



Hampshire
County Council

Ecological Appraisal and Biodiversity Net Gain Assessment

Reading Civic Centre

For
Reading Borough Council

September 2023

Hampshire County Council Ecology Team

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Report conditions

<i>HCCET reference</i>	23.1118	<i>Client reference</i>	E05236
<i>Report title</i>	Ecological Appraisal and Biodiversity Net Gain Assessment – Reading Civic Centre, Bridge Street, Reading RG1 2LU		
<i>Client</i>	Hampshire County Council Property Services		
<i>Report status</i>	Final		
<i>Survey dates</i>	Extended Phase 1: 09 August 2023		
<i>Surveyor(s)</i>	Julie Trevellick		
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Summary

An Ecological Appraisal was undertaken at Reading Civic Centre to support a planning application for the addition of an extension to the south-east corner of the building in order to provide a new location for Reading Library.

The Ecological Appraisal initially comprises a desk-based assessment and field survey work based on Extended Phase 1 survey methodology to assess the potential for the site to support protected habitats and species.

Habitats to be directly impacted by the proposed works are two small Lotus trees, a mature Ash, and a small area of landscape planting including ornamental shrubs and horticultural flora along the south-east corner boundary of the site.

There are no designated sites or areas of Priority Habitat within or adjacent to the development footprint nor within the 0.5km search radius.

With the exception of common or widespread bird species the site is not considered likely to support any other protected or notable species.

The affected areas of the building and the trees offer negligible bat roost suitability.

Review of the findings of the Extended Phase 1 survey concluded that there was sufficient information on the potential presence or likely absence of legally protected or notable species and no further species-specific surveys were undertaken.

In the absence of mitigation or compensation, the development will result in the loss of two small non-native trees, and some small areas of introduced shrub (ornamental scrub and horticultural flora), resulting in a slight net loss of biodiversity.

A formal Biodiversity Net Gain assessment was carried out. This identified that the development would net loss of biodiversity. Recommendations are made for additional off-site tree planting, which would ensure the development delivers a net gain of 12.18%.

1. Introduction

Objectives

- 1.1. The purpose of this study was to gather ecological information about the site at Reading Civic Centre and assess the impacts of the development proposals for the site on these features, in order to support a planning application with Reading Borough Council.
- 1.2. The Ecological Appraisal comprises a number of elements; initially a desk-based assessment was carried out, followed by field survey work based on Extended Phase 1 survey methodology to assess the potential for the site to support protected habitats and species. No further species-specific survey work was required (such as for reptiles or bats).
- 1.3. Further assessment works was carried out to draw together a formal Biodiversity Net Gain (BNG) assessment using the DEFRA Metric 4.1.
- 1.4. This Ecological Appraisal sets out the methods and findings of all these elements of survey work and uses the findings to fully assess the impacts of the proposed development on the identified ecological receptors.
- 1.5. Overall the Ecological Appraisal supports the proposed development through demonstrating how the proposal accords with all relevant biodiversity legislation and policy.

Site Description

- 1.6. Reading Civic Centre is located on Bridge Street in the centre of Reading. To the north and west of the site, land use surrounding the site is an urban mosaic of business, commercial and residential properties. The Oracle shopping centre dominates the area to the east of the Civic Centre. The River Kennet flows a short distance to the south of the Civic Centre.
- 1.7. The Civic Centre itself is a 3-storey brick building with a single storey, flat-roofed, glass and metal entrance foyer. The approach to the building consists of a brick-paved courtyard which is accessed from pedestrian pavements along Bridge Street to the east via steps / access ramps and along Fobney Street to

the east via steps only. To the south-east of the courtyard is an area of landscape planting alongside of which are bicycle racks. This area of the courtyard is also the location of a small café that operates from a mobile catering truck.

- 1.8. Location plan and aerial photo of the site showing the site boundary and its setting within the wider landscape are shown in Appendix 1. Photos 1 to 16 on the photo sheet in Appendix 2 show the general conditions at the site.

Proposed works

- 1.9. Reading Borough Council proposes the relocation of Reading Central Library within a newly created extension located in what is currently an open courtyard to the front of the main entrance into Reading Civic Centre.
- 1.10. The existing site plan and the proposed works plan showing the site boundaries, current at the time of this report are at Appendix 1.

2. Methods

Desk-based assessment

- 2.1. A desk-based assessment was carried out by HCCET in August 2023. This comprised the following elements:

Zone of influence (Zol)

- 2.2. The development proposals and the site were reviewed to establish the likely extent of impacts from the scheme at which potential ecological receptors might be affected. This was based on established criteria (such as Natural England's Impact Zones for Sites of Special Scientific Interest (SSSI)), or published zones around certain European designated sites. Where established criteria are not present, the Zol was based on the ecologist's professional judgement. Where necessary, the Zol for relevant receptors are discussed in the following sections.

Scoping

- 2.3. An initial review of the site and the proposals were carried out to consider the likelihood of particular ecological receptors being present at the site or nearby (within relevant Zol). Where this scoping confidently concluded that a particular receptor is likely absent (for example there are unlikely to be water vole at a site with no on-site or nearby waterbodies), these are not considered in detail in the report.

Data search

- 2.4. Geographical Information Systems (GIS) mapping and Defra's Multi-Agency Geographic Information for the Countryside (MAGIC) website was used in order to identify all records of protected species and habitats within a 0.5km radius of the site.
- 2.5. The Reading Borough Council Local Plan Proposals Map was examined to identify other areas of identified biodiversity interest such as other patches of more ecologically rich habitats, and existing or proposed green links¹.

¹ <https://www.reading.gov.uk/planning/planning-policy/new-local-plan/>

- 2.6. The Reading Borough Council planning website was searched for details of other relevant information relating to the site and immediate area.
- 2.7. The findings of the desk-based assessment in terms of establishing the local and wider ecological context of the site has also been used where relevant to inform recommendations for biodiversity net gain, as set out in Section 5.

Field survey

Extended Phase 1 Habitat Survey

- 2.8. Field survey work was carried out on 09 August 2023. This followed the Phase 1 Habitat Survey methodology of the Joint Nature Conservation Committee (JNCC, 2010) and the Institute of Environmental Assessment (IEA, 1995). Phase 1 Habitat Survey is a standard technique for classifying and mapping British habitats. The aim is to provide a record of habitats that are present on site. It should be noted that the habitat categories used by the Phase 1 Habitat Survey Methodology do not mirror the habitat types considered to be conservation priorities. Where relevant and necessary, this is discussed further in Section 4.
- 2.9. The site survey entailed a single surveyor, Julie Trevellick, Ecologist, undertaking a methodical investigation of all areas of the site in order to identify the presence of, or habitat considered suitable for supporting, legally protected species. Assessment of the nature and value of habitats and vegetation at the site was also carried out. A brief description of the survey methods used is provided below.
- 2.10. The site was inspected for field signs of Badger *Meles meles* such as setts, latrine sites, dung piles, well-used trails, prints, foraging activity, and hairs.
- 2.11. An assessment was made of the suitability of habitat on site to support Hazel Dormice *Muscardinus avellanarius*. Key habitats for this species are woodland, scrub and hedgerows, particularly where these offer dense vegetation for nesting or hibernation, along with food resources such as hazelnuts, fruiting and nectar-rich plants and Honeysuckle for nesting material. The presence of important landscape-scale habitat linkages between suitable habitats was considered.

- 2.12. The survey also included a consideration of the site's suitability to support breeding bird species. These will utilise a broad range of habitats, including structures such as houses and outbuildings, trees, scrub, isolated shrubs, dense herbaceous vegetation (terrestrial and aquatic) and open grassland.
- 2.13. The site's suitability to support reptiles was also considered. Key habitat features for reptiles include tussocky or patchy grassland, scrub edge, linear watercourses, ponds, compost heaps, brash piles and rubble/soil heaps. Linkage to suitable habitat within the surrounding landscape will increase the potential for reptiles to occur, although populations can occur within isolated or fragmented habitats even within urban areas.
- 2.14. An assessment was made of all water bodies and terrestrial habitat within the site and within the surrounding landscape for their suitability to support populations of amphibians, particularly Great Crested Newt *Triturus cristatus* (GCN). Ponds were assessed where possible according to the Habitat Suitability Index (HSI) assessment method (Oldham et al, 2000).
- 2.15. Any suitable on site or nearby accessible waterbodies such as lakes, rivers, ditches and streams were inspected for signs of Water Vole *Arvicola amphibius* and Otter *Lutra lutra*. Signs of otter include spraints (droppings), holts and couches (resting places), haul outs, and anal jelly. Water Vole signs include burrows (particularly with a grazed 'lawn' around their entrance), runs along the bank, latrines, feeding signs, runs, and footprints.
- 2.16. Trees were assessed for their potential to support bats, using methods guided by and consistent with that set out in Collins (ed) (2016). Relevant trees were inspected from ground level to identify evidence of bat activity and/or identify the presence of any potential roost features (PRFs) such as rot holes, flaking bark, cracks or splits and areas of extensive deadwood.
- 2.17. Trees were inspected using Opticron Discovery 10x42 close-focussing binoculars and where necessary and safely possible, a ladder. High-powered torches (Clulite Clubman CB2 and Lenser P7.2) were used to illuminate potential roost and roost access features.

