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**Client:** S2 Castle Street Limited

**Site:** Flint Street, Castle Street, Reading

**Technical Note:** Biodiversity Net Gain Assessment

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## Introduction

1. Red Ecology was instructed in June 2025 by S2 Castle Street Limited to undertake a Biodiversity Net Gain (BNG) Assessment of a parcel of land at Flint Street, Castle Street, Reading.
2. Comprising an area of approximately 0.63ha, the site is located in Reading city centre, with the immediate surroundings comprising the A329 to the west, and areas of residential development in the wider area.
3. The description of proposed development is as follows:  
  
**Full planning permission for the demolition of the existing building and the erection of a residential-led mixed-use development comprising Use Class C3 residential units, with Use Class E and Sui Generis on the ground floor and with some elements at lower ground floor, plus public realm, hard and soft landscaping, access and servicing arrangements, cycle parking, and other associated works.**
4. This assessment is informed by a habitat survey undertaken according to UKHab methodology by Red Ecology on 3 June 2025. For further details of the habitat survey, see the accompanying Ecological Assessment.
5. This note draws on the information provided by the proposed site plan produced by Exterior Architecture Limited, included at Appendix 1, and the Metric Calculation Tool. The full Excel file is provided separately, and forms Appendix 2 to this document.

## Approach to Assessment

6. The assessment has been completed using the Statutory Metric (version 23/07/24) following mapping of habitats in QGIS.

## Target Net Gain

7. The target net gain is 10%, in line with the requirements of the Environment Act 2021. The site does not qualify for an exemption under The Biodiversity Gain Requirements (Exemptions) Regulations 2024.

## BNG Baseline

8. This section sets out the condition assessment and BNG baseline. The assessment considers Habitat Units.

### Area Habitats

#### *Developed Land; Sealed Surface*

|                                       |                                |
|---------------------------------------|--------------------------------|
| <b>Habitat</b>                        | Developed Land; Sealed Surface |
| <b>Broad Habitat</b>                  | Urban                          |
| <b>Distinctiveness</b>                | N/A                            |
| <b>Condition Assessment</b>           | N/A                            |
| <b>Baseline Habitat Units</b>         | 0.00                           |
| <b>Post Development Habitat Units</b> | 0 retained                     |

#### *Built Linear Features*

|                                       |                       |
|---------------------------------------|-----------------------|
| <b>Habitat</b>                        | Built Linear Features |
| <b>Broad Habitat</b>                  | Urban                 |
| <b>Distinctiveness</b>                | N/A                   |
| <b>Condition Assessment</b>           | N/A                   |
| <b>Baseline Habitat Units</b>         | 0.00                  |
| <b>Post Development Habitat Units</b> | 0 retained            |

#### *Modified Grassland*

|                                       |                         |
|---------------------------------------|-------------------------|
| <b>Habitat</b>                        | Modified Grassland      |
| <b>Broad Habitat</b>                  | Grassland               |
| <b>Distinctiveness</b>                | Low                     |
| <b>Condition Assessment</b>           | Poor                    |
| <b>Baseline Habitat Units</b>         | 0.19                    |
| <b>Post Development Habitat Units</b> | 0 retained<br>0.19 lost |

| <b>Condition Assessment Criteria</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Passed (Yes/No)</b> |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| A                                    | There are 6-8 vascular plant species per m <sup>2</sup> present, including at least 2 forbs (these may include those listed in Footnote 1). Note - this criterion is essential for achieving Moderate or Good condition.<br><br>Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m2 (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet. | No                     |
| B                                    | Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | No                     |
| C                                    | Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as Bramble <i>Rubus fruticosus</i> agg. may be present).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Yes                    |

