Biodiversity Enhancement Management Plan

Woodhead Hall Farm, Platts Common

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1. Summary

1.1.1 This Biodiversity Enhancement Management Plan (BEMP) of Woodhead Hall Farm was commissioned by the Thomas Daley of Thomas Daley Homes Ltd, on 23rd July 2024.

1.1.2 The BEMP is intended to address Condition 23 of a planning permission (Ref.: 2022/1234) relating to the re-development of the Woodhead Hall Farm site to include alteration, restoration and extension of the farmhouse, farm cottage and conversion and extension of existing barns, together with the erection of a further four new dwellings

1.1.3 The habitats that will be retained, enhanced or newly created are described in this document, along with the aims and objectives of habitat management. The locations of habitats retained or created on the site are shown in the Landscape Masterplan, included in Appendix 1.

1.1.4 Recommendations relating to the initial establishment and management of newly planted vegetation are provided in an accompanying Landscape Management Plan (PWP Design Ltd., 2024), which should be read alongside the text in the BEMP. The BEMP details long-term management methods. The remedial measures to be applied, together with triggers initiating their requirement, have also been specified.

1.1.5 The proposed scheme includes retention of the vast majority of existing trees and hedgerow, together with substantial retention of mixed scrub and neutral grassland. In addition, the scheme includes establishment of new areas of neutral grassland, together with planting of new areas of mixed scrub, new species-rich native hedgerow and new planting of trees.

1.1.6 A completed copy of Biodiversity Metric 3.1 was completed for the site on 11th September 2023 by Chris Schofield of Enzygo based upon the UK Habitat Survey detailed in the Ecological Impact Assessment (Enzygo, 2023). At the time this original metric was written, no planting proposals/landscaping plan was available. A revised calculation of the scheme's ecological impact has been undertaken using The Statutory Biodiversity Metric. These calculations showed that the scheme was anticipated to result in a 1.7 increase in Habitat Units (an 11.31 % net gain) and a 0.91 increase in Hedgerow Units (a 62.42 % net gain).

1.1.7 The applicant is to be responsible for appointing an appropriate Landscape Management and Maintenance Copy to ensure long-term management and maintenance of land falling within the 'wider curtilage' of Woodhead Hall Farm. Land falling within the 'domestic curtilage' of each property will be managed by the new homeowners.

1.1.8 The applicant is to be responsible for appointing a suitably qualified ecologist to undertake monitoring surveys in Years1, 3, 5, 10, 20 & 30 and to produce a monitoring report to be provided to the LPA on the 1st November of each year of monitoring.

2. Introduction

2.1.1 This Biodiversity Enhancement Management Plan (BEMP) of Woodhead Hall Farm was commissioned by the Thomas Daley of Thomas Daley Homes Ltd, on 23rd July 2024. Woodhead Hall Farm is located at Ordnance Survey Grid Reference SE 37206 02033 (Figure 1).

Figure 1. Location plan

2.1.2 Planning permission was granted in December 2022 to permit re-development of the site to include alteration, restoration and extension of the farmhouse, farm cottage and conversion and extension of existing barns, together with the erection of a further four new dwellings. The 1.8 ha site will also be partially re-landscaped.

2.1.3 This BEMP has been written to inform the discharge of Condition 23 of planning permission 2022/1234, which states:

A Biodiversity Enhancement Management Plan (BEMP), completed by a suitably qualified ecologist will be submitted to the Local Planning Authority prior to the commencement of works on site. The BEMP will include the following:

- A recent landscape plan detailing the location of mitigation works and the size of each habitat/linear feature to be enhanced and/or created (if there are any changes to the proposed layout that would impact the outcomes of the Defra metric then an updated version of the metric should be provided to and approved by the Local Planning Authority);
- Management aims and prescriptions detailing the methods required to create and/or enhance each habitat/linear feature at the required quality for a period of 30 years;
- A timetable of delivery for each habitat/linear feature created and/or enhanced;
- A schedule of ecological monitoring for a minimum 30 year period, identifying when key indicators of habitat/linear feature maturity should be achieved;
- Details on the monitoring of habitats and linear features and the provision of a report, which shall be provided to the LPA on the 1st November of each year of monitoring (years one-three after creation, years five, ten and every ten years

thereafter), which will assess the condition of all habitats and linear features created and/or enhanced and any necessary management or replacement/remediation measures required to deliver the Net Gain values set out in the BEMP;
- A schedule of actions to be undertaken in case signs of failing are identified; the schedules must include details of technique(s) to be used, equipment to be used, roles and relevant expertise of personnel and organisations involved and timing of actions including submission of monitoring report to the Council.

2.1.4 The BEMP is informed by ecological survey work undertaken in 2021 and reported in the Ecological Impact Assessment (Enzygo, 2023).

2.1.5 A landscaping plan has been developed for the scheme by PWP Design Ltd. This plan is included in Appendix 1 of this document and the BEMP should be read with reference to both this plan and the accompanying Landscape Management Plan for Woodhead Farm, also developed by PWP Design Ltd (PWP Ltd., 2024).

2.1.6 The BEMP will provide the details required to implement and manage the ecology-led elements of the landscape proposals. It will include the rationale behind the aims of the proposals and information on their long-term (30 year) management. This BEMP does not cover amenity grassland/lawns or ornamental planting, which are considered to be primarily included in the planting proposals for aesthetic and amenity purposes as well as primary being located in areas of domestic curtilage. With regards to management of these habitats the Landscape Management Plan only should be consulted.

2.1.7 This document has been prepared by Middleton Bell Ecology Ltd with input from the landscape consultant.

3. Repeat Biodiversity Net Gain Assessment

3.1.1 A completed copy of Biodiversity Metric 3.1 was completed for the site on 11th September 2023 by Chris Schofield of Enzygo based upon the UK Habitat Survey detailed in the Ecological Impact Assessment (Enzygo, 2023). At that stage no planting proposals/landscaping plan was available. Consequently, the completed metric was based on assumptions regarding the retention and enhancement of habitats falling outside formal gardens/domestic curtilages and the planting of 32 new small trees.

3.1.2 The Landscape Masterplan (Appendix 1) for this development was developed by PWP Design Ltd, following consultation with Thomas Daley of Thomas Daley Homes Ltd and Robert Bell of Middleton Bell Ecology. The Landscape Masterplan accommodates as closely as possible those commitments made in the submitted copy of the Biodiversity Metric 3.1, however, it was not possible to completely align the landscaping plan and submitted copy of the metric. For this reason, we have completed revised metric calculations using The Statutory Biodiversity Metric (Appendix 4).

3.1.3 When revising the biodiversity metric we have taken the baseline habitats as recorded by Enzygo and detailed in the submitted copy of the Biodiversity Metric 3.1 (Enzygo, 2023). A new UK Habitat Survey Plan was however produced for the site (see Appendix 2) in order to more accurately fit the scheme's red-line boundary and the area covered by Landscape Masterplan. Two minor additional areas are shown within the UK Habitat Survey Plan in Appendix 2, relative to the original baseline habitat plan produced by Enzygo (Enzygo, 2023). These additions comprised the western gravel-covered access track and a small extension to the dense scrub in the western corner

of the site. Habitats in these areas were recorded during an update walkover of the site, undertaken by Robert Bell (MCIEEM) of Middleton Bell Ecology on 24th July 2024, in order to verify the habitats recorded by Enzygo.

3.1.4 The Landscape Masterplan (Appendix 1) was converted into a UK Habitat Classification Plan, included in Appendix 3 of this document. Condition levels ascribed to proposed site habitats are described in completed copy of The Statutory Biodiversity Metric and also within Section 5 of this document. Existing trees located within new areas of 'domestic curtilage'/gardens are included within the Proposed UK Habitat Classification Plan used in metric calculations, however, new trees to be planted within these areas were not included. A proportion of the new species-rich mixed native hedgerow is to be located on the edge of future gardens (Appendices 1 & 3) and this is included in the metric calculations. It was however noted even if the new species-rich mixed native hedgerow included in domestic curtilages was excluded from The Statutory Biodiversity Metric calculations, the scheme would still deliver a >10 % net gain in both Habitat and Hedgerow Units

3.1.5 Calculations undertaken in The Statutory Biodiversity Metric show that the proposed development is expected to deliver a 1.7 increase in Habitat Units (an 11.31 % net gain) and a 0.91 increase in Hedgerow Units (a 62.42 % net gain). In the case of both Habitat Units and Hedgerow Units the proposed development is expected to deliver a >10 % net gain.