- 2.18. An assessment was made of the suitability of the site and the surrounding landscape to support foraging, commuting and other flying behaviours such as swarming and social interactions. The assessment was based on the presence of key habitat features such as woodland, scrub, hedgerows, grassland, and open water and watercourses, which are highly attractive to bats as both a foraging resource and as commuting routes. The presence of such habitats, particularly in a mosaic with other suitable habitats, typically increases the potential for structures to be exploited by bats where suitable roost and access opportunities are present. The presence of unlit semi-natural vegetation and habitat linkages between the site and the surrounding landscape were also considered.
- 2.19. Bat roost suitability and foraging habitat quality was assessed according to the criteria set out in Collins (2016).

Limitations

- 2.20. All areas of the site were fully accessible and visible during the survey work. The weather was sunny with a clear sky, temperature of 18°C, a light southwesterly breeze (Beaufort Force 2) and no precipitation. There are therefore no significant limitations to the survey work.

3. Results

Desk-based assessment

Designated sites and notable habitats

- 3.1. There are no designated statutory or non-statutory sites within the development site nor within or close to the wider search radius. The closest such site is Lousehill Copse Local Nature Reserve which lies approximately 2.9km west of the site. It should be noted that while the River Kennet flows a little south of the Civic Centre, the extent of the River that is designated as a Site of Special Scientific Interest does not include that part which flows through Reading.
- 3.2. Figure A3.1 at Appendix 3 shows the absence of any designated statutory and non-statutory sites within the site and within and beyond the search radius buffer.
- 3.3. Outside of the designated sites and other more ecologically-valuable habitats, the immediate surrounding landscape is primarily urban and is characterised by commercial, business, light industrial, residential development and major transport infrastructure, including the M4 motorway which dominates the landscape to the south of the town. The wider landscape surrounding Reading is primarily rural, comprised of agricultural fields with hedgerows, areas of woodland, villages and small towns.

Fieldwork scoping / Zone of influence

- 3.4. Due to the nature of the existing habitats within the site (i.e., primarily hardstanding), its urban location, surrounding land use, and the absence of ecological connectivity to the wider landscape, Badger, Hazel Dormouse, Otter, Water Vole, amphibians and reptiles, and significant assemblages of foraging or commuting bats, were scoped out from the fieldwork.
- 3.5. For the same reasons, the development's zone of influence is considered to extend no further than 25m from the site boundaries.

Field Survey

Habitats

- 3.6. The main habitats present at and around the site are shown in the Habitat Survey map at Appendix 4.

Urban trees

- 3.7. There are two small Locust trees *Robinia* sp. and one mature Ash *Fraxinus excelsior* within the site. The Locust trees are situated within the external courtyard to the front of the existing foyer. The Ash is located to the south-east corner of the site, at the northern end of the landscape planted area.

Introduced shrub

- 3.8. The landscape planted area along the south-east corner of the site is dominated by a mature Ash which stands to the north of an area of introduced shrub. This area is separated from the courtyard by a low brick wall and is comprised of an assemblage of native and non-native flora species that provide seasonal and structural diversity.
- 3.9. Species noted to the courtyard side of this area included Bramble *Rubus fruticosus* agg., Dog-rose *Rosa canina*, Field Bindweed *Convolvulus arvensis*, Japanese Spindle *Euonymus japonica*, Lavender *Lavandula angustifolia*, Rose of Sharon *Hibiscus syriacus* and Thistle *Cirsium* sp. Along the outer edges of the planted area, adjacent to public footways, Box *Buxus* sp., Cherry Laurel *Prunus laurocerasus*, Common Ivy *Hedera helix* and Cotoneaster *Cotoneaster* sp. were abundant. A stand of Barbery *Berberis* sp. was dominant adjacent to the steps to the south of the courtyard. Additionally, several small Sycamore *Acer pseudoplatanus* saplings were noted growing amongst the other plants within the landscaped area.

Protected and notable species

Birds

- 3.10. The survey confirmed the presence of habitats such as individual trees and dense shrub vegetation, that may be suitable to support small numbers of common or widespread bird species during the spring and summer nesting period.

- 3.11. During the survey the only bird species observed using the site were Wood Pigeon *Columba palumbus* and Feral Pigeon (Stock Dove) *Columba livia*.

Bats - roosting

- 3.12. The south-eastern corner of the exterior of the Civic Centre was inspected for Potential Roost Features (PRFs) for bats. The vertical edges of the main building's windows were well-sealed but there were gaps along the top horizontal planes, particularly for the narrower windows. Such gaps appeared to be no more than 4-5cm deep and were considered too wide for providing the tight crevices favoured by crevice-roosting bats. The gaps did not appear to lead to any cavities. Furthermore, as can be seen in Photos 14-17 in Appendix 2, the windows that are directly below the gaps are smooth plastic or painted metal, which offer no suitable grip for bats to crawl up into the gaps. The glass walls of the entrance foyer were well-sealed against the metal framework, which in turn was well-sealed where it joined the main building.
- 3.13. The Locust trees and Ash were also inspected for PRFs. No features were identified within the Locust trees; they were free from broken limbs, rot holes and cavities that might provide roosting habitat for bats. The Ash did not appear to have any PRFs though some of its main trunk was covered by Common Ivy which may have potentially hidden such features from view. However, all parts of the tree that were visible were in good condition with no evidence of broken limbs, rot holes, cavities or flaking bark, and where it was possible to see the main trunk through gaps in the Ivy, this too appeared to be in good condition.

Invertebrates

- 3.14. The survey confirmed the presence of flowering species including Bramble, Dog-rose and Lavender within the landscaped area to the south-east of the site that would be suitable to support widespread and common invertebrates.
- 3.15. During the survey Common Blue *Polyommatus icarus* and Large White *Pieris brassicae* butterflies and hoverflies were noted frequently within this area.

Other protected or notable species

- 3.16. With the exception of common or widespread birds and common or widespread invertebrates, the field survey confirmed the absence of habitats that would be

suitable to support other protected or notable species. No signs, evidence or observations of any such other species was observed.

4. Impact Assessment

Planning policy and legislation

4.1. Paragraph 180 of the National Planning Policy Framework (NPPF) (MHCLG, 2021) requires that when determining planning applications, 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.

4.2. Policy EN8: Undesignated Open Space of the Reading Borough Council Local Plan (adopted November 2019) states that:

“There will be a presumption in favour of retention of undesignated open space, which will include allotments. Development should not result in the loss of or jeopardise use and enjoyment of undesignated open space. Development may be permitted where it is clearly demonstrated that replacement open space, of a similar standard and function, can be provided at an accessible location close by, or that improvements to recreational facilities on remaining open space can be provided to a level sufficient to outweigh the loss of the open space. The quality of existing open space should not be eroded by insensitive development on adjoining land.”

4.3. Many species of animal are legally protected under both domestic or international law (the Wildlife and Countryside Act 1981 (as amended)² and the Conservation of Habitats and Species Regulations 2017³ respectively). Badgers and their setts are protected under the Badgers Act 1992⁴.

4.4. With reference to bats, hazel dormice, and great crested newts, these are European Protected Species (EPS). This legislation makes it an offence to kill, injure or disturb them, or to destroy or damage their breeding sites and resting places (even when the animals are not present). For such work to legally

² <http://www.legislation.gov.uk/ukpga/1981/69>

³ <https://www.legislation.gov.uk/uksi/2017/1012/contents/made>

⁴ <http://www.legislation.gov.uk/ukpga/1992/51/contents>

proceed, Natural England (the Government's statutory nature conservation agency) will issue a licence for the work to be able to proceed legally, subject to the proposals meeting certain criteria.

- 4.5. The following sections consider the potential impacts on any identified ecological features and whether the development would be in accordance with policy and legislation.

Potential impacts on sites, habitats and species

Designated sites

- 4.6. There are no designated sites within or adjacent to the development footprint nor within the 0.5km search radius. It is considered that the proposed development would have a negligible impact on designated sites.

Vegetation and habitats

- 4.7. It is understood that the proposed development will result in the loss of the two small Locust trees to the front of the existing entrance foyer to the Civic Centre. Although these trees are considered to be of low ecological value, their loss will nonetheless contribute to a decline in biodiversity at site level.
- 4.8. The only other tree within the development footprint is the mature Ash to the north of the planted area along the south-east corner boundary. This tree is considered to be of moderate ecological value at site level and it is understood that it will not be impacted by the development proposals.
- 4.9. The flora assemblage within the south-east corner of the site is a mix of native and non-native species which are generally common and widespread. As there is a limited extent of vegetation within the site, this species assemblage is considered to be of moderate ecological value at site level. It is understood that the development will result in the loss of approximately half of this area vegetation (the area of loss being that adjacent to Fobney Street). Any loss of vegetation here will contribute further to a decline in biodiversity at site level.
- 4.10. In the absence of any new planting to mitigate loss of trees and other vegetation, it is considered that the development proposals would lead to a permanent decline in biodiversity at site level.

Legally protected and notable species

Birds

- 4.11. Habitats within the landscape planting along the south-east corner of the site may be suitable to support breeding or nesting birds; flora here may provide potential nesting sites and foraging opportunities for food and/or nesting materials. Bridge Street is subject to continuous visual and noise disturbance from both pedestrians and traffic. While it is likely that resident birds would be habituated to such disturbance events and thus use the south-east corner of the site for foraging, it is probable that for nesting, they would prefer shrubs and trees within in the quieter residential area to the west of the Civic Centre.
- 4.12. There are various ledges to the façade of the Civic Centre main building that would have potential to support Feral Pigeons. However, although individual birds were noted foraging within and around the site during the survey, anti-nesting measures such as spikes and netting are in place which would deter birds from using these features.
- 4.13. If birds or active nests were present within the vegetation to the south-east corner of the site during the construction period, the development would have the potential for harm (including injury or death) or disturbance to birds and for disturbance, damage, or destruction of active nests. It is considered that the development proposals may impact breeding or nesting birds and/or active nests if present.

