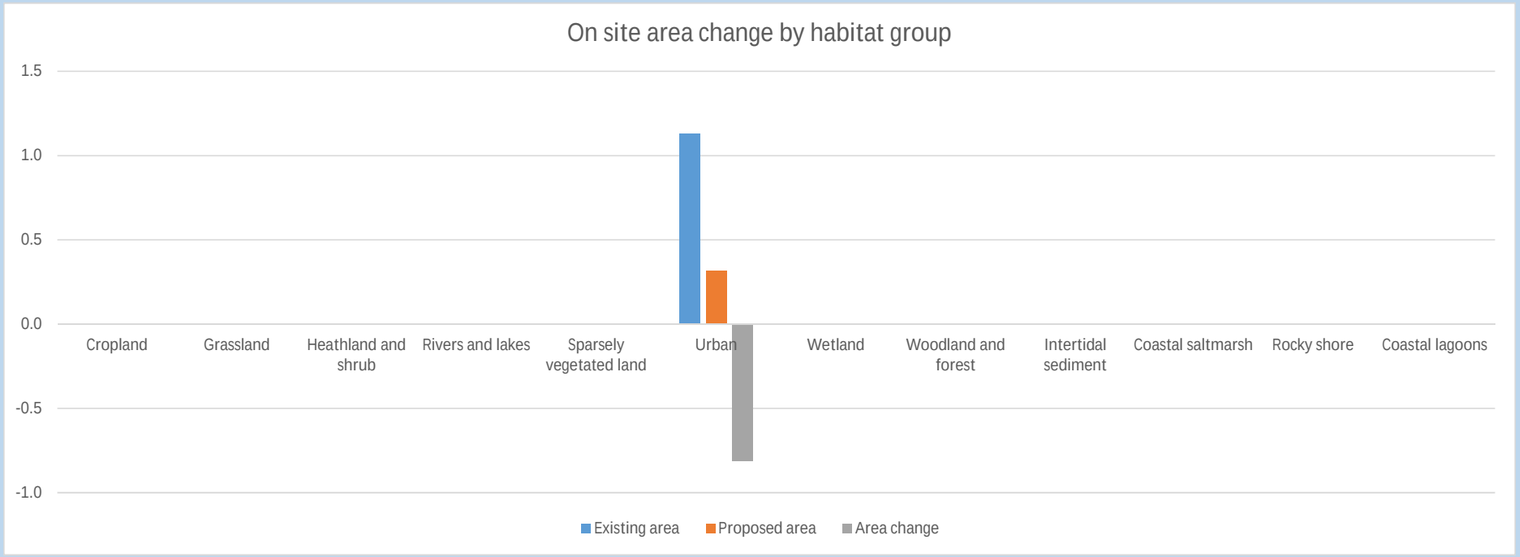


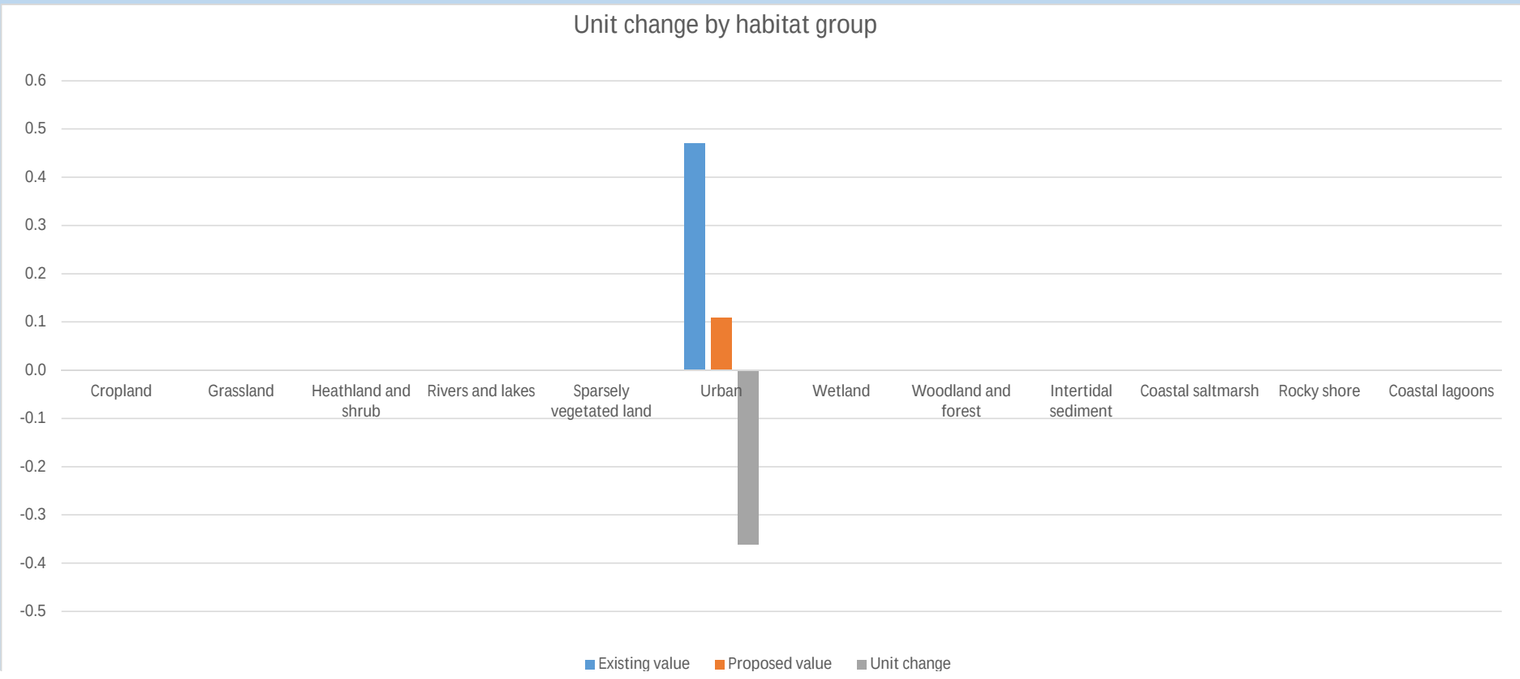
On-site	Baseline		Post development on site		Onsite Change	
Habitat group	Existing area	Existing value	Proposed area	Proposed value	Area change	Onsite Unit change
Cropland	0.0	0.0	0.0	0.0	0.0	0.0
Grassland	0.0	0.0	0.0	0.0	0.0	0.0
Heathland and shrub	0.0	0.0	0.0	0.0	0.0	0.0
Rivers and lakes	0.0	0.0	0.0	0.0	0.0	0.0
Sparsely vegetated land	0.0	0.0	0.0	0.0	0.0	0.0