4. Land Ownership and Responsibilities

4.1.1 The future site is to be divided between a total of 10 curtilages associated with the future dwellings. These ownership boundaries are shown in Appendix 5. These ownership boundaries have been laid out to ensure that the entirety of the higher value nature conservation area habitats, with the exception of several retained trees, are located either within an area designated the 'wider curtilage' of Woodhead Hall Farm, or an area designated to fall under the private management of a management company. The latter area comprises the access routes and car parking areas.

4.1.2 The applicant is to be responsible for appointing an appropriate landscape management and maintenance contractor to ensure long-term management and maintenance of land falling within the 'wider curtilage' of Woodhead Hall Farm, as well as the area to be subject to private management. Land falling within the 'domestic curtilage' of each property will be managed by the new homeowners.

4.1.3 The applicant is to be responsible for appointing a suitably qualified ecologist to undertake monitoring surveys in Years1, 3, 5, 10, 20 & 30 and to produce a monitoring report to be provided to the LPA on the 1st November of each year of monitoring.

5. Features to be Retained, Created, Enhanced and Managed

5.1.1 The habitats that will be retained, enhanced or newly created are described below, along with the aims and objectives of habitat management. The locations of habitats retained or created on the site are shown in the Landscape Masterplan included in Appendix 1 and the proposed UK Habitat Classification Plan adapted from this document, included in Appendix 3.

5.1.2 Recommendations relating to the initial establishment and management of newly planted vegetation are provided accompanying Landscape Management Plan (PWP Design Ltd., 2024). These measures will not be repeated in this document, rather the BEMP and Landscape Management Plan should be read together.

5.1.3 This BEMP details long-term management methods. The remedial measures to be applied, together with triggers initiating their requirement, have also been specified.

5.2 Hedgerow

Retained, enhanced, and newly created habitat

5.2.1 Native hedgerows border both sides of the western access track and these hedgerows are to be retained in full (Plate 1). These hedgerows were described as regularly cut and were classified as being in poor condition failing criteria in relation to width (A2), undisturbed adjacent habitat (C1), nutrient enriched ground flora (C2) and excessive cutting (D2) (i.e. failing 4 criteria in total but both C1 and C2)(Enzygo, 2023).

5.2.2 In addition to retention of the existing areas of native hedgerow, a total of 135 m of new species-rich mixed native hedgerow is to be planted across the interior of the site. This hedgerow is to comprise a mix of seven native woody species, planted as double staggered rows. Habitat creation instructions are detailed in the Landscape Management Plan (PWP Design Ltd., 2024), as they are for all habitat types. An example of a species-rich mixed native hedgerow within its third spring following planting is shown in Plate 2.

Plate 1. View from Woodhead Lane of hedgerows bounding the eastern access track

Habitat management aims and objectives

Existing hedge

5.2.3 It is not considered feasible to enhance the condition of the retained hedge to a moderate level. The reason for this is that the hedgerow failed both condition criteria undisturbed adjacent habitat (C1) and nutrient enriched ground flora (C2) and it is not considered that there is a management action suitable to address this within the bounds of the site boundary. Nevertheless, these hedges can be made more ecologically valuable through the implementation of an optimal management regime.

5.2.4 The aim for these hedgerows is to maintain the following:

- Dense bushy growth at its base.
- A height of 2m + and a width of at least 1.5 m.
- No gaps along its length.
- An absence of invasive non-native species.

Plate 2. Native hedgerow coming into leaf in the third spring following planting as bare root whips

Newly planted hedge

5.2.5 For the new hedgerow, to be planted within the interior of the site, the aims for management are to ensure the hedgerow:

- Is at least 1.5 m wide.
- Is at least 1.5 m tall.
- Has dense bushy growth at its base.

- Has no gaps along its length.
- Has at least 1 m of undisturbed ground with perennial vegetation at least 1 m along its length for 90 % of its length.
- Support no invasive non-native species.

Management prescriptions

Existing hedge

5.2.6 Any gaps within the existing hedge should be planted with bare root whips outside the growing season (i.e. plant between November and March). Hedge plants should be established as per Landscape Management Plan (PWP Design Ltd., 2024). Watering should be carried out to ensure proper establishment. New planting shall be watered regularly for the first three (3) years during June, July, August and September, as necessary. Additional watering of planting might be required during periods of drought. Particular care should be taken during such periods to ensure sufficient watering is carried out to facilitate healthy growth. All failures, dead or dying plants should be replaced during the next planting season.

5.2.7 Established native hedgerows will be managed on a rotational basis, with one side of the hedge cut each year (i.e. the entirety of the hedge cut every two years). This will ensure a continuous supply of foraging for local fauna throughout the year. For ongoing management of more mature hedgerows, these are to be sided and topped to create a hedge with an 'A' shaped profile once every two years. It is not proposed to lay these hedges due to their function as boundary features. Care will be taken to avoid damage to potential future mature hedgerow trees during cutting to enable their successful growth. All arisings will be cleared to a designated composting area or designated areas of habitat brashings, with any diseased material being removed and disposed of off-site in accordance with regulations. Hedges should be trimmed outside the bird nesting season (March to September) and ideally in January or February to allow the berry crop to be harvested by wintering birds.

5.2.8 Stakes / guards on gap planted whips should be removed as deemed necessary (after three years), once the hedge plant is suitably established.

Newly planted hedge

5.2.9 Hedgerow establishment guidance including initial trimming is detailed in the Landscape Management Plan (PWP Design Ltd., 2024). Watering should be carried out to ensure proper establishment. New planting shall be watered regularly during periods of dry weather for the first three (3) years during June, July, August and September as necessary. Additional watering of planting might be required during periods of drought. Particular care should be taken during such periods to ensure sufficient watering is carried out to facilitate healthy growth. All failures, dead or dying plants should be replaced during the next planting season.

5.2.10 Long term management should comprise a trim every second year, allowing the hedge to increase in size each time whilst still encouraging lateral growth. It is not proposed to lay these hedges due to their function as boundary features. Hedges should be trimmed outside the bird nesting season (March to September) and ideally in January or February to allow the berry crop to be harvested by wintering birds.

5.2.11 Stakes / guards on gap planted whips should be removed as deemed necessary (after three years), once the hedge plant is suitably established.

Remedial measures

5.2.12 The hedgerow plants should be inspected in late summer (August – September) during Years 1 and 2 by the landscape management contractor and will be inspected by the ecologist as part of their monitoring surveys in Years 1, 3, 5, 10, 20 & 30. Any dead plants should be replaced the subsequent winter.

5.2.13 If newly planted hedgerows are being overgrown by adjacent herb vegetation and it is suppressing the growth of woody plants then mulch laid at the base of the hedge will need to be renewed.

5.2.14 Laying of site hedgerows may be necessary if they become too large, or too gappy either along their length or at the base. If gaps appear as a result of dead plants then these will need to be filled by planting new hedge plants during the next planting period.

5.2.15 If non-native invasive plant species are identified within the hedgerows on site, they should be removed. The method for removal will be species specific with additional species-specific control measures likely to be required. At present invasive non-native species can usually be treated or buried on site, in accordance with Regulatory Position Statement 178 (https://www.gov.uk/government/publications/treatment-and-disposal-of-invasive-non-native-plants-rps-178/treatment-and-disposal-of-invasive-non-native-plants-rps-178), or removed from site by a licensed waste disposal contractor. The contractor should be notified if they are transporting a species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

5.3 Trees

Retained, enhanced, and newly created habitat

5.3.1 All existing trees, with the exception of two medium sized trees in the centre of the site, are to be protected during construction and retained in the long-term.