Bats

- 4.14. The survey confirmed the absence of PRFs from the exterior of the south-eastern corner of the Civic Centre building, including the entrance foyer, and from the three trees within the development footprint.
- 4.15. In terms of Bat Conservation Trust (BCT) criteria for roosting habitat, the site is considered to be of negligible value to bats. Overall, it is considered that the development proposals will have negligible impacts on roosting bats.

Other legally protected and notable species

- 4.16. Other legally protected and notable species, such as notable invertebrates, Hedgehog *Erinaceus europaeus* or other small mammals, are considered

absent from the site. It is considered that the development would have negligible impact on other such protected and notable species.

Impact assessment summary

- 4.17. In summary, in the absence of measures to avoid, mitigate, or compensate for impacts, it is concluded that the development would have the potential for disturbance or harm to breeding birds and would result in a decline in biodiversity at site level.
- 4.18. The following section sets out the measures that will be followed to address these impacts.

5. Species Mitigation Strategy

Introduction

- 5.1. This section sets out the measures that will be implemented to ensure that the impacts identified in the previous section are fully addressed through the mitigation hierarchy. This strategy has been developed through discussions with the project delivery team during the design process.

Mitigation

Habitats and vegetation

- 5.2. It is understood that the development proposals include the planting of four new native species trees along the site boundary adjacent to Fobney Street.
- 5.3. It is also understood that new pollinator-friendly native species shrubs and herbaceous plant, will be included in the landscape planting scheme in order to diversify the existing vegetation within the south-east corner of the site; these will replace some of the non-native shrubs currently growing here and thus be more beneficial to local wildlife.

Breeding birds

- 5.4. Birds are legally protected during the nesting/breeding season (March to September inclusive); consideration therefore needs to be given regarding any impacts to birds and/or active nests, if present, that may arise from works conducted during this period.
- 5.5. Ideally works should take place outside of the nesting/breeding season unless this is not possible for operational or public safety reasons. Where the latter is the case, a suitably experienced ecologist must undertake a nest check, no earlier than 24-hours ahead of works commencing, to ensure that there are no nesting or breeding birds within the proposed work area. It should be noted that birds frequently nest outside of the optimum period, particularly during spells of milder weather; it should never be assumed that works can always take place outside of the optimum nesting season without prior investigation.

- 5.6. If it is necessary to conduct nest checks and any active nests are confirmed within the extent of vegetation scheduled for removal, such works will be postponed and a 5m radius buffer will be put in place surrounding such nest (or nests). Works will not be able to continue until it has been confirmed by a suitably experienced ecologist that any active nests are no longer in use, i.e., chicks have fully fledged.

6. Biodiversity Net Gain Assessment

Method

- 6.1. The Biodiversity Metric compares the existing extent and condition of the habitats against the proposed development. GIS was used to measure the extents of the existing habitats as mapped by the habitat survey (see map in Appendix 4). The survey work was designed to enable the condition of the various habitat parcels to be assessed in line with the condition scoring set out in the metric. For the purposes of the assessment, a habitat parcel is a contiguous area of habitat of the same type and condition. These results give a value for the existing 'biodiversity units' that the site currently provides.
- 6.2. Following this, the habitats that would be created on the site as a result of the development proposals were mapped out. This map is shown in Appendix 5, based on the proposed site plan in Appendix 1. Based on the likely success of the implementation of the establishment and long-term management, a condition score was determined for the new and retained post-development habitats.
- 6.3. Where this assessment identified that the development would result in a net loss of biodiversity, further discussion was had with the applicant to identify additional opportunities for off-site biodiversity enhancements. These discussions have informed the final site layout and landscaping.
- 6.4. Further modifiers are applied based on factors such as the time taken to achieve the proposed condition, and whether there would be any delay or early delivery of these.
- 6.5. The BNG assessment is based on UKHab habitat types (Butcher et al, 2020). The existing and proposed habitats have been mapped according to UKHab symbology to allow more consistent data analysis for the BNG Metric.

Exclusions

- 6.6. Natural England has provided guidance on sites and situations where the requirements for delivering 10% net gain can be excluded. This sets out that where impacts are temporary only, or where the development only affects

hardstanding or similar habitats of negligible biodiversity value, there is no requirement to deliver BNG.

- 6.7. Sites that are less than 25 metres squared in area (i.e., $25 \times 25 = 625\text{sqm}$), there is no requirement for BNG. However, the boundary for this development encompasses an area of 765sqm and therefore is not excluded from the BNG requirements.
- 6.8. In terms of site area, for sites of less than a hectare, the 'small sites' metric can be used, if there is no requirement for any off-site compensation. For this development, the small sites metric was initially used. However, as will be discussed below, there is likely to be a requirement for off-site compensation and therefore the full metric was run and this is presented instead.

Habitat classification and condition scoring

- 6.9. Table 1, below, shows the condition scoring for the urban trees at the site. Condition scoring of introduced shrub habitats is not applicable. The formal BNG spreadsheet (Metric v4.0) is provided separately.

Table 1 On-site urban trees current condition score

Condition Assessment Criteria		Current Condition
1	Trees are native species (or at least 70% within the block are native species).	Fail – 50/50 split of native and non-native species (Ash and Locust tree)
2	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).	Pass – automatic pass for individual trees.
3	Trees are mature (or more than 50% within the block are mature).	Fail – less than 50% of tree specimens are mature.
4	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.	Pass – trees appear to be in good condition with no evidence of adverse impacts on health from human activities. Although it is likely that a regular pruning regime would be in place due to the urban environment, they do appear to retain the majority of expected canopy.
5	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	Fail – no such features observed on any of the three trees.
6	More than 20% of the tree canopy area is oversailing vegetation beneath.	Pass – although the Locust tree canopies do not oversail vegetation, the Ash tree does so and has a canopy large enough that it would account for more than 20% of the total tree canopy area.
Condition Assessment Result		Condition Assessment Score
Passes 5 or 6 criteria		Good (3) /
Passes 3 or 4 criteria		Moderate (2) Moderate – passes three criteria
Passes 2 or fewer criteria		Poor (1) /

Development site habitat changes

- 6.10. The majority of the site will be developed as building or hardstanding.
- 6.11. Two small trees within the site will be permanently lost as a result of the development, and the amenity shrub to the eastern corner will be removed, although part of this area will be replanted with a diverse mix of low-level planting. The existing Ash tree will be retained, and four new small trees planted along the southern boundary within the amenity shrub planting.
- 6.12. Figure 1 below shows the proposed landscape design principles.

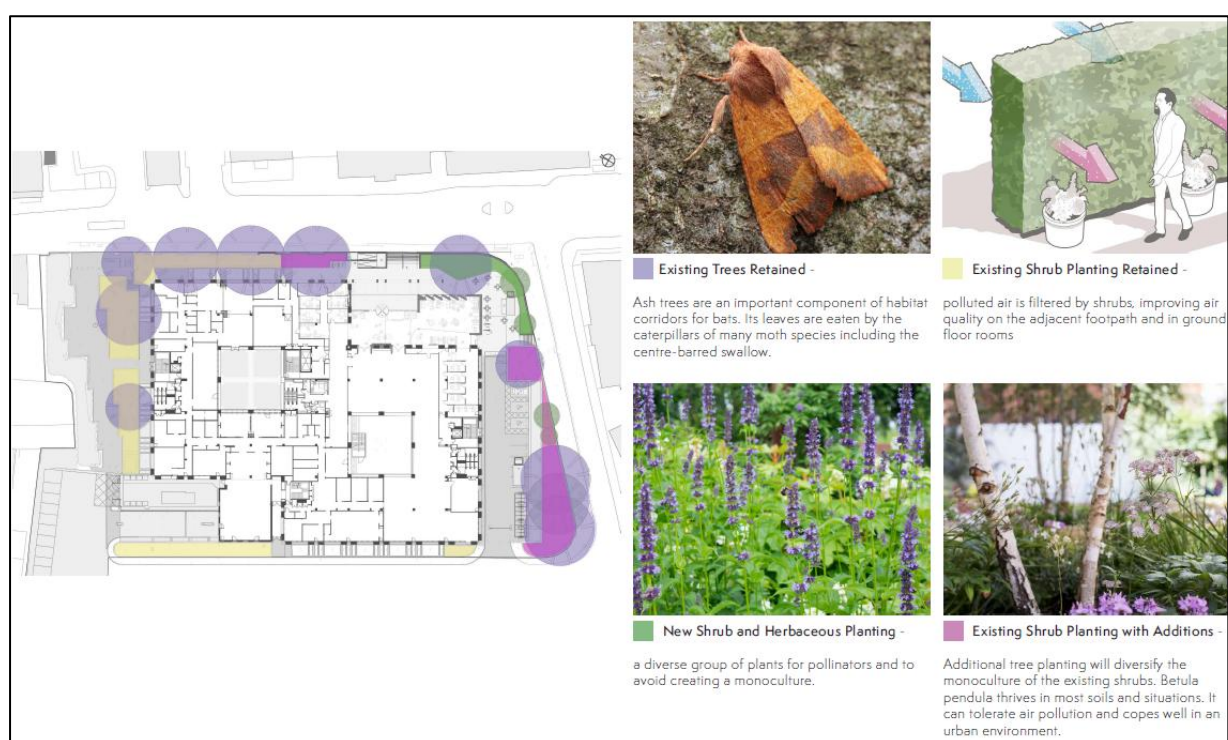


Figure 1 Landscape Design Principles

- 6.13. Table 2 shows the area-based habitat units at the development site as existing, while Table 3 shows the post-development area-based habitat units.
- 6.14. Overall, as currently proposed, the development would result in a net loss of 13.11% of area-based biodiversity units. When the four new trees along the Fobney Road frontage are considered, the development would only result in a 6.8% net loss. A detailed breakdown of these can be seen in the accompanying Excel spreadsheet.