| Condition Assessment Criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                         | Passed (Yes/No)                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.                                                                                                                                  |                                                          |
| D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities. | No                                                       |
| E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens) <sup>2</sup> .                                                                                                                   | Yes                                                      |
| F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.                                                                                                                                                                                           | Yes                                                      |
| G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | There is an absence of invasive non-native plant species <sup>3</sup> (as listed on Schedule 9 of WCA <sup>4</sup> ).                                                                                                                                   | Yes                                                      |
| <b>Condition</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                         | Moderate<br>(4/7 criteria passed, excluding criterion A) |
| <sup>1</sup> Creeping Thistle <i>Cirsium arvense</i> , Spear Thistle <i>Cirsium vulgare</i> , Curled Dock <i>Rumex crispus</i> , Broad-leaved Dock <i>Rumex obtusifolius</i> , Common Nettle <i>Urtica dioica</i> , Creeping Buttercup <i>Ranunculus repens</i> , Greater Plantain <i>Plantago major</i> , White Clover <i>Trifolium repens</i> and Cow Parsley <i>Anthriscus sylvestris</i> .<br><sup>2</sup> For example, this could include small, scattered areas of bare ground allowing establishment of new species, or localised patches where not exceeding 10% cover.<br><sup>3</sup> Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels, accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.<br><sup>4</sup> Wildlife and Countryside Act 1981 (as amended). |                                                                                                                                                                                                                                                         |                                                          |

### Introduced Shrub

|                                       |                            |
|---------------------------------------|----------------------------|
| <b>Habitat</b>                        | <i>Introduced shrub</i>    |
| <b>Broad Habitat</b>                  | Urban                      |
| <b>Distinctiveness</b>                | Very low                   |
| <b>Condition Assessment</b>           | N/A                        |
| <b>Baseline Habitat Units</b>         | 0.11                       |
| <b>Post Development Habitat Units</b> | 0.00 retained<br>0.11 lost |

### Individual Trees

9. Individual trees of Good, Moderate and Poor condition are present on site, some of which will be retained. The condition assessment for each individual tree is not included here but could be provided on request if necessary.

|                                       |                                                                |
|---------------------------------------|----------------------------------------------------------------|
| <b>Habitat</b>                        | Individual Trees                                               |
| <b>Broad Habitat</b>                  | Rural Trees                                                    |
| <b>Distinctiveness</b>                | Medium                                                         |
| <b>Condition Assessment</b>           | Good / Moderate / Poor                                         |
| <b>Baseline Habitat Units</b>         | 2.09 units<br>1.03 (Good) / 1.04 (Moderate) / 0.02 (Poor)      |
| <b>Post Development Habitat Units</b> | 1.55 retained (1.03 Good / 0.52 Moderate)<br>(0.54 units lost) |

## Habitat Creation

10. New landscaping will be provided as part of the proposals, as shown at Appendix 1.

### Area Habitats

| Created Habitat                           | Distinctiveness | Target Condition | Units | Notes                          |
|-------------------------------------------|-----------------|------------------|-------|--------------------------------|
| Developed Land; Sealed Surface            | Very Low        | N/A              | 0.00  |                                |
| Artificial, Unvegetated, Unsealed Surface | Very Low        | N/A              | 0.00  |                                |
| Ground Level Planters                     | Low             | N/A              | 0.00  |                                |
| Introduced Shrub                          | Low             | Poor             | 0.24  |                                |
| Urban Tree                                | Medium          | Moderate         | 0.83  | 67 newly planted, small trees. |
| Biodiverse Green Roof                     | Low             | N/A              | 0.11  |                                |

## BNG Summary

11. The table below summarises the results of the assessment.

|                                      |                      |                |
|--------------------------------------|----------------------|----------------|
| <b>On-site Baseline</b>              | Habitat Units        | 2.39           |
| <b>On-site Post-development</b>      | Habitat Units        | 2.84           |
| <b>On-site Net Unit Change</b>       | Habitat Units        | +0.45          |
| <b>On-site Net Percentage Change</b> | <b>Habitat Units</b> | <b>+19.04%</b> |

## Trading Rules

12. The trading rules are satisfied for across all habitat distinctiveness groups.

## Summary and Conclusions

13. The Biodiversity Gain Hierarchy has been applied. Existing habitats are to be retained wherever possible, with adverse effects avoided. This includes the retention of individual trees where practicable.
14. Existing individual trees will be lost, which constitute the highest value habitats on site. The individual trees are features of medium distinctiveness and therefore require compensation through habitat of equal or higher distinctiveness to satisfy trading rules.
15. Existing ornamental shrubs and areas of modified grassland will be lost. These are features of low distinctiveness and low intrinsic ecological interest.
16. New habitats are included as part of the landscape scheme, namely introduced shrubs, ground level planters and individual trees, alongside areas of developed land and artificial unvegetated, unsealed surface.
17. The proposed development will result in a net gain of +0.45 habitat units (+19.04%). The development proposals achieve the required minimum +10% Biodiversity Net Gain in accordance with current legislation. As such, the net gain will be delivered in full through the measures outlined within this report and secured via the Biodiversity Gain Plan.