5.3.2 A total of 32 new native trees (comprising a mix of seven species) will be included within the wider curtilage of Woodhead Hall (Appendices 1 & 3). A further 13 trees will be included within the domestic curtilage of new dwellings, to be managed in accordance with the new owners wishes.

Habitat management aims and objectives

5.3.3 The aim is for newly planted trees to achieve a moderate condition within the 30-year timeframe of this BEMP. In order to achieve a moderate condition, the trees should:

- The canopy is predominantly continuous, with gaps in canopy cover making up < 10 % of total area.
- Show little or no impact of vandalism or herbicide use.
- More than 20% of the tree canopy should oversail vegetation (rather than hard standing).

Management prescriptions

Existing trees

5.3.4 Management of existing trees during the 30 year period should only be undertaken when inspections highlight that management works are needed (i.e. if trees die, become severely diseased or are subject to wind damage). Trees should however be

inspected by an arborist or experienced landscaping contractor every five years to assess their health and the requirement for any management works.

5.3.5 An appropriately qualified operative such as Arboriculturist or Tree Surgeon should be consulted prior to undertaking any major tree works on-site. All work carried out to proposed of existing trees and vegetation is to be to BS 5837:2012 & BS 3998:2010 (or the latest version) where appropriate.

5.3.6 Where existing trees die or require removal then they should be replaced during the next planting period using specimens of a native species, or wildlife friendly ornamental species, sourced from a UK nursery.

Newly planted trees

5.3.7 Planting prescriptions for new trees are detailed is detailed in the Landscape Management Plan (PWP Design Ltd., 2024).

5.3.8 Watering should be carried out to ensure proper establishment. New planting shall be watered regularly during periods of dry weather for the first three (3) years during June, July, August and September as necessary. Additional watering of planting might be required during periods of drought. Particular care should be taken during such periods to ensure sufficient watering is carried out to facilitate healthy growth. All failures, dead or dying plants should be replaced during the next planting season.

5.3.9 All above ground staking and underground guying should be checked at least annually to ensure that the root system remains stable and firm in the ground, and that ties are still effective and not causing any damage to the tree. Any broken or damaged stakes should be replaced and hessian ties re-fixed at a slightly lower position, allowing for growth since planting. Stakes / guards should be removed as deemed necessary, between 18 months – 3 years, once the tree is suitably established and its root system is strong enough to anchor it in situ.

5.3.10 Young trees will require formative pruning to maintain a desirable shape as well as to maintain health and vigor.

5.3.11 Where existing trees die or require removal then they should be replaced during the next planting period using specimens of a native species, or wildlife friendly ornamental species, sourced from a UK nursery

<u>Remedial measures</u>

5.3.12 The newly planted trees should be inspected in late summer (August – September) during Years 1 and 2 by the landscape management contractor and will be inspected by the ecologist as part of their monitoring surveys in Years 1, 3, 5, 10, 20 & 30. Any dead plants should be replaced the subsequent winter.

5.3.13 If trees have outgrown their stakes/guards/tree ties and these have not been removed then this will be highlighted to the landscape management team for remedial removal.

5.3.14 If newly planted trees are being overgrown by adjacent herb vegetation and it is suppressing the growth of woody plants then mulch laid at the base of the hedge will need to be renewed.

5.3.15 If vandalism, herbicide use, or excessive pruning has killed trees in the wider curtilage

of Woodhead Hall then additional tree planting will be undertaken by the landscape management team with trees replaced with another native specimen on a 1:1 basis.

5.4 Neutral Grassland Areas

Retained, enhanced, and newly created habitat

5.4.1 Most existing areas of former lawn (classified as modified grassland) within the wider curtilage of Woodhead Hall (Plate 3) are to be retained and brought into meadow management with the aim of reducing existing nutrient levels and promoting the growth of flowering herb species (Plate 4). This grassland was species poor (i.e. had less than 6 species per m^2). It passed Criteria 3 (low scrub cover), 4 (lack of physical damage), 6 (absence of bracken *Pteridium aquilinum*) and 7 (absence of invasive flora), but failed Criteria 2 (lack of a varied sward height) and 5 (lack of bare ground).

5.4.2 Some new areas of other neutral grassland are to be sown on areas of existing modified grassland in the northern corner of the site, which needs to be disturbed during the creation of drainage, and on former arable land in the southern corner of the site.

Plate 3. Existing grassland east of Woodhead Hall

Habitat management aims and objectives

5.4.3 The existing modified grassland is to be managed to bring about its transition to other neutral grassland. Both the retained and newly created grassland will be managed to bring them into at least poor condition.

5.4.4 This will require at least the following criteria to be met, although the aim will be to meet other criteria, where possible:

- Management of grassland to ensure cover of bracken is less than 20 % and cover of scrub (including bramble) is less than 5 %.

Management prescriptions

Existing grassland

5.4.5 The existing grassland is to be cut twice per year, once in March – April, and also in late July – August . The mowing of regularly mown pathways through the existing grassland is encouraged to promote a diversity in the sward height.

5.4.6 Undesirable weeds are to be spot sprayed or hand-pulled by the landscape management contractor. As a minimum this should be completed during May in Years 1, 2, 3, and 5, with additional management undertaken as required.

5.4.7 The arisings from all mowing are to be collected and either disposed of or composted in a set location on the site. The arisings from the late July/August cut are to be left in situ for 5 to 7 days before being collected to allow seeds to fall. The reason for removing all arisings from the mown area is to prevent the buildup of fertility in these areas.

Newly created grassland

5.4.8 Prescriptions for the seeding of new meadow are detailed in the Landscape Management Plan (PWP Design Ltd., 2024), with the seed supplier and mix specified (Habitat Aid Basic Wildflower Meadow Seed Mix). No nutrient is to be added to the area where seed is to be sown and soil in the area is to be either inverted (the preferred option), or rotavated prior to seeding.

5.4.9 During Year 1 following establishment, the whole sward is to be cut back to around 75 mm-100 mm every 3 or 4 weeks for the first growing season. Arisings are to be collected and removed after each cut, to stop them from mulching down and enriching the soil, as the aim is to gradually reduce fertility of the soil. This will help to create an environment suitable for growing wildflowers. During the first year the meadow areas should be watered once per week during dry weather.

5.4.10 From Year 2 onwards the new areas of neutral grassland are to be managed in the same way as the established grassland areas. The mowing of regularly mown pathways through the existing grassland is encouraged to promote a diversity in the sward height.

5.4.11 Undesirable weeds are to be spot sprayed or hand-pulled by the landscape management contractor. As a minimum this should be completed during May in Years 1, 2, 3, and 5, with additional management undertaken as required. Once the meadow grassland has established, invasion by undesirable species (i.e. nettle and broad leaved dock) will be less likely.

Plate 4. Example of meadow area established in a domestic lawn

Remedial measures

5.4.12 The grassland should be inspected in late summer (August – September) during Years 1 and 2 by the landscape management contractor and will be inspected by the ecologist as part of their monitoring surveys in Years 1, 3, 5, 10, 20 & 30.

5.4.13 The ecologist will consider the following specific concerns during the inspections and recommend the landscape management contractor to undertaken the following actions, as applicable:

- If new areas of seeding have established poorly (i.e. as a result of waterlogging during a wet spell), then these areas will be re-seeded in autumn of the same year.
- If non-native invasive plant species, undesirable weeds or scrub are identified within the sward, then they should be notified to the client and landscape management contractor and removed by the landscape management contractor. The method for removal of undesirable plants will be species specific with additional control measures likely to be required. Invasive, non-native species should be treated as described in Section 5.2.15 of the Hedgerow Section.
- If evidence of a poorly timed mowing regime is recorded, then the management contractor will be contacted to discuss the timing of cuts detailed in the BEMP.
- If problems arise from use of the area by the residents (fly tipping, littering, dog fouling etc.) then the ecologist will notify the client and landscape management contractor. Consideration will be given to restricting or altering access via the use of fencing, changes to hedgerows, amending the location of mown paths, or cessation of mowing paths through these areas.

