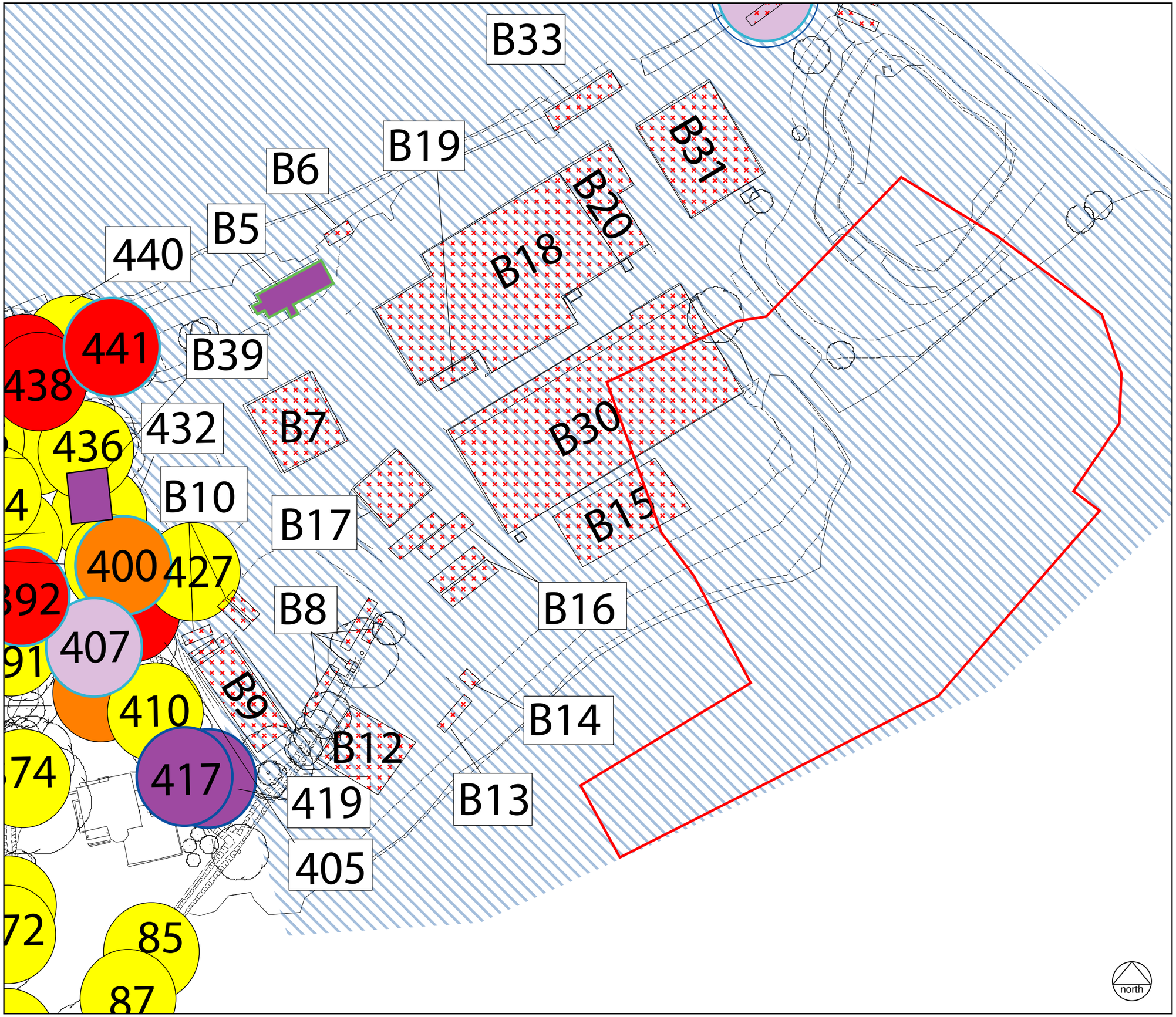

KEY

- Site boundary
- Areas of the wider site not subject to updated bat surveys in 2022*.
- Tree/building subject to emergence/ re-entry survey in 2020 by HDA
- Tree/building subject to emergence/ re-entry survey in 2020 by Stantec
- Tree/building subject to emergence/ re-entry survey in 2023 by HDA

BUILDINGS

- Confirmed bat roost
- Location of demolished building **

TREES

- Confirmed bat roost
- Possible bat roost
- High bat roosting potential
- Moderate bat roosting potential
- Low bat roosting potential

* The site was not subject to an updated Phase 1 bat scoping survey in 2022 however there are no buildings or trees within the site.

**In December 2020, planning consent (202394) was granted for the demolition of the Hogwood Industrial Estate Buildings some of which were historically associated with this site. Following which an EPS bat licence was obtained for the demolition of buildings supporting roosting bats. Since then the industrial estate buildings have been demolished, a replacement Bat Building was constructed (B39) and the site is now dominated by tall ruderal vegetation.

Roosting categories relate to roost potential in accordance with the BCT 2016 guidelines.

CLIENT:
CALA Homes Thames Ltd

PROJECT:
Hogwood Farm, Finchampstead

TITLE:
Bat Roost Survey Summary Plan: Neighbourhood Centre

SCALE AT A3:
Not to scale

DATE:
December 2024

868.1 / 115

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Ecology

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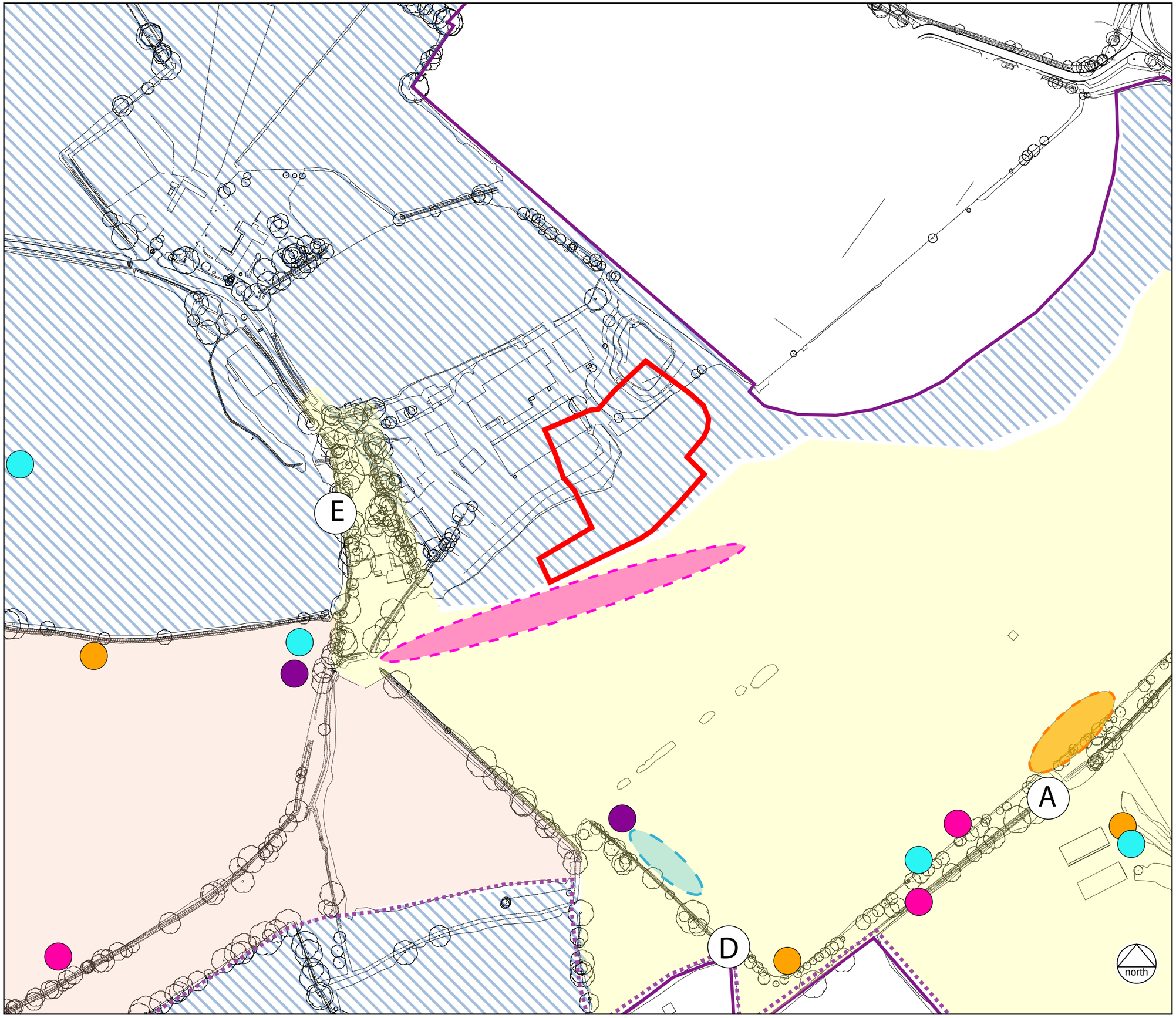
APPENDIX C

Bat Activity Survey Summary Plan – Neighbourhood Centre



KEY

- Site boundary
- Wider site boundary
- Not subject to updated survey in 2022
- (A) Automated detector location
- Transect 1
- Transect 2

Bat foraging and commuting activity

Common Pipistrelle
- Single bat pass
- Occasional bat pass/foraging
- Moderate bat foraging

Soprano Pipistrelle
- Single bat pass
- Moderate bat foraging

Noctule
- Single bat pass
- Moderate bat foraging

Brown Long-eared bat
- Single bat pass

Myotis sp. bat
- Single bat pass

CLIENT:
CALA Homes Thames Ltd

PROJECT:
Hogwood Farm, Finchampstead

TITLE:
Bat Activity Survey Summary Plan:
Neighbourhood Centre

SCALE AT A3:
Not to scale

DATE:
December 2024

868.1/116

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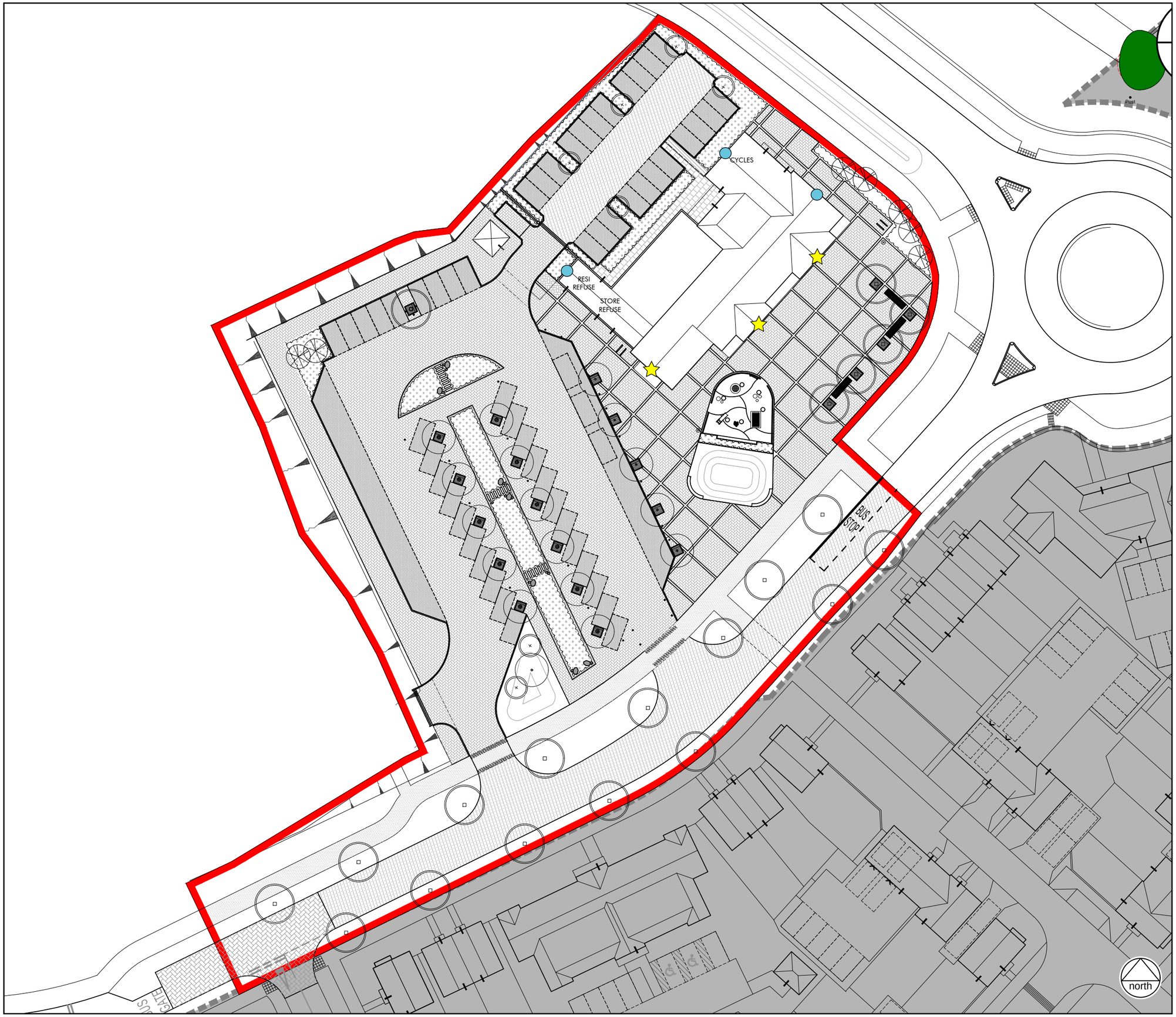
APPENDIX D