18. In conclusion, the proposed development shall comply with its obligations under the Environment Act 2021 in respect of BNG.

### **Figures**

- Figure 1 Baseline Habitats
- Figure 2 Post-development Habitats

### **Appendices**

- Appendix 1 Proposed Site Plan Dwg. No. S\_02 Revision P1  
Exterior Architecture Limited
- Appendix 2 Statutory Metric Calculation Tool (provided separately)

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Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

This work has been undertaken in accordance with the quality management system of Red Ecology Limited.

The surveys and reporting detailed within this report have been undertaken by ecologists who are sufficiently experienced and competent in conducting the ecology and assessment work.

No part of this document constitutes a legal opinion.

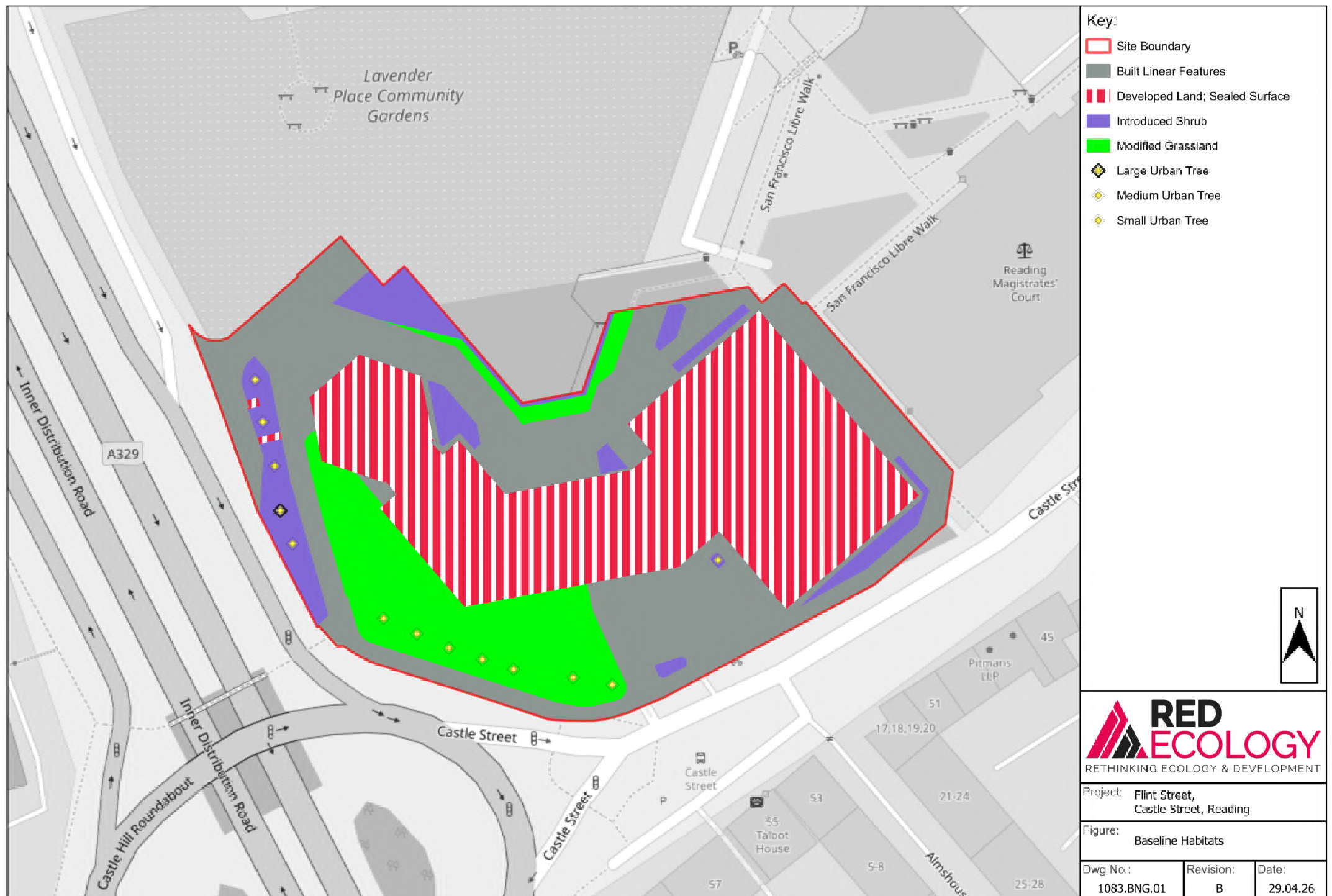
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**Figure:** 1

