



Appendix 17.5

Outline Landscape and Ecology Management Plan (LEMP)

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APPENDIX 17.5: OUTLINE LANDSCAPE & ECOLOGICAL MANAGEMENT PLAN (OLEMP)

Client

Pigeon and Bloor Homes

Project

Hemel Hempstead

Date

December 2025

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Rev	Issue Status	Prepared/Date	Approved/Date
-	Draft	EAF/06/11/2025	BC/17/11/2025
-	Final	DAH & EAF/26/11/2025	DAH / 26/11/2025
A	Final	EAF/03/12/2025	EAF/03/12/2025

1.0 INTRODUCTION

- 1.1 This Outline Landscape & Ecological Management Plan (OLEMP) has been prepared by FPCR Environment & Design Ltd. on behalf of Pigeon and Bloor Homes. It sets out in outline form an overarching draft structure and strategy for habitat protection, creation and management approaches for existing and new green infrastructure (GI), at the North Hemel Hempstead development, part of the Hemel Garden Communities development.
- 1.2 This document is prepared in *outline* only to accompany the planning application. A final LEMP will be prepared and secured via a planning condition.
- 1.3 Landscape proposals have not been prepared at this stage and the OLEMP should be read alongside the Green Infrastructure (GI) Strategy and the Parameter Plans that accompany the application. The landscape features and habitats outlined in **Section 4** are anticipated to be provided within the GI across the proposed development as appropriate to the open space typologies detailed within the GI Strategy.
- 1.4 A separate Outline Suitable Alternative Natural Green Space (SANG) Mitigation and Management Plan (OSMMP) is included at **Appendix A**. The OSMMP deals specifically with the SANG proposals put forward to mitigate impacts upon the Chilterns Beechwood Special Area of Conservation (SAC). The OSMMP document is high level and sets out the key principles only. A final SMMP will be prepared and secured via planning condition.

Legislation & Policy

- 1.5 All relevant EU and UK nature conservation law will be adhered to in relation to the protection of ecological features and ecological enhancement. This includes the protection afforded to nesting birds under the Wildlife and Countryside Act 1981 (as amended) and with reference to the protection of great crested newts and bats and their roosts under the Conservation of Habitats and Species Regulations 2010 (as amended). Regard has also been given to the Local Biodiversity Action Plan (LBAP) and Habitats of Principle Importance (HPI) as listed within Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.
- 1.6 This document does not provide the same specification or level of detail that is included in a Biodiversity Net Gain Plan or Habitat Mitigation and Monitoring Plan (HMMP) to secure the management and monitoring of habitats in order to maintain their required condition status. It does however outline how habitats are created and managed as part of the scheme.

Health & Safety

- 1.7 Care will be undertaken throughout the design process and during construction at all stages to consider the health and safety aspects of the proposals.
- 1.8 The site may contain some potentially hazardous features such as footpaths across roads, overhanging trees and bodies of water and also potentially hazardous operations, including tree works, maintenance works near or on highways, works near, on or in water, works involving the use of cutting machinery and potentially hazardous chemical agents, works to steep slopes, works near buried services and overhead services and frequently a combination of these.

- 1.9 The Landscape Company¹ will check for below and above ground services, including land drainage, in the vicinity, and give notice if they may be affected and obtain instructions before proceeding. The Landscape Company will comply with Arboriculture and Forestry Advisory Group Safety leaflets.
- 1.10 The scheme should be implemented by a competent Landscape Company of landscape managers and operatives, who are responsible for the application of best practice standards and all relevant health and safety procedures, protection of the environment, avoidance of pollution and protection of protected species and habitats. The management items set out in this document in no way remove their responsibilities to current, or any future, statutory and best practice procedures or obligations.
- 1.11 Care must be taken during the management and the design of that management to assess, and where practicable reduce or eliminate risks. To this end the Landscape Company will periodically carry out a Health and Safety Audit. This audit will review health and safety considerations and make recommendations on works necessary to maintain the Park in a safe condition. These can be worked into the landscape management as it evolves.

Management Responsibilities

- 1.12 The future intention for management is to transfer the management responsibilities to a Residents Estate Management Company².
- 1.13 The Residents Estate Management Company shall be responsible for all periodic maintenance as outlined within this document for all landscaped areas. The Residents Estate Management Company will ensure that management complies with best practice standards and all relevant health and safety procedures, protection of the environment, avoidance of pollution and protection of protected species and habitats.

¹ Landscape Company= A wider term which refer to the Landscape Contractor(s) that would implement the development GI/landscape proposals,

² Residents Estate Management Company = A wider term which refers to a Landscape Management Company or specific Management bodies, or operatives that would manage the developments GI.

2.0 VISIONS, AIMS & OBJECTIVES

Vision

- 2.1 The landscape design strategy has been prepared in the context of a thorough and detailed understanding of the site landscape and its context and within the framework of relevant policy and design guidance. The landscape design embraces broader Green Infrastructure (GI) and sustainable development principles and seeks to maximise these multifunctional benefits wherever practicable. Green and blue infrastructure has been devised to integrate the urban area with the landscape and ecology elements and connect the Site to the wider landscape.

The **Vision** for the landscape design strategy is to:

Increase the biodiversity and recreational value of the site over the long-term

Aims & Objectives

- 2.2 The Vision consists of four main Aims, with each Aim being sub-divided into its Objectives. The **Aims** are outlined below, with **Objectives** described in detail on the following pages.

Aim 1: Maintain and enhance the landscape character and biodiversity value of the site

Objective 1: Protect and maintain retained landscape habitats and any protected species within the site;

Objective 2: Create a matrix of complimentary new landscape habitats

Aim 2: Balance development recreation with wildlife

Objective 3: Provide a safe and inspiring recreational and leisure resource for recreation and play.

Aim 3: Manage the site for biodiversity value in the long-term

Objective 4: Ensure the matrix of new and existing habitats establish and are suitably maintained to ensure long-term biodiversity gain while adopting sustainable practices

Aim 4: Monitor the site and review the Plan

Objective 5: Provide a framework of monitoring and review periods.

3.0 HABITATS & PROTECTED SPECIES TO BE RETAINED & PROTECTED

Objective 1: Protect and maintain retained habitats and protected species within the site.

- 3.1 Existing habitats will be retained within the development and will be appropriately protected through the enabling and construction phases.

Pre-construction Mitigation Measures

- 3.2 The following table outlines the ecological mitigation measures to be undertaken ahead of commencing works on site in order to minimise impact from construction of the development.

Existing Hedgerows and Trees

- 3.3 The vast majority of the existing hedgerows and trees are to be retained within the proposed development. Retained trees will be left unmanaged unless otherwise dictated for reasons of public safety or to benefit the woodland structure or other adjacent or associated habitats or species.
- 3.4 During construction, retained hedgerows will be protected in accordance with BS5837:2012 by high visibility fencing as set out in the Arboricultural Method Statement, or where this is not available; fencing will be erected approximately 3m from the outside edge of the hedgerow. Retained trees will be protected by fencing erected according to their calculated root protection area (RPA) in the Arboricultural Method Statement. No removal of woody vegetation will take place during the bird nesting season (March to September inclusive) unless a thorough survey by an appropriately experienced ecologist first confirms that no active nests are present. Where possible, works will be limited to January/ February to provide fruits and berries in the autumn for foraging birds. Any work will accord with the Wildlife and Countryside Act 1981 (as amended).
- 3.5 Trees will be inspected for signs of stress, disease or damage and appropriate remedial action taken. Arisings from any tree management activity will, where appropriate, be retained on site in piles to create wood habitat to maximise invertebrate and bryophyte biodiversity. Where it accords with health and safety inspection, standing dead wood will be left in-situ to provide additional dead wood habitats.

Existing Grassland

- 3.6 Existing retained grassland will be kept short through mowing to prevent it becoming colonised by reptiles.

Mitigation Measures during Construction

Existing Hedgerows and Trees

- 3.7 Protective fencing will be maintained around the retained trees and hedgerows throughout the site, as set out in the Arboricultural Method Statement. Regular checks will be undertaken throughout the enabling and construction phase to ensure these are maintained. This will include inspections for breeding red kites, which were recorded in 2023, but not in 2025.
- 3.8 Any trees that require felling will be in accordance with the Arboricultural Method Statement and shall be assessed for bat roosts by a suitably qualified Ecologist.

- 3.9 Any hedgerow removal should be checked and overseen by a suitably qualified Ecologist.

Existing Grassland

- 3.10 Existing retained grassland will be kept short through mowing to prevent it becoming colonised by reptiles, if present in the surroundings.

Lighting

- 3.11 No construction lighting will be permitted to shine on retained hedgerows or woodland to protect nocturnal animals such as bats. Alternatively, construction will be restricted to daylight hours, finishing at least 30 minutes before sunset and commencing at least 30 minutes after sunrise during the main bat activity season (April to October inclusive).

Excavations

- 3.12 Trenches or large excavations will be covered overnight to prevent wildlife falling in and failing to escape, or a strategically placed plank will provide a means of escape. Any large bore pipes will be capped at the end of the day to reduce the potential for wildlife to enter and become trapped.

4.0 LANDSCAPE & HABITAT IMPLEMENTATION

- 4.1 This section outlines the works required to ensure successful implementation and initial establishment of the proposals while **Section 5** outlines the works programme and management regime.

Objective 2: Create a matrix of complimentary new habitats

- 4.2 The Plan will create a matrix of new and existing habitats and corridors through the site to encourage the establishment and movement of wildlife and to enhance local landscape character.

General

- 4.3 New shrub, tree and hedgerow planting are to be delivered and planted in accordance with HTA Standard 'Handling and establishing landscape plants' (obtainable from the Horticultural Trades Association) Part III, paragraphs 6.2 to 6.6 and should also accord with the planting plans. All plants should be stored only when necessary, in accordance with the HTA's 'Handling and establishing landscape plants' (obtainable from the Horticultural Trades Association) Part I, Part II and Part III, paragraphs 1.3.3 to 1.3.6, 3.0, and 4.0.
- 4.4 Planting is to remain materially undamaged, sturdy, healthy and vigorous, planted upright or well balanced with best side to front. Trees and shrubs are to be of good shape and without elongated shoots, grown in a suitable environment and hardened off before being delivered to the site. All planting is to be true to name, of UK provenance and free from pests, diseases, discoloration, weeds, fungus and physiological disorders.
- 4.5 All trees should take into consideration the recommended minimum distances to foundations as set out in Chapter 4.2 of the NHBC Standards. Planting should accord with these standards unless checked and verified by the project engineer. For further species calculations refer to Chapter 4.2 of the NHBC Standards, and for species not included use a mature height of 2/ 3 the specified height in A. Mitchell's 'Trees of Britain and Northern Europe'.
- 4.6 All works are to be undertaken with due diligence being sure to leave the works in a clean and tidy condition at completion and after any maintenance operations. Protect areas affected by planting operations using boards/ tarpaulins and do not place excavated or imported material directly on adjacent grassed areas.
- 4.7 Bare root deciduous planting shall be carried out from late October to late March; conifers and evergreens either September/ October or April/ May, herbaceous plants [including aquatic and marginal] September/ October or March/ April. Container grown plants can be planted at any time of year if ground and weather conditions are favourable. Bare root deciduous planting to be carried out only during suitable ground and weather conditions. Planting shall not be carried out in waterlogged or frozen ground.