Neighbourhood Centre: Species Enhancement Plan



KEY

- Neighbourhood Centre site boundary
- Bat box location*
- Bird box location*

* Position indicative

CLIENT:
CALA Homes Thames Ltd

PROJECT:
Hogwood Farm, Finchampstead

TITLE:
Neighbourhood Centre: Species Enhancements Plan

SCALE AT A3:
NTS

DATE:
December 2024

868.1/114

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HOGWOOD FARM, FINCHAMPSTEAD

LANDSCAPE AND ECOLOGICAL MANAGEMENT PLAN – NEIGHBOURHOOD CENTRE

Prepared for CALA Homes Thames Ltd

by

Hankinson Duckett Associates

HDA ref: 868.1

December 2024

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Contents **Page**

APPENDICES

1 INTRODUCTION

1.1 Site location and summary description

1.1.1 This document provides a Landscape and Ecological Management Plan (LEMP) in relation to the Neighbourhood Centre of the development of approximately 110ha of land at Hogwood Farm, Finchampstead. The Neighbourhood Centre development area comprises approximately 0.9ha of land, hereinafter referred to as 'the site'. The site centre is located by National Grid Reference SU 77146445. The study was commissioned by CALA Homes Thames Ltd in May 2024.

1.2 Development proposals and context

1.2.1 Planning permission (O/2014/2179 and 140764) was granted in January 2017 for a hybrid application. This comprises:

- Outline permission for demolition of all existing buildings on site; up to 1,500 new dwellings; employment floor space; a Neighbourhood Centre; a primary school; sports pitches and associated pavilion building; highways infrastructure; associated landscaping, public realm, open/green space and sustainable urban drainage systems; and
- Full permission for a 29.7ha Suitable Alternative Natural Greenspace (SANG) in the south of the site.

The hybrid planning permission was subsequently amended by a Section 73 application (181194) which was approved in November 2018.

1.2.2 This Neighbourhood Centre LEMP has been prepared in response to Condition 21 of the planning consent which states:

"Prior to submission of any Reserved Matters application other than in respect to the Nine Mile Ride Extension South an outline Landscape and Ecological Management Plan shall be submitted to and approved in writing by the local planning authority. Thereafter, each Reserved Matters Application for any sub phase of the development shall include a detailed Landscape and Ecological Management Plan for that sub phase of the development. Each detailed Landscape and Ecological Management Plan shall be in accordance with the mitigation, contingency and enhancement measures contained within paragraph 7.5.5 to 7.7 of the submitted Environmental Statement revision 2 (Royal Haskoning DHV, September 2014) and the approved outline Landscape and Ecological Management Plan. The detailed Landscape and Ecological Management Plan(s) shall be implemented in accordance with the approved plan unless otherwise approved in writing by the local planning authority."

1.2.3 In accordance with Condition 21, this document identifies the measures included in the landscape scheme to maintain and enhance the habitat resource of the Neighbourhood Centre site, and to ensure that retained and newly created habitats are managed to maximise their value for wildlife in the long-term. These measures reflect the recommendations included in paragraphs 7.5.5 to 7.7 of the Environmental Statement (Royal Haskoning DHV, 2014) and are in keeping with the 'Outline Site-wide Landscape

and Ecological Management Plan' prepared for the wider site and the Neighbourhood Centre site in its entirety (HDA, 2018).

1.2.4 The main aims of this LEMP are to:

i. Describe habitat restoration, creation and landscape enhancement works proposed for the site, including outline details of formal and informal landscape planting within areas of public open space;
ii. Describe measures to provide new and enhanced opportunities for protected and notable species recorded within the Neighbourhood Centre site;
iii. Identify prescriptions for the establishment and long-term management of habitats and features of nature conservation interest; and
iv. Identify mechanisms to ensure successful establishment of these features and their long-term management.

1.2.5 The landscape planting and habitat creation, retention and enhancement works across the Neighbourhood Centre management area are shown on the Neighbourhood Centre Landscape Masterplan and Planting Proposals provided in *Appendix A* and *B* (CSA, 2024a-b). The Neighbourhood Centre site is a small area of land currently dominated by low diversity habitats of limited interest for biodiversity, which is proposed to be a highly urbanised, developed area dominated by hardstanding and buildings. As such only limited landscaping is proposed for this area of the site, which include:

- Small areas of amenity grassland planting along road/carpark verges and within the Market Square of limited ecological value; and
- Tree and ornamental shrub planting along the road network and within the car park and Market Square to complement off-site features and facilitate the movement of mobile wildlife across the site and the wider area.

2 BACKGROUND

Designated sites

2.1 No statutory designations pertain to the Neighbourhood Centre site or adjacent land.

Habitats

2.2 In general terms, the Neighbourhood Centre site currently comprises ruderal vegetation with a line of mixed scrub along the southern site boundary and bare ground along the eastern site boundary. The Neighbourhood Centre site is bordered to the east by the Nine Mile Ride Extension South (NMRES); to the south by the Southern Bus Loop road with Parcel 10 of the wider site beyond; and to the north and west by the proposed primary school which will be delivered separately by Wokingham Borough Council (WBC). The location and boundary of the Neighbourhood Centre site is shown in *Appendix A*.

Species

2.3 In addition to the ecological desk study and extended Phase 1 habitat survey, a suite of ecological surveys has been conducted at the Hogwood Farm site since 2008, including specialist surveys for the following species/species groups:

- Bats;
- Water Voles;
- Otters;
- Dormice;
- Badgers;
- Breeding birds;
- Reptiles; and
- Great Crested Newts.

2.4 The methodologies, habitat descriptions and results of the surveys conducted to inform the Environmental Statement are detailed in the *Chapter 7: Biodiversity, Flora and Fauna* (Royal Haskoning DHV, 2014). Where appropriate, additional surveys have subsequently been undertaken by HDA between 2017 and 2024 to update the earlier surveys and to inform ongoing development design works. In addition, further ecological surveys have been carried out of parts of the site by Stantec in 2020 in relation to the construction of the NMRES road within the wider site. With regard to the outcome of this work, a summary of key considerations for the Neighbourhood Centre site is given below:

- **Bats:** There are no buildings or trees within the site; therefore, no bats have been identified as roosting within the Neighbourhood Centre site[1]. Bat roosting features are proposed on the Neighbourhood Centre building to ensure the continued favourable conservation status of the local bat population (Detailed Bat Mitigation Strategy (HDA, 2024a)). The scrub along the southern boundary of the site was used by low numbers of foraging and commuting bats.
- **Badgers:** During the most recent Badger survey carried out in January 2024, a total of one main Badger sett, seven outlying setts and one artificial/replacement sett[2] have been recorded within the Neighbourhood Centre site and wider site

[1] In December 2020, planning consent (202394) was granted for the demolition of the Hogwood Industrial Estate buildings which were partially located within the site. A number of the buildings within the Hogwood Industrial Estate supported roosting bats, including maternity roosts for Brown Long-eared bat and Common Pipistrelle and low status, non-breeding roosts for Common Pipistrelle and Soprano Pipistrelle. An EPS licence (2022-60110-EPS-MIT) was subsequently granted for the demolition of the buildings supporting roosting bats and as part of the mitigation a replacement bat building was constructed. Since then the industrial estate buildings have been demolished and the site is now dominated by tall ruderal vegetation.

[2] Following approval of a Natural England licence application to temporarily close four setts in the north-east of the wider site due to the proximity of the NMRES works (a main sett, the annex sett and two of the outlying setts), Stantec carried out temporary sett closures in 2020. As part of these works two replacement setts were constructed, one within the Green Corridor associated with Phase 2 in the north-west of the wider site and one within the SANG (Stantec, 2020).

(Parcels 4, 5, 6, 10, 11, 12, 13 and Neighbourhood Centre) (HDA, 2024b). No Badger setts were recorded within the Neighbourhood Centre site.

- **Breeding Birds:** Breeding bird surveys of the Neighbourhood Centre site and wider site have recorded notable bird species including Lapwing, Skylark, Dunnock, Song Thrush, House Sparrow, Reed Bunting, Mistle Thrush and Red Kite.
- **Reptiles:** Historic surveys have identified low populations of Common Lizard, Slow-worm and Grass Snake across the wider site. The most recent survey in 2023 recorded no reptiles across the site and wider site (HDA, 2024d).
- **Invertebrates:** No surveys for invertebrates have been undertaken as it is considered that the proposed development areas are unlikely to be of significant local interest for this group. Low quality areas of invertebrate habitat within the Neighbourhood Centre site include the recently established line of scrub and the tall ruderal habitats dominating the site.
- **Plants:** The management area is currently dominated by recently established scrub and the tall ruderal habitats and notable plant species or plant assemblages are unlikely to be present. No invasive plant species have been identified within the boundary of the Neighbourhood Centre site. However, several invasive species included on Schedule 9 of the 1981 Wildlife and Countryside Act (as amended) have been recorded from the wider site and its surrounds. These include Rhododendron, Variegated Yellow Archangel and Japanese Knotweed. It is an offence to release, plant or cause to grow in the wild any plant included on this schedule of the Act. Measures to identify, reduce and minimise the risk of spreading invasive, non-native plant species are detailed in the 'Non-native Invasive Species Management Plan – Neighbourhood Centre' (HDA, 2024e) and in the management prescriptions set out in *Section 4* below.
- **Other species:** The findings of the survey work carried out indicates that the Neighbourhood Centre site is unlikely to support Dormice, Otter, Water Voles or Great Crested Newts.

3 MANAGEMENT OBJECTIVES

3.1 Objectives of the Neighbourhood Centre Landscape and Ecological Management Plan

3.1.1 This Neighbourhood Centre LEMP is based on the following objectives, which are set out in the Site-wide Outline Landscape and Ecological Management Plan (HDA, 2018). These are derived from: (i) current site conditions, (ii) nature conservation legislation, planning policy, and national and local nature conservation guidance, and (iii) future land use. The objectives are:

Objective 1: The ecological potential of the management area: maintain and enhance the biological interest and character of the management area.

Objective 2: The characteristics of the local landscape: Maintain and enhance the landscape attributes of the key habitats associated with the management area and its local environs.

Objective 3: Access and amenity: Provide an attractive environment and opportunities for informal recreation available to residents of the new development and existing residents of the surrounding area.

3.1.2 The objectives have been derived from the context of the proposed development, Condition 21 of planning consent, and the landscape and ecological character of the site and its surrounds. Further information on the management objectives, including background policy and guidance, is provided in the Site-wide Outline Landscape and Ecological Management Plan (HDA, 2018).