Table 2 Existing biodiversity value

Broad habitat	Habitat type	Area (ha)	Distinctiveness	Condition	Total habitat units	Area retained	Area enhanced	Baseline units retained	Baseline units enhanced	Area lost (ha)	Units lost
Urban	Developed land; sealed surface	0.0039	V. Low	N/A - Other	0	0	0	0	0	0	0
Urban	Developed land; sealed surface	0.0553	V. Low	N/A - Other	0	0	0	0	0	0.06	0
Urban	Introduced shrub	0.0173	Low	Condition Assessment N/A	0.03	0	0	0	0	0.02	0.03
Urban	Urban Tree	0.0448	Moderate	Moderate	0.36	0.0366	0	0.29	0	0.01	0.07
Totals		0.0765ha	<i>(area <u>excluding</u> urban trees)</i>		0.39	0.0366ha	0ha	0.29	0	0.08ha	0.1

Table 3 Target proposed biodiversity value (Habitats to be created)

Broad Habitat	Proposed habitat	Area (ha)	Distinctiveness	Proposed Condition	Temporal multiplier		Difficulty multiplier		Habitat units delivered
					Time to target condition (yr.)	Final time to target multiplier	Final difficulty of creation	Difficulty multiplier applied	
Urban	Developed land; sealed surface	0.0374	V. Low	N/A - Other	0	1.000	Medium	0.67	0.00
Urban	Developed land; sealed surface	0.0267	V. Low	N/A - Other	0	1.000	Medium	0.67	0.00
Urban	Introduced shrub	0.0124	Low	Condition Assessment N/A	1	0.965	Low	1	0.02
Urban	Urban Tree	0.0081	Medium	Moderate	27	0.382	Low	1	0.02
Totals		0.0765ha	<i>(area <u>excluding</u> urban trees)</i>						0.05

(Note – any minor discrepancies in this table are due to rounding in the Excel spreadsheet. Please see the spreadsheet for more detail)

Trading

- 6.15. One of the key ‘rules’ of the assessment is that ‘trading down’ must be avoided – i.e. losses of habitat are to be compensated for on a ‘like for like’ or ‘like for better’ basis. New or restored habitats should aim to achieve a higher distinctiveness and/or condition than those lost.
- 6.16. Broadly speaking, there are two key elements to the trading:
- There must be no overall loss of extent of habitats of high distinctiveness.
 - If habitats of medium distinctiveness are lost, this needs to be addressed by creating new habitat of the same broad habitat type (e.g., replace the loss of one type of scrub with another), *or* of habitat of a higher distinctiveness (e.g. replace medium-distinctiveness scrub with high-distinctiveness acid grassland).
 - There can be trade-offs that allow increases in high distinctiveness habitat to offset reductions in medium distinctiveness habitats.
- 6.17. At the proposed site, the trading rules are not currently satisfied due to the overall reduction in habitat value.

Recommendations

- 6.18. Given the small size of the site and the nature of the proposed development, it appears challenging to introduce further elements of biodiversity gain within the redline boundary. It is therefore recommended that the applicant works with the Reading Borough Council tree team to identify and fund the provision of six new street trees in an appropriate location within Reading.
- 6.19. The provision of a further six off-site trees would result in the development delivering a net gain of 12.18% and allowing the development to meet the trading rules. The associated BNG spreadsheet reflects this recommendation.

7. Conclusions

- 7.1. The Ecological Appraisal at Reading Civic Centre identified that overall the site supports habitats of low ecological value.
- 7.2. The survey found no evidence that the site supports bats, Badger, Hazel Dormouse, Otter, Water Vole, reptiles or amphibians, or notable invertebrates. The affected areas of the building and the trees offer negligible bat roost suitability.
- 7.3. There is potential for the site to support breeding or nesting birds and development proposals may have the potential to result in harm (including injury or death) or disturbance to birds, or disturbance or damage to active nests. Recommendations are made to avoid such impacts.
- 7.4. There are no recommendations for further survey work.
- 7.5. With no additional off-site biodiversity measures, the development would result in a net loss of 13.11%. With the four new trees along the Fobney Road frontage, there would only be a 6.8% net loss. It is recommended that a further six new trees are planted in off-site areas within Reading Borough, which would ensure that overall, the development delivered a gain of 12.18%.
- 7.6. Provided these measures are followed, it is concluded that the development will have no adverse impacts on biodiversity and will deliver biodiversity gains in accordance with policy.
- 7.7. Unless otherwise advised, the findings and recommendations in this report are solely based on the plans and brief provided to HCCET. The results and findings are valid for two years from the date of the initial field survey. HCCET should be contacted if this report is to be used after this period to check if any updating work needs to be undertaken.

References

- Chartered Institute of Ecology and Environmental Management (CIEEM). (2013), *Guidelines for Preliminary Ecological Appraisal*. CIEEM; Winchester.
- Collins, J. (ed.) (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn). Bat Conservation Trust; London.
- Institute for Environmental Assessment (IEA). (1995) *Guidelines for Baseline Ecological Assessment*. IEMA, Lincoln.
- Gilbert, G., Gibbons, D. W., and Evans, J. (2012) *Bird Monitoring Methods*. Pelagic Publishing, Exeter.
- JNCC (2010) *Handbook for Phase 1 habitat survey – a technique for environmental audit*. JNCC, Peterborough
- MHCLG, (2021). *National Planning Policy Framework*. Ministry of Housing, Communities and Local Government; London.
- Stace, C. (2010) *New Flora of the British Isles*. 3rd edition, Cambridge University Press, Cambridge.