Native Woodland & Woodland Edge Planting

- 4.8 Lowland Mixed Deciduous Woodland is identified as a Habitat of Principle Importance (HPI) as listed within Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

- 4.9 New areas of native woodland planting will be established adjacent to existing trees and hedgerows to enhance the existing habitats. Inclusion of a range of fruit/ flower seed bearing species within the planting scheme will provide foraging opportunities for a wide range of vertebrate and invertebrate wildlife, furthermore the inclusion of species of varied size and form will provide amenity interest throughout the year.
- 4.10 New trees should be planted between October and March, avoiding periods of inundation or prolonged ground frost. This will accord with BS 8545:2014. Trees are to be mulched using wood chippings or bark to establish a 1m diameter around the tree stem. Woodland planting should be well heeled, protected by rabbit proof guards with a cane support.

Tree Planting

- 4.11 New trees should be planted between October and March (if bareroot and deciduous), avoiding periods of inundation or prolonged ground frost. This will accord with BS 8545:2014. Trees are to be mulched using wood chippings or bark to establish a 1m diameter around the tree stem.
- 4.12 Trees should also be planted to form 'bat hop-overs' where linear vegetative features, i.e. hedgerows and tree boundaries, are punctured by roads and paths; this is particularly important along Holtsmere End Lane, Hemel Hempstead Road and Little Revel End. These will promote habitat connectivity and specifically ensure that bat navigational features remain intact and that bats cross the road/ path at a safe height. Trees should be planted either side of the road and/ or path with overhanging braches that create will try to create a continuous canopy over the gap as the planting matures.

Locally Distinctive Traditional Orchard Tree Planting

- 4.13 Traditional Orchards are identified as a Habitat of Principle Importance (HPI) as listed within Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.
- 4.14 Species will primarily be chosen with local providence where possible, while still choosing species that are suitably robust and disease resistant. New trees should be planted between October and March, avoiding periods of inundation or prolonged ground frost. This will accord with BS 8545:2014. Trees are to be mulched using wood chippings or bark to establish a 1m diameter around the tree stem.

Native Hedgerow Planting

- 4.15 Hedgerows are identified as a Habitat of Principle Importance (HPI) as listed within Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.
- 4.16 New hedgerows will be created as part of the development, to include infilling areas to connect existing hedgerows.
- 4.17 New hedgerows will be planted during the planting season (October to March inclusive) and will comprise mixed, native species planting at a density of 5 plants per linear metre, with plants arranged in an off-set double staggered row (DSR) in species groups of 5 to 11. Individual spiral guards and bamboo canes will be required to prevent damage to saplings by browsing rabbits. The use of post and wire fencing for support should be considered in prominent public areas.

- 4.18 Allow new hedgerows to establish to a height of 2m then cut 50% on rotation every 2 years, maintaining the height of the hedgerow to at least 1.5m.
- 4.19 New hedgerows will be created as part of the development, providing additional structure to the existing and proposed landscape framework.
- 4.20 Plants to be a minimum of 300mm from any adjacent hard surface. All stock to be well watered when planted with 20L of water per m². Following planting and watering operations, all beds are to be mulched with 75mm of mulch (5-75mm particle size, British origin, FSC certified).

Ornamental Shrub (including Feature Shrubs) and Grass Planting

- 4.21 Plants must be set in the holes at the same depth at which they have previously been growing with planting holes excavated approximately 150mm larger than the root balls and backfilled with a mixture of topsoil.
- 4.22 Plants to be a minimum of 300mm from any adjacent hard surface. All stock to be well watered when planted with 20L of water per m². Following planting and watering operations, all beds are to be mulched with 75mm of mulch (5-75mm particle size, British origin, FSC certified).

Other Neutral Grassland: Meadow Grassland

- 4.23 Areas to be sown will be first rotovated and raked or harrowed to produce a medium fine, firm tilth. Fertiliser will not be applied at any point as this will lead to dominance of nutrient loving species such as broad-leaved grasses, nettles and docks. The seed mix will be sown at a density as per the general manufacturer's recommendation to allow space for each species to establish and to produce good ground cover.
- 4.24 Seed will be sown in the autumn or spring, selecting a time when the soil is moist and can be worked. Seeding will be sown by hand broadcasting, seed fiddle, spinner, hydroseeding or grass seed drill on the surface and will not be raked or harrowed in.
- 4.25 Emorsgate EM3 Special General Purpose Meadow Mixture or similar will be provided. In certain areas this will be complemented by species that provide specific seeds for bird species, these will typically be positioned on edges away from footpaths.

Wet Grassland

- 4.26 New areas of wet grassland will be seeded using an appropriate species-rich mix such as Germinal Mix WFG9 – Wetland and Pond Areas or similar native species mix.
- 4.27 Areas to be seeded are associated with the attenuation ponds with species selected to accommodate the periodically wet conditions.
- 4.28 Wet grassland seed will be sown at a density as per the general manufacturer's recommendation to allow space for each species to establish, and to produce good ground cover. Areas to be sown will be first rotovated and raked or harrowed to produce a medium fine, firm tilth. Fertiliser will not be applied at any point as this will lead to dominance of nutrient loving species such as broad-leaved grasses, nettles and docks. The Contractor will protect newly seeded areas to prevent seedling destruction by pedestrians.

- 4.29 Seed will be sown at a time when the soil is moist and can be worked, in the autumn (September/ October) or spring (March/ April), and not during the summer months. Seeding will be sown by hand broadcasting, seed fiddle, spinner or grass seed drill on the surface and will not be raked or harrowed in. A Cambridge (ribbed) roll is recommended to be used for one or two passes to firm and level the surface and create good seed soil contact. During initial establishment the grassland should be mown when it reaches 100mm in length for the first year.

Amenity Grassland (Modified Grassland)

- 4.30 New short sward amenity grassland areas will be established using a suitable species-rich native flowering grassland mix such as Emorsgate EL1 – Flowering Lawn Mixture, sown as per the manufacturer's instructions.
- 4.31 Areas to be sown will be first rotovated and raked or harrowed to produce a medium fine, firm tilth. Seed will be sown in the autumn or spring, selecting a time when the soil is moist and can be worked.
- 4.32 The above seed mix includes many perennial species that can be slow to germinate and grow. Ground cover will therefore likely take longer to develop than conventional lawn sowings and may take 12-18 months to knit together as turf. Newly seeded areas will therefore be protected to prevent seedling destruction by pedestrians.
- 4.33 Areas within the SANG for public access will utilise a meadow grassland seed mix that are provided throughout it, simplifying the creation process, however management will ensure that these are short mown routes that can be used by residents, this may also extend into some boundary areas. Over time as regular mowing takes place, the species content will drop, whereby a more modified grassland structure and mix will develop. The future management of these sections in the SANG will be similar to more defined amenity areas around the built development.

Turf *(potential for use in more formal landscaping within built development areas)*

- 4.34 Turf Areas with Rowlan Medallion Turf. Turf should be a healthy, vigorous grass sward, free from the visible effects of pests, weeds and disease. In appearance, a closely knit, continuous ground cover of even density, height and colour. All turfing operations to conform with 'British Standard 3969:1998 Recommendations for Turf for General Purposes'.
- 4.35 Prepare ground to a fine tilth breaking up and clods of earth and rake to contours. Stone pick the area removing any material 50mm and over. Lightly roll or firm the soil to avoid any soft areas and repeat until the ground is evenly firm and level (but not compacted). The area to be turfed will be watered prior to laying turfs.
- 4.36 Turf to be laid on day of delivery. Turf to be supplied in rolls, not dried out or yellowed, to be undamaged without holes or torn or ripped edges. Turf grown on any nylon matting will not be accepted. Turf will be weed free and of a uniform size and thickness.
- 4.37 Turf must be laid butt jointed with no gaps or overlapping, laid from suitably sized running boards so not to damage turf. Walking over or standing on the turves will not be allowed until fully established. The finished surface level of grassed areas is set above the height of adjacent

hard surfacing to a minimum 10mm compacted level above adjacent hard surface levels or sufficient to enable effective mowing of the grass without the potential for damaging mower blades against kerbs.

- 4.38 Turf areas should be watered immediately after laying as necessary to ensure the establishment and continued thriving of turfing areas. Thereafter for the first week turf should be water once a day. In hot weather conditions, for best results, watering should take place twice a day. Wet to full depth of topsoil. Fencing erected on completion of turfing to communal areas. Chestnut pale fencing to BS 1722-4, 1.2 m high. Removal after grass is well established. The fencing will remain the property of the contractor.

SuDS

- 4.39 Attenuation ponds and swales will be seeded with a wildflower mix that can tolerate wet ground conditions (see Wet Grassland above). Any permanently wet areas and the drainage function of the basins/ swales will be managed through:

- Litter removal to prevent blockages/debris/fly tipping.
- Maintenance of marginal vegetation around areas of open water. This includes removal or arisings from site.
- Monitoring of channels and inlet and outlet structures (including after storm events), with remedial work as required to maintain water flows and prevent silt/vegetation build up.
- Cutting back of any naturally colonising bank side vegetation as required (ideally mid-September to February).
- Making good of any damage to surrounding landscape areas.

Marginal Plug Planting (*where SuDS are designed to be permanently wet*)

- 4.40 Ponds are identified as a Habitat of Principle Importance (HPI) as listed within Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.
- 4.41 As well as being sown with a wet grassland mix, the attenuation ponds will also be planted with areas of aquatic/ marginal planting to create further biodiversity habitats such as providing food and shelter to wildlife such as newts and water voles.
- 4.42 From a wildlife point of view, ponds do not need to have large areas of open water; ponds which appear to be choked with vegetation often support the greatest diversity of plant and animal species. The habitat value is, however, enhanced if there are a variety of vegetation structures from dense tussock stands to bare and recently colonised mud. Management of these wetland areas will therefore aim to create variation with minimum disturbance to animal populations.
- 4.43 Plants to be planted at a density of 4no. plants per m² and firmly heeled in to prevent plants being dislodged/ floating away.