4 MANAGEMENT PRESCRIPTIONS

4.1 This section describes the habitat creation and enhancement measures proposed within the site and provides prescriptions for how they will be implemented and managed in the long-term to achieve the ecological and landscape objectives identified in *Section 3*. Measures to enhance the site for protected and notable species are also provided. Where prescriptions relate to the creation, enhancement and management of habitats in relation to wildlife and landscape objectives, prescriptions are divided, where appropriate, into those to be undertaken for their creation and management (generally the first one to three years) followed by measures for ongoing management. The location and extent of newly created and enhanced habitats proposed within the site are summarised on the *Neighbourhood Centre Landscape Masterplan* provided in *Appendix A*, along with detailed drawings and an outline of seed mixes and plant species to be used in the *Neighbourhood Centre Planting Proposals* provided in *Appendix B.* Management schedules are given in *Appendix D* which set out the timings of prescribed activities.

4.2 Objective 1:

The ecological potential of the management area: maintain and enhance the biological interest and character of the management area.

PRESCRIPTIONS

4.2.1 Grasslands

4.2.1.1 The grassland within the site will all be amenity grassland. Measures for creation and management of the grassland are described below and the distribution of amenity grassland is shown on the *Landscape Masterplan* provided in *Appendix A*.

4.2.1.2 Areas of amenity grassland will be created and managed along roadside and carpark verges and in association with the play area within the Market Square. These will be turfed using a low maintenance amenity grass turf (Rolawn - ‘Medallion’ or similar).

4.2.1.3 The prescriptions for creation of amenity grassland habitats are outlined below:

- Areas to be turfed between April and October.
- Where new grassland is to be created, if necessary the weed burden will first be reduced using herbicide. Consideration will also be given to soil inversion if nutrient levels are expected to be very high.
- If time permits a 'stale seed bed' is to be established, allow the area to colonise with weeds from the existing soil seed bank following initial cultivation and an additional application of herbicide applied to remove any weed growth.
- Area should consist of min. 150mm deep topsoil using either existing retained topsoil (free from weeds) or imported topsoil (multi-purpose grade to BS3882:2015) or a combination of the two, over existing site subsoil layer.
- All stones and debris greater than 50mm in size to be removed and disposed of off-site.
- Finished level turfed areas will be 30mm above adjacent paved surfaces (unless otherwise stated).
- Lay turf with broken joints, well butted up, working from planks laid on previously laid turves, during appropriate season and weather condition. Adjust levels by raking out of filling with fine soil under turves. Consolidate by lightly and evenly firming with wooded beaters as laying proceeds. Do not use rollers.
- Dress turf with fine topsoil and brush in to fill joints and thoroughly water completed turf within 24 hours of laying.
- Contractors will take the necessary precautions to ensure all grass areas are protected throughout the establishment period, with the use of fencing where appropriate.
- When grass is 35-50mm high, collect debris, litter and any stones and later in dry conditions cut grass to between 25-30mm. Collect and dispose of all arisings.
- If required, injurious weed species (e.g. Creeping Thistle, Broad-leaved Dock, Common Ragwort) will be controlled, particularly whilst the grassland is becoming established. This will be achieved either through topping before flowering or using spot treatment with herbicide.

4.2.1.4 The following long-term mowing and maintenance regime will be applied to the amenity grassland across the site. To give the grasses the best chance of thriving, do not mow the grass too short, especially during periods of prolonged dry or cold weather. This mowing and maintenance regime for established amenity grassland will involve:

- Areas of amenity grass once established for twelve months, are to be cut on a monthly basis during each growing season (i.e. between March and October) to allow time between cuts for plants in lawn to flower. However, it will be weather permitting and should be reviewed to suit extreme weather i.e. extremely dry arid conditions it may be necessary to reduce the cut leaving the grass slightly longer.

The height of flowering lawn shall not exceed 80mm before cutting, topped to a height of 50mm. In periods of drought, some dieback of grass is likely. Watering is a solution to this but is often unsustainable. In some years it may be necessary to reseed badly affected areas at the end of the season.

- Moss should be accepted for shaded areas, but kept in check by raking, which is best done in spring when the grass is growing well so that the grass can quickly recover and grow into the gaps created by moss collection.
- Most grass will be mown as required throughout the year, although the main mowing period is between March and October, during this period mowing should ideally be undertaken fortnightly.
- Any short grass that abuts a vertical obstacle will be strimmed at the same time as each grass cut to achieve a neat edge. In March and September of each year, all grass edges will be trimmed in accordance with the above paragraph, and re-cut to a straight line or smooth curve as appropriate using a half-moon edging tool or similar.
- Swathes of arisings will be collected up and composted or removed from the site.
- Any damage to the sward caused by animals (Moles, Rabbits, Badgers etc.) or by vehicles or general wear and tear, will be reinstated by top dressing, re-cultivation, re-seeding and watering, at the correct season, as necessary. Any reinstated areas to be protected and subject to establishment maintenance as itemised above. If grass growth is poor it may be necessary to apply a spring and / or autumn fertilizer to the sward, to encourage vigour. Similarly, turf aeration and scarification may also be necessary, to alleviate compaction and control the development of thatch.

4.2.2 **Tree planting and management**

4.2.2.1 Scattered tree planting is proposed along the road network and within the carpark and Market Square. In combination with the proposed shrub planting this will complement off-site features and facilitate the movement of mobile wildlife across the site and the wider area.

4.2.2.2 Individually planted standard trees will include a mix of native and non-native species including Silver Birch, Hornbeam, Snowy Mespilus, Sweet Gum, Callery Pear, Holm Oak and Scots Pine.

Establishment Phase

4.2.2.3 The following works will be carried out to ensure establishment:

- Planting will be restricted to between late October and March, unless additional provision for watering during dry periods is made.
- Trees will be planted in pits min. 1000 x 1000 x 700-800mm deep. For very large stock, pit dimensions should be increased accordingly.

- Break up bottom of tree pit to a depth of 200mm and loosen edges of tree pit to ensure ground is free-draining. Pits should be excavated no greater than 48hrs prior to planting.
- Incorporate a soil conditioner/ameliorant in the form of peat free tree and shrub compost or well-rotted spent mushroom compost or 'rootmaster' (Greentech Ltd) into backfill material, incorporating a soil improver at a rate of 1kg per pit, mixed thoroughly.
- Newly planted trees will be protected against pest damage using suitable guards. Small/feathered trees will be protected by biodegradable 'Nature Tubex Tree Shelter' and standard tree planting will be protected by biodegradable spiral guards (Green-tech Ltd (or similar)) (specification outlined in *Planting Proposals* plan (CSA, 2024b).
- Trees will be kept free of weeds for up to five years after planting (or less if closed canopy is achieved earlier) to enhance growth rates, by the application of a translocated herbicide at a minimum frequency of 3 applications per annum generally in May, July and September. Any failed trees within the first five years after planting will be replaced (and maintained for a subsequent five years).
- Any trees that are staked will have their ties checked 3 times per year (or as herbicide spraying takes place) and replaced as necessary if too tight/loose or broken. Stakes shall remain in position until trees are self-supporting.
- Trees will be pruned to remove dieback or broken/vandalised branches as they arise.
- Newly planted trees will be watered regularly in the first year after planting to prevent plant loss. Watering of trees in the first growing season is dependent on size and should follow the guidelines below:
    - Feathered – 36 litres per month;
    - Standard – 45 litres per month.

  Watering should be reduced/stopped in periods of wet weather. Water trees in second growing season during dry spells in weather.

Maintenance Phase

4.2.2.4 Newly established trees will be managed in the long-term to enhance the biodiversity of the site, protect public safety, ensure their long-term health and viability, and to maintain the visual landscape character of the area. This will involve the following:

- Annual inspections of all trees will be carried out by a suitably qualified arboriculturist in order to identify dangerous trees and branches requiring removal.
- Standing dead or decaying timber and fallen deadwood will be retained where safe to do so to provide wildlife habitat.

- Fallen, dying and dead mature trees will only be replaced with young trees where appropriate. Any replacement trees will be protected from pest damage and weeds as outlined in the establishment section above.

4.2.2.5 It is expected that the above proposals would enhance the tree resource and maintain habitat connectivity across and around the site and wider site.

4.2.3 **Deadwood habitats**

4.2.3.1 Where safe to do so any standing and fallen deadwood arising from trees within the Neighbourhood Centre site will be retained *in situ*. Where this is not possible, these arisings will contribute to log and brash piles that would be constructed at appropriate locations along woodland and scrub edges or hedgerow bases within the wider site.

4.2.4 **Ornamental planting**

4.2.4.1 In addition to provision of new grassland and tree planting in areas of open space, the landscape proposals also include formal ornamental shrub and hedgerow planting in association with the carparks and Market Square. These will be planted with a range of nectar-/pollen-rich flowers and fruit bearing shrubs which benefit native wildlife such as invertebrates, bats and birds. The extent of proposed ornamental planting is shown in *Appendix A*. Measures for the establishment of ornamental shrubs and hedgerows within the site are given below along with maintenance of such planting.

4.2.4.2 Ornamental shrub, herbaceous and hedgerow planting works will be carried out during the construction phase of the development:

- Planting will be restricted, where possible, to between late October and April where possible to reduce need for supplementary watering.
- Incorporate a soil conditioner/ameliorant in the form of peat free shrub compost or well-rotted spent mushroom compost into backfill material.
- Install a weed suppressant membrane onto the surface of the planting bed, with holes cut into the membrane to install the shrubs/hedge plants.
- Shrub/hedge areas to be dressed with a minimum of 75mm mulch layer, consisting of medium chipped tree bark, composted for 2-4 weeks with a particle size of 15-50mm, laid onto the weed suppressant membrane.
- New hedgerow plants will be protected against pest damage using spiral guards (or biodegradable equivalent), maintained for no less than 3 years after planting.

4.2.4.3 The following works would be carried out to ensure establishment:

- Shrubs and hedgerows will be kept free of weeds for up to five years after planting (or less if closed canopy is achieved earlier) to enhance growth rates, by the application of a translocated herbicide at a minimum frequency of 3 applications

per annum generally in May, July and September. Alternatively/in combination mulch may be used. Any failed shrubs within the first five years after planting will be replaced.

- Newly planted shrubs and hedgerows will be watered regularly in the first year after planting to prevent plant loss. Watering would be reduced/stopped in periods of wet weather.
- Ornamental hedgerows within the formal landscape associated with the development area will be managed by cutting up to 3 times per year with all arisings removed

4.2.5 **Protected and notable species**

4.2.5.1 This detailed LEMP identifies how the above measures will indirectly benefit protected and notable species recorded using the site and its surrounds such as bats, Badgers, reptiles, birds and invertebrates. The following management tasks will also be carried out in order to provide specific features aimed at target species/species groups:

4.2.5.2 *Bats:*

- Artificial bat boxes will be installed on the Neighbourhood Centre building to provide a range of opportunities for roosting bats (see 'Detailed Bat Mitigation Strategy – Neighbourhood Centre' (HDA, 2024b)). As deliberate (or reckless) disturbance to bats or their roost sites constitutes an offence under the 1981 Wildlife and Countryside Act (as amended) and the 2017 Conservation of Species and Habitats Regulations (as amended), once erected, close inspection of bat roosting features/repairs would only be carried out by a licenced bat worker. If any works are necessary which may result in an offence being committed under this legislation then a suitably qualified ecologist would be contacted to advise on the best course of action.

4.2.5.3 *Badgers:*

No Badger setts were recorded within the Neighbourhood Centre site, however, there are a number of setts located within the wider site. Therefore the below measures to protect the Badger population should be implemented:

- Any steep-sided holes left open overnight will be equipped with a mammal ladder (a reinforced plywood board >60cm wide set at an angle of no greater than 30^{o} to the base of the pit);
- Temporarily open pipes with a diameter of >150mm will be plugged to prevent entrapment; and
- Lighting will be of the minimum required for public safety and directed away from Badger setts and foraging habitat.

4.2.5.4 *Birds:*

- Tree, shrub and hedgerow management will only be carried out outside the bird breeding season (usually taken as March to early September inclusive) unless preceded with a nesting bird check by the project ecologist or other suitably qualified personnel.
- Bird boxes will be installed on the Neighbourhood Centre to provide a range of nesting opportunities (See *Detailed Ecological Permeability Scheme – Neighbourhood Centre* (HDA, 2024c)).
- Standing deadwood will be retained wherever possible to maximise natural opportunities for hole-nesting birds.