**Title:** Baseline Habitats

**Drawing No.:** 1083.BNG.01

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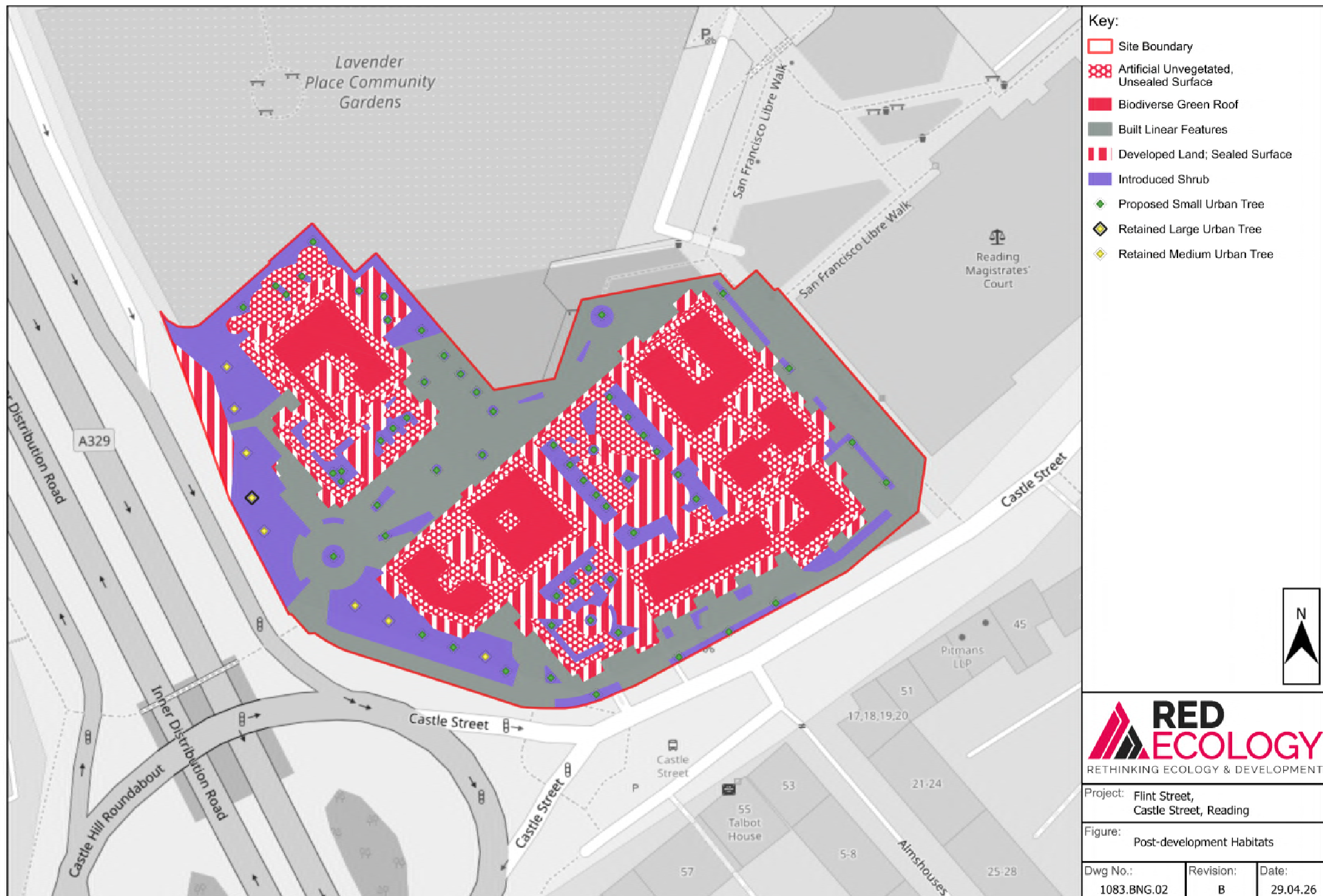
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**Figure:** 2