Reed Bed Planting (*potential for use where SuDS are designed to be permanently wet*)

- 4.44 Ponds are identified as a Habitat of Principle Importance (HPI) as listed within Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.
- 4.45 The attenuation ponds will also be planted with areas of aquatic/ marginal planting to create further biodiversity habitats such as providing food and shelter to wildlife such as newts and water voles.
- 4.46 From a wildlife point of view, ponds do not need to have large areas of open water; ponds which appear to be choked with vegetation often support the greatest diversity of plant and animal species. The habitat value is, however, enhanced if there are a variety of vegetation structures from dense tussock stands to bare and recently colonised mud. Management of these wetland areas will therefore aim to create variation with minimum disturbance to animal populations.
- 4.47 Species to comprise of *Phragmites australis* (common reed), in 9cm container grown plants to be planted at a density of 6no. plants per m² and firmly heeled in to prevent plants being dislodged/ floating away.
- 4.48 Reed beds should last at least 15 years before renewal is required, if not longer, due to low level of particulates expected. Regular management of marginal species may be needed within the existing pond that is located within the SANG, this is limited in size and species such as bullrush and reed can outcompete other native plants, eventually clogging up the waterbody. Every 2-3 years such species should be removed including their roots, but no more than a 1/3 should be removed at any one time.

Bulb Planting

- 4.49 Areas of bulb planting are to be included within areas of amenity grassland. Planting will take place from late summer through to autumn. Topsize bulbs should be planted 300mm apart, planted in random swathes in the areas shown, at three times their depth.

Ecological enhancements

- 4.50 Additional ecological enhancement may include the following:
- Bird/ Bat/ Dormouse Boxes
 - Hedgehog Highways
 - Hibernacula Refugia for Reptiles/ Amphibians/ Insects – may include:
 - Log Piles
 - Standing Dead Wood
 - Bee Banks
 - Beetle Banks

Objective 3: Provide a safe and inspiring recreational and leisure resource.

- 4.51 The proposed development will incorporate large areas of visually attractive meadow grassland, tussock grassland, limited short sward/ amenity grassland, trees, woodland, woodland edge/ scrub, hedgerows and ground flora. The GI will incorporate the SANG. Altogether, this will provide an extensive public, mostly informal, amenity with a variety of open spaces and recreational routes to encourage public access across the site. These routes will link to the existing public rights of way and include a circular route, a requirement of SANG criteria, to provide an interconnected network, reducing the potential for unauthorised desire lines through more sensitive habitats.
- 4.52 Street furniture, including litter bins will be provided at appropriate locations throughout the site. Litter will be regularly collected and removed to avoid harm to wildlife and discourage potential pests.
- 4.53 Interpretation signage *could* be provided at appropriate locations as an educational resource to the development, particularly the SANG. The location of indicative signage within the SANG is shown on the Indicative Landscape Proposals for Suitable Alternative Natural Greenspace (Ref.12578-FPCR-ZZ-ZZ-DR-L-0007), included with the OSMMP at Appendix A.

Fencing, Gates and Street Furniture

- 4.54 Fencing and, where necessary, gates will be utilised where necessary and appropriately specified to suit both location and function. Similarly, street furniture will be appropriately sited and specified to suit both its location and function. Specifications will be provided at the detailed design stage.

Footpaths/Recreational Routes

- 4.55 Where footpaths or recreational route that are to be surfaced, both the surface and edging materials will be specified at the detailed design stage. All surfaced footpaths within the landscape areas should remain clean, tidy and safe for public use, free from weeds and litter.

Sports Pitches

- 4.56 Sports pitches, to include drainage, will be designed and specified by a specialist at the detailed design stage. A suitable sports turf mix/seed will be used for the pitch areas, to be implemented and maintained to manufacturer's instructions.

Play Equipment

- 4.57 Play equipment will be appropriately specified to suit locations within the development and target age groups. Specifications will be provided at the detailed design stage. The play areas will be maintained and managed as safe, clean and attractive environments for public use.

Allotment Plots

- 4.58 The National Allotment Society states '*10 poles is the accepted size of an allotment, the equivalent of 250 square metres*'. However, half sized allotments tend to be more desirable, resulting in allotments at 125m². Allotment plots will generally be designed with two half sized allotments located adjacent to each other to give the flexibility for full sized allotment use if required in the future.

Other Requirements

- 4.59 The Residents Estate Management Company will notify Pigeon and Bloor Homes should any properties encroach upon or into the areas of GI as soon as this is observed e.g. introduction of private gates onto planting areas/ additional private access or fencing to landscaped areas. The Residents Estate Management Company will also ensure that accesses are kept clear for maintenance.
- 4.60 Litter picks and general litter clearance should be carried out across all landscape areas on a regular basis, to include existing tree belts and hedgerows as well as new habitats. Litter picks should be undertaken during every maintenance visit. The overall objective is to ensure that all landscape areas are free from litter and fly tipping, remaining attractive and safe for public enjoyment.

5.0 LANDSCAPE AND HABITAT MANAGEMENT

- 5.1 This section sets out the *outline* management prescriptions and maintenance regime, with **Section 4** outlining the works required to ensure successful implementation and initial establishment of the proposals.

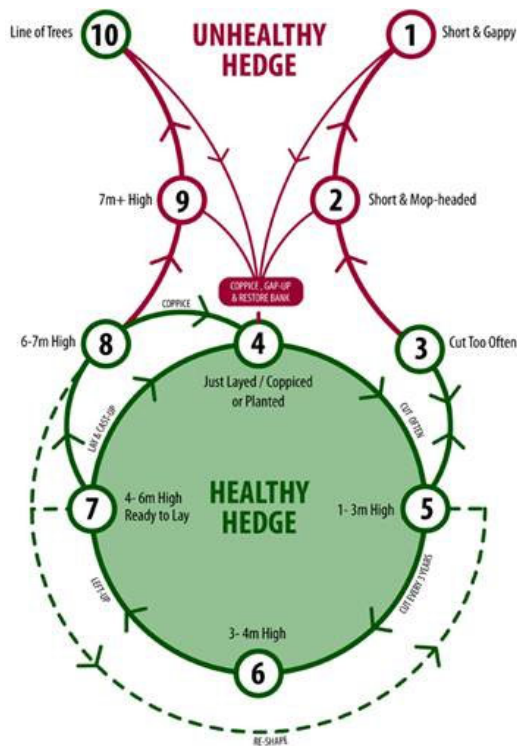
Objective 4: Ensure the matrix of new and existing habitats establish and are suitably maintained to maximise long-term biodiversity gain while adopting sustainable practices.

- 5.2 The *outline* programme below specifies the management and monitoring required for the development's GI for the first 30 years, after which the Plan will be reviewed and amended as appropriate, although there is the opportunity to amend during this period with LPA agreement (see Section 6 below).
- 5.3 The following landscape habitats will be revised and updated to reflect the detailed landscape design and the specific landscape habitats that are being provided. The outline prescriptions will be modified to suit.

Table 1: Outline 30 Year Management Works Programme

Outline Prescriptions	Years with Priority									
	1	2	3	4	5	6	7	8	9	10-30
Existing Retained Trees and Hedgerows										
Trees will be assessed by an experienced arboriculturalist or tree surgeon prior to works including tree removal necessary to permit creation of access paths and structures/ bridges. Tree works will follow best practice procedures as set out in BS 3998:2010. No removal of woody vegetation will take place during the bird nesting season unless checked by a qualified Ecologist. Existing retained trees will be left unmanaged unless otherwise dictated for reasons of public safety.	✓									
Retained trees will be protected from damage and from soil compaction during construction using fenced Root Protection Areas (RPAs) where construction works are to be undertaken in the vicinity, in accordance with guidance in British Standard 5837:2012 – Trees in Relation to Design, Demolition and Construction – Recommendations.	✓									
Arisings from any woodland management activity will, where possible will be used to	As required									

provide opportunities for invertebrates and bryophytes by forming micro-habitats from piles of dead wood or recumbent dead logs away from publicly accessible areas. Woodpiles will be created at the woodland edge and within the woodland interior. Where practical, piles will be situated in partial sunlight with some shade.									
Twice annual inspection of retained woodlands for fly-tipping, garden waste and signs of overuse by the public.		✓	✓	✓	✓	✓	✓	✓	✓
Side trimming of hedgerows in an 'A' profile to promote healthy hedgerow base. Cut along one side annually, alternating between the two sides of the hedgerow each year.	✓	✓	✓	✓	✓	✓	✓	✓	✓
In the long term, hedgerows will be taken through a Hedgerow Management Cycle (HMC) ³ . The ten steps of the HMC are shown below. The cycle shows a healthy green core and two unhealthy red offshoots. The aim should be to keep the hedge in the green part (steps 3 to 8), periodically laying or coppicing it, with trimming at appropriate intervals in between. If the hedge is not permitted to go through this cycle, it will either, if cut too often, become short and gappy (steps 1 – 3) or, if neglected, develop into a line of trees (steps 8 to 10).	As required								