Appendix 1 – Plans and Figures

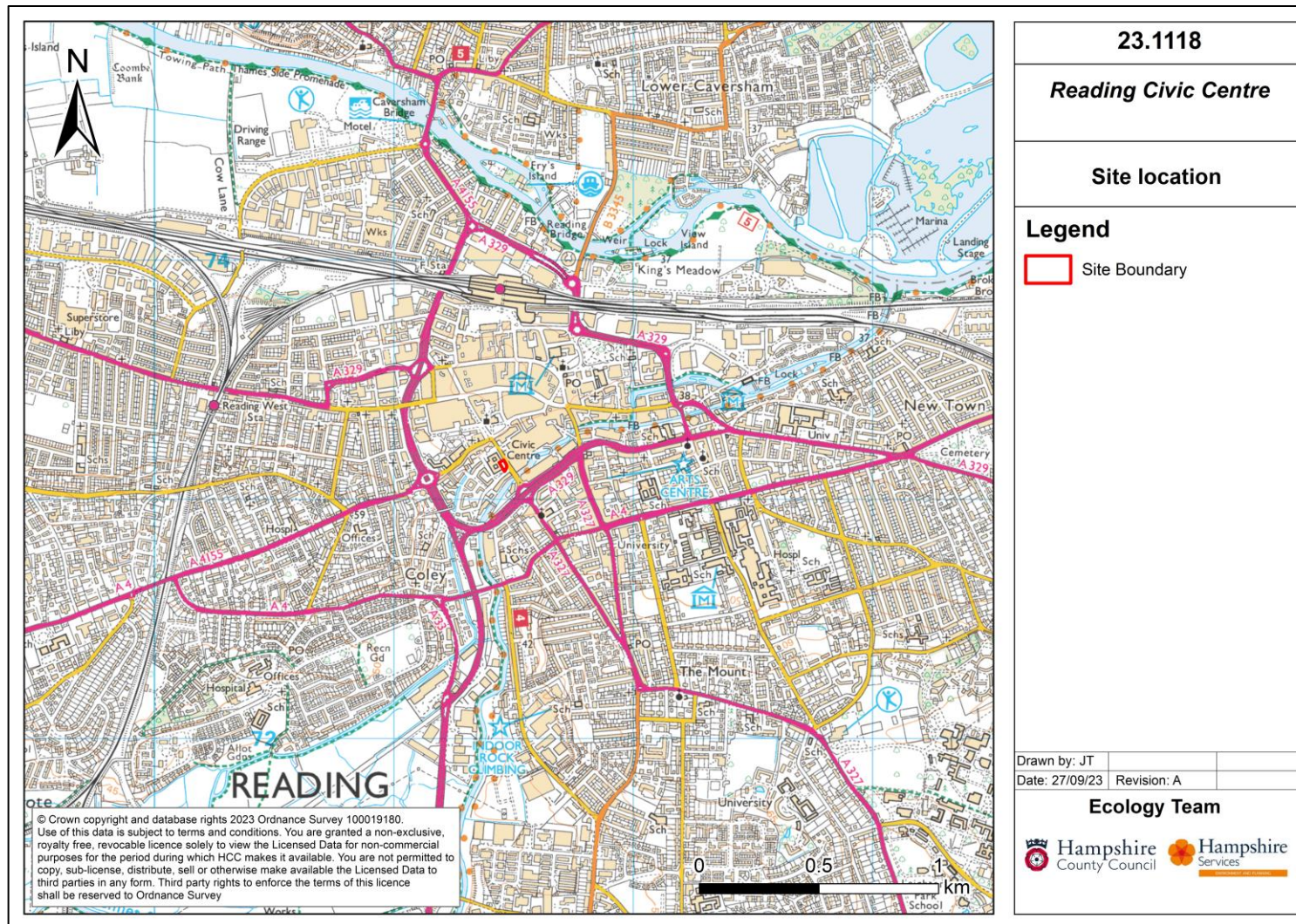


Figure A1.1 Site Location

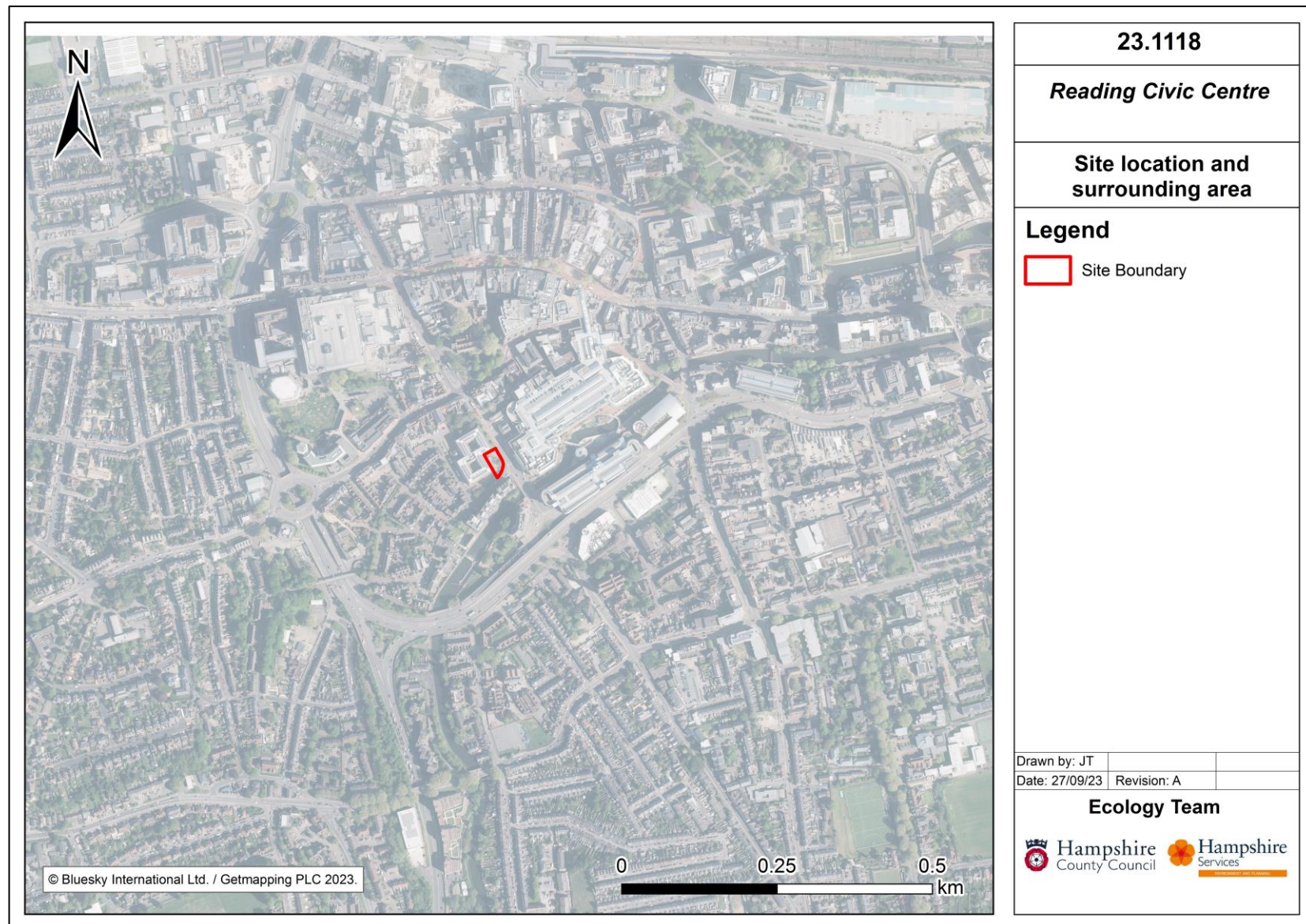


Figure A1.2 Aerial image of site and surrounding / wider landscape.

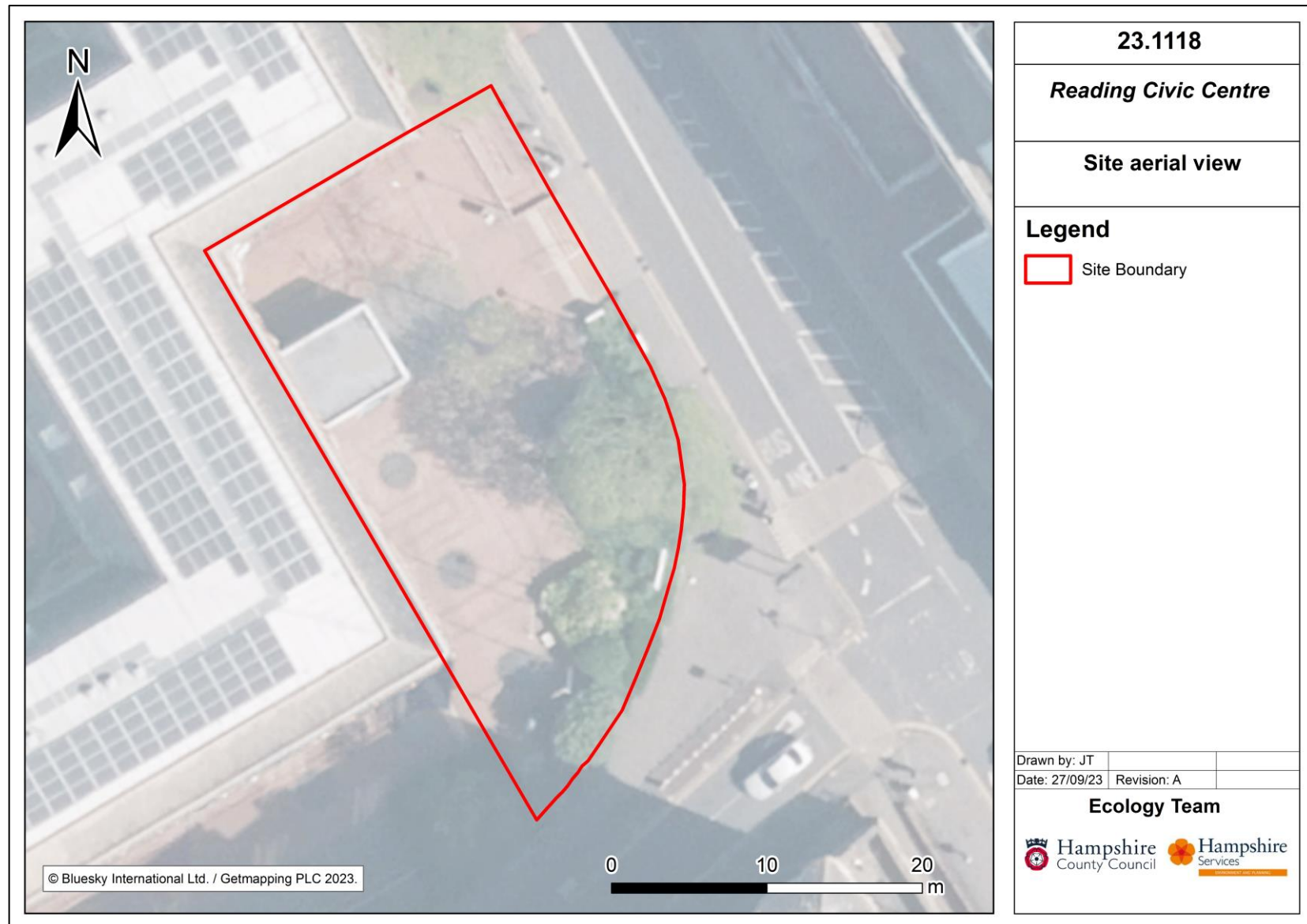


Figure A1.3 Aerial image of site.