5.5 Mixed Scrub

Retained, enhanced, and newly created habitat

5.5.1 Existing areas of scrub on the eastern and western boundaries of the site will be retained. This habitat was considered to be in moderate condition passing 4 of 5 assessment criteria. This scrub passed Criteria 1 (species diversity), 2 (good age range), 3 (lack of invasives) and 4 (edge habitat), but failed Criteria 5 (valuable glades and clearings).

5.5.2 New areas of scrub will also be planted in the southern corner of the site and along part of the eastern boundary. New scrub is to be planted with a range of eight native scrub species, to be planted in single species groupings.

Habitat management aims and objectives

5.5.3 The existing mixed scrub will be managed to enhance its condition to good, with the aim being to bring new scrub planting into moderate condition.

5.5.4 Enhancement of existing scrub to bring it into good condition will require:

- A mixture of at least three woody species; with no one species comprising more than 75% of the cover.
- Seedlings, saplings, young scrub and mature shrubs all present.
- An absence of non-native invasive species and species indicative of suboptimal condition make up less than 5 % cover.
- An edge bounded by tall herbs/grassland.
- The presence of clearings, glades and ridges in the scrub, providing sheltered edges.

5.5.5 The newly planted scrub is expected to meet all condition criteria with the exception of the requirement for mature shrubs to be present.

Management prescriptions

Existing scrub

5.5.6 One quarter of the cover of existing scrub should be coppiced/cut to ground level every five years in order to develop temporary open areas within this habitat (as the cut scrub re-grows). A particular focus should be placed on the clearance of bramble to promote the growth of other component scrub species. Developing and established trees should typically be spared from coppicing unless necessary to suspend the development of woodland in these areas. Cleared areas of scrub should be spread across the site to develop a periodic rotation of management. All scrub clearance should take place outside of the main bird nesting period (March-August).

Newly planted scrub

5.5.7 New mixed scrub should be established in accordance with the Landscape Management Masterplan (Appendix 1). During Year 1 the scrub should be watered once per week during dry periods and mulch at the base of the scrub should be maintained in order to prevent weed establishment. At the end of Year 1 any dead or failing plants should be replaced.

5.5.8 Species within the mixed native and buffer planting areas should be allowed to

establish with minimal intervention over the first 5 years, whilst the areas of native planting mature and establish.

5.5.9 After the fifth year, newly planted scrub should be managed in the same way as existing scrub. From thereon in newly planted scrub should be managed at five year intervals. At these times one third of the total cover of the existing scrub should be cleared to develop temporary open areas within this habitat, whilst these coppiced scrub specimens re-grow. A particular focus should be placed on the clearance of bramble to promote the growth of other component scrub species. Developing and established trees should typically be spared from coppicing unless necessary to suspend the development of woodland in these areas. Cleared areas of scrub should be spread across the site to develop a periodic rotation of management. All scrub clearance should take place outside of the main bird nesting period (March-August).

Remedial measures

5.5.10 The scrub should be inspected in late summer (August – September) during Years 1 and 2 by the landscape management contractor and will be inspected by the ecologist as part of their monitoring surveys in Years 1, 3, 5, 10, 20 & 30. Any dead plants should be replaced the subsequent winter, or alternatively (where possible) the amount of clearance within the next coppicing phase, will be adjusted to take account of this.

5.5.11 If newly planted scrub plants are being overgrown by adjacent herb vegetation and this herb vegetation is suppressing growth of these woody plants, then mulch will be renewed.

5.5.12 If non-native invasive species are recorded within the scrub by the ecologist during the inspections the entire extent of the invasive plants should be removed at the first opportunity by mechanical or chemical control by the landscape management contractor, or a specialist invasive species removal firm if required.

5.5.13 The method for removal of non-native plants will be species specific and should be dealt with as identified in the Section 5.2.15 of Hedgerow Section.

5.5.14 If more than 10 % of the area of scrub (total) requires clearance in order to remove non-native invasive species, supplemental planting will be undertaken by the landscape management contractor during the following winter, or alternatively (where possible) the amount of clearance within the next coppicing phase, will be adjusted to take account of this.

6. Management, Maintenance and Monitoring Work Schedule

6.1.1 The years during which regular maintenance and management work is required on site are indicated by asterisks in Table 2 below.

6.1.2 Years when monitoring visits should be undertaken by a suitably qualified ecologist are highlighted in green. Following monitoring the management prescriptions in this BEMP should be reviewed and updated to achieve the stated aims. Additional monitoring and revision of the management prescriptions in this BEMP should be made as required.

Table 2. Timing of works

Habitat	Regular management and maintenance	Year																													Notes
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Existing hedge	Hedge cutting	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	Cut one side or 50 % of total hedge each year outside of bird nesting season (March to September) and ideally in January or February. All arisings will be cleared to a designated composting area or designated areas of habitat brashings.
	Establishment of gap planting	*																														Gap up hedges between November and March avoiding very cold or wet weather.
	Watering of gap planting	*	*	*																												New planting shall be watered regularly for the first three (3) years during June, July, August and September as necessary
	Check of gap planting		*																													Failed plants should be replaced in first winter. Mulch should be replenished if necessary.
	Remove stakes and guards			*																												Stakes / guards on gap planted whips should be removed as deemed necessary (after 3 years), once the hedge plant is suitably established
Newly planted hedgerows	Establishment	*																														Plant new hedge between November and March avoiding very cold or wet weather in accordance with Landscape Management Plan
	Watered (during dry weather) and mulch maintenance	*	*	*																												Watering should be carried out to ensure proper establishment. New planting shall be watered regularly for the first three (3) years during June, July, August and September as necessary. Additional watering of planting might be required during periods of drought.
	Check of new planting		*	*	*																											Failed plants should be replaced in first winter. Mulch should be replenished if necessary.
	Remove stakes and guards			*																												Stakes / guards on gap planted whips should be removed as deemed necessary (after 3 years), once the hedge plant is suitably established
	Hedge trimming	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	Cut one side or 50 % of total hedge each year outside of bird nesting season (March to September) and ideally in January or February. All arisings will be cleared to a designated composting area or designated areas of habitat brashings.

Habitat	Regular management and maintenance	Year																												Notes
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Existing trees	Inspection	*				*					*					*					*					*					*	Trees should be inspected once every five years to assess their health and the requirement for any management works by an arborist or experienced landscaping contractor. An appropriately qualified operative such as Arboriculturist or Tree Surgeon should be consulted prior to undertaking any major tree works on-site.
	Tree replacement if required	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	Where existing trees die or require removal then they should be replaced during the next planting period using specimens of a native species, sourced from a UK nursery
Newly planted trees	Establishment	*																														Plant new trees between November and March avoiding very cold or wet weather in accordance with Landscape Management Plan
	Watered (during dry weather) and mulch maintenance	*	*	*																												Watering should be carried out to ensure proper establishment. New planting shall be watered regularly for the first three (3) years during June, July, August and September as necessary. Additional watering of planting might be required during periods of drought.
	Remove stakes and guards			*																												Stakes / guards on gap planted whips should be removed as deemed necessary (after 3 years), once the hedge plant is suitably established
	Formative pruning	*	*	*	*	*																										Formative pruning to be undertaken outside of growing season by experienced landscape contractor
	Tree replacement if required	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	Where existing trees die or require removal then they should be replaced during the next planting period using specimens of a native species, or wildlife friendly ornamental species, sourced from a UK nursery
	Inspection	*				*					*					*					*					*					*	Trees should be inspected once every five years to assess their health and the requirement for any management works by an arborist or experienced landscaping contractor. An appropriately qualified operative such as Arboriculturist or Tree Surgeon should be consulted prior to undertaking any major tree works on-site.
Existing grassland	Mow areas of long grassland once or ideally twice a year	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1st cut in March-April with a second cut in late July/August. Collect arisings immediately after April cut, collect arisings 5 to 7 days after July/August cut. All arisings to be moved offsite or to compost area.
	Weed treatment	*	*	*	*	*																										Undesirable weeds are to be spot sprayed or hand-pulled by the landscape management contractor.