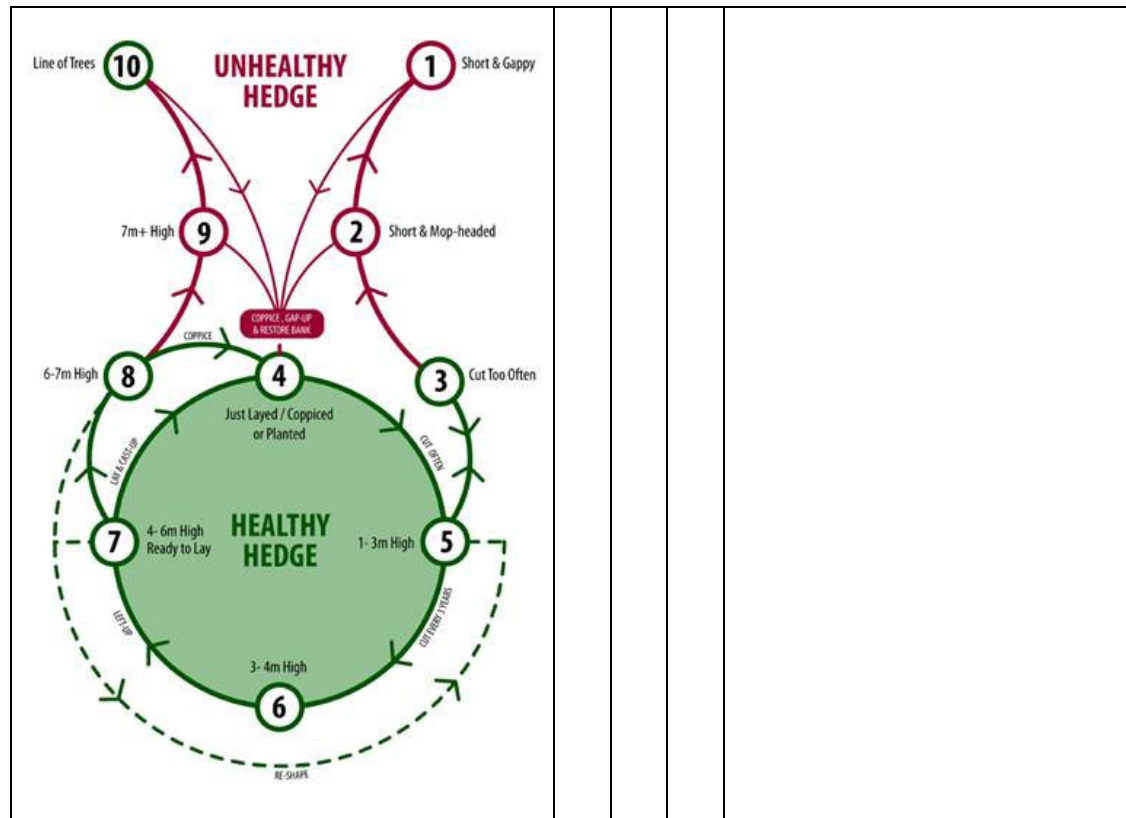
³ The Hedge Management Cycle (HMC). Artwork by Will Field. Management Cycle concept developed by Nigel Adams. Hedgelink UK

Where hedgerows adjoin amenity grassland a minimum margin width of 500mm shall be maintained as longer grass for biodiversity value. Grass shall be cut once per annum to 300mm in height. Grass shall be cut by means of tractor mounted or pedestrian guided rotary, flail or reciprocating blade machines.	As required									
Native Woodland Planting										
Replace failed specimens on a like-for-like basis. Top up mulch to a depth of 75mm where necessary.	✓	✓	✓	✓	✓					
Spraying or strimming of weeds to reduce competition and aid establishment. Not required if weed suppression matting used. Spray and hand weed around tree boles.	✓	✓	✓	✓	✓					
Examine all tree stakes and ties, replace or adjust as appropriate. If the tree has yet to establish, replace or adjust ties, spacers and tree tubes as appropriate. If the tree has established well, then remove all stakes, ties, spacers, tubes etc. and make good surfaces disturbed – filling any holes with suitable topsoil.	✓	✓	✓	✓	✓					
Where periods of extreme drought occur, trees that have not yet established (not healthy, not in full leaf, suppressed growth) need to be watered where their tolerance to drought is deemed to be insufficient.	✓	✓	✓	✓	✓					
Native Woodland Edge Planting										
Replace failed specimens on a like-for-like basis. Top up mulch to a depth of 75mm where necessary.	✓	✓	✓	✓	✓					
Spraying or strimming of weeds to reduce competition and aid establishment. Not required if weed suppression matting used. Spray and hand weed around tree boles.	✓	✓	✓	✓	✓					
Examine all tree stakes and ties, replace or adjust as appropriate. If the tree has yet to establish, replace or adjust ties, spacers and tree tubes as appropriate. If the tree has established well, then remove all stakes, ties, spacers, tubes etc. and make good surfaces disturbed – filling any holes with suitable topsoil.	✓	✓	✓	✓	✓					
Where periods of extreme drought occur, trees that have not yet established (not healthy, not in full leaf, suppressed growth) need to be watered where their tolerance to drought is deemed to be insufficient.	✓	✓	✓	✓	✓					

Tree Planting										
A weed-free mulched 1m diameter circle around the tree stem to a minimum depth of 75mm. When trees have reached independence, the sward can be allowed to grow up to the trunk, although tall weeds, bramble and ivy will be removed from around the trees. Care will be taken when using strimmers or mowers to avoid damaging trees. Weeds and grass within 100mm of the trunks will be removed by hand.	✓	✓	✓	✓	✓					
Basal area around trees within meadow grassland areas should be left unmown.						✓	✓	✓	✓	✓
Examine all tree stakes and ties, replace or adjust as appropriate. If the tree has yet to establish, replace or adjust ties, spacers and tree tubes as appropriate. If the tree has established well, then remove all stakes, ties, spacers, tubes etc. and make good surfaces disturbed – filling any holes with suitable topsoil.	✓	✓	✓	✓	✓					
Replace failed specimens on a like-for-like basis. Top up mulch to a depth of 75mm where necessary.	✓	✓	✓	✓	✓					
Where periods of extreme drought occur, trees that have not yet established (not healthy, not in full leaf, suppressed growth) need to be watered where their tolerance to drought is deemed to be insufficient.	✓	✓	✓	✓	✓					
Locally Distinctive Traditional Orchard Tree Planting										
A weed-free mulched 1m diameter circle around the tree stem to a minimum depth of 75mm. When trees have reached independence, the sward can be allowed to grow up to the trunk, although tall weeds, bramble and ivy will be removed from around the trees. Care will be taken when using strimmers or mowers to avoid damaging trees. Weeds and grass within 100mm of the trunks will be removed by hand.	✓	✓	✓	✓	✓					
Examine all tree stakes and ties, replace or adjust as appropriate. If the tree has yet to establish, replace or adjust ties, spacers and tree tubes as appropriate. If the tree has established well, then remove all stakes, ties, spacers, tubes etc. and make good surfaces disturbed – filling any holes with suitable topsoil.	✓	✓	✓	✓	✓					
Replace failed specimens on a like-for-like basis. Top up mulch to a depth of 75mm where necessary.	✓	✓	✓	✓	✓					
Pruning will follow Natural England Technical Information Note TIN017 'Traditional Orchards: Maintenance Pruning'. Prune any diseased or	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

rotten wood (including the removal of main stems and limbs) back to sound wood. Remove all stems and limbs which are unsafe or are in danger of falling or breaking during gales. A suitably skilled and qualified arboriculturalist shall carry out such pruning. Remove all diseased material from site.										
Where periods of extreme drought occur, trees that have not yet established (not healthy, not in full leaf, suppressed growth) need to be watered where their tolerance to drought is deemed to be insufficient.	✓	✓	✓	✓	✓					
Native Hedgerow Planting										
Following planting, water hedgerows in periods of extreme drought (2 or more weeks without substantial rainfall) (new and translocated hedgerow planting).	✓	✓	✓	✓	✓					
Replace failed specimens on a like-for-like basis.	✓	✓	✓	✓	✓					
Examine all guards and replace or adjust as appropriate. Remove guards once hedgerows established	✓	✓	✓	✓	✓					
Spraying or strimming of weeds to reduce competition and aid establishment. Not required if weed suppression matting used.	✓	✓	✓	✓	✓					
Side trimming of hedgerows in an 'A' profile to promote healthy hedgerow base. Starting in year 4 after planting new hedgerows will be cut along one side annually, alternating between the two sides of the hedgerow each year. Top up mulch as required.				✓	✓	✓	✓	✓	✓	✓
Prune any diseased or rotten wood back to sound wood. Remove all cut material from site.				As required						
In the long term, hedgerows will be taken through a Hedgerow Management Cycle (HMC) ⁴ . The ten steps of the HMC are shown below. The cycle shows a healthy green core and two unhealthy red offshoots. The aim should be to keep the hedge in the green part (steps 3 to 8), periodically laying or coppicing it, with trimming at appropriate intervals in between. If the hedge is not permitted to go through this cycle, it will either, if cut too often, become short and gappy (steps 1 – 3) or, if neglected, develop into a line of trees (steps 8 to 10).				As required						

⁴ The Hedge Management Cycle (HMC). Art work by Will Field. Management Cycle concept developed by Nigel Adams. Hedgelink UK



Single Species Hedgerow Planting (if used)

Following planting, water shrubs in periods of extreme drought (2 or more weeks without substantial rainfall).	✓	✓	✓	✓	✓					
Replace failed specimens on a like-for-like basis.	✓	✓	✓	✓	✓					
Remove weed growth by hand and top up mulch levels as necessary. Dead-head after flowering.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Prune hedgerows to a square cross section during October to March.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Climber Planting (if used)

Following planting, water shrubs in periods of extreme drought (2 or more weeks without substantial rainfall).	✓	✓	✓	✓	✓					
Replace failed specimens on a like-for-like basis.	✓	✓	✓	✓	✓					
Remove weed growth by hand and top up mulch levels as necessary.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Prune climbers during October to March where vegetation encroaches over gateways or pathways.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Ornamental Feature Shrub Planting

Following planting, water shrubs in periods of extreme drought (2 or more weeks without substantial rainfall).	✓	✓	✓	✓	✓					
Replace failed specimens on a like-for-like basis.	✓	✓	✓							

Remove weed growth by hand and top up mulch levels as necessary. Dead-head after flowering.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Prune back shrubs (no more than one third of woody growth) during October to March. Trim shrubs back from paths etc. Trim topiary shrubs to the desired shape.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ornamental Shrub and Grass Planting										
Following planting, water shrubs in periods of extreme drought (2 or more weeks without substantial rainfall).	✓	✓	✓	✓	✓					
Replace failed specimens on a like-for-like basis.	✓	✓	✓	✓	✓					
Remove weed growth by hand and top up mulch levels as necessary. Dead-head after flowering.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Neatly prune back shrubs (no more than one third of woody growth) during October to March. Trim shrubs back from paths.			✓	✓	✓	✓	✓	✓	✓	✓
Neatly prune back and remove the spent stems and dead leaves of grasses during March - April. Care should be taken not damage the crown or emerging new growth.			✓	✓	✓	✓	✓	✓	✓	✓
Tussock Grassland (if used)										
To control scrub and bramble development tussocky areas may need cutting every 2-3 years between October and February. For wildlife this cutting is best done on a rotational basis so that no more than one third of the area is cut in any one year leaving part as an undisturbed refuge. Care shall be exercised when mowing or strimming around trees and hedges or other structures. Strimming should not occur with 100mm of tree stems.		✓			✓			✓		
Spot treat persistent pernicious weeds using herbicide following the first season's growth and/ or manual hand strimming of target areas either in late summer when adjacent grassland is mown or in early spring. Care will be taken when using herbicide adjacent to riparian and aquatic habitats to prevent pollution of such habitats.	As required									
Meadow Grassland (Other Neutral Grassland)										
During year 1 mow regularly (4-5 times) when the grass reaches the maximum height. Remove arisings after 24h.	✓									
Following establishment grassland will be mown on a rotational basis with areas either being mown once during early spring (March) and autumn (October). A later cut will benefit moth species by providing a food source for longer, and subsequently provide increases foraging	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