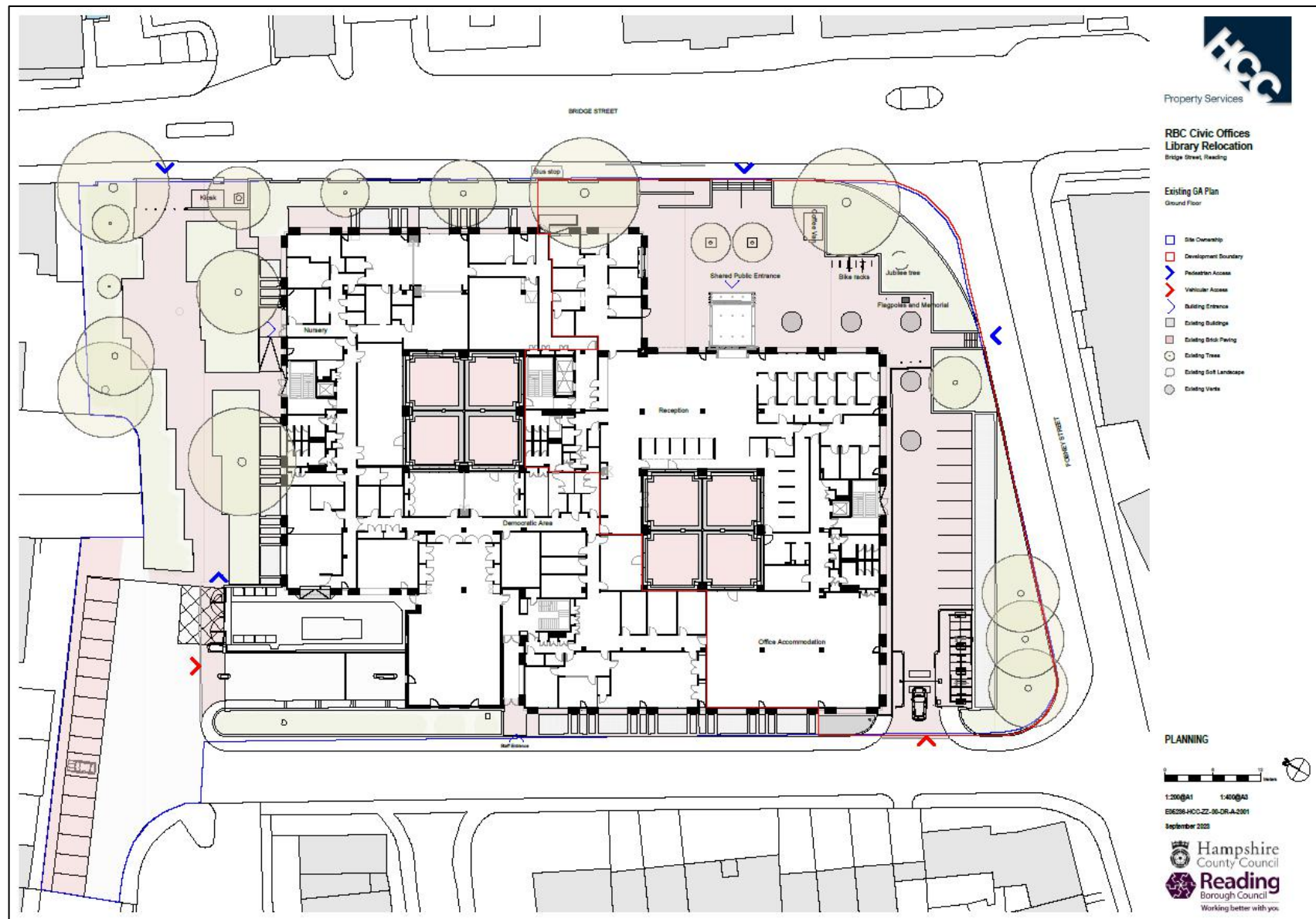


Figure A1.4 Existing site plan – ground floor (2023).

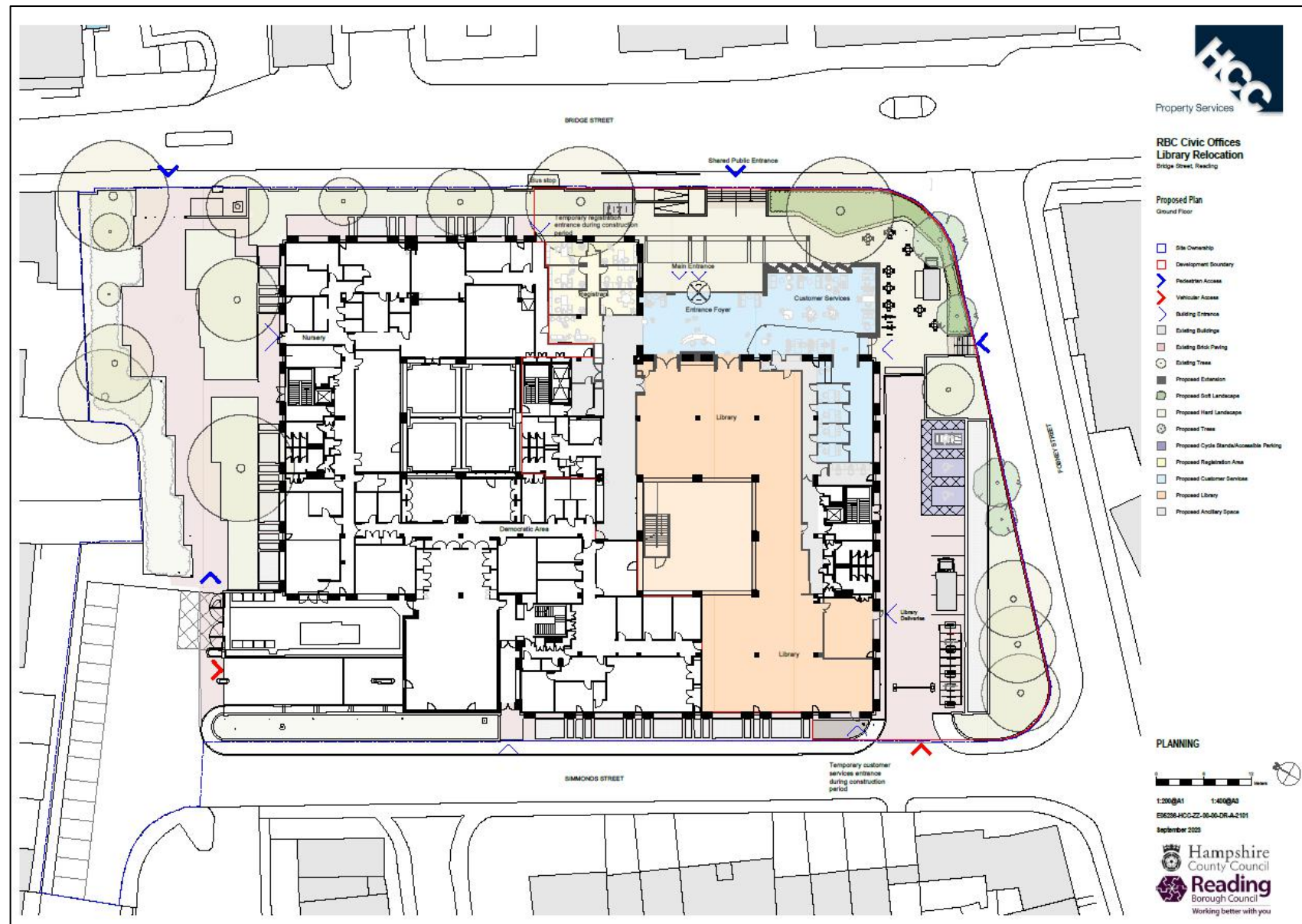
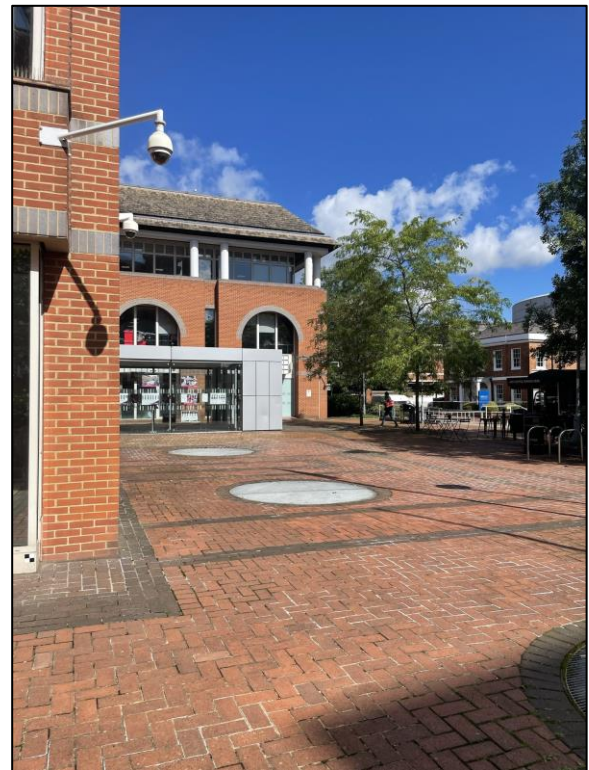


Figure A1.5 Proposed site plan

Appendix 2 – Photos



Photos 1 to 4 Views of the existing courtyard and entrance foyer of Reading Civic Centre.