Habitat	Regular management and maintenance	Year																													Notes
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Newly created grassland	Establishment	*																														Prescriptions for the seeding of new meadow are detailed in the Landscape Management Plan (PWP Design Ltd., 2024), with the seed supplier and mix specified (Habitat Aid Basic Wildflower Meadow Seed Mix). No nutrient is to be added to the area where seed is to be sown and soil in the area is to be either inverted (the preferred option), or rotavated prior to seeding).
	Year 1 cutting	*																														During Year 1 following establishment, the whole sward is to be cut back to around 75 mm-100 mm every 3 or 4 weeks for the first growing season. Arisings are to be collected and removed after each cut
	Mow areas of long grassland once or ideally twice a year	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1st cut in March-April, with second cut in late July/August. Collect arisings immediately after April cut, collect arisings 5 to 7 days after July/August cut. All arisings to be moved offsite or to compost area.
	Weed treatment	*	*	*	*	*																										Undesirable weeds are to be spot sprayed or hand-pulled by the landscape management contractor.
Existing scrub	Coppicing	*				*					*					*					*					*					*	One quarter of the existing scrub should be coppiced/cut to ground level every five years. A particular focus should be placed on the clearance of bramble to promote the growth of other component scrub species. Developing and established trees should typically be spared from coppicing unless necessary to suspend the development of woodland in these areas. Cleared areas of scrub should be spread across the site. All scrub clearance should take place outside of the main bird nesting period (March-August).
Newly planted scrub	Establishment	*																														Plant new scrub between November and March avoiding very cold or wet weather in accordance with Landscape Management Plan
	Watered (during dry weather) and mulch maintenance	*	*	*																												Watering should be carried out to ensure proper establishment. New planting shall be watered regularly for the first three (3) years during June, July, August and September as necessary. Additional watering of planting might be required during periods of drought.
	Check of new planting		*	*	*																											Failed plants should be replaced in first winter. Mulch should be replenished if necessary.
	Remove stakes and guards			*																												Stakes / guards on gap planted whips should be removed as deemed necessary (after 3 years), once the hedge plant is suitably established

Habitat	Regular management and maintenance	Year																												Notes
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
	Coppicing					*					*					*					*					*				*	One quarter of the newly planted scrub should be coppiced/cut to ground level every five years from the fifth year. A particular focus should be placed on the clearance of bramble to promote the growth of other component scrub species. Developing and established trees should typically be spared from coppicing unless necessary to suspend the development of woodland in these areas. Cleared areas of scrub should be spread across the site. All scrub clearance should take place outside of the main bird nesting period (March-August).

7. Ecological Monitoring Proposal

7.1.1 All habitats detailed within this BEMP will be subject to an inspection by a suitably qualified ecologist during Years 1, 3, 5, 10, 20 & 30 of the development. The ecologist will undertake the survey of land within the wider curtilage of Woodhead Hall Farm during the peak summer growing season (May-July) and will walk all areas of the site. Each area of habitat will be inspected to determine whether it meets the habitat management aims and objectives set out in this document. If the habitat does not yet meet the appropriate aims then a decision will be made whether one of the specified redial management measures needs to be instigated and/or whether the BEMP needs to be revised.

7.1.2 The findings of the monitoring survey will be communicated to the client and landscape management contractor within one month of the survey visit. These findings will be formally written up in a report for submission to the the LPA on, or before, the 1st November during each year of monitoring.

8. References

Enzygo (2023) Woodhead Hall Farm – Ecological Impact Assessment. Enzygo Ltd.

PWP Design Ltd. (2024) Woodhead Hall Farm – Landscape Management Plan. PWP Design Ltd.

Appendix 1. Landscape Masterplan

NOT FOR CONSTRUCTION

LANDSCAPE KEY

SOFT LANDSCAPE
(Planting: refer to planting schedule & specification for planting details)

Existing trees and vegetation to be retained.
Refer to Arboricultral Impact Assessment and Method Statement by Enzygo for further detail.

Existing trees and vegetation to be removed to facilitate development. Refer to Arboricultral Impact Assessment and Method Statement by Enzygo for further detail.

Proposed Feature Trees - 8
Heavy Standard Trees
Girth 12-14cm
Height 350-425cm

Proposed Ornamental Trees - 9
Selected Standard Trees
Girth 10-12cm
Height 300-350cm

Proposed Native Trees - 30
Standard & Feathered
Girth 8-10cm
Height 250-300cm

Proposed Feature Plants
Ornamental feature shrubs and grasses within the domestic curtilage

Existing Hedge to be Retained
Existing hedge to be retained, infilled and enhanced in accordance with ecological recommendations
Total length: 625 lm

Proposed Mixed Native Hedge
Proposed hedge planting to tie in with existing and to provide buffer to boundaries and between plots where required
Total length: 110 lm

Proposed Single Species Native Hedge
Proposed hedge planting to provide definition between plots and the wider development setting
Total length: 25 lm

Existing Scrub to be Retained
To be retained, infilled and enhanced in accordance with ecological recommendations. Position based on Ecological Impact Assessment by Enzygo
Total area: 1002m²

Proposed Mixed Native Scrub
Located to site boundaries and to infill, enhance and supplement existing areas of retained scrub
Total Area: 1160m²

Proposed Ornamental Planting Mix
Located within the domestic curtilage
Total area: 286m²

Proposed Domestic Lawn/Seeding
Total area: 4094m²

Retained Modified Grassland
Retained grassland located outside of domestic curtilage. To be enhanced and managed in accordance with ecological recommendations to maximise biodiversity value.
Total area: 2702m²

Proposed Neutral Grassland
Located outside of domestic curtilage in the ownership boundary of Woodhead Hall. To be managed in accordance with ecological recommendations to maximise biodiversity value.
Total area: 3163m²

HARD LANDSCAPE

Natural Stone Flags
Associated with front paths & patios
Size: Varied gauge / format x 22mm
Colour: Buff
Or similar approved

Natural Stone Flags
Associated with rear patios & paths
Size: 600x400x22mm
Colour: Buff
Or similar approved

PCC Block Paving
Associated with footways/access paths
Product: Tegula or similar approved by Landscape Architect
Size: 240x160x50mm
Colour: Autumn/Harvest

Existing Gravel Access Track
Surface layer to be redressed in a loose 10-20mm buff/golden gravel.
To engineers details

Vehicular Gravel Tracks & Driveway
Associated with new, resurfaced and extended vehicular access tracks and driveways
Product: 10-20mm loose gravel
Colour: buff/golden
Option to lay on a gravel grid for longevity. To engineer/contractor details

PCC block vehicular thresholds
Associated with entrances into the development and the access into the private courtyard for Woodhead Hall
Product: Tegula or similar approved by Landscape Architect
Size: 2 No. 600mm
Colour: Autumn/Harvest

BOUNDARIES
(All timber to be FSC certified and pressure treated)

Fence Type 1 - Rear garden plot screen fence
Height: 1.8m
Product: Double sided horizontal timber slatted fence/screen or similar approved by landscape architect

Fence Type 2 - Rear garden boundary fence
Height: 1.5m
Product: Timber post and rail fence with wire stock netting or similar approved by landscape architect

Fence Type 3 - Rear garden boundary fence
Height: 1.2m
Product: Timber post and rail fence or similar approved by landscape architect

Fence Type 4 - Outer boundary fence
Height: 1.5m
Product: Timber post and wire mesh fence or similar approved by landscape architect

Gates - Vehicular gates to secure plot driveways and for maintenance access into wider curtilage
Height: 1.2m high
Width: Varies to suit location
Product: Timber post and rail 5 bar gate or similar approved by landscape architect

Existing Walls to be Retained
Height and colour varies. To be retained and made good/safe where required