4.2.5.5 *Reptiles, amphibians and invertebrates:*

- Arisings from hedgerow, tree and shrub habitat management will be used to construct log and brash piles along ditches, hedgerow, woodland and scrub edges in the wider site to provide opportunities for refuge and hibernation.

Non-native plants:

4.2.5.6 No non-native plants where recorded within the Neighbourhood Centre site. In addition, Variegated Yellow Archangel and Japanese Knotweed have been identified in the wider area (HDA, 2024e). Cotoneaster *Cotoneaster horizontalis*, Entire-leaved Cotoneaster *Cotoneaster integrifolius*, Himalayan Cotoneaster *Cotoneaster simonsii*, Hollyberry Cotoneaster *Cotoneaster bullatus*, Small-leaved Cotoneaster *Cotoneaster microphyllus*, Rhododendron *Rhododendron ponticum*, Variegated Yellow Archangel *Lamiastrum galeobdolon* and Japanese Knotweed *Fallopia japonica* are all listed under Schedule 9 of the 1981 Wildlife and Countryside Act (as amended). It is an offence to release, plant or cause to grow in the wild any plant included on this schedule of the Act.

4.2.5.7 The following works will be implemented:

- Prior to development commencing: An updated survey of the site will be undertaken at an optimal time of year (between May and August) to identify the presence, location and area covered by any non-native invasive species listed on Schedule 9 of the 1981 Wildlife and Countryside Act (as amended), not previously identified on site.
- Monitoring: All parts of the management area would be subject to annual inspections to identify the presence of any regenerating/newly established non-native invasive species.
- Control: Where the presence of a non-native invasive species is identified, control measures will be put in place to prevent further spread with the aim of eradication from the management area. Measures would be appropriate to the species present and the location in which it is growing.

4.3 **Objective 2:**

Maintain and enhance the landscape attributes of the key habitats associated with the management area and its local environs.

4.3.1 The management area is located within the 'J2: Arborfield Cross and Barkham Settled and Farmed Clay' Landscape Character Area as defined by Wokingham District Council (Wokingham District Council, 2019), for which the key characteristics are:

- A gently undulating landscape, underlain by London Clay with localised areas of River Terrace Gravels. Shallow wooded valleys follow the course of the Barkham Brook, which is geologically marked by areas of alluvium.
- Consistent pattern of waterbodies including streams, drainage channels, ditches and open waterbodies of various sizes resulting from the clayey and loamy soils which impede drainage.
- Wooded context provided by characteristic mature hedgerow and in-field trees, combined with woodland belts, with BAP priority habitats and ancient woodland, and the wooded horizons of the surrounding hills.
- Arable farming dominates, with pasture on higher ground and horse paddocks near settlement. Fields are large and geometric, bound by fragmented hedgerows supported by post and wire.
- Small-scale wet woodland and wetland habitats scattered on the edge of the area, often designated as LWS.
- A dense settled character influenced by modern development including the new garden village on the site of Arborfield Garrison and the southern edge of Wokingham which incorporates an industrial estate.
- Older scattered settlement of farms, hamlets and small nucleated villages at Barkham and Arborfield Cross. The buildings have traditional vernacular of timber framing and clay tiles, exemplified by the Conservation Area at Arborfield Cross.
- A network of busy local roads cross the area. They tend to be rural in character, with ditches, hedges and hedgerow trees, sometimes opening directly onto the arable fields.
- Public rights of way run between the settlements and provide access for recreational use.
- A rural character away from development and roads, with views across to adjacent character areas including across the Loddon Valley.
- A historic road, now represented by footpaths, lanes and Victorian carriageways, that appears on Norden's map of 1607, connecting Swallowfield Park via Arborfield Cross and the Coombes (in LCA L1), with Wokingham.

4.3.2 The profile for the *J2: Arborfield Cross and Barkham Settled and Farmed Clay Landscape Character Area* identifies the following landscape guidelines relevant to the Hogwood Farm Site:

- ***Conserve woodlands, including ancient woodland, BAP priority habitats and remnant standard trees****. Continue to promote appropriate management through natural regeneration, control of non-native species and coppicing as a management tool for neglected woodland.*
- ***Increase the extent of native deciduous woodland****, using locally occurring native species in order to provide screening of roads and development and linking woodland habitats. Seek to avoid introduction of coniferous boundaries and shelterbelts.*
- ***Conserve and manage hedgerows with standard trees*** *as important wildlife habitats and landscape features, as well as the links they provide across the landscape and between areas of woodland. Reinstate or repair hedgerows with native species where there are opportunities to do so. Plan for the next generation of hedgerow trees with a programme of tree planting.*
- ***Conserve, enhance and manage wetland and woodland habitats*** *including within LWS. Protect the habitats from development, changes in land use and encroachment by secondary woodland and scrub. An appropriate wetland and woodland management regime is critical.*
- ***Conserve and enhance the integration of urban edges*** *through wooded boundaries and large-species trees to provide visual screening and create a positive interface between the built up and rural areas particularly around Wokingham town, Arborfield Garrison, and Finchampstead.*
- ***Enhance sense of place through careful design*** *(including siting, massing, scale, materials and landscape – and sensitive lighting to retain dark skies at night) to minimise the potential impacts of any new development on valuable attributes.*
- ***Reduce and prevent further noise and light pollution*** *through the sensitive siting of any new development, including infrastructure, and especially any proposed night-time lighting.*

4.3.3 Proposed habitat creation and enhancement works within the site and wider site, and long-term management to maximise value of these habitats for wildlife, will contribute to achieving these objectives.

PRESCRIPTIONS

4.3.4 **Enhancing the local woodland habitat resource**

4.3.4.1 The Arborfield Cross and Barkham Settled and Farmed Clay character area identifies the '*effects on tree health or species composition of woodland and wet woodland as a consequence of pathogens and climate change'* and '*loss of structure and species diversity*

of the woodland belts has occurred in the past through cessation of coppice management.' The landscape proposals include new standard tree planting which is expected to enhance the tree resource of the Neighbourhood Centre site and its surrounds.

4.4 **Objective 3:**

Access and amenity: Provide an attractive environment and opportunities for informal recreation available to residents of the new development and existing residents of the surrounding area.

4.4.1 In addition to the built development, the development includes a Market Square predominately comprising hard paved areas to allow for a multitude of opportunities for social interaction and informal play. This includes a children's play area incorporating formal equipment and a separate area of grass for more informal recreation. Beyond the more formal areas of the site, a network of habitat types including ornamental shrubs, hedgerows and tree planting are proposed to soften the built form. In combination, the landscaped areas will create an attractive setting for residents and visitors to the development. The landscape creation and enhancement measures are identified in *Section 4.2*. Measures to help maximise the amenity value of the site are described below.

Provide an attractive setting for recreation

4.4.2 The landscape proposals described in *Section 4.2* above and provided in *Appendix A* have been developed to create an attractive setting for both formal and informal recreation within the Neighbourhood Centre site. Footpaths and the Market Square will be regularly maintained and kept clear of encroaching shrubs and overhanging trees so they are perceived to be safe by users.

Maintain trees and other management items in safe and serviceable condition

4.4.3 Trees and other management items will be maintained in a safe condition through regular inspection and maintenance work as required.

4.4.4 Tree safety inspections will be carried out annually as a minimum (more frequently where there are exceptional weather events) and any maintenance works carried out as required.

4.4.5 Any site furniture (including seating, play equipment, bollards, fencing and any signage or safety equipment) will be maintained in a serviceable and safe condition in line with manufacturer recommendations. All furniture will be inspected for damage and cleaned on a regular basis. Any vandalism would be repaired as soon as possible, particularly if the damage could pose a risk to the health and safety of the public. Where appropriate any timber products will be routinely stained or preserved, in line with manufacturer recommendations.

Maintain the site free from litter

4.4.6 The management area will be inspected, and litter removed on a monthly basis. Fly-tipped waste will be cleared, and appropriate action taken if encountered, including monitoring for invasive species.

5 MONITORING

5.1 The outcome of the management works prescribed above would be subject to review on at least an annual basis (but more frequently during establishment) to assess the success of these works in achieving the desired objectives. If necessary, the prescriptions will be revised to improve outcomes. Any amendments to the prescriptions provided in this LEMP would be subject to the approval of the local planning authority.

6 IMPLEMENTATION OF MANAGEMENT

6.1 It is expected that the habitat creation and establishment works would be led by the developer after which either the local planning authority, a management company or an appropriate other would take on the long-term management. Management would be secured and, if necessary appropriately funded, through a legal obligation.

6.2 The management activities for the implementation phase (during the construction phase of the proposed development), the establishment phase (expected to last up to three years following construction), and during a typical year, are summarised below. These could form the basis for 'milestones' to facilitate monitoring of the habitat restoration and management works. Management Schedules detailing the timing of works are provided in *Appendix D*.

6.3 Implementation Phase:

- Carry out vegetation clearance works including removal of unretained scrub and ruderal habitats to allow for construction and landscaping works.
- Preparation of soil and turf on newly cleared areas of land and commence cutting regime as appropriate.
- Carry out new hedgerow planting and commence new rotational cutting regimes.
- Plant new trees and shrubs in as specified and commence management.
- Protect plantings with tree guards or temporary fencing/dead hedging as appropriate.
- Maintain bases of new tree, shrub and hedgerow planting free of weeds.
- Manage retained trees within the management area for safety.
- Create habitat piles using arisings from hedgerow and tree management within wider site.
- Install bird and bat boxes where appropriate.
- Implement measures for the control of invasive species.

- Create paths and install site furniture (including seating, play equipment, bollards, fencing and any signage or safety equipment).

6.4 Establishment Phase:

- Manage trees and other management items for safety.
- Manage amenity grassland.
- Continue management of hedgerows, shrubs and tree habitats.
- Maintain bases of new tree, shrub and hedgerow planting free of weeds and remove any protective guards after 3 years if appropriate. Loosen tree ties as required.
- Replace failed plantings as necessary.
- Maintain paths and site furniture as necessary.
- Maintain management area free of litter.
- Monitor the management area and carry out control of non-native invasive species as necessary.
- Monitor success of management activities and revise management plan as appropriate.

6.5 Typical year:

- Manage trees and other management items for safety.
- Continue the cutting regime of amenity grassland.
- Continue management of hedgerows and shrub habitats.
- Maintain paths and site furniture as necessary.
- Maintain management area free of litter.
- Monitor the management area and carry out control of non-native invasive species as necessary.
- Monitor success of management activities and revise management plan as appropriate.

7 REFERENCES

CSA (2024a) *Hogwood Farm, Finchampstead: Neighbourhood Centre Landscape Masterplan*. CSA Environmental, Ashwell.

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HDA Document Control and Quality Assurance Record

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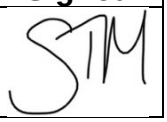
Project Reference: 868.1
Document Title: Neighbourhood Centre Landscape and Ecological Management Plan
Commissioning Party: CALA Homes Thames Ltd

Issue	Description	Date of Issue	Signed
1	Neighbourhood Centre Landscape and Ecological Management Plan	December 2024	

	Personnel	Position
Authors	Clare Bird MCIEEM	Associate Ecologist
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APPENDIX A

Landscape Masterplan (CSA, 2024a)

N

Rev	Date	By	Description
A	07/08/24	GC	Scale amended

Drawing Status

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Project	Hogwood Farm, Finchampstead
Drawing Title	Neighbourhood Centre Landscape Masterplan
Client	CALA Homes Thames
Scale @ A0	1:200
Drawing No.	CSA/6689/131
Date	July 2024
Rev	-
Drawn	AL
Checked	GC

APPENDIX B

Planting Proposals (CSA, 2024b)

PLANTING SPECIFICATION

General Guidance

All plant handling to be in accordance with the HTA 'Handling and establishing landscape plants' Part I, Part II and Part III (obtainable from the Horticultural Trades Association) and the CPSE publication: 'Plant Handling' and all planting to conform to National Planting Specification Guidelines.