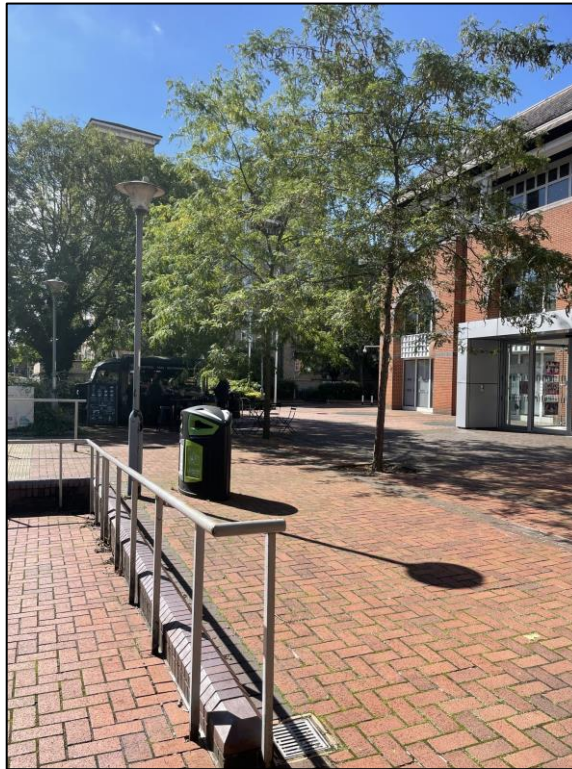
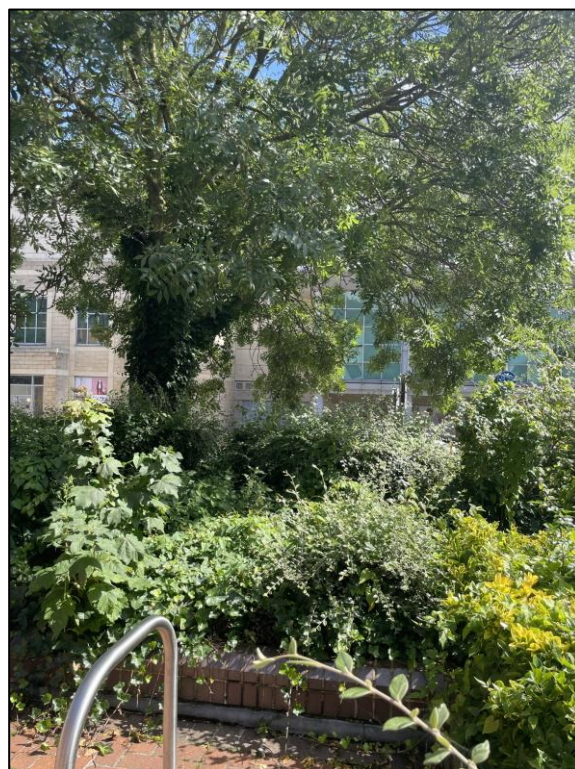


Photo 5 *Locust trees within courtyard approach to entrance foyer and ramp access from Bridge Street.*



Photos 6 and 7 *Views from Fobney Street of planting along the south-east corner of the site; the street side of the planted area is dominated by Cherry Laurel.*



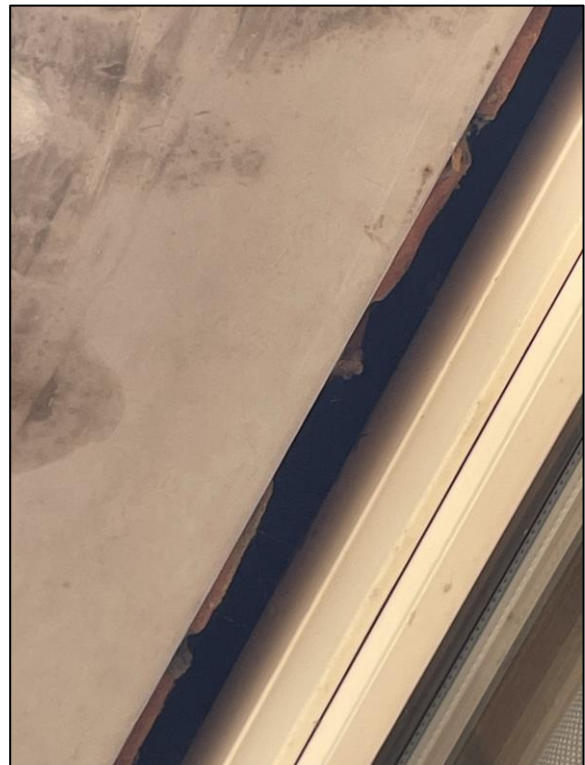
Photos 8 and 9 View looking south over planted area and bicycle park along the Bridge Road side of the courtyard.



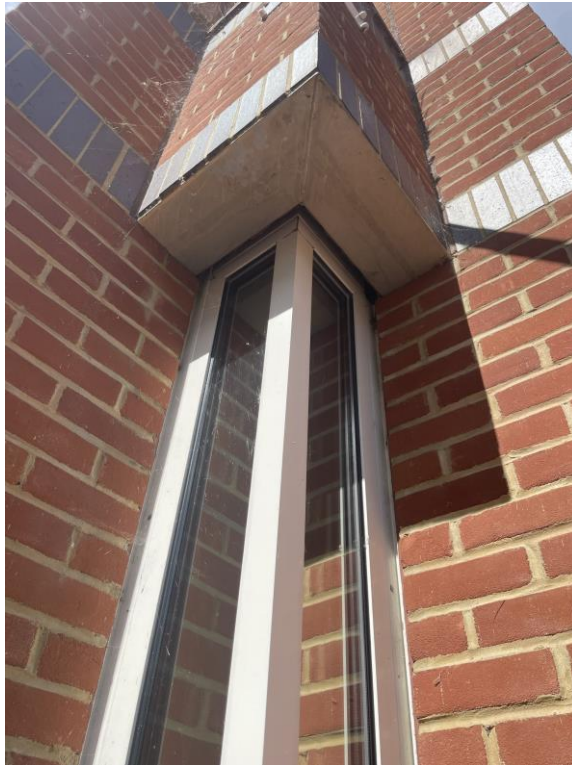
Photos 10 and 11 Further views of planting bordering the south-east corner of the courtyard; structural and species diversity on the courtyard side of the planted area is noticeably greater than that on the Bridge Street and Fobney Street sides.



Photos 12 and 13 Views of the mature Ash at northern end of the planted area.



Photos 14 and 15 Views typical of horizontal top edge of windows to the south-east corner of the Civic Centre building.



Photos 16 to 17 Further view of gaps around top horizontal edges of windows; such gaps did not appear to be very deep or to lead to cavities; they were also large enough that it is considered unlikely they would be provide PRFs for crevice dwelling bats.

Appendix 3 – Desk-Based Assessment Findings

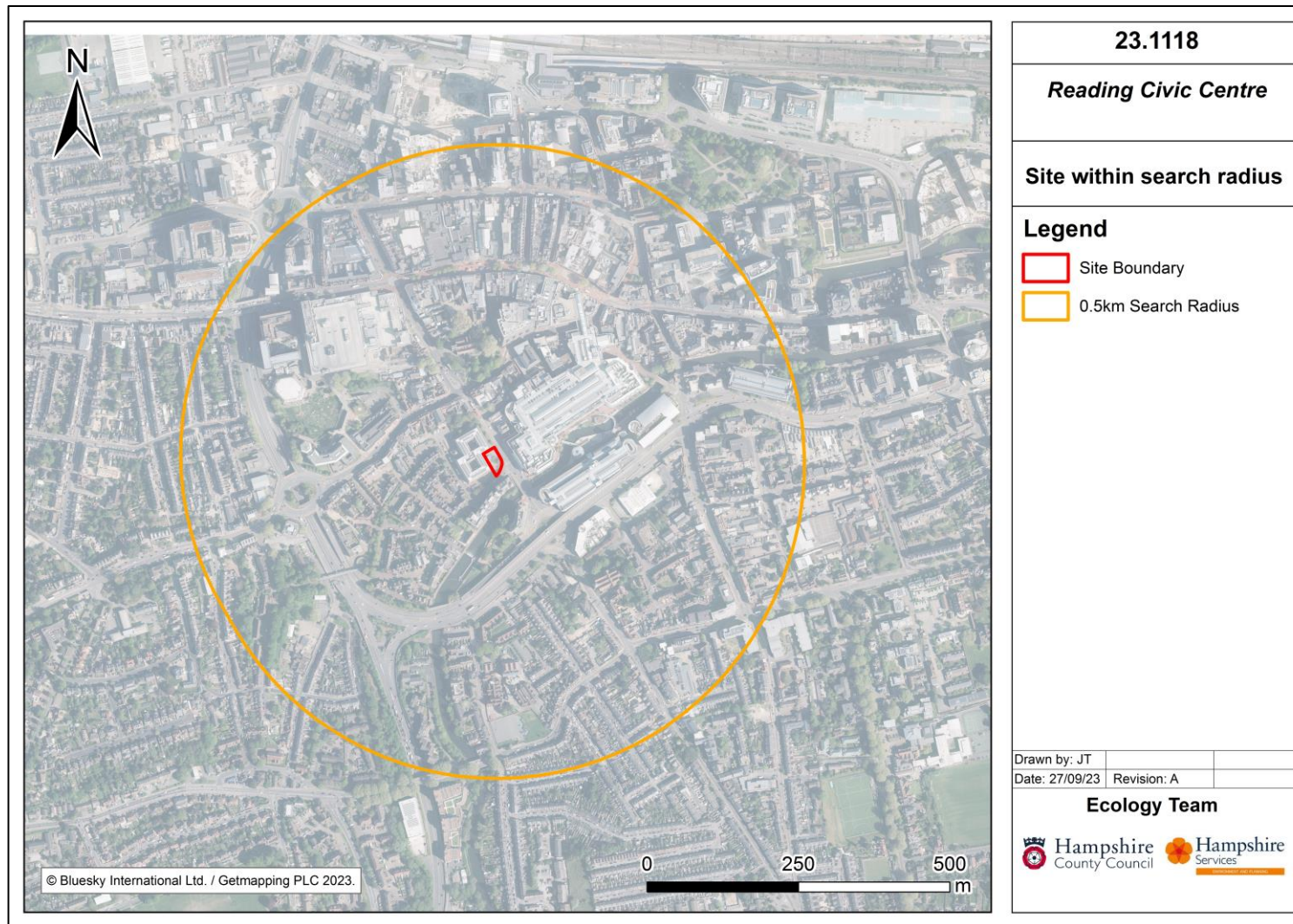


Figure A3.1 Map showing absence of designated sites within the site, and within or close to the search radius boundary.