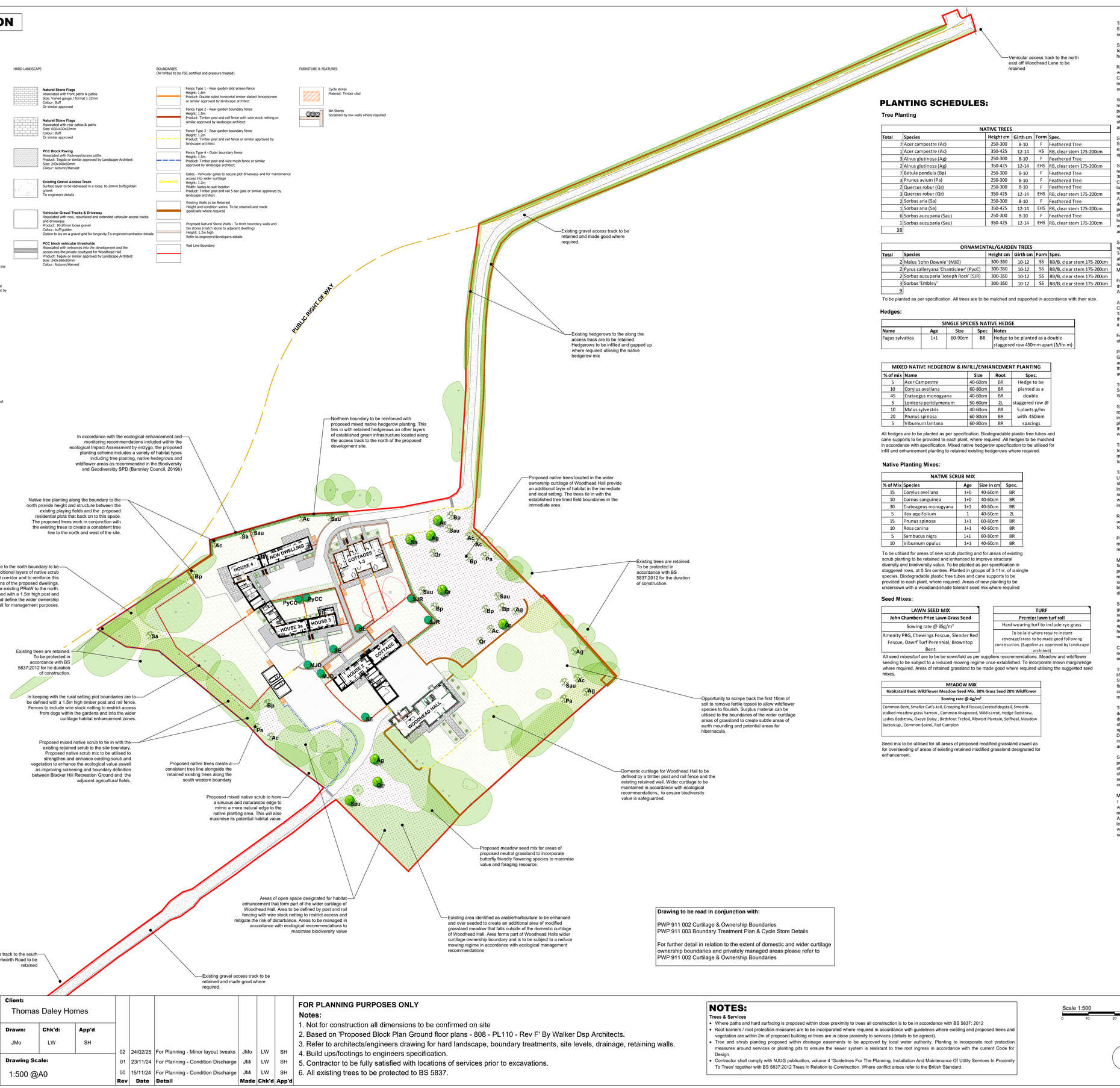
Proposed Natural Stone Walls - To front boundary walls and bin stores (match stone to adjacent dwelling)
Height: 1.2m high
Refer to engineers/developers details

Red Line Boundary

FURNITURE & FEATURES

Cycle stores
Material: Timber clad

Bin Stores
Screened by low walls where required



Drawing to be read in conjunction with:

PWP 911 002 Curtilage & Ownership Boundaries
PWP 911 003 Boundary Treatment Plan & Cycle Store Details

For further detail in relation to the extent of domestic and wider curtilage ownership boundaries and privately managed areas please refer to PWP 911 002 Curtilage & Ownership Boundaries

PLANTING SCHEDULES:

Tree Planting

NATIVE TREES					
Total	**Species**	**Height cm**	**Girth cm**	**Form**	**Spec.**
7	Acer campestre (Ac)	250-300	8-10	F	Feathered Tree
1	Acer campestre (Ac)	350-425	12-14	HS	RB, clear stem 175-200cm
3	Alnus glutinosa (Ag)	250-300	8-10	F	Feathered Tree
2	Alnus glutinosa (Ag)	350-425	12-14	EHS	RB, clear stem 175-200cm
7	Betula pendula (Bp)	250-300	8-10	F	Feathered Tree
3	Prunus avium (Pa)	250-300	8-10	F	Feathered Tree
2	Quercus robur (Qr)	250-300	8-10	F	Feathered Tree
3	Quercus robur (Qr)	350-425	12-14	EHS	RB, clear stem 175-200cm
2	Sorbus aria (Sa)	250-300	8-10	F	Feathered Tree
1	Sorbus aria (Sa)	350-425	12-14	EHS	RB, clear stem 175-200cm
6	Sorbus aucuparia (Sau)	250-300	8-10	F	Feathered Tree
1	Sorbus aucuparia (Sau)	350-425	12-14	EHS	RB, clear stem 175-200cm
38					

ORNAMENTAL/GARDEN TREES					
Total	**Species**	**Height cm**	**Girth cm**	**Form**	**Spec.**
2	Malus 'John Downie' (MiD)	300-350	10-12	SS	RB/B, clear stem 175-200cm
2	Pyrus calleryana 'Chanticleer' (PycC)	300-350	10-12	SS	RB/B, clear stem 175-200cm
2	Sorbus aucuparia 'Joseph Rock' (SJR)	300-350	10-12	SS	RB/B, clear stem 175-200cm
3	Sorbus 'Embley'	300-350	10-12	SS	RB/B, clear stem 175-200cm
9					

To be planted as per specification. All trees are to be mulched and supported in accordance with their size.

Hedges:

SINGLE SPECIES NATIVE HEDGE				
Name	**Age**	**Size**	**Spec**	**Notes**
Fagus sylvatica	1+1	60-90cm	BR	Hedge to be planted as a double staggered row 450mm apart (5/lin m)

MIXED NATIVE HEDGEROW & INFILL/ENHANCEMENT PLANTING				
% of mix	**Name**	**Size**	**Root**	**Spec.**
5	Acer Campestre	40-60cm	BR	Hedge to be planted as a double staggered row @ 5 plants p/lm with 450mm spacings
10	Corylus avellana	60-80cm	BR	
45	Crataegus monogyana	40-60cm	BR	
5	Lonicera periclymenum	50-60cm	2L	
10	Malus sylvestris	40-60cm	BR	
20	Prunus spinosa	60-80cm	BR	
5	Viburnum lantana	60-80cm	BR	

All hedges are to be planted as per specification. Biodegradable plastic free tubes and cane supports to be provided to each plant, where required. All hedges to be mulched in accordance with specification. Mixed native hedgerow specification to be utilised for infill and enhancement planting to retained existing hedgerows where required.