The individual setting-out of the plants on site shall be the responsibility of the contractor and should follow closely the locations shown on the detailed planting proposal drawings supplied by the landscape architect. Contractor to ensure that plants are equally spaced within individual planting groups.

Contractor to ensure that smaller plants are located to the front of plant species groups as shown on detailed planting plans.

Contractor shall maintain existing levels around the base of existing trees and shall undertake all planting works occurring within root protection areas (RPA) in accordance with BS5837:2012. Contractor shall not remove or relocate any tree protection fencing without prior consent of the client.

Contractor to check the locations of all underground services, existing and proposed, prior to the excavation of any tree pits or shrub beds and identify any potential conflicts to the client / landscape architect.

All arisings shall be removed from site and the contractor shall at all times, keep the site free from rubbish and debris.

For the duration of the works the contractor shall keep the site free from injurious weeds as listed in the Weeds Act 1959.

All plants should be supplied at the same size and of the same species as specified in the planting schedules on the landscape proposals plan. Any proposed replacement species or deviation from the planting schedules should be highlighted to and agreed with the client prior to installation.

All plants shall be hardened-off at the Contractor's own nursery or at the source prior to planting out.

All field grown and rootballed trees must have been transplanted or undercut in the nursery no less than 18 months prior to supply.

The Contractor shall carry out the work while soil and weather conditions are suitable. Planting is not to take place during periods of frost or strong winds.

The contractor is to ensure that adequate watering and weed control is provided at the time of planting.

Any topsoil retained on site in stockpiles for use in planting works is to be stored in accordance with the DEFRA publication 'Code of practice for the sustainable use of soils on construction sites'

Do not use peat or peat based products.

Prior to planting, planting areas shall be cleared of grass and weed growth physically and/or chemically with a proprietary translocated herbicide and a period of time shall be allowed to elapse as recommended by the manufacturer before commencement of soil preparation for planting.

All plants are to be watered thoroughly before planting stage to ensure rootball is thoroughly soaked prior to final backfilling.

Tree Planting

Generally plant trees in pits with minimum dimensions of:-

- 1000 x 1000 x 700-800mm deep for trees in soft, planted areas including; grass/shrub areas and rear gardens.

Backfill the pits in layers as specified below (from bottom up):-

Drainage layer

- 200mm layer of compacted inert free draining gravel or pea shingle, wrapped in geo-textile membrane
- 100m layer of washed medium-course sand to act as blinding layer between geotextile and soil.

Topsoil layer

- 400-500mm layer of retained site-sourced topsoil (free from weeds) or imported topsoil (Multi-purpose grade to BS3882:2015; sandy loam); depth dependant on size of rootball.

Depth of topsoil should only be as deep as the rootball of proposed tree to a max. depth of 400-500mm. Should the rootball be larger i.e. 800mm height, then the pit should be increased in depth to suit, but with the difference in depth from the 400-500mm topsoil layer and the drainage layer made up of quality imported free-draining subsoil to BS8601:2013 to avoid topsoil occuring at depths of greater than 500mm.

Likewise, for smaller trees i.e. feathered trees, with more limited rootballs/bare root, the depth of topsoil can be reduced to reflect the surrounding topsoil depths or to a max. topsoil depth of 350mm, with a further layer of site-sourced or imported subsoil (to BS8601:2013) below to create a total depth of growth medium of between 400-500mm i.e. 150-200mm layer of subsoil. Drainage layer should remain as above.

As stated above, the min. pit size for trees planted in newly created planting areas should be 1m x 1m, however where planting is occurring in clean, undisturbed ground, pits should be dug to approx. 200mm greater than the rootball to limit distribution of surrounding soil structure. For very large stock, pit dimensions should be increased accordingly.

Break up bottom of tree pit to a depth of 200mm and ensure ground is free-draining. Loosen edges of tree pit at time of planting by hand, using a fork to ensure good drainage. Pits should be excavated no greater than 48hrs prior to planting and dewatered as required.

Incorporate a soil conditioner/ameliorant in the form of peat-free tree and shrub compost or well rotted spent mushroom compost or 'Rootmaster' by Greentech Ltd (01423 332100) into backfilled topsoil material at the rate of min. 40L per pit.

Incorporate soil improver 'Terracottem Arbor' by Greentech Ltd (01423 332100) at a rate of 1kg per pit, mixed thoroughly into backfilled topsoil.

Backfill topsoil mix in layers of 150mm, firming at each layer and loosening the pit sides to aid drainage. The surface level of the pit should be 50mm above the surrounding ground.

Trees shall be planted in the centre of the excavated pits.

Trees in soft planted areas to be dressed with a minimum 75mm mulch layer, consisting of pine bark fines, particle size 15-50mm to a min. diameter of 1000-1200mm.

Semi-mature trees shall be secured by use of a proprietary underground guying system, incorporating guy mats to protect the upper surface of the rootball and secured to the base of the tree pit or by use of deadman anchors. Guying supports to be sized in line with the size of the tree as recommended by the manufacturers.

Extra-heavy and heavy standard trees shall be staked and supported with a low, double stake consisting of 2No. 75mm diameter x min. 2000mm length, rounded timber posts driven into the ground, 600mm above ground level and fixed to the tree by a proprietary rubber tree tie / horizontal cross support.

Standard trees shall be staked and supported with a low, single stake consisting of 1No. 75mm diameter x min. 2000mm length, rounded timber post driven into the ground at 45 degree angle to approx. 450mm above ground level and fixed to the tree by a proprietary rubber tree tie.

Trees shall be installed with proprietary flexible perforated irrigation/aeration pipe with integral cap. Pipe to be installed encircling equally around rootball to the full depth of planting pit, with the final cap section installed just above ground level and nailed securely in place to the adjacent timber stake.

All trees in grass areas to be protected by min. 450mm high (Rodent) x 38mm diam. proprietary biodegradable plastic spiral guards, by Green-tech Ltd. or equal and approved. Where trees have a basal trunk diameter greater than this, e.g. semi-mature, then two or more guards should be joined together using jointing tape and then secured in place.

Root Barrier Membranes

Where trees are proposed in close proximity to hard paved areas or proposed service runs, a root barrier membrane is to be installed as prescribed below.

For all proposed trees centred in a location within 3m of an adjacent hard standing/footpath or carriageway kerb line, a proprietary root barrier membrane will be installed to protect the hard standing and any underground services located beneath from future damage by tree roots.

Root barrier membrane(s) to be installed on the tree side along the back edge of the kerb / edging restraint to the adjacent hard standing and are to extend a minimum 3m in each direction from a point taken perpendicular from the tree trunk to the kerb/edging face.

Root barrier membranes are to extend to a depth as outlined below:-

- For trees adjacent to hard standings only (no underground services); install 'Reroot 300' by GreenBlue Urban (01424 717797) or equal and approved, ribbed root barrier membrane, to a depth of 300mm, ribs facing tree, joints fixed with jointing tape, install 10mm above final surface level of soft landscaping.
- For trees adjacent to hard standings incorporating underground services; install the following dependant on the depth of underground services.

For services 450mm deep

- 'Reroot 600' by GreenBlue Urban (01424 717797) or equal and approved, ribbed root barrier membrane, to a depth of 600mm, ribs facing tree, joints fixed with jointing tape, install 10mm above final surface level of soft landscaping.

For services 800mm deep

- 'Reroot 1000' by GreenBlue Urban (01424 717797) or equal and approved, ribbed root barrier membrane, to a depth of 1000mm, ribs facing tree, joints fixed with jointing tape, install 10mm above final surface level of soft landscaping.

For services deeper than 800mm

- 'Reroot 2000' by GreenBlue Urban (01424 717797) or equal and approved, ribbed root barrier membrane, to a depth of 2000mm, ribs facing tree, joints fixed with jointing tape, install 10mm above final surface level of soft landscaping.

For locations where a hard standing with or without underground services exists on both sides of the tree e.g. grass verge, then a root barrier is to be installed against both kerb / edging faces.

For trees located within hard surfaces themselves i.e. surrounded by hard paved surfaces, install 'Root Director' by GreenBlue Urban (01424 717797) or equal and approved, ref: RD1400. 1400mm x 1400mm x 450mm, plastic root director with integral ribs.

Ornamental Shrub Planting

Plant shrubs and groundcover into pre-prepared planting beds consisting of topsoil to a depth of no greater than 400mm, overlying clean, free-draining subsoil. Topsoil to be either; existing retained site sourced topsoil (free from weeds) or imported topsoil imported topsoil (Multi-purpose grade to BS3882:2015; sandy loam) or a combination of the two as necessary.

Subsoil layer to be fully broken-up to ensure adequate decompaction and alleviate free-drainage. For light and non-cohesive subsoils, when ground conditions are reasonably dry, loosen thoroughly to a depth of 300mm (450mm for stiff clay / cohesive soils). Remove all stones and debris greater than 50mm, including roots and tufts of grass. Top 50mm of subsoil to be reduced to a medium tilth suitable for final shaping using a grading blade.

Where applicable the use of a small tractor mounted single tine ripper to decompact subsoil layer sufficiently.

Incorporate a soil conditioner/ameliorant in the form of peat free general-purpose shrub compost or well rotted spent mushroom compost across the planting bed in a 50mm layer at a rate of 300g per m2, and incorporate to a depth of 225mm.

Install a proprietary geo-textile weed suppressant membrane onto the surface of the pre-prepared shrub planting beds with minimum 300mm laps. Once planting bed is prepared, dig planting holes for shrubs to be a depth of 200mm and a width or 150mm greater than the source pot size, ensuring that pit walls are loosened to ensure good drainage.

Ensure planting appears random / natural and not formal in accordance with the planting proposal layouts as supplied by the Landscape Architect.

All shrub areas to be dressed with a minimum 75mm mulch layer, consisting of medium chipped tree bark, composted for 2-4 weeks, particle size 15-50mm, laid directly onto weed suppressant membrane.

The contractor shall take the necessary precautions to ensure all shrub areas are protected throughout the establishment period by temporary fencing.

Ornamental Hedge Planting (incl. single species native hedges)

Plant hedges into pre-prepared planting trenches, 500-600mm wide for double rows. Planting strips to consist of topsoil to a depth of 350-400mm, mixed with soil conditioner as specified below.

Topsoil to be either; existing retained site-sourced topsoil (free from weeds) or imported topsoil (Multi-purpose grade to BS3882:2015; sandy loam) or a combination of the two as necessary.

Incorporate a soil conditioner/ameliorant in the form of peat free general-purpose shrub compost or well rotted spent mushroom compost along planting trench in a 50mm layer at the rate of 300g per m2, and incorporate to a depth of 225mm.

Install a proprietary weed suppressant membrane onto the surface of the pre-prepared trench, with minimum 300mm laps. Plant hedge plants into pre-prepared planting strips which are deep enough as to be 200mm greater than the root depth of the supplied plant stock.

All hedge planting areas to be dressed with a minimum 75mm mulch layer, consisting of medium chipped tree bark, composted for 2-4 weeks, particle size 15-50mm, laid directly on weed suppressant membrane.

Where not planted against an proposed fence-line or wall, hedges to be supported by min. 1000 high timber post and wire fence, consisting of min. 75mm diameter x 2000mm long, rounded timber posts, driven in at 2000mm centres with 3No. galvanised wire supports evenly spaced along the vertical axis of the post. Corner posts and/or straining posts are to be additionally supported by 45° angled, 50mm diameter timber struts.

Amenity Turf Planting

Areas to be turfed are to be 'dug over' or rotovated to ensure decompaction of any existing substrate and then finely graded to bring to a uniform and even grade at the correct finished level, removing all minor hollows and ridges. Light rolling may be required to consolidate any loose substrate.

All stones and debris greater than 50mm in size to be removed and disposed of off-site.

Turfed areas are to consist of min. 150mm topsoil; either existing retained site sourced topsoil (free from weeds) or imported topsoil (Multi-purpose grade to BS3882:2015; sandy loam) or a combination of the two as necessary; overlying min. 150mm layer of clean, free-draining subsoil. Subsoil should be prepared as per shrub specification, ensuring full decompaction and free-drainage.

Unless otherwise stated, finished levels of turfed areas to be 30mm above adjoining paving and kerbs.