Urban	1.1	0.5	0.3	0.1	-0.8	-0.4
Wetland	0.0	0.0	0.0	0.0	0.0	0.0
Woodland and forest	0.0	0.0	0.0	0.0	0.0	0.0
Intertidal sediment	0.0	0.0	0.0	0.0	0.0	0.0
Coastal saltmarsh	0.0	0.0	0.0	0.0	0.0	0.0
Rocky shore	0.0	0.0	0.0	0.0	0.0	0.0
Coastal lagoons	0.0	0.0	0.0	0.0	0.0	0.0

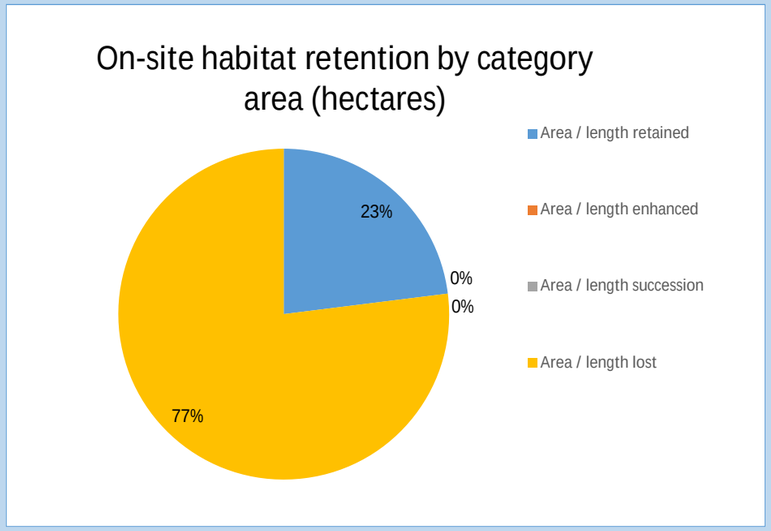
Overall Change	
Area change	Unit change
0.0	0.0
0.0	0.0
0.0	0.0
0.0	0.0
0.0	0.0
-0.8	-0.4
0.0	0.0
0.0	0.0
0.0	0.0
0.0	0.0
0.0	0.0
0.0	0.0