**Title:** Post-development Habitats

**Drawing No.:** 1083.BNG.02

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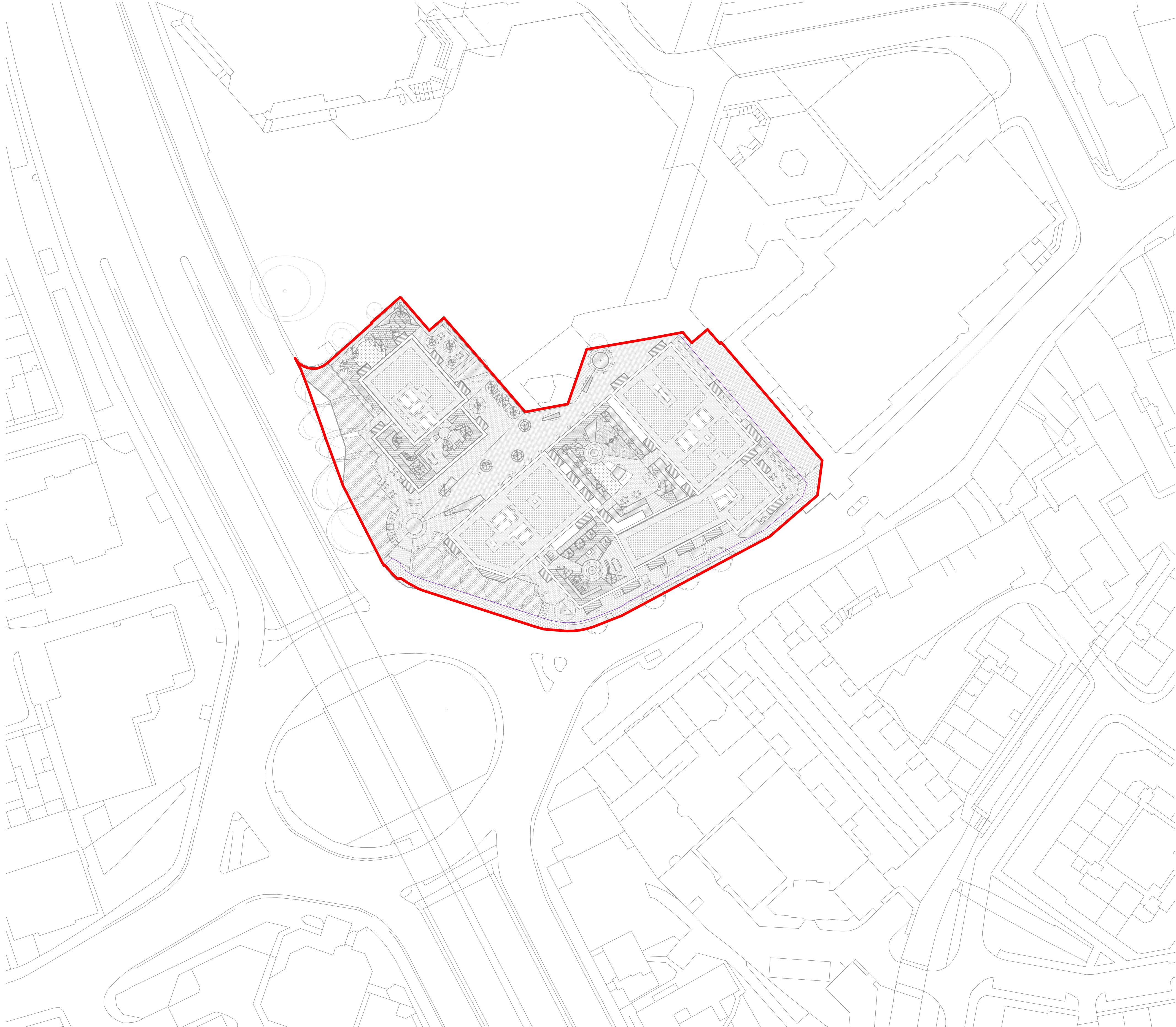
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**Appendix:** 1

**Title:** Proposed Site Plan Dwg. No. S\_02 Revision P1

**Source:** Exterior Architecture Limited

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Notes

Do not scale from this drawing.  
All contractors must visit the site and be responsible for taking and checking dimensions.  
All construction information should be taken from figured dimensions only.  
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P1 24.04.26 Planning Submission JTP DJF

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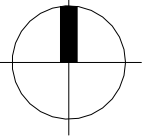
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