Final preparation of the turfed areas shall be carried out as to create a fine tilth surface suitable for laying of turves.

Prepared areas to be watered thoroughly to a depth of 75mm and lawn establishment fertiliser should be applied at a rate of 40g/m2, 48hours prior to turfing. Fertiliser to be raked into top 25mm of the surface.

a. The area(s) are to be turfed between April and October with turf, as specified in the planting schedules (Appendix A).

b. Turves should be laid in a series of straight rows, with staggered joints. All joints are to be closely butted together. Timber planks should be used to spread the load of the installer during laying and areas are to be tamped down to ensure good contact between turves and the soil.

c. All turves should be laid within 24hours of delivery.

d. The contractor shall ensure that all turfed areas are watered fully at the time of installation to the full cultivated depth, and that sufficient subsequent watering is carried out to ensure healthy establishment of the grass sward.

Plant Sourcing

All plant and seed material will be will be UK sourced and grown and wherever feasible, sourced from local suppliers in close proximity to the Site.

All plant material to be sourced from reputable suppliers with all necessary biosecurity and phytosanitary procedures in accordance with DEFRA guidelines.

General Planting Maintenance

All soft landscape areas to be maintained to BS7370-4:1993.

Sufficient watering should be undertaken by the contractor to establish and maintain healthy plant growth.

The first cut / mow of all amenity grass seeded / turf areas should be undertaken when the established sward reaches 35-50mm in height down to a height of 25mm, after which all amenity grassed areas should be maintained at a nominal height of 25mm (March to October). All arisings are to be removed from site and composted.

The first cut / mow of all meadow and wet meadow (wildflower) areas to be undertaken when the established sward reaches 50mm in height or weeds colonise to a height of 300mm (whichever is sooner), to a nominal height of 25-35mm.

For spring sown meadows/wet meadows, the second cut should take place about 8 weeks after sowing, after which establishing meadow should be cut monthly down to 100mm during the first growing season to control weed growth, after which all meadow grass areas should be cut twice annually (June and September), to a nominal height of 100mm, once any wildflowers have set seed.

For autumn sown meadows/wet meadows, the second cut should take place in April, after which establishing meadow should be cut monthly down to 100mm during the first growing season to control weed growth, after which all meadow grass areas should be cut twice annually (June and September), to a nominal height of 100mm, once any wildflowers have set seed.

All meadow arisings should be left lying for 48hrs before being removed from site and composted.

Meadow areas should be hand-weeded or spot swiped for any perennial weeds such as docks, nettles and ragwort.

All failed / defective plants identified within the first 5 years of installation should be replaced by the contractor at the soonest available planting season to ensure a continued coverage of growth. Replacement plants should be of the same species and specification of the failed specimens.

Bare areas and areas of dead grass which become apparent should be rectified by overseeding and/or turf re-installation at the soonest available planting season.

All amenity grassed areas and planting beds should receive an application of a proprietary slow release fertilizer twice yearly in the spring and the autumn.

All shrub planting and formal hedges shall be pruned at least twice per annum, removing dead or dying wood, to maintain a healthy, natural shape and promote good form.

Dead heading of herbaceous plants including flowering marginal aquatic plants, should be undertaken following flowering.

All planting areas should be kept tidy and free from weeds, trimmings, debris and litter. Weeds should be removed by hand unless where it is unfeasible; whereby weeds can be treated by the application of a suitable proprietary herbicide.

NB.- Herbicide usage to be limited to spray usage on calm days (no wind) and undertaken by suitably qualified operatives in accordance with current legislation.

Tree stakes, ties and guards should be checked annually for adjustment and/or replacement/removal as required.

Plant Schedule for CSA/6689/133

Bulb Mix 3 - Daffs

Qty	Name	Common Name	Age	Height	Form	Girth	Clr Stm	Brks	Root	Cntr	Measure Unit	Density (m2/lin m)	Centres
131	Narcissus 'Barrett Browning'	Daffodil			Bulb						m2	25.00	0.200
131	Narcissus cyclamineus 'Jack Snipe'	Daffodil			Bulb						[illegible]	[illegible]	[illegible]
257	Narcissus 'Dutch Master'	Daffodil			Bulb						[illegible]	[illegible]	[illegible]
646	Narcissus pseudonarcissus	Wild daffodil			Bulb						[illegible]	[illegible]	[illegible]
1165													

Hedgerow

Qty	Name	Common Name	Age	Height	Form	Girth	Clr Stm	Brks	Root	Cntr	Measure Unit	Density (m2/lin m)	Centres
19	Griselinia littoralis (Hedge)			60-80cm				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19													

Herbaceous

Qty	Name	Common Name	Age	Height	Form	Girth	Clr Stm	Brks	Root	Cntr	Measure Unit	Density (m2/lin m)	Centres
38	Alchemilla mollis	Ladys mantle			Bushy				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
98	Bergenia cordifolia 'Bressingham Ruby'	Elephant's Ears							[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	Nepeta 'Six Hills Giant'	Catmint							[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	Verbena bonariensis	Tall verbena		60-80cm(D)					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	Verbena bonariensis	Tall verbena		60-80cm(D)					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
184													

Herbaceous - Fern/Rush/Sedge

Qty	Name	Common Name	Age	Height	Form	Girth	Clr Stm	Brks	Root	Cntr	Measure Unit	Density (m2/lin m)	Centres
28	Stipa tenuissima	Feather grass							[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28													

Herbaceous - Grass

Qty	Name	Common Name	Age	Height	Form	Girth	Clr Stm	Brks	Root	Cntr	Measure Unit	Density (m2/lin m)	Centres
97	Anemanthele lessoniana	Feather grass							[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
118	Calamagrostis acutiflora 'Karl Foerster'	Foerster's feather reed grass							[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
45	Calamagrostis acutiflora 'Overdam'	Variegated feather reed grass							[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
72	Luzula sylvatica	Greater woodrush							[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
140	Miscanthus sinensis 'Kleine Silberspinne'	Japanese Silver grass							[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	Ophiopogon planiscapus 'Nigrescens'	Black mondo grass or Lily turf							[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
68	Stipa gigantea	Giant feather grass							[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
554													

Herbaceous - Perennial

Qty	Name	Common Name	Age	Height	Form	Girth	Clr Stm	Brks	Root	Cntr	Measure Unit	Density (m2/lin m)	Centres
84	Rudbeckia fulgida deamii	Black-eyed Susan							[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
84													

Shrub

Qty	Name	Common Name	Age	Height	Form	Girth	Clr Stm	Brks	Root	Cntr	Measure Unit	Density (m2/lin m)	Centres
61	Abelia grandiflora 'Francis Mason'	Abelia	1/1	30-40cm				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	Aucuba japonica 'Crotonifolia'			30-40cm				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
112	Brachyglottis 'Sunshine'			30-40cm				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
58	Cistus corbariensis	Sun roses		30-40cm	Bushy			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
63	Cornus alba 'Sibirica'	Westonbirt dogwood		40-60cm				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
50	Escallonia 'Apple Blossom'			40-60cm				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
118	Hebe 'Marjorie'	Hebe		30-40cm	Bushy			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	Hypericum 'Hidcote'			20-30cm(D)	Bushy			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
124	Lavandula angustifolia 'Hidcote'	English lavender		15-20cm(D)	Bushy			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
60	Lonicera nitida 'Baggesen's Gold'	Golden box honeysuckle		20-30cm(D)	Bushy			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
162	Lonicera pileata	Honeysuckle		30-40cm				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	Mahonia media 'Winter Sun'	Oregon grape 'Winter Sun'		30-40cm	Bushy			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
47	Olearia x haastii	Daisy bush		30-40cm	Bushy			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
46	Pittosporum tenuifolium 'Purpureum'	Kohuhu Shrub 'Purpureum'		30-40cm	Bushy			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
39	Prunus laurocerasus 'Cherry Brandy'	Cherry laurel var.		50-80cm				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
64	Prunus laurocerasus 'Otto Luyken'	Cherry laurel var.		30-40cm	Bushy			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	Rosmarinus 'Miss Jessop's Upright'	Rosmary		40-60cm	Bushy			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
32	Sarcococca hookeriana digyna	Sweet box		25-30cm				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
72	Spiraea japonica 'Anthony Waterer'	Anthony Waterer spirea		50-60cm				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
57	Viburnum opulus 'Compactum'	Guelder rose	1/1	30-40cm	Bush			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1262													

Tree

Qty	Name	Common Name	Age	Height	Form	Girth	Clr Stm	Brks	Root	Cntr	Measure Unit	Density (m2/lin m)	Centres
5	Acer freemanii 'Autumn Blaze'	Maple	4x	500-550cm	Semi-Mature	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
8	Amelanchier lamarkii (Multi-stem)	Snowy Mespilus, June Berry, Serviceberry		400-450cm	Multi-stemmed	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
2	Betula albosinensis 'Fascination'	Silver birch	2x	300-350cm	Standard	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
4	Betula utilis 'Jermyns'	West Himalayan birch	2x	300-350cm	Standard	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
5	Carpinus betulus 'Fastigiata'	Hornbeam	3x	500-550cm	Semi-Mature	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
5	Carpinus betulus 'Frans Fontaine'	Hornbeam	3x	425-600cm	Standard (Extra Heavy)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
3	Liquidambar styraciflua 'Worplesdon'	Sweet gum 'Worplesdon'	3x	500-550cm	Semi-Mature	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
11	Prunus avium 'Plena'	Double gean	3x	425-600cm	Standard (Extra Heavy)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
1	Prunus 'Pandora' (Multi-stem)	Japanese Cherry Pandora	3x	250-300cm	Multi-stemmed	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
1	Pyrus calleryana 'Chanticleer'	Callery pear var.	2x	300-350cm	Standard	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
4	Quercus ilex	Holm oak, Evergreen oak	3x	500-550cm	Standard	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
4	Tilia cordata 'Green Spire'	Greenspire linden	4x	min 600cm	Semi-Mature	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
51													

Tree - Conifer (Tree)

Qty	Name	Common Name	Age	Height	Form	Girth	Clr Stm	Brks	Root	Cntr	Measure Unit	Density (m2/lin m)	Centres
1	Pinus sylvestris	Scots pine	5x	400-600cm		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
1													
3348													

N

0 2 4 6 8 10 metres

LEGEND

APPLICATION BOUNDARY

Softworks

SEMI-MATURE TREE

EXTRA HEAVY STANDARD TREE

STANDARD TREE

MULTI-STEM TREE

NATIVE HEDGE PLANTING

ORNAMENTAL SHRUB / HERBACEOUS / GRASS PLANTING

BULB PLANTING

AMENITY GRASS TURF - 'Medallion' turf by Rolawn or equal and approved.