Native Planting Mixes:

NATIVE SCRUB MIX				
% of Mix	**Species**	**Age**	**Size in cm**	**Spec.**
15	Corylus avellana	1+0	40-60cm	BR
10	Cornus sanguinea	1+0	40-60cm	BR
30	Crateageus monogyana	1+1	40-60cm	BR
5	Ilex aquifolium	1	40-60cm	2L
15	Prunus spinosa	1+1	60-80cm	BR
10	Rosa canina	1+1	40-60cm	BR
5	Sambucus nigra	1+1	60-80cm	BR
10	Viburnum opulus	1+1	40-60cm	BR

To be utilised for areas of new scrub planting and for areas of existing scrub planting to be retained and enhanced to improve structural diversity and biodiversity value. To be planted as per specification in staggered rows, at 0.5m centres. Planted in groups of 3-11nr. of a single species. Biodegradable plastic free tubes and cane supports to be provided to each plant, where required. Areas of new planting to be undersown with a woodland/shade tolerant seed mix where required

Seed Mixes:

LAWN SEED MIX
John Chambers Prize Lawn Grass Seed
Sowing rate @ 35g/m²
Amenity PRG, Chewings Fescue, Slender Red Fescue, Dawrf Turf Perennial, Browntop Bent

TURF
Premier lawn turf roll
Hard wearing turf to include rye grass
To be laid where require instant coverage/areas to be made good following construction. (Supplier as approved by landscape architect)

All seed mixes/turf are to be be sown/laid as per suppliers recommendations. Meadow and wildflower seeding to be subject to a reduced mowing regime once extablished. To incorporate mown margin/edge where required. Areas of retained grassland to be made good where required utilising the suggested seed mixes.

MEADOW MIX
Habitataid Basic Wildflower Meadow Seed Mix, 80% Grass Seed 20% Wildflower
Sowing rate @ 4g/m²
Common Bent, Smaller Cat's-tail, Creeping Red Fescue,Crested dogstail, Smooth-stalked meadow grass Yarrow , Common Knapweed, Wild carrot, Hedge Bedstraw, Ladies Bedstraw, Oxeye Daisy , Birdsfoot Trefoil, Ribwort Plantain, Selfheal, Meadow Buttercup , Common Sorrel, Red Campion

Seed mix to be utilised for all areas of proposed modified grassland aswell as for overseeding of areas of existing retained modified grassland designated for enhancement.

SOFTWORKS SPECIFICATION NOTES

The contractor is responsible to ensure that no products or practices are to be used that do not comply with relevant British Standards, Codes of Practice and Construction Regulations. Contractor to be fully satisfied with locations and off sets of services prior to excavations.

Site clearance generally: Where necessary remove rubbish, concrete, metal, glass, decayed vegetation and contaminated topsoil. Remove stones exceeding 75 mm. Remove material containing toxins, pathogens or other extraneous substances harmful to plant, animal or human life.

Retain and protect trees and vegetation in accordance with BS 5837 where necessary. Grub up any large roots and dispose of without undue disturbance of soil and adjacent areas. In order to comply with UK legislation in regard to the Wildlife and Countryside Act 1981 (as amended), any tree or vegetation removal and/or management must take place outside of the bird nesting season (March to September inclusive). Where this cannot be achieved, nesting bird checks must be undertaken by a suitably qualified ecologist within 24 hours of the works.

Works within the root protection area (RPA):There shall be no areas of storage, trafficking of machinery, cultivation, ripping or mechanical rotivation, or importing of top soil, within the root protection area (RPA) of the existing trees to be retained. Where paths and hard surfacing is proposed within the retained tree RPA's, a No Dig methodology is to be adopted. Underground reinforcement, such as Cell Web (or similar approved) to be utilised in these locations. No trenches shall be dug within the RPA of the existing trees. New hedging plants within the RPA of the existing trees shall be notch planted. All of the above must be in accordance with BS 5837.

SOIL
Site preparation: Where required all existing topsoil and subsoil shall be stripped and stored separately on site. Heaps must not exceed 3m in height and should be used within 12 months in accordance with BS 4425 (Code of practice for general landscape operations).

Soil Sampling - Existing topsoil and inert sub soils, shall be analysed in accordance with BS 3882 to determine available nutrients, texture, organic matter content and pH. Where require, existing soils are to be improved in accordance with BS 3882:2015
Cultivation - Flail existing ruderal vegetation to ground level and remove arisings prior to cultivation. All areas to receive final layers of topsoil are to be de-compacted prior to spreading. Earth works vehicles to be small scale and tracked (loose-tipping) to minimise compaction, however chosen method for decompaction will be site specific dependant on size and soil conditions. Additional care must be taken as to not damage soil structure. All objects and stones over 75mm brought to the surface during decompaction are to be removed from the prepared surface layer. If existing subsoil horizon is found to consist of heavy clay, all proposed seeded areas to be tine ripped to 200mm depth at 300mm centres to increase drainage. Areas are to be weeded to be chain harrowed to a fine tilth and lightly rolled to provide firm seed bed. Remove all stones over 30mm dia in any direction. Imported soil material: Import as necessary to make up any deficiency of topsoil and/or subsoil existing on site to complete the work and mitigate deficiencies. All imported material must conform with industry standards BS 8601 (Subsoil), BS 3882 Topsoil) and CLEA limits on heavy metals. Topsoil to be General purpose, 10mm screened and locally sourced (unless otherwise stated)

Soil build up: Existing topsoil and subsoil to be retained and reused on site within the landscape scheme where possible. Prior to spreading all topsoil to be screened to remove large stones and other deleterious materials, such as plant roots, leaves and clay. Topsoil to be loose-tipped and spread over de-compacted subsoil/receiving area. The total minimum rooting depth for planting, after settlement, should be: Grass 450mm; Planted areas 600mm; Trees 900mm. Topsoil depths for these areas should not normally exceed 300mm with the following minimum depths for each area: Grass 150mm; Planted areas 300mm; Trees 300mm. Meadow & wildflower seeding to be sown directly onto prepared subsoil.

Finished level of topsoil after settlement: Above adjoining paving or kerbs: 25 mm; Below dpc of adjoining buildings: Not less than 150 mm; Shrub areas: Higher than adjoining grass areas by 50 mm; Within root spread of existing trees: Unchanged; Adjoining soil areas: Marry in; Thickness of turf or mulch: Included.)

ADDITIVES
Compost to tree/shrub pits: To be as per BS PAS 100: well rotted sterilised spent mushroom compost max. pH 6.7 or Target Treestart compost. The contractor shall provide a Certificate of Analysis to show that the material being supplied complies with the above criteria. Incorporate spent mushroom compost or equivalent approved peat free compost into tree and planting pits at a rate of 3 parts topsoil to 1 part compost, thoroughly mixed together.

Fertiliser to ornamental shrub beds - Apply slow release fertiliser, Scotts 'Enmag' 4.19.10 NPK or equivalent approved at a rate of 50 gms/sq. metre over topsoil surface and fork into top 225mm spit.

PLANTING
Generally: Minimise trafficking of graded slopes. All plants to be preferably planted between Nov. - March. Nursery stock trees and shrubs to be in accordance with BS 3936 and BS 8545, to be supplied and planted in accordance with British Standards and the Horticultural Association's Plant Handling Guide. Container grown shrubs to be thoroughly watered before planting; trees and bare root shrubs watered after planting.

Times of year for planting: Deciduous Trees, hedges and shrubs: Late October to late March. Evergreen hedges and shrubs: September/ October or April/ May. Container grown plants: At any time if ground and weather conditions are favourable. Watering and weed control to be provided as necessary.

Shrub/Hedge planting pits: Timing: Excavate 1-2 days (maximum) before planting. Pit sizes: Wide enough to accommodate roots/toughs when fully spread and 75 mm deeper than root system. Pit bottom improvement Break up to a depth of 150 mm, incorporating 25g of slow-release fertiliser per planting pit. Where existing planting and roots are present plants are to be notch planted to minimise disruption/root damage. Backfilling material: Reuse excavated material. Watering: Immediately after planting, thoroughly and without damaging or displacing plants or soil. Firming: Lightly firm soil around plants and fork and/ or rake soil, without damaging roots, to a fine tilth with gentle cambers and no hollows.