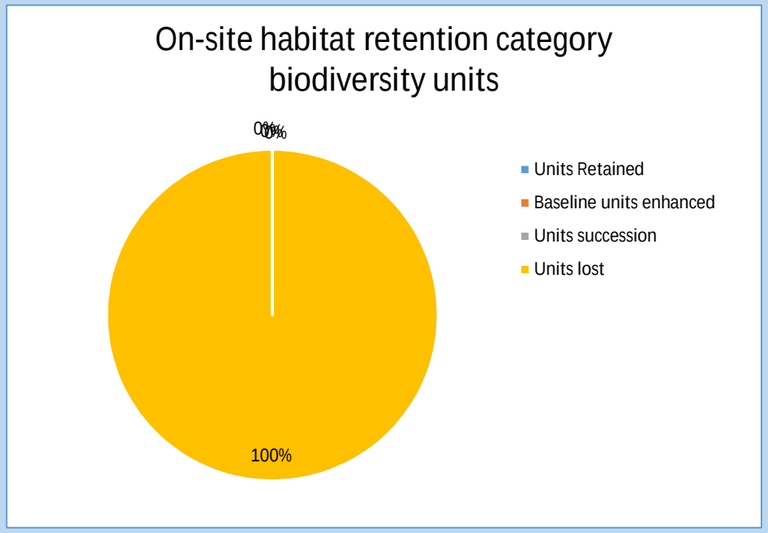
Off-site	Baseline		Post development Off-site		Off-site Change	
Habitat group	Existing area	Off-site Existing value	Proposed area	Off site Proposed value	Area change	Offsite Unit change
Cropland	0.0	0.0	0.0	0.0	0.0	0.0
Grassland	0.0	0.0	0.0	0.0	0.0	0.0
Heathland and shrub	0.0	0.0	0.0	0.0	0.0	0.0
Rivers and lakes	0.0	0.0	0.0	0.0	0.0	0.0
Sparsely vegetated land	0.0	0.0	0.0	0.0	0.0	0.0
Urban	0.0	0.0	0.0	0.0	0.0	0.0
Wetland	0.0	0.0	0.0	0.0	0.0	0.0
Woodland and forest	0.0	0.0	0.0	0.0	0.0	0.0
Intertidal sediment	0.0	0.0	0.0	0.0	0.0	0.0
Coastal saltmarsh	0.0	0.0	0.0	0.0	0.0	0.0
Rocky shore	0.0	0.0	0.0	0.0	0.0	0.0
Coastal lagoons	0.0	0.0	0.0	0.0	0.0	0.0

Combined	Baseline		Combined Post development		Combined change	
Habitat group	Existing area	Existing value	Proposed area	Proposed value	Proposed area	Proposed value
Cropland	0.0	0.0	0.0	0.0	0.0	0.0
Grassland	0.0	0.0	0.0	0.0	0.0	0.0
Heathland and shrub	0.0	0.0	0.0	0.0	0.0	0.0
Rivers and lakes	0.0	0.0	0.0	0.0	0.0	0.0
Sparsely vegetated land	0.0	0.0	0.0	0.0	0.0	0.0
Urban	1.1	0.5	0.3	0.1	-0.8	-0.4
Wetland	0.0	0.0	0.0	0.0	0.0	0.0
Woodland and forest	0.0	0.0	0.0	0.0	0.0	0.0
Intertidal sediment	0.0	0.0	0.0	0.0	0.0	0.0
Coastal saltmarsh	0.0	0.0	0.0	0.0	0.0	0.0
Rocky shore	0.0	0.0	0.0	0.0	0.0	0.0
Coastal lagoons	0.0	0.0	0.0	0.0	0.0	0.0


On site area change by habitat group
1.5
1.0
0.5
0.0
-0.5
-1.0
Cropland
Grassland
Heathland and shrub
Rivers and lakes
Sparsely vegetated land
Urban
Wetland
Woodland and forest
Intertidal sediment
Coastal saltmarsh
Rocky shore
Coastal lagoons
Existing area
Proposed area
Area change


Unit change by habitat group
0.6
0.5
0.4
0.3
0.2
0.1
0.0
-0.1
-0.2
-0.3
-0.4
-0.5
Cropland
Grassland
Heathland and shrub
Rivers and lakes
Sparsely vegetated land
Urban
Wetland
Woodland and forest
Intertidal sediment
Coastal saltmarsh
Rocky shore
Coastal lagoons
Existing value
Proposed value
Unit change


On-site habitat retention by category area (hectares)
23%
0%
0%
77%
Area / length retained
Area / length enhanced
Area / length succession
Area / length lost


On-site habitat retention category biodiversity units
0%
0%
100%
Units Retained
Baseline units enhanced
Units succession
Units lost

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