Rev	Date	By	Description
A	07/08/24	GC	Scale bar amended

Drawing Status

FOR PLANNING

CSA environmental
Dixies Barns, High Street,
Ashwell, Hertfordshire SG7 5NT
t 01462 743647
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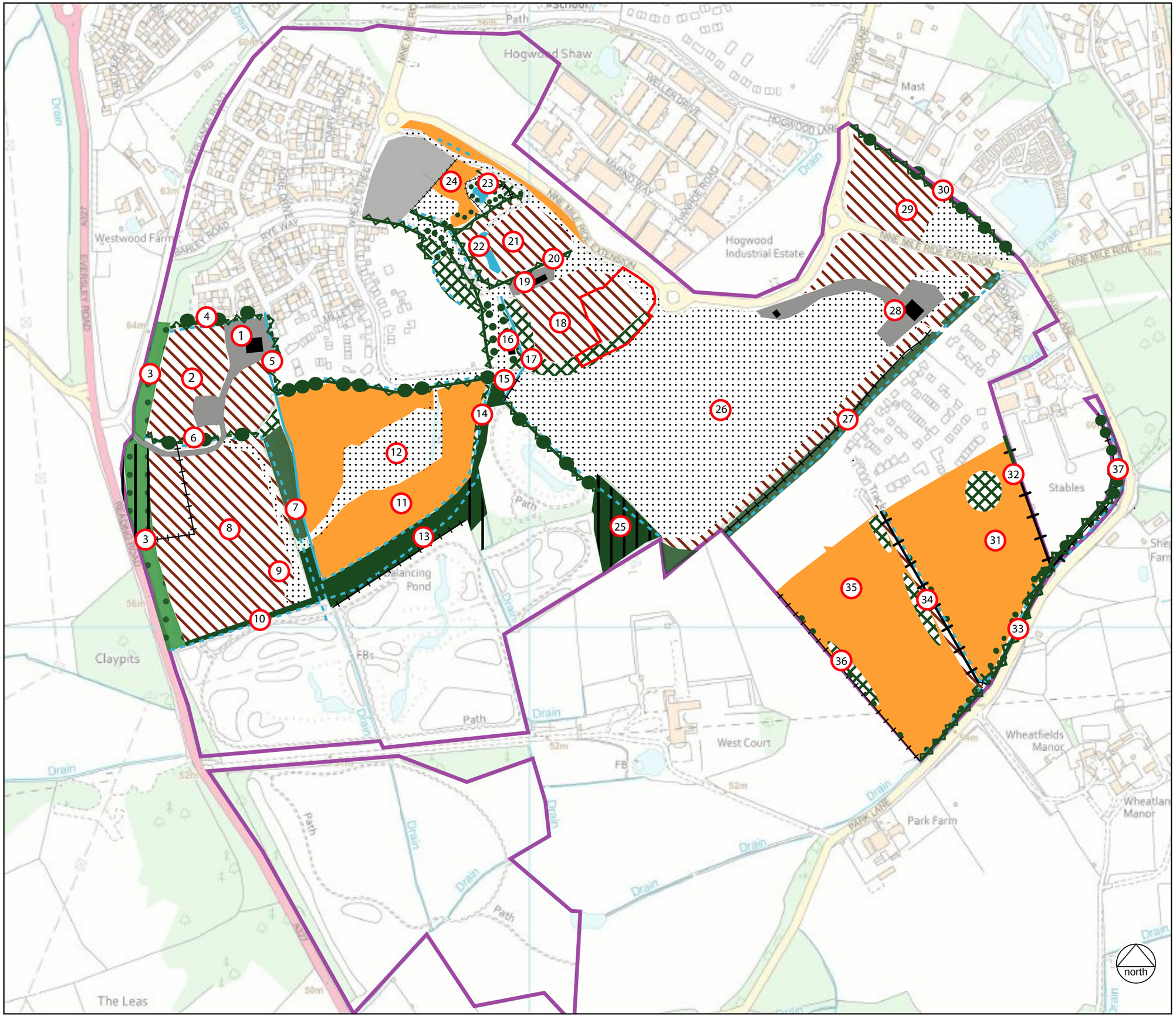
Project	Hogwood Farm, Finchampstead		
Title	Neighbourhood Centre Planting Proposals		
Client	CALA Homes Thames Ltd		
Scale	1:200 @ A0	Drawn	AM
Date	July 2024	Checked	GC
Drawing No.	CSA/6689/133	Rev	A

APPENDIX C

Existing Ecological Features



KEY

- Neighbourhood Centre site boundary
- Wider site boundary
- Lowland mixed deciduous woodland (w1f)
- Other woodland - mixed - mainly broadleaved (w1h5)
- Other woodland - mixed - mainly broadleaved (w1h5)
- Scattered trees
- Native hedgerow (h2a)
- Non-native and ornamental hedgerow (h3b)
- Mixed scrub (h3h)
- Ruderal (81)
- Modified grassland (g4)
- Standing open water (r1)
- Wet ditch / dry ditch (50)
- Fence
- Building
- Developed land - sealed surface (u1b)
- 32 Target Notes

CLIENT:
CALA Homes (Thames) Ltd

PROJECT:
Hogwood Farm, Finchampstead

TITLE:
Phase 1 Habitat Survey Plan - Neighbourhood Centre

SCALE AT A3:
NTS

DATE:
December 2024

868.1/112

The Stables, Howbery Park, Benson Lane, Wallingford, OX10 8BA
t 01491 838175 e consult@hda-enviro.co.uk w www.hda-enviro.co.uk

Landscape Architecture
Masterplanning
Ecology

hda

Target Notes – Arborfield

1. Site yard comprised a hardstanding area with mobile cabins.

2. Relatively sparse ruderal vegetation dominated by Common Nettle *Urtica dioica*, Spear Thistle *Cirsium vulgare*, Common Ragwort *Senecio jacobaea*, Bristly Oxtongue *Helminthotheca echioides* and Common Dandelion *Taraxacum officinale*. Small areas of scattered bare ground/ recently disturbed ground are present. Field margins vary between 1 – 5m and are more densely vegetation with the above species with the inclusion of Annual Meadow Grass *Poa annua*, Red Fescue *Festuca rubra*, Cleavers *Galium aparine*, Broad-leaved Dock *Rumex obtusifolius*, Cut Leaved Cranes Bill *Geranium dissectum*, Field Forget-me-not *Geranium dissectum* and Scarlett Pimpernel *Anagallis arvensis*.

3. Mixed woodland along the western boundary with species including Ash *Fraxinus excelsior*, Larch *Larix decidua*, Scots Pine *Pinus sylvestris*, Beech *Fagus sylvatica*, Pedunculate Oak *Quercus robur* and Black Poplar *Populus nigra*. Some of the trees are mature and have suitable bat roosting features. The understorey is comprised of Elder *Sambucus nigra*, Hawthorn *Crataegus monogyna*, Holly *Ilex aquifolium*, Willow *Salix Sp.* and Hazel *Corylus avellana*. The ground layer is dominated by Bramble *Rubus fruticosus* and Common Nettle with Bracken *Pteridium aquilinum*, Ground Ivy *Glechoma hederacea*, Cleavers, Wood Avens *Geum urbanum*, Herb Robert *Geranium robertianium*, White Bryony *Bryonia dioica* and Black Bindweed *Fallopia convolvulus*. Part of the southern area of this woodland is listed on Natural England's Ancient Woodland Inventory; this area is especially dominated by Larch and other introduced coniferous species.

4. Native defunct hedgerow with trees comprising a hedgerow of Field Maple *Acer campestre*, Hazel, Blackthorn *Prunus spinosa* and Ash, with Ash and Oak mature trees and a dry ditch below.

5. Newly created culvert with a small area of standing water.

6. Treeline of mature Ash and Pedunculate Oak trees with relic species rich hedgerow of Hazel, Holly, Field Maple, Hawthorn and Blackthorn. Some of the mature trees have the potential to support roosting bats. The ground layer vegetation is sparse and mostly comprised of Bramble with occasional Cowslip *Primula veris* and Creeping Thistle *Cirsium arvense.*

7. Lowland mixed deciduous woodland comprised of Pedunculate Oak and coppiced Ash with Wild Cherry *Prunus avium*, Field Maple, Hazel, Hawthorn and Blackthorn. Mature trees are present, some of which have features of bat roosting potential. The ground layer includes Bramble, Cow Parsley *Anthriscus sylvestris*, Ground Ivy, Germander Speedwell *Anthriscus sylvestris*, Common Sorrel *Rumex acetosa* and Lords-and-ladies *Arum maculatum*. A dry ditch is present along the western boundary of the parcel and a ditch that was wet at the time of the survey along the eastern boundary.

8. A field of ruderal vegetation of varying height from 10cm to 50cm in height dominated by Spear Thistle, Common Nettle and Perennial Ryegrass and White Clover *Trifolium repens* with the occasional Creeping Buttercup *Ranunculus repens*, Common

Hogweed *Heracleum sphondylium*, Ragwort and Broad Leaved Dock and Cleavers. Small areas within the parcel are sparsely vegetated with areas of bare ground with occasional ruderal species mentioned above but include Scarlett Pimpernel and Bird Foot Trefoil *Lotus corniculatus*.

9. A small depression of bare ground that had standing water at the time of the survey with occasional Yellow Flag Iris present.

10. Plantation lowland mixed deciduous woodland comprised of White Poplar, Pedunculate Oak, Ash and Field Maple. Mature trees are present, some of which have features of bat roosting potential. Understorey comprised of Holly, Dog Rose *Rosa canina*, Common Nettle, Cow Parsley, Cleavers, Curled Dock *Rumex crispus*, Bramble and Ground Ivy. A dry ditch is present along the boundary along the southern boundary of the wooded strip.

11. Species poor modified grassland of varying sward length between 5cm – 40cm comprised of Perennial Ryegrass, Cocksfoot *Dactylis glomerata*, White Clover, Oxeye Daisy *Leucanthemum vulgare*, Creeping Buttercup with occasional Broad Leaved Dock, Dandelion and Scarlett Pimpernel. Field margins are approximately 4-6m wide and are comprised of Common Nettle, Spear Thistle, Common Vetch *Vicia sativa* and Cow Parsley.

12. Area of bare ground used for storage of construction materials.

13. Lowland mixed deciduous woodland comprised of Pedunculate Oak standards and coppiced Ash with Wild Cherry *Prunus avium*, White Poplar, Field Maple, Hazel, Willow, English Elm *Ulmus procera*, Holly, Hawthorn and Blackthorn. Mature trees are present, some of which have features of bat roosting potential. The ground layer includes Bramble, Wood Avens *Geum urbanum*, Herb Robert, Common Ivy, Wood Spurge *Euphorbia amygdaloides*, Violet *Viola sp.*, Greater Stitchwort *Stellaria holostea*, Common Nettle, Remote Sedge *Carex remota*, False Brome *Brachypodium sylvaticum* and Butcher's Broom *Ruscus aculeatus* present. Standing and fallen dead wood is present throughout the woodland area. The woodland becomes increasingly wet to the west where Willow becomes dominant and dry ditches border most of the woodland edges, a further dry ditch running centrally through the southern area of woodland is also present. The eastern area of this woodland is listed on Natural England's Ancient Woodland Inventory; here the dominant tree species is White Poplar in the south and Pedunculate Oak in the north. This area is demarcated in its western boundary by a small woodbank.

14. Mixed Scrub comprised of Bramble, Blackthorn, Dog Rose and Pendulate Oak samplings over a dry ditch.

15. Artificial Badger sett located at the northern end of TN13.

16. A wooden bat barn set between treelines of Pendulate Oak, Ash and Hazel.

17. Mixed scrub comprised of Bramble, Elder and Holly with large amounts of deadwood above a steep-sided wet ditch. Towards the eastern end of the scrub parcel, Elder becomes the dominant species with the inclusion of ruderals in the ground layer including Common Nettle, Spear Thistle, Cleaver and Broad Leaved Dock.

18. Ruderal vegetation comprised of Perennial Rye Grass, Spear Thistle, Common poppy *Papaver rhoeas*, Cocks Foot, Rosebay Willowherb *Chamerion angustifolium*, Annual Sow Thistle *Sonchus oleraceus*, Common Nettle, and Curled Dock.

19. Listed building with multiple features with bat roost potential including lifted roof tiles and cracks in the brickwork. Situated on an area of concrete hardstanding. Surrounded by scaffolding at the time of the survey.

20. Species-rich native hedgerow comprised of Hawthorn, Hazel, Blackthorn, English Elm and Ash.

21. Ruderal vegetation similar to TN 20 with the inclusion of Oxeye Daisy at high densities and occasional Red Campion *Silene dioica*.

22. A SUDS pond within a parcel of ruderal vegetation described in TN21. Sloping earth banks with occasional Pendulous Sedge *Carex pendula*.

23. A shaded pond approximately 30cm in depth. Tussocks of Pendulous Sedge and patches of encroaching Bramble, Willow, Pedunculate Oak and Alder, border the edge of the pond. The pond area is enclosed by a chicken-wire fence.

24. Modified grassland with a short sward length of approximately 20cm in length comprised of Perennial Rye Grass, Cocks Foot, Red Fescue, Meadow Buttercup, Broadleaved Dock and Dandelion.

25. Lowland mixed deciduous woodland. Dominant species within the woodland include Ash, Pedunculate Oak and Alder with a Hawthorn and Field Maple understorey. The ground layer includes Bramble, Wood Avens, Herb Robert, Ground Ivy, and Hairy Brome *Bromopsis ramosa*. There are fallen wood and dead-wood piles throughout the woodland area and multiple trees with possible bat roosting potential. The woodland, in part, is listed on Natural England's Ancient Woodland Inventory.