opportunities for bats in their active season of April to October.										
Grassland adjacent to hedgerows and woodland, which also include marginal, planted for seed mix provisions for farmland birds, will be cut once on alternate years with some ruderal species being allowed to colonise for further species and habitat diversity. Arisings will be left for 48 hours to allow dispersal of seeds and invertebrates prior to removal, to encourage grassland establishment and prevent soil enrichment and thatching.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Leave 1m unmown strip along hedgerows and existing structural vegetation. with some ruderal species being allowed to colonise for further species and habitat diversity.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Spot treat persistent pernicious weeds using herbicide following the first season's growth and/ or manual hand strimming of target areas either in late summer when adjacent grassland is mown or in early spring. Care will be taken when using herbicide adjacent to riparian and aquatic habitats to prevent pollution of such habitats.	As required									
Wet Grassland										
Following establishment the Wet Grassland in the basins will be cut on a rotational basis with no more than one third cut in any one year. The Wet Grassland will be cut during March or August/ September, to create a varied structure of grassland habitat that will be of benefit to invertebrates, amphibians, reptiles and other species. Strimming should not occur with 100mm of tree stems.		✓	✓	✓	✓	✓	✓	✓	✓	✓
Spot treat persistent pernicious weeds using herbicide following the first season's growth and/ or manual hand strimming of target areas either in late summer when adjacent grassland is mown or in early spring. Care will be taken when using herbicide adjacent to riparian and aquatic habitats to prevent pollution.	As required									
Amenity Grassland (Modified Grassland)										
During initial establishment of new grassland, it will be mown to a height of 50mm 6-8 weeks after germination and subsequently to a height of 35-40mm as required, but not more regularly than once every 4 weeks until such a time as a knitted turf is established. Once established, amenity grassland will be cut 16 times per year between March and October. Strimming should not occur with 100mm of tree stems.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Mowing will be reduced during prolonged dry periods and the mowing height increased to 50mm at such times. Similarly in very wet conditions all grass cutting operations will cease until conditions allow for grass cutting to take place.	As required									
Spot treat persistent pernicious weeds using herbicide following the first season's growth and/ or manual hand strimming of target areas either in late summer when adjacent grassland is mown or in early spring. Care will be taken when using herbicide adjacent to riparian and aquatic habitats to prevent pollution of such habitats.	As required									
Marginal Plug Planting (if used)										
The vegetation in each of the water bodies will be cleared on a rotational basis, starting at year 3. The basin will be cleared, between September and November, to create a varied structure of habitat that will be of benefit to invertebrates, amphibians and other species. The vegetation will be removed by hand. Machines and heavy equipment should not be used to avoid damage to soil and vegetation.			✓	✓	✓	✓	✓	✓	✓	✓
Dense stands of single species (e.g. yellow iris) may benefit from selective thinning as required. Vegetation removal causes the least disruption to wildlife when carried out between September and November.				As required						
Spot treat persistent pernicious weeds using herbicide following the first season's growth and/ or manual hand strimming of target areas either in late summer when adjacent grassland is mown or in early spring. Care will be taken when using herbicide adjacent to riparian and aquatic habitats to prevent pollution of such habitats.	As required									
Reed Bed Planting (if used)										
Vegetation in each drainage basin will be cut and removed on a three year rotational basis, starting at year three. One basin per year will be cleared, between September and November, which will create a varied structure of habitat that will be of benefit to invertebrates, amphibians and other species. The vegetation will be removed by hand. Heavy equipment should not be used to avoid damage to soil and vegetation.			✓	✓	✓	✓	✓	✓	✓	✓

Bulb Planting										
Following establishment, areas with bulb planting will be not be mown until after a 6 week period following flowering to allow the plants to feed the bulbs for the subsequent year.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Replace failed specimens on a like-for-like basis.	✓	✓	✓							
Bird Boxes, Bat Boxes, Dormouse Boxes and Bee Bricks (if necessary)										
Bird boxes will have a non-invasive inspection in autumn or winter to check for damage. Replace lost or damaged boxes.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bat boxes will have a non-invasive visual inspection in autumn or winter to check for damage, unless a separate agreement has been agreed with Natural England. Replace lost or damaged boxes. Any work required to the bat boxes will be carried out by a licenced bat worker.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Dormouse boxes will have a non-invasive visual inspection in autumn or winter to check for damage, unless a separate agreement has been agreed with Natural England. Replace lost or damaged boxes. Any work required to the dormouse boxes will be carried out by a licenced dormouse worker.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Replace damaged bee bricks following annual inspection	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Hibernacula										
Following establishment, the grassed cap will be strimmed once annually in late summer (late August to September).	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
The margins of the hibernacula will be inspected once annually to be kept clear from vegetation, leaving the fill exposed to allow access by wildlife.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
The bank must be managed to maintain sparse vegetation so that bare ground is always visible. Sections of the bank should be cleared annually of weeds in rotation, ideally in February, to minimise disturbance.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
The grass sward atop the bank will be managed during its first summer with typically three cuttings which commence when the sward reaches 10cm in height to encourage grasses to tiller and help control invasive annual weeds. Cutting should not occur within months May to August inclusive to avoid disturbing nests. Once established, the sward will typically only need cutting once annually to remove dead tussocks and promote tussock regeneration	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Fences and Gates										
Fencing and gates shall have a twice annual inspection in spring and autumn.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Footpaths/Recreational Routes										
Ensure access paths are free from weeds, trip hazards or other obstructions. This includes an annual spray of weeds and any depressions/ pits to be filled.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Street Furniture										
Maintain all furniture in good condition. Should any part be damaged then prohibit use, obtain guidance and/ or repair or replace as required. Repaint as required.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Once annual spray and weed around footings.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Play Equipment										
Maintain all play equipment in good condition. Should any part be deemed below standard then prohibit use, obtain guidance and/ or repair or replace as required.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Inspect on a regular basis to manufacturers/ ROPSA requirements. Record inspections and any actions arising from inspections.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Allotment Plots										
Once laid out, the allotment plots will be maintained by the occupier.	Not required									
General										
Litter will be removed from the site as part of the general management and maintenance visits. All litter, stones or other debris will be collected and removed by the Contractor immediately prior to grass cutting operations.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ecological visual inspection by a qualified ecologist for the first year to provide baseline data for future surveys to be monitored against.					✓					✓
Arboricultural visual inspection, as part of the tree safety risk assessment for the development.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Work programme review by those members of staff involved in site management.					✓					✓

6.0 MONITOR THE SITE AND REVIEW THE PLAN

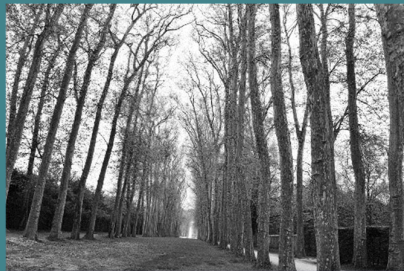
Objective 5: Provide a framework of monitoring and review periods.

- 6.1 In order to ensure that the habitats created within the site reach and maintain their maximum value to nature conservation, all habitats will be monitored via the *outline* works programme above.
- 6.2 Results of this monitoring will be used to inform changes to the Management Plan and 30-year work programme. The outline prescriptions provided are not 'set in stone' and will be altered if required in agreement with the Local Planning Authority (LPA).
- Created habitats will be monitored by an Ecologist in line with the specifications in the approved Biodiversity Net Gain Plan.
 - Monitoring will include regular reporting to the LPA and changes will be made to the management strategies where appropriate.
 - Annual arboricultural visual inspection, as part of the tree safety risk assessment for the development.
 - Regular monitoring, where applicable, of landscape features for condition and health and safety purposes.

APPENDIX A

Outline SANG Mitigation and Management Plan (SMMP)

FPCR | environment
& design



Appendix A: Outline SANG Mitigation & Management Plan (OSMMP)

Project

**North Hemel Hempstead,
Hertfordshire**

Client

Bloor Homes & Pigeon

Date

December 2025

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FIGURES

Figure 1: Indicative Landscape Proposals for Suitable Alternative Natural Greenspace (SANG)
(Ref.12578-FPCR-ZZ-ZZ-DR-L-0007)

Rev	Issue Status	Prepared/Date	Approved/Date
-	Draft	REM / 05.11.25	JNHW / 06.11.25
	Final Draft	DAH / 21.11.25	DAH / 21.11.25
A	Final	DAH / 25.11.25	DAH / 25.11.25
B	Final	DAH / 02.12.25	DAH / 02.12.25

1.0 INTRODUCTION

- 1.1 The following report, Outline Suitable Alternative Natural Green Space (SANG) Mitigation & Management Plan (OSMMP), has been prepared by FPCR Environment & Design Ltd ("FPCR") on behalf of Bloor Homes and Pigeon. Its purpose is to provide overarching principles for the creation and management of the proposed SANG in relation to the proposed residential development on land at North Hemel Hempstead, Hertfordshire (central OS grid reference: TL 08444 11097), hereafter referred to as the 'Site'.
- 1.2 The OSMMP is a high-level document and sets out the key principles and overall strategy for the SANG. The application's Parameter Plan identifies the location of the SANG within the eastern part of the Site, this will be a phased development, and it is currently proposed that the SANG will be created at stage 2, after access into the Site has been created. An Illustrative Landscape Strategy, showing general approaches for the laying out of the SANG, is included within this OSMMP. The detailed design of the SANG would be addressed at reserved matters, with a final SMMP prepared and secured via a planning condition.

Site Location & Context

- 1.3 The Site is located to the north and east of Hemel Hempstead. It comprises a series of agricultural field compartments bounded by hedgerows or lines of mature trees. Other habitats onsite comprise grassland fields, scrub and a pond.
- 1.4 The surrounding landscape to the north, east and west is composed largely of agricultural and pastoral land with small pockets of woodland interspersed throughout. The M1 motorway lies approximately 0.5km east of the Site, with the village of Redbourn beyond. To the south and west of the Site, the landscape comprises the urban environs of Woodhall Farm in the north-east of Hemel Hempstead.