Appendix 4 – Field Survey Results

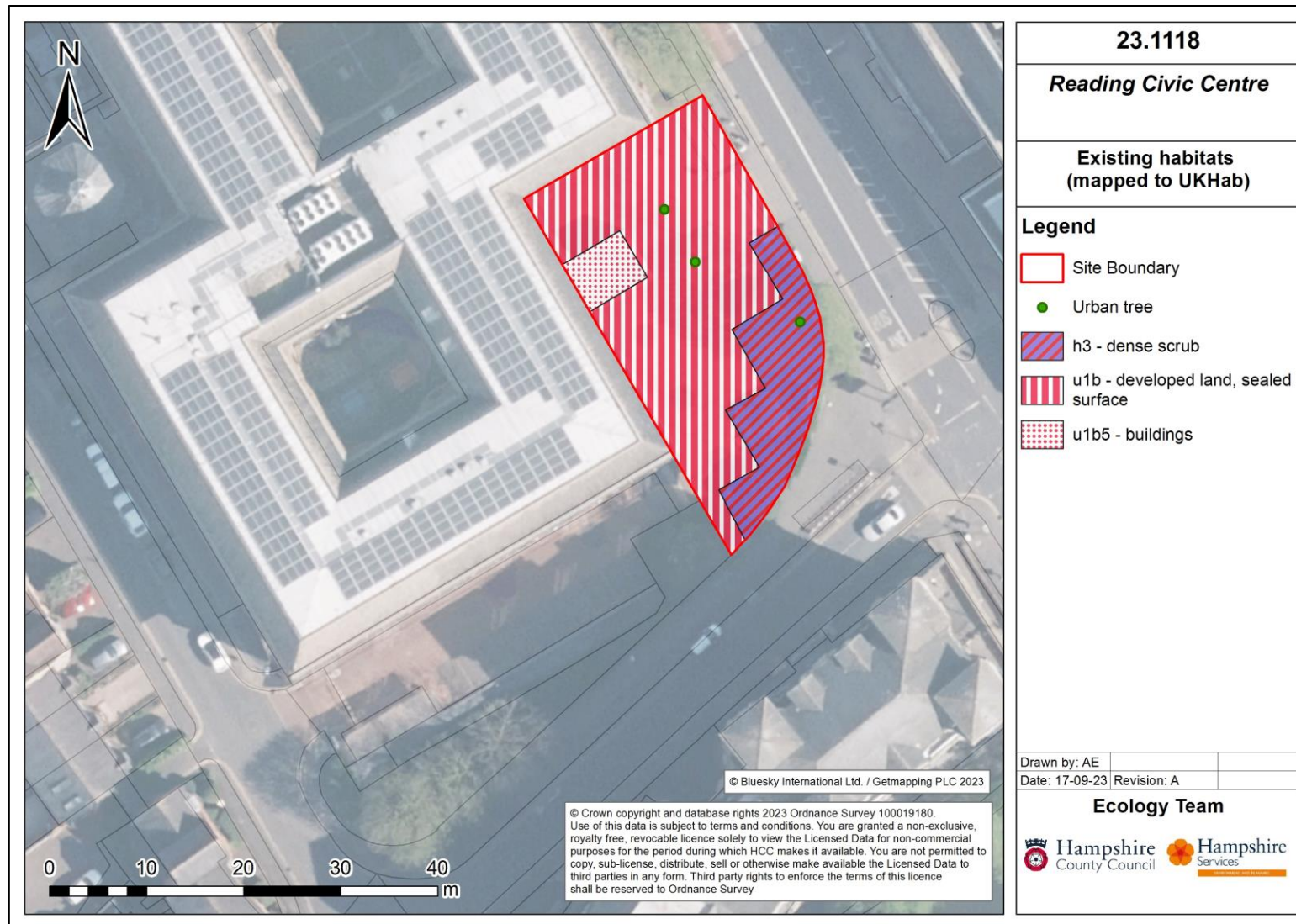


Figure A4.1 Habitat Survey map

Appendix 5 – Proposed Habitats

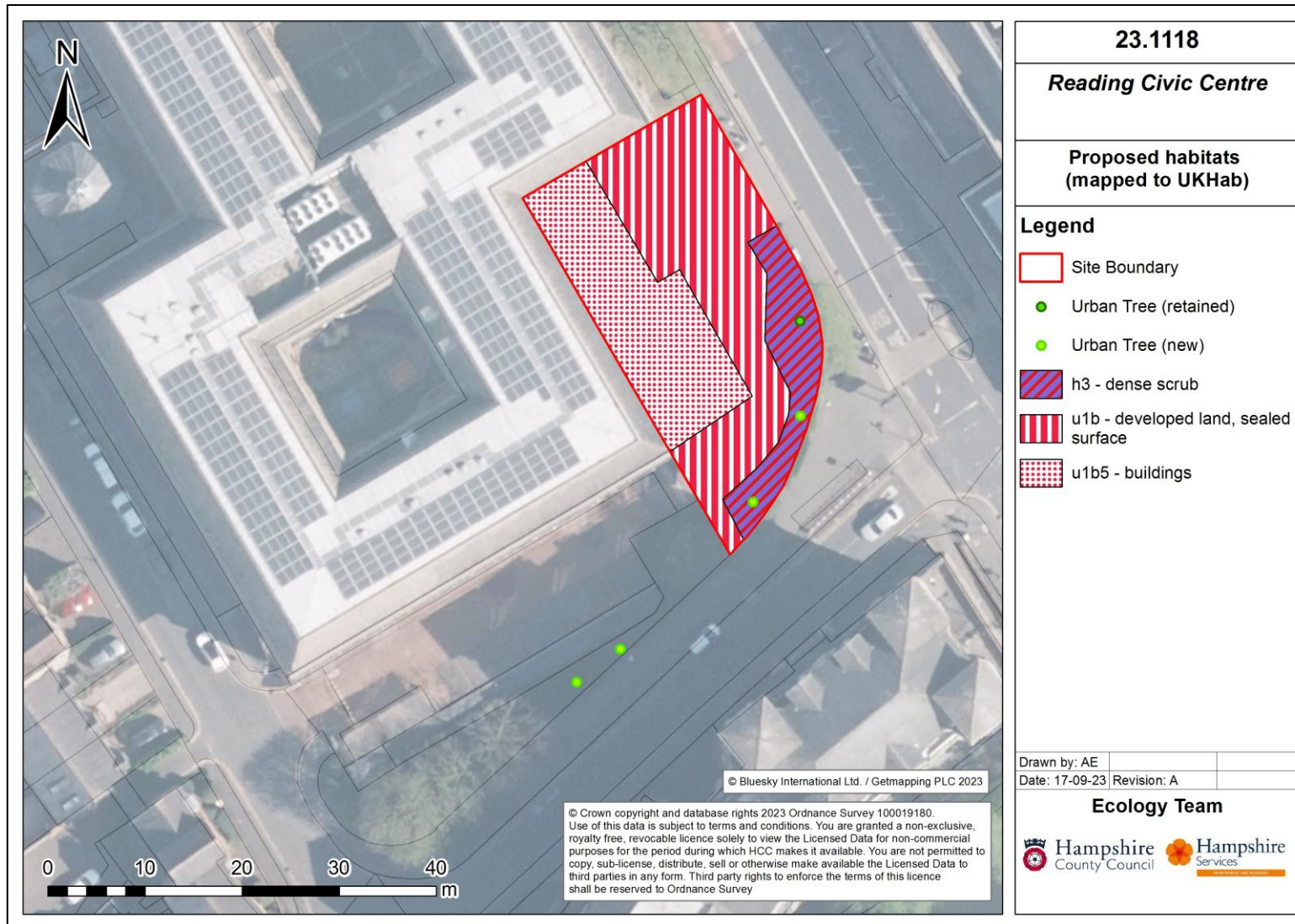


Figure A4.1 Proposed Site Plan - Phase 1 Habitats

Appendix 6 – Assessment Criteria

Table A6.1 Bat roost and activity habitat suitability criteria

Suitability	Roosting habitat	Habitat for foraging, commuting and other activity
<i>Negligible</i>	Negligible habitat features on site likely to be used by bats	Negligible habitat features on site likely to be used by bats
<i>Low</i>	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain Potential Roost Features (PRFs) but with none seen from the ground or features seen with only very limited roost potential.	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
<i>Moderate</i>	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
<i>High</i>	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland

Table A6.2 Protected Species Grading Criteria

Grading Criteria	Justification
<i>Confirmed Presence</i>	Species confirmed on site through direct sighting, presence of field signs (e.g. scat, hair, prints, nest, eggs, habitation etc.) or through desk-based assessment.
<i>High Potential</i>	Presence of optimal habitat features for species. Surveyed site within known range/close to known occurrence. Excellent connectivity to optimal habitat. No justification for discounting presence of species.
<i>Moderate Potential</i>	Presence of some suitable habitat features for species. Surveyed site within/close to known range or known occurrence but factors such as isolation/fragmentation may reduce potential. Presence of species is more likely than not.
<i>Low Potential</i>	Minimal suitable habitat present or, if present, highly degraded/fragmented. Minimal linkage to suitable habitat beyond site. Presence of species unlikely.
<i>Negligible Potential</i>	Site is entirely unsuitable for species. Presence of species highly unlikely.