26. Large parcel of bare ground with large spoil heaps. During the time of the survey, excavators were topping soil within the parcel. Field margins were sparsely vegetated with ruderal species including Bramble, Curly Dock, Spear Thistle, Ragwort and Common Nettle.

27. Lowland mixed deciduous woodland. A thin strip of broadleaved woodland plantation behind this comprised of Ash, Lombardy Poplar, Field Maple, White Willow, Grey Willow, Dogwood, Hazel, Hawthorn, Blackthorn and Bramble with Common Ivy and Cleavers dominating the ground layer. Some of the trees have features of possible bat roosting potential. A ditch that had small pools of standing water is present along the southern side of the wooded strip.

28. Site compound on hardstanding area.

29. Short ruderal vegetation within the northern end of the parcel similar in species composition to TN18 with the inclusion of Ribwort Plantain *Plantago lanceolata*, Timothy *Phleum pratense*, Musk Mallow *Malva moschata* and Bristly Oxtongue. Bare ground is present across the southern area of the parcel with small field margins

approximately 1m in width comprised of similar short ruderal species as the northern area.

30. A dense, intact, species-rich native hedgerow with trees comprising Pedunculate Oak, Beech, Ash, Goat Willow *Salix caprea*, Black Poplar *Populus nigra*, Field Maple, Dogwood, Hazel, Holly, Bramble and Common Broom *Sarothamnus scoparius*. The hedgerow is approximately 15 years old and tree guards are present on some individual plantings with some mature trees present along the roadside, especially within the southern section of the hedgerow.

31. Modified grassland with species including Yorkshire Fog, Perennial Rye-grass, False Oat-grass *Arrhenatherum elatius*, Cock's Foot, Red Fescue, Common Bent, Creeping Buttercup, White Clover, Doves-foot Cranesbill *Geranium molle*, Common Vetch, Common Mouse-ear *Cerastium fontanum*, Scentless Mayweed *Tripleurospermum inodorum*, Creeping Thistle, Spear Thistle, Common Sorrel, Ragwort, Greater Willowherb *Epilobium hirsutum*, Cleavers, Broad-leaved Dock, Common Knapweed *Centaurea nigra*, Meadow Vetchling *Lathyrus pratensis*, Forget-me-not sp., Fleabane *Pulicaria dysenterica* and Self-Heal *Prunella vulgaris*. Along the treeline to the south, Hemp Nettle *Galeopsis tetrahit*, Lady's Thumb *Persicaria maculosa*, Scentless Mayweed, Prickly Sow-Thistle and Clustered Dock with wet flushes of Sedge and Soft Rush. There are two soil bunds/soil storage piles with tall ruderals dominated by Spear Thistle, Common Nettle, Broadleaved Dock and Smooth Hawksbeard *Crepis capillaris* with large patches of scrub within the grassland with species including Bramble, Elder, Silver Birch and Dog-rose with Common Nettle. There are also piles of deadwood near and within the scrub.

32. Non-native and ornamental species-poor hedgerow comprising Cherry Laurel *Prunus laurocerasus*, Leylandii Cypress *Cupressus x leylandii* and Elder, broken by Bramble scrub on the north-eastern edge of the grassland field (TN 31). To the south of the hedgerow, continuing along the field boundary is a wooden post and electric wire fence which is overgrown with tall grasses and ruderal vegetation.

33. An outgrown, defunct native species-rich hedgerow with trees adjacent to Park Lane, with a dry ditch below. Species within the hedgerow include Pedunculate Oak, Black Poplar, Gorse (*Ulex europaeus*), Holly, Grey Willow, Blackthorn, Bracken and Bramble. A treeline of Pedunculate Oak is present approximately 5m into the field from the hedgerow.

34. A ditch that was dry at the time of survey with scattered Bramble scrub and trees including Willow and Pedunculate Oak, some of which have possible bat roosting potential. Behind the ditch is a fence and a dirt track, used as an access route into the site. A scrub line is present along the eastern side of the track and is 1-2m wide comprised of Grey Willow, Dog Rose, Oak and Bramble scrub. Track supports ephemeral vegetation including Scentless Mayweed, Cocks Foot, Smooth Hawksbeard, Common Yarrow, Hawthorn saplings, Common Bent and Spear Thistle.

35. Modified grassland field with a similar species composition to Target Note 31, with more Bent dominant in the north and False Oatgrass and Fescue sp. dominated to the south. Occasional species include Greater Plantain, Ribwort Plantain, Greater Birds-foot Trefoil, Common Hogweed, Cleavers, Meadow Vetchling, Mouse-ear, Common Vetch, Common Fleabane, Creeping Buttercup, Red Fescue and Soft Rush.

Bramble scrub is present along many of the field boundaries, with Common Nettle also present. A wet flush is present within the west of the field and contains Common Horsetail, Common Nettle, Sow Thistle, Soft Rush and occasional Hemp Nettle.

36. Scattered semi-mature trees and scattered areas of dense scrub along fence line. Species present include Oak, Ash, Blackthorn, Dog Rose, Bramble and Common Nettle.

37. A line of scrub and trees with a dry ditch bordering Park Lane.

APPENDIX D

Management Schedules

Grassland Management

Habitat Type	Management Phase	Operational objective	Activity	J	F	M	A	M	J	J	A	S	O	N	D
Amenity	Establishment	Ensure establishment of a healthy sward.	Carry out first cut once grass has reached 5cm, cutting off 1cm, and lightly roll. Maintain sward at 5cm by regular cutting at appropriate intervals through the growing season.			1	1	2	2	2	2	1	1		
	Maintenance	Maintain a short, neat sward for moderate recreational use. Prevent encroachment of woody species.	Regular cutting to 5cm throughout March-October (up to 14 times per year). Water and weed when needed.			1	1	2	2	2	2	1	1		
All new grassland	Establishment	Control problem species, e.g. Ragwort, Nettles, Thistle	Apply spot herbicide as required (Assume 1% of total area to be treated) or hand pull if within 5m of waterbodies					1							
	Maintenance	To maintain a healthy and uniform sward. Do not apply organic or inorganic fertilisers or lime. Do not apply insecticides, herbicides or fungicides; the exception is herbicides for the control of specific problem weeds – herbicides for these species should be applied by weed wiper or spot treatment with a back-pack sprayer.	Repair any erosion and settlement with re-seeding with the same species seed mix as used originally at appropriate time during the growing season.												

Note: Shaded blocks indicate recommended window for the relevant management activity to be carried out. Numbered blocks indicate that management should be carried out at this time and the frequency.

Hedgerows and Boundary Management

Type	Management Phase	Operational Objective	Activity	J	F	M	A	M	J	J	A	S	O	N	D
Ornamental Hedgerows (new)	Establishment	Establish new ornamental hedgerows.	Plant hedgerows and protect with appropriate guards (see 'Trees and Scrub' schedule). Cut annually for 3 years to encourage bushy growth.												
	Maintenance	Maintain and enhance ecological value. Allow the development of standard trees within the hedges.	Cut up to 3 times a year using tractor mounted cutter or hand held equipment (preceded by nesting bird check where appropriate).						1		1		1		
Plant guards	Establishment	Protect from animal damage.	Inspect and maintain guards twice a year for up to 5 years after planting (see 'Trees and Scrub' schedule).												
Fences and gates	Maintenance	Maintain condition and safety, and integrity of fencing and any gates not pertaining to private curtilages.	Inspect annually and repair as necessary.												
All boundaries	Maintenance	Maintain condition and ensure boundaries are fulfilling duties.	Inspect twice per annum.												

Note: Shaded blocks indicate recommended window for the relevant management activity to be carried out. Numbered blocks indicate that management should be carried out at this time and the frequency.

Tree and Shrub Management

Habitat Type	Management Phase	Operation Objective	Activity	J	F	M	A	M	J	J	A	S	O	N	D
New tree and shrub planting	Establishment	Ensure establishment of healthy trees and shrubs	Protect with appropriate guards.												
			Maintain >1m weed-free zone around base of newly planted trees and shrubs using mulch and/ or 3 herbicide applications per year.				1		1			1			
			• Annual pruning of establishing fruit trees (if plums planted, prune in summer).												
			• Replace any dead plants during establishment period.												
		Ensure establishment by observing moisture levels around base of trees during dry months and tree stakes are intact.	• Water during long, dry spells. • Regularly check tree stakes until fully established, 3 times per year. Repair and replace damaged tree stakes and ties. Remove stakes once established. • Keep clear stems up to 2m.												
	Maintenance	Maintain and enhance for ecological diversity, amenity and public safety.	• Coppice shrubs on a 10 year rotation (or as required), cutting no more than 1/5 of all shrubs each year. Use brash from cuttings to protect stools, and stack logs. • Inspect. Stop low branches and scrub encroaching onto footpaths. • Continue pruning of fruit trees (if plums planted, prune in summer).												
		Maintain for public safety and check for diseases.	Inspect. Fell dangerous trees, remove dangerous branches.												
Plant guards	Establishment	Protect from animal damage.	Inspect and maintain guards twice a year for up to 5 years after planting.												
Tree stakes	Maintenance	Maintain for support of trees until self supporting.	Check ties 3 times per year. Tighten/loosen and replace as necessary. Remove stakes once established.												

Note: Shaded blocks indicate recommended window for the relevant management activity to be carried out.

Furniture, Footpath and Miscellaneous Management

Type	Management Phase	Operational Objective	Activity	J	F	M	A	M	J	J	A	S	O	N	D
Furniture (benches, bins etc)	Maintenance	Ensure furniture is safe and fit for purpose. Become aware of any site vandalism.	Assessment carried out annually during site inspection.												
Footpaths	Maintenance	Maintain footpaths in good order, removing encroaching vegetation, weeds and repair any structural damage.	Apply herbicide annually if required. Review potholes annually and reprofile as necessary.												
Litter and fly tipping	Establishment, Maintenance	Ensure site is kept free from litter and fly tipping.	Clear litter from site while undertaking maintenance tasks throughout the year. Fly tipping to be monitored and reviewed.	1	1	1	1	1	1	1	1	1	1	1	1
Deadwood	Maintenance	Construct log and brash piles through areas of habitat from deadwood and felled trees/scrub.	Create piles from deadwood and felled vegetation during maintenance.												
Non-native Invasive Species	Establishment, Maintenance	Prevent re-establishment of non-native invasive species.	• Inspect annually and control any alien or invasive species (e.g. Rhododendron) as they appear.												
Site inspection and audit	Maintenance	Ensure site is establishing, identify any particular problems as early as possible. Ensure maintenance is running effectively in the long term.	Inspection of site establishment and maintenance effectiveness every 6 months. Update management plan as appropriate.												

Note: Shaded blocks indicate recommended window for the relevant management activity to be carried out. Numbered blocks indicate that management should be carried out at this time and the frequency.

APPENDIX E: DAILY ENVIRONMENTAL RECORD FORM

JNP GROUP
CONSULTING ENGINEERS

Offices Nationwide
Brighouse · Bristol · Chesham · Glasgow
Hartlepool · Leamington Spa · Sheffield
jnpgroup.co.uk

EXAMPLE DAILY SITE ENVIRONMENT FORM

To be completed daily by the constructed Manager/ Environmental Manager and retained on site within the Environmental File for submission with the Monthly Environmental Report

Date Action	Mon	Tue	Wed	Thu	Fri	Sat	Week Ending / /
Noise and Vibration							
Noise and Vibration							
Dust/Air Quality							
Archaeology							
Ecology							
Water Resources							
Ground Conditions, Contamination and Hazardous Material							
Soil and Water Management							
Sediment Controls							
Off Site Disposal							
Roads clean of dirt/mud							
Stockpiles							
Waste Management: Hazardous Waste							
Asbestos							
Hydrocarbon							
Other							
Waste Management: Non-hazardous Waste							
Soil							
Steel							
Demo Waste							
General							
Weather							
Rain (mm)							
Wind max (km/hr)							
Other							
Maximum Trip							
Complaints Received							
Refuelling							
Other (as required)							
Additional Comments:							

Environmental Manager/ Site Manager	Construction Manager / Project Manager
Name:	Name:
Sign:	Sign:

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