Site Proposals

- 1.5 The Site forms part of the proposed Hemel Garden Communities, a development scheme that will create sustainable new neighbourhoods and communities to the north and east of Hemel Hempstead, through the delivery of more than 11,000 new homes and 10,000 new jobs by 2050.
- 1.6 The proposals for the Site itself include up to 1,500 dwellings, associated access and infrastructure, facilities including primary school and sports area and green infrastructure which includes a Community Park that will function as a SANG. The development will be created in a number of phases, with the SANG to be functional before the first occupation; the specifics behind what precisely needs to be provided will be confirmed at Reserve Matters.

Legislation and Policy

- 1.7 The Conservation of Habitats and Species Regulations (CHSR) 2017 (as amended) ratifies into UK law the Habitats Directive (92/43/EEC) and the Birds Directive (79/409/EEC). The 2019 amendment ensures that habitat and species protection derived from EU law continues to apply following Brexit. The CHSR requires the compilation and maintenance of a register of European protected sites, which include:
- Special Areas of Conservation (SAC) – designated for important habitats and/or species listed under Annex I and II of the Habitats Directive.
 - Special Protection Areas (SPA) – designated for important bird populations/assemblages.

- Ramsar sites - designated for internationally important wetlands.
- 1.8 SANGS are areas of greenspace designed to deliver alternative recreation opportunities to mitigate increased recreational pressure as a result of development near to European protected sites.
- 1.9 The Chilterns Beechwood SAC Mitigation Strategy (2022)¹ was produced to provide a mitigation strategy for all local authorities over which the SAC falls. The Site, whilst distant, lies within the 12.6km Zone of Influence for the SAC. The zone represents the area from which 75% of recorded visitors travel to the SAC. Therefore, any projects within this zone leading to a net increase in dwellings are likely to result in increased recreational pressure on the SAC habitats. As part of the mitigation strategy, every new residential development within 12.6km must therefore provide a SANG.

¹ Chilterns Beechwoods Special Area of Conservation Mitigation Strategy for Ashridge Commons and Woods Site of Special Scientific Interest. To support the Habitats Regulations Assessment for Dacorum Borough Council, Buckinghamshire Council, Central Bedfordshire Council, St Albans City and District Council (2022). Version 1. Available at: [https://www.dacorum.gov.uk/home/planning-development/planning-strategic-planning/new-single-local-plan/chilterns-beechwoods-special-area-of-conservation/chilterns-beechwoods-special-area-of-conservation-\(sac\)---mitigation-strategy](https://www.dacorum.gov.uk/home/planning-development/planning-strategic-planning/new-single-local-plan/chilterns-beechwoods-special-area-of-conservation/chilterns-beechwoods-special-area-of-conservation-(sac)---mitigation-strategy)

2.0 SANG SELECTION AND DESIGN

- 2.1 The selection and design of the SANG is based on the Chilterns Beechwood SAC Mitigation Strategy and informed by Natural England guidance for the Thames Basin Heaths SPA². The features of the Site's proposed SANG area have been assessed against the guidance criteria to ascertain the suitability of the area as a SANG, as seen in *Table 1*. *Figure 1* shows the SANG layout.

Table 1: Criteria for SANG selection

Criteria	Requirement	Proposals
Scale	SANG will be provided at a rate of 8ha per 1,000 new residents, equivalent to 0.0192ha per dwelling.	Up to 1,500 dwellings are proposed and so a SANG of 28.8ha is required. The SANG proposed will be 28.8ha in size and so will meet these criteria, although additional areas of GI are provided within the built scheme.
Catchment	The catchment of the SANG will depend on their particular characteristics and location. As a guide: i. SANG of 2-12ha will have a catchment of 2km ii. SANG of 12-20ha will have a catchment of 4km iii. SANG of 20ha+ will have a catchment of 5km	The 28.8ha SANG will have a 5km catchment. This includes the entirety of the proposed development.
Duration	SANG should function in perpetuity.	The SANG will function in perpetuity, to be secured through a S106 agreement.
Nature Conservation Interest	SANG should be created on new or existing public space. Where existing land is selected, the current nature conservation interest should be taken into account, and land should have the potential for improvement.	The proposed SANG area falls across a number of arable fields and fields with temporary grassland, separated by hedgerows. The field margins, where present, consist of tall forbs. As such, the area has limited ecological value and there are opportunities to greatly increase the nature conservation interest of the area as part of the SANG creation. There are two Public Footpath (Redbourn 9 and Redbourn 10) passing through the proposed SANG area. A further Public Footpath (Redbourn 11) runs through the proposed built development and connects with Footpath (Redbourn 10), near Great Revel Farm. Little Revel End Lane, which is a narrow single lane track serving a small number of properties, passes through the proposed SANG area.
Timing	Sufficient SANG should be provided prior to first dwelling occupation.	The development will take place in phases, with the SANG proposed during the second stage prior to any residential. Recreational areas will be provided before the occupation, however the precise habitat deliverables will be confirmed at Reserve Matters.

² Natural England (2021) Guidelines for Creation of Suitable Alternative Natural Greenspace (SANG). Available at: [chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.woking2027.info/supplementary/tbhspspd/updated_sang_guidance_August_2021.pdf](https://www.woking2027.info/supplementary/tbhspspd/updated_sang_guidance_August_2021.pdf)

- 2.2 The Chilterns Beechwood SAC Mitigation Strategy also outlines several essential and desired criteria for SANG design:

Table 2: Criteria for SANG design

Criteria	Requirement	Expected or Desirable?	Proposals
Paths	A minimum circular walk of 2.3-2.5km	Expected	Subject to phasing, separate circular routes of a minimum of 2.3km can be provided to the south and north of Little Revel End Lane. The indicative landscape strategy identifies that a c4.6km can be provided across the SANG.
	Paths easily used and well maintained but mostly unsurfaced	Expected	All paths will be designed as mown 'grass routes' and will be well maintained. Any surface treatments that may be required, for example in seasonally wet areas, will be permeable. Any surface treatments will take into consideration existing Root Protection Areas (RPAs) and use non-dig methods where appropriate.
	Where parking is provided, circular path should start and finish at that location	Expected	The main circular path with its many linkages will start and end at a car park in the south-west corner of the SANG, close to the proposed sports pitches.
Paths	Paths should be safe, easily identifiable and kept clear of obstructions	Expected	All paths will be clearly demarcated and well maintained as part of the management approach. Distance markers will be placed in strategic locations to allow the public to make choices on the length of their walk.
	Information boards and/or signage at access points outlining the layout of the site and routes available	Desirable	Information boards will be placed at the car park to inform the public of the routes available and the wildlife supported by the Site.
Parking	Parking for cars and cyclists to be provided on sites larger than 4ha, unless the site is solely intended for residents within 500m only	Expected	A car park with cycle parking will be provided in the south-west corner of the SANG, close to the proposed sports pitches.
	Parking areas are to be easily and safely accessible by car and to be clearly sign posted	Expected	The car park will be accessible via the development's street network and will be clearly sign posted.
	Visitors to be able to take dogs from the parking area to the site safely off lead	Desirable	The car park, and routes to the SANG from it, will be safe and attractive to use for visitors with dogs.
Access	Access points to be provided based on the intended visitors of the SANG	Expected	As well as the entrances from the car park, there will be additional pedestrian entrance via the current Public Footpaths and Little Revel Lane.
	Safe access route on foot from nearest car park and/or footpath	Expected	All access points into the SANG will be clearly sign posted and well-maintained paths.

Criteria	Requirement	Expected or Desirable?	Proposals
	Access should be unrestricted within the site, with plenty of space for dogs to exercise freely and safely off lead	Desirable	The SANG will be completely accessible and will be predominantly open in character, with physical barriers nearer road or boundary features.
Character	Needs to be semi-natural, or perceived as such where close to existing development	Expected	The SANG will form a natural green space area. The design will include several semi-natural habitats including meadow grassland, scrub, and woodland. This will create a mosaic of habitats to provide niches for a range of wildlife as well as aesthetic appeal for visitors. Ecological habitats will be created to compensate for habitat losses; these areas will be away from footpaths and managed to promote wildlife. This is significant in the provision of foraging resources for birds.
	If the site is larger than 12ha, a range of habitats should be present	Expected	The proposed SANG is 28.8ha in and includes several proposed habitats, including meadow grassland, scrub, hedgerows, and woodland.
	No unnatural intrusions e.g. odour from sewage treatment, noise from busy roads	Expected	The SANG is located within a semi-rural agricultural landscape.
	There should be little intrusion of built structures such as dwellings, buildings, fencing (not constructed of natural materials), etc.	Expected	Other than the proposed development, there are limited built structures around the proposed SANG.
	Naturalistic space with areas of open countryside with dense and scattered trees and scrub	Desirable	The SANG design will include both open areas of grassland and a mosaic of woodland, and scrub to create different areas of interest.
Character	Gentle undulating topography (steep slopes are likely to deter visitors)	Desirable	The topography of the SANG starts at 120m AOD and gradually slopes to 104m from the centre of the SANG towards the southern boundary, making it easily navigable
	Focal point such as a viewpoint or monument with the site and accessible via walking routes	Desirable	There is no specific focal point or monument proposed within the SANG. However, there will be large areas of open grassland and wildflowers in the north of the SANG to provide views.
	Provision of open water, however large areas of open water cannot count towards SANG capacity	Desirable	An existing small pond within the area is to be retained within the SANG to benefit wildlife. SUDS basins (predominantly dry) are proposed within the southern part of the SANG as part of the development's drainage strategy.

3.0 HABITAT CREATION & ENHANCEMENT

Woodland

- 3.1 New areas of native woodland will be created throughout the SANG in pockets and along the northern, eastern and western boundaries. This will increase the species and structural diversity on the SANG and help to create micro-habitats for a range of wildlife. The woodland pockets will enclose elements of the paths, creating varied views.
- 3.2 Subject to detailed landscape, the following species provide an indication of the likely species to be planted for woodland area:
- Field maple *Acer campestre*
 - Silver birch *Betula pendula*
 - Downy birch *Betula pubescens*
 - Hornbeam *Carpinus betulus*
 - Hawthorn *Crataegus monogyna*
 - Beech *Fagus sylvatica*
 - Wild cherry *Prunus avium*
 - Bird cherry *Prunus padus*
 - Small-leaved lime *Tilia cordata*
 - Sessile oak *Quercus petraea*
 - English oak *Quercus robur*

Scrub (Woodland Edge)

- 3.3 Native scrub (woodland edge) planting will be included in association with the woodland and scattered throughout the SANG area. Subject to the detailed landscape design, species are likely to be taken from the following palette:
- Field maple *Acer campestre*
 - Silver birch *Betula pendula*
 - Hawthorn *Crataegus monogyna*
 - Hazel *Coryllus avellana*
 - European crab apple *Malus sylvestris*
 - Elder *Sambucus nigra*
 - Dog rose *Rosa canina*

Hedgerows

- 3.4 Existing hedgerows along the SANG boundaries will be retained and enhanced with additional native planting. These hedgerow enhancements will aim to support at least five native tree and/or scrub species per 30m, with planting to fill in any existing gaps along the boundaries. All

the boundaries will be planted alongside secure timber fencing to create a secure SANG boundary.

3.5 Subject to the detailed landscape design, species are likely to include:

- Field maple *Acer campestre*
- Hawthorn *Crataegus monogyna*
- Blackthorn *Prunus spinosa*
- Dogwood *Cornus sanguinea*
- Hazel *Coryllus avellana*
- Beech *Fagus sylvatica*
- Holly *Ilex aquifolium*
- Elder *Sambucus nigra*

Other Neutral Grassland: Meadow Grassland

3.6 The previous arable fields within the SANG will be planted with a seed mix such as Emorsgate EM3 Special General Purpose Meadow Mixture or similar, this will provide a diverse species mix that can provide the structural and species diversity to act as a foraging resource and refuge for invertebrate species. The species to be considered are listed below, this is not a full list, and supplementary species can be added where needed.

- Oxeye daisy *Leucanthemum vulgare*
- Knapweed *Centaurea nigra*
- Betony *Betonica officinalis*
- Wild carrot *Daucus carota*
- Cowslip *Primula veris*
- Selfheal *Prunella vulgaris*
- Meadow buttercup *Ranunculus acris*
- Common bent *Agrostis capillaris*
- Red fescue *Cynosurus cristatus*

3.7 Areas will also be planted with a native naturalised bulb mix, using the following species:

- Winter aconite *Eranthis hyemalis*
- Snowdrop *Galanthus nivalis*
- Bluebell *Hyacinthoides non-scripta*
- Wild daffodil *Narcissus pseudonarcissus*
- Wild tulip *Tulipa sylvestris*

3.8 Certain areas will also be supplemented further with wildflower planting that will provide a foraging resource for bird species, these will be implemented within the above habitat types but located away from footpaths and nearer arable field outside the Site. These will provide a

foraging resource and increase breeding success for a range of farmland birds such as skylarks. Species will include but not limited to:

- Teasel *Dipsacus fullonum*
- Chicory *Cichorium intybus*
- Perennial rye-grass *Lolium perenne*
- Red clover *Trifolium pratense*
- Bird's foot trefoil *Lotus corniculatus*

Modified Grassland: Amenity Grassland

- 3.9 There are no strict modified grassland seed mixes to be used within the SANG, all areas of grassland will start with the above meadow grassland; however, a number of mown paths will be created around the SANG to provide the desired circular walk. These paths will be regularly mown to ensure ease of access, the intensity at which they will be managed will favour certain species, while others cannot tolerate it. The management will eventually lead to these areas of increased public footfall developing a more modified grassland, with less species diversity and dominance of grassland species. These will then be managed more regularly than those other areas in the SANG.

Sustainable Drainage Basin

- 3.10 Sustainable drainage basins (SuDS) will be created within the SANG which will be predominantly dry. These will not be planted up with marginal vegetation but will instead be left to colonise naturally. The SuDS can also be sown with a seed mix such as that used for the grassland creation.

Pond

- 3.11 The existing pond to be retained will be planted up to enhance it for wildlife.
- 3.12 The banks of the ponds will be planted with the use of marginal plants using species from the following palette:
- Wild angelica *Angelica sylvestris*
 - Meadowsweet *Filipendula ulmaria*
 - Reed sweet grass *Glyceria maxima*
 - Yellow loosestrife *Lysimachia vulgaris*
 - Purple loosestrife *Lythrum salicaria*
 - Marsh woundwort *Stachys palustris*
 - Common comfrey *Symphytum officinale*
- 3.13 The following native aquatic species will also be added to the pond at the most appropriate depth for the species:
- Flowering rush *Butomus umbellatus*
 - Reed sweet grass *Glyceria maxima*

- Yellow flag iris *Iris pseudoacorus*
- Water mint *Mentha aquatica*
- Water forget-me-not *Myosotis palustris*
- Common club-rush *Schoenoplectus lacustris*
- Branched bur-reed *Sparganium erectum*
- Lesser bulrush *Typha angustifolia*

4.0 HABITAT MANAGEMENT

- 4.1 The habitat management on the SANG is aimed at maintaining a highly accessible site for visitors, whilst maximising its nature conservation value. This will be achieved through the following management regime.

Woodland & Scrub

- 4.2 Tree planting within woodland is to take place in accordance with best practice guidance³. Management of newly planted trees to ensure establishment will include the following:

- During the first 5 years following planting, trees will be watered during periods of extreme drought until specimens are fully established. Where possible watering will take place in the morning or evening to restrict water evaporation. Following establishment, watering will continue only if deemed necessary.
- Any diseased or rotten wood (including the removal of main stems and limbs) will be pruned back to sound wood. A suitability skilled and qualified arboriculturalist shall carry out such pruning. Where possible cut material will be used on the site for hibernaculum and log piles.
- Tree stakes and ties will be examined for their effectiveness and requirement. If the tree has yet to establish, spacers and tree tubes will be replaced or adjusted as appropriate. If the tree has established well, then all stakes, ties, spacers, tubes etc. will be removed.
- Any tree that dies or is necessarily felled due to storm damage, vandalism, mechanical damage, fungal decay or other such cause, will be replaced like for like. Such replacement shall be with a tree of either the same or similar species. This is to allow some flexibility and to avoid problems encountered with 'Same Tree Disease'.
- Trees will be planted in anticipation of future tree loss to ensure a broader age band in the interest of long-term sustainability of tree cover.

- 4.3 Longer-term management methods will include the following:

- Trees will be assessed annually by an experienced arboriculturalist as part of a risk assessment. Any remedial tree work recommended will avoid the nesting bird season (March-September inclusive).
- Once the new woodland stands have established, periodic thinning will be required to allow light to reach the ground and enhance the ground flora and to allow new saplings to grow, to improve the species and age diversity and create a more semi-natural habitat.

Hedgerows

- 4.4 Gapping up of hedgerows will follow appropriate guidance⁴ as summarised below:

- Planting will, ideally, take place between October and March with suitable support and weed control in place.
- Planting will not be undertaken in very cold or wet weather conditions to minimise the risk of damage to the roots before establishment.

³ British Standard 8545:2014. Trees: from nursery to independence in the landscape – Recommendations. The British Standard Institute.

⁴ Suffolk Wildlife Trust (2016) Planting a hedgerow for wildlife. Available at: <https://www.suffolkwildlifetrust.org/conservationadvice/woodlands-and-hedgerows/planting-hedgerow-wildlife>

- The hedgerows will be planted along two double staggered rows lines roughly 50cm apart with 20-30cm between each specimen.
 - whips will be planted in groups of roughly five of the same species.
- 4.5 For the first five years, newly planted portions of hedgerows will require the following:
- During the first spring, the shrubs will be cut to approximately 45-60cm above ground level to encourage the shrubs to develop a bushy structure.
 - Watering will be required during hot and dry periods until established. This is especially important during the first year and extra measures might be needed during long periods of drought.
 - The shrubs and trees will be annually assessed for the first five years to ensure plants remain viable. Any which die during this period will be replaced.
- 4.6 It is intended that all the hedgerows will be trimmed in an 'A' profile to promote a wide hedge base, which is more beneficial to wildlife. Hedgerows are dynamic habitats that change over time and have varying management requirements depending on their management history. As such, it may be necessary to coppice or lay hedges every 15-20 years. This should be done on a rotational basis, resulting in only 1/3 of all hedgerows across the site coppiced or laid in any one year. This will be included in the Habitat Management and Monitoring Plan for the Site.
- 4.7 Both retained and gapped up hedgerows will be managed according to a regular assessment of their condition and where they are on the Hedgerow Management Cycle⁵:

Other Neutral Grassland: Meadow Grassland

- 4.8 Due to the previous land use of the proposed SANG area, for growing crops, ground preparation will be required to remove unwanted arable species and lower the nutrient level. Depending on the results of soil analysis, some remediation/nutrient stripping may be needed, or if levels are not too high, a period of seed sowing with grassland and wildflower species allowed to grow to store nutrients and then mown with cuttings removed from Site. Regular mowing in such a way over a 4-5 year period should reduce soil fertility.
- 4.9 Mowing will take place in late Summer to a minimum height of 150mm and the cuttings will be left to dry for 5-7 days before removal from Site, this is to allow seeds to drop to ground. This does not include the paths which will be managed regularly to ensure easy access throughout the year.
- 4.10 The development of unwanted species or the spread of scrub will be monitored with appropriate control measures taken to ensure that such species do not become too dominant. Tree saplings and scrub will be controlled in either winter by cutting and spot treatment, or any time of year by pulling the saplings out.
- 4.11 The areas created for bird foraging will need to be left unmanaged during the autumn/wintering period so they can be utilised. It is likely that the seed bank in the soil will be sufficient to allow continued establishment of the key species, however these species do require a degree of disturbance to ensure their success, this also controls more dominant species from outcompeting. It is therefore important that some form of rotavation takes place on a biannual

⁵ Hedgelink & Adams, N. (2021) The Hedgerow Management Cycle. Available at: <https://hedgerowsurvey.ptes.org/hedge-management-cycle>

bases, this could be supplemented by additional seeding if required. The area will need to be monitored, and management may need to be adjusted if competing species dominate.

Sustainable Drainage Basin

- 4.12 Long-term annual management of the SuDS will focus on maintaining the structure and diversity of the associated vegetation communities. These will be managed similar to the meadow grassland above.

Pond

- 4.13 The retained pond within the SANG will be enhanced to provide better habitat for wildlife. Initial management of the pond will involve monitoring water levels to ensure standing open water habitats are sustained and controlled of any undesirable weed species. The degree of silt within the feature will also need controlling to ensure it does not dry out, if this does need undertaking then excavating is best undertaken during winter months.
- 4.14 Longer-term annual management will focus on maintaining the structure and diversity of the associated vegetation communities and ensuring that at least 70% open water habitats are maintained. This would be achieved by cutting back and removing short sections of vegetation including their roots, as some species such as bullrush and common reeds can become dominant in short periods, clearance should be undertaken in no greater than 1/3 every 2-3 years on rotation. Any removal of pond vegetation from the pond or margins would be undertaken between September and November when disruption to wildlife can be minimised. Any arisings from the pond will be left on the bank for 48 hours to allow any invertebrates to return to the pond prior to removal.

General Measures

- 4.15 To reduce the potential of nutrient enrichment from dog waste and the risk of litter, dog bins and waste bins will be placed strategically throughout the SANG alongside paths and in the car park. These will be emptied regularly as part of the management plan, along with a litter pick to prevent impacts on the amenity and wildlife value of the SANG.

5.0 PROGRAMME OF WORKS

- 5.1 The works programme below specifies the management and monitoring required for the SANG for the first 10 years, after which the plan will be reviewed and amended as appropriate.
- 5.2 The SANG will be further included within the long-term habitat management and monitoring plan (HMMP) for the whole site which follows the BNG condition criteria aims, which will be legally secured through a S106 agreement.
- 5.3 It is the responsibility of the landowner/appointed management company to ensure the long-term management of the SANG habitats and to appoint suitably qualified and experienced contractors to undertake the works.

Table 3: Outline 10 Year Works Programme

Likely Actions	Years									
	1	2	3	4	5	6	7	8	9	10+
New Tree Planting (Woodland, Scrub, Individual Trees)										
Plant between <u>October and March</u> with browser protection, avoid very cold and wet conditions (to avoid root damage).										
Water regularly after planting and in periods of drought until specimens have established.										
Weed bases and top up mulch (depth of 75mm, 1m diameter), where necessary.										
Replace any failed specimens on a like-for-like basis.										
Monitor establishment and the need for stake supports, ties, tubes etc. Replace or remove as necessary.										
Woodlands & Individual Trees										
Inspect trees annually between <u>October-January</u> (avoid nesting bird season) and after major storms. Remove all stems which are unsafe or in danger of falling/breaking. Prune back any diseased wood. Keep standing/fallen deadwood in situ where it does not pose a risk to health and safety. Monitor for pests and diseases and undertake any necessary control measures as soon as possible.										
Monitoring and removal of invasive, non-native species.										
Thinning of vigorous tree and shrub species, such as bramble, as required.										
Woodland thinning may be necessary following establishment to improve the ground flora and create a range of tree age classes characteristic of a semi-natural woodland. This should take place in the <u>Winter</u> months only.										
Scrub										
Rotational cropping regime and edge cutting between <u>October-February</u> (avoid nesting bird season) to prevent succession into woodland and encroachment into grassland habitats.										
Selective thinning may be necessary following establishment to allow light to reach the ground and promote regeneration of seedlings and saplings. This should be undertaken in <u>October-February</u> as required.										
Other Neutral Grassland – Meadow Grassland										
Sow nutrient tolerant wildflower seed mix and plant plug plants and bulbs in <u>Autumn or Spring</u> / or nutrient soil stripping.										

Likely Actions	Years									
	1	2	3	4	5	6	7	8	9	10+
Cut the new grassland in the <u>Spring, Summer and Autumn</u> and remove cuttings from site. Provide signs to explain the management regime to the public.										
Scarify the grassland and sow a higher diversity wildflower seed mix in <u>Autumn or Spring</u> , if required for nutrient levels.										
Mow grassland once a year in <u>August/September</u> (after most flowers set seed) to a height of 150mm and leave the cuttings for 5-7 days to allow seeds to be released. Then remove cuttings from site. The grassland along hedgerow bases and scrub will be left unmown to provide a taller sward for wildlife but will be cut biennially. Provide signs in August to explain the management regime to the public.										
Re-sow and replant plug plants in any areas of failing grassland.										
Newly seeded areas will be protected where necessary to prevent damage e.g. temporary fencing to prevent wear and tear from walkers.										
Monitor for unwanted coarse/rank vegetation, scrub encroachment and tree saplings over winter – pull up/cut where necessary, scarify the ground and resow with a wildflower seed mix. Herbicides should <u>not</u> be used.										
Modified Grassland: Amenity Grassland										
Sow nutrient tolerant wildflower seed mix and plant plug plants and bulbs in <u>Autumn or Spring</u> / or nutrient soil stripping.										
Cut the new grassland in the <u>Spring, Summer and Autumn</u> and remove cuttings from site. Provide signs to explain the management regime to the public.										
Scarify the grassland and sow a higher diversity wildflower seed mix in <u>Autumn or Spring</u> , if required for nutrient levels.										
Mow grassland footpaths through the SANG once established, this will consist of approximately 16 cuts a year.										
Bird Seed Resource										
Sow bird wildflower seed mix in disturbed ground <u>Autumn or Spring</u> .										
Cut species after seeding, to allow a foraging resource for birds, and seed to make it into the ground – October/November.										
Rotavate area in February/March biannually and add additional seed mixes (if needed).										

Likely Actions	Years									
	1	2	3	4	5	6	7	8	9	10+
Hedgerows										
Gap up existing hedgerows between <u>October-March</u> with rabbit protection, avoiding very cold and wet conditions.										
Water during initial establishment and then periods of drought until specimens have established.										
First <u>Spring</u> following planting of new specimens, cut to 45-60cm to encourage a bushy structure.										
Each <u>Autumn/Winter</u> , weed bases and top up mulch, where necessary. Prune back any diseased or rotting wood.										
Replace any failed specimens on a like-for-like basis.										
Monitor establishment and the need for stake supports, ties, tubes etc. Replace or remove as necessary.										
Retained and gapped up hedges, cut hedges in an 'A' profile on a three-year rotational basis in <u>October-February</u> so that only 1/3 of all hedgerows are cut in any one year. This will ensure flowering and fruiting hedgerows are present every year for wildlife.										
SuDS										
Monitor for invasive and undesirable species and remove as required.										
Mow grassland once a year in <u>August/September</u> (after most flowers set seed) to a height of 150mm and leave the cuttings for 5-7 days to allow seeds to be released. Then remove cuttings from site. The grassland along hedgerow bases and scrub will be left unmown to provide a taller sward for wildlife but will be cut biennially. Provide signs in August to explain the management regime to the public.										
Pond										
Firmly heel in new planting to prevent the plants becoming dislodged/float away. Leave new planting to establish.										
Monitor water levels and plant establishment. Top up if drought conditions and replace failed specimens like-for-like.										
Monitor for invasive and undesirable species and remove as required. If filamentous algae/duckweed become dominant, management of nutrient load will be undertaken.										
Management to maintain 70% open water will take place between <u>October-January</u> . Vegetation and leaf litter will be removed by hand and left at the pond edge for 48 hours prior to removal.										

Likely Actions	Years									
	1	2	3	4	5	6	7	8	9	10+
Silt build-up should be monitored annually and de-silting, where required, will only take place between <u>October-January</u> .										
General										
Empty bins every week and litter pick regularly.										
Monitor paths and repair/improve as required. Check information boards and signage and repair/clean as necessary.										
Arboricultural inspection as part of the tree safety risk assessment.										
Work programme and management review by staff involved in the management of the SANG.										

Notes:

The Proposed Development at North Hemel is for 1500 homes. The SANG forms part of the proposed Community Park which lies within the eastern part of the site.

This plan sets out the general principles for the provision of SANG and follows Natural England guidance and principles (as shown in the table). The plan will be developed further through the detailed stage as part of applications for reserved matters approval. The application is accompanied by an Outline Landscape & Ecological Management Plan and Outline SANG Mitigation and Management Plan. These will be developed further through the planning process and final versions of these will be expected to be secured through planning conditions.

(The plan illustrates how an extensive circular route could be delivered across the entire SANG, well above the minimum 2.3km requirement at c4.6km. It also shows how seperate 2.3km routes could be delivered to the north and south of Little Revel End Lane if the SANG follows a phased approach).

SANG Criteria		
Paths		
A minimum circular walk of 2.3-2.5 kilometres to be provided.		Expected
Paths easily used and well maintained but mostly unsurfaced.		Expected
Where parking is provided, circular path should start and finish at that location.		Expected
Paths should be safe, easily identifiable and kept clear of obstructions, such as scrub cover for example.		Expected
Information boards and/or signage at access points outlining the layout of the site and routes available to visitors.		Desirable
Parking		
Parking, including for cyclists, to be provided on sites larger than four hectares, unless the site is solely intended for residents within 500 metres only.		Expected
Parking areas are to be easily and safely accessible by car and to be clearly sign posted.		Expected
Visitor to be able to take dogs from the parking area to the site safely off the lead		Desirable
Access		
Access points to be provided based on the intended visitors of the SANG.		Expected
Safe access route on foot from nearest car park and/or footpath.		Expected
Access should be unrestricted within the site, with plenty of space for dogs to exercise freely and safely off the lead.		Expected
Character of Space		
Needs to be semi-natural, or perceived as such where close to existing development.		Expected
If the site is larger than 12 hectares, a range of habitats should be present.		Expected
No unnatural intrusions (e.g. odour from sewage treatment works, noise from busy roads).		Expected
There should be little intrusion of built structures such as dwellings, buildings, fencing (not constructed using natural materials), etc.		Expected
Naturalistic space with areas of open countryside with dense and scattered trees and shrubs.		Desirable
Gentle undulating topography. Steep slopes are likely to deter visitors.		Desirable
Focal point such as a viewpoint or monument within the site and accessible via walking routes.		Desirable
Provision of open water, however large areas of open water cannot count towards SANG capacity.		Desirable

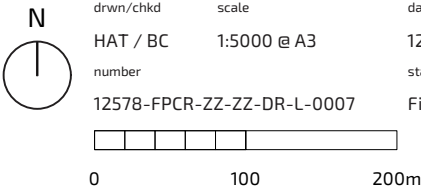


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- Key
- Suitable Alternative Natural Green Space (SANG) 28.8ha
- Existing Vegetation
- Existing Ponds
- Existing Public Footpaths
- Potential section of Public Footpath to be diverted. Alignment to be determined through the detailed design
- Indicative Circular SANG Path - Total 4.6 km
(Unsurfaced grass ride, albeit some low key surfacing may be needed in wet areas subject to detailed design)
- Mown Paths
- Potential Crossing Points over Little Revel End Lane
- New Woodland
- New Woodland Edge/ Scrub
- New Amenity (Modified Grassland)
- New Meadow Grassland (Other Neutral Grassland)
- Dog Bins - Indicative Locations
- Interpretation Panels - Indicative Locations
- Proposed Car Park within Sports Area
(30 Spaces for SANG visitors plus parking spaces for sports users)
- Sports pitches
- Drainage Features that are predominantly dry
(Drainage strategy to be developed through the detailed design stage)

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client

Pigeon and Bloor Homes

project

North Hemel, Hemel Hempstead

title

Indicative Landscape Proposals for Suitable Alternative Natural Green Space (SANG)

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environment & design

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