Tree pit sizes: Standard trees excavate a tree pit 1.2m x 1.2m x 900mm. Break up sides and bottom of pits to a depth of 100mm to ensure free drainage.Tree pit treatment: Soil ameliorant worked into pit bottoms. Pit sides to be scarified and backfilling material to be in accordance with topsoil and subsoil specification. Drainage Layer: Provide 200mm layer washed, clean gravel to base of pits to aid drainage (tree pit to be actively drained if poor draining soil or clay discovered by contractor).

Tree Accessories: Typically trees in soft landscape to be staked unless stated otherwise by the Landscape Architect. Underground guying is recommended for semi mature trees or trees within hard landscape and in public areas. Trees to be staked using 1m long x 75mm dia. round timber stakes (size of stakes to be adjusted to suit size of tree). Cross member to be installed 75mm x 25mm (larger trees will need large cross members). Locate proprietary Hessian ties on cross member to secure tree and prevent rubbing. Short stakes (<1.0m high) with biodegradable Hessian ties are recommended to encourage wind tolerance and prevent rubbing. Tree pit accessories by Green Tech or similar: Underground guying and perforated plastic irrigation/ ventilation pipe to landscape architects approval.

Root Barriers: To be used wherever the installed rootball will be within 2m of a building foundation or within proximity to underground utilities (distance at which root barrier is required is as per utility providers standards and should be confirmed prior to installation). Root barrier by Green Tech or similar to be installed vertically in accordance with supplier recommendations.

Protective fencing/guards: Newly planted areas or individual plants are to include rabbit/deer proof fencing. Either perimeter mesh fencing or individual biodegradable plastic free spiral guards/shelters/tubes are to be installed around all planting where required. Where areas are fenced, mesh to be 1m min above ground and buried 300mm below ground.

Mulching: Approved medium course chipped tree bark composted for at least 4 weeks. Particle size 25-75mm dia, max. 20% fines, pests and disease free and free of Methyl Bromide contamination. Clear any weeds, ensure soil is thoroughly moistened prior to applying mulch. All planting areas inc. trees, hedges and planting beds should receive an even 75mm depth of bark mulch, adjoining edge of mulch to be 15mm min. below adjacent hardstanding to avoid spillage. 50mm depth of mulch is only suitable for higher quality ornamental bark (<5% fines, 5-35mm size etc.) All bark should be FSC certified. Option to use biodegradable mulch mats to control moisture, soil temperature, erosion and weeds. All trees within grass are to have a 1.5m diameter mulch circle.

Seeding and making good existing grass areas: Steep embankments to be hydroseeded where required. After cultivating, grading and fertilizing prepare seed bed to fine, firm tilth with good crumb structure (Depth: 25 mm). Rake to a true, even surface, friable and lightly firmed but not over compacted. Remove surface stones/earth clods. Extend cultivation into existing adjacent amenity grassed areas sufficient to ensure full marrying in of levels where required. Evenly distribute seeds at an application rate of 35g/m² or as per supplier recommendations. Establish good seed contact with the root zone to promote healthy, consistent growth. Lightly harrow or rake to cover seed. Thoroughly water completed seeding until germination as necessary to keep the surface damp and soil most but not water logged.

Cutting In: Where cutting planting beds into existing grassed areas, the surrounding grass shall be protected and made good as necessary. These areas to be made good by preparing and re-seeding area. Seed mixes: John Chambers Lawn/Meadow seed or similar approved.

Turf Preparation - Lay turf with minimum possible delay after lifting. If delay occurs, lay turf out on topsoil and keep moist. Do not lift turf in frosty weather or if ground waterlogged. Arrange phased delivery timescales to avoid need for excessive stacking. Stacking height 1m (max). Do not use dried out or deteriorated turf. After cultivating, grading and fertilizing prepare seed bed to fine, firm tilth with good crumb structure (Depth: 25 mm). Rake to a true, even surface, friable and lightly firmed but not over compacted. Remove surface stones/earth clods. Extend cultivation into existing adjacent grassed areas sufficient to ensure full marrying in of levels.

Turf Implementation - Turf to be laid in Spring and summer within 18 hours of delivery; and Autumn and winter within 24 hours of delivery. Do not lay turf when persistent cold or drying winds are likely to occur or soil is frost bound, waterlogged or excessively dry. Planks to be laid on previously laid turf. Do not walk on prepared bed or newly laid turf. Turf laid along contours with staggered, close butted joints. Do not stretch turf. At the edges, whole turfs to overlap line, trimmed to a true line. Remove high spots and fill hollows with fine soil to adjust levels Lightly and evenly firm as laying proceeds to ensure full contact with substrate. Do not use rollers. Dress turf with Sharp sand at a rate of 2kg/m2 and brushed in to completely fill joints. Thoroughly water completed turf immediately after laying. Check that water has penetrated into the soil below. Use hardy low maintenance amenity turf suitable for use in shade (To BS 3969).

Seed Preparation and Implementation for Wildflower Areas: No addition of nutrient to soil required. Method to suit soil type, proposed usage, location and weather conditions during and after sowing. A friable firm seed bed required, weed free, alleviation of compaction to a depth of 100-200mm, sowed on a firm and fine tilth. Seed bed preparation to be conducted in dry conditions, close to the time of sowing Remove surface stones/earth clods. Evenly distribute seeds at the manufacturers recommended application rate. Establish good seed contact with the root zone to promote healthy, consistent growth. Lightly harrow or rake to cover seed. Thoroughly water completed seeding.

MAINTENANCE
1 year Defects Liability Period applies. All dead or failing plants to be replaced the following growing season. Maintain a weedfree bare earth area 600mm dia minimum around individual trees and shrubs. Herbicide shall only be used where necessary and if use is required it should be a non-residual translocated herbicide and spot applied/applied with spray guard. Application and use to be in accordance with EA guidance. Prior to spraying ensure all spirals are tight to ground level and leaves within spray range are fully enclosed. Arisings: Remove. Trim all edges. Weed control: Substantially free of broad leaved weeds. Method: Application of a suitable selective herbicide. Remove any stones 25 mm in any dimension brought to the surface. Watering: To ensure establishment.

NOTE: Works to be carried out in accordance with the most up to date and current British Standards referenced within this specification.

Project: Woodhead Hall Farm		**Client:** Thomas Daley Homes					
Title: Outline Landscape Masterplan & Specification		**Drawn:** JMo	**Chk'd:** LW	**App'd** SH			
Drawing Number: PWP 911 001	**Revision:** 02	**Drawing Scale:** 1:500 @A0					

Rev	Date	Detail	Made	Chk'd	App'd
02	24/02/25	For Planning - Minor layout tweaks	JMo	LW	SH
01	23/11/24	For Planning - Condition Discharge	JMi	LW	SH
00	15/11/24	For Planning - Condition Discharge	JMi	LW	SH

FOR PLANNING PURPOSES ONLY

Notes:
1. Not for construction all dimensions to be confirmed on site
2. Based on 'Proposed Block Plan Ground floor plans - 808 - PL110 - Rev F' By Walker Dsp Architects.
3. Refer to architects/engineers drawing for hard landscape, boundary treatments, site levels, drainage, retaining walls.
4. Build ups/footings to engineers specification.
5. Contractor to be fully satisfied with locations of services prior to excavations.
6. All existing trees to be protected to BS 5837.

NOTES:

Trees & Services
- Where paths and hard surfacing is proposed within close proximity to trees all construction is to be in accordance with BS 5837: 2012
- Root barriers / root protection measures are to be incorporated where required in accordance with guidelines where existing and proposed trees and vegetation are within 2m of proposed building or trees are in close proximity to services (details to be agreed).
- Tree and shrub planting proposed within drainage easements to be approved by local water authority. Planting to incorporate root protection measures around services or planting pits to ensure the sewer system is resistant to tree root ingress in accordance with the current Code for Design.
- Contractor shall comply with NJUG publication, volume 4 'Guidelines For The Planning, Installation And Maintenance Of Utility Services In Proximity To Trees' together with BS 5837:2012 Trees in Relation to Construction. Where conflict arises refer to the British Standard.

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0 10 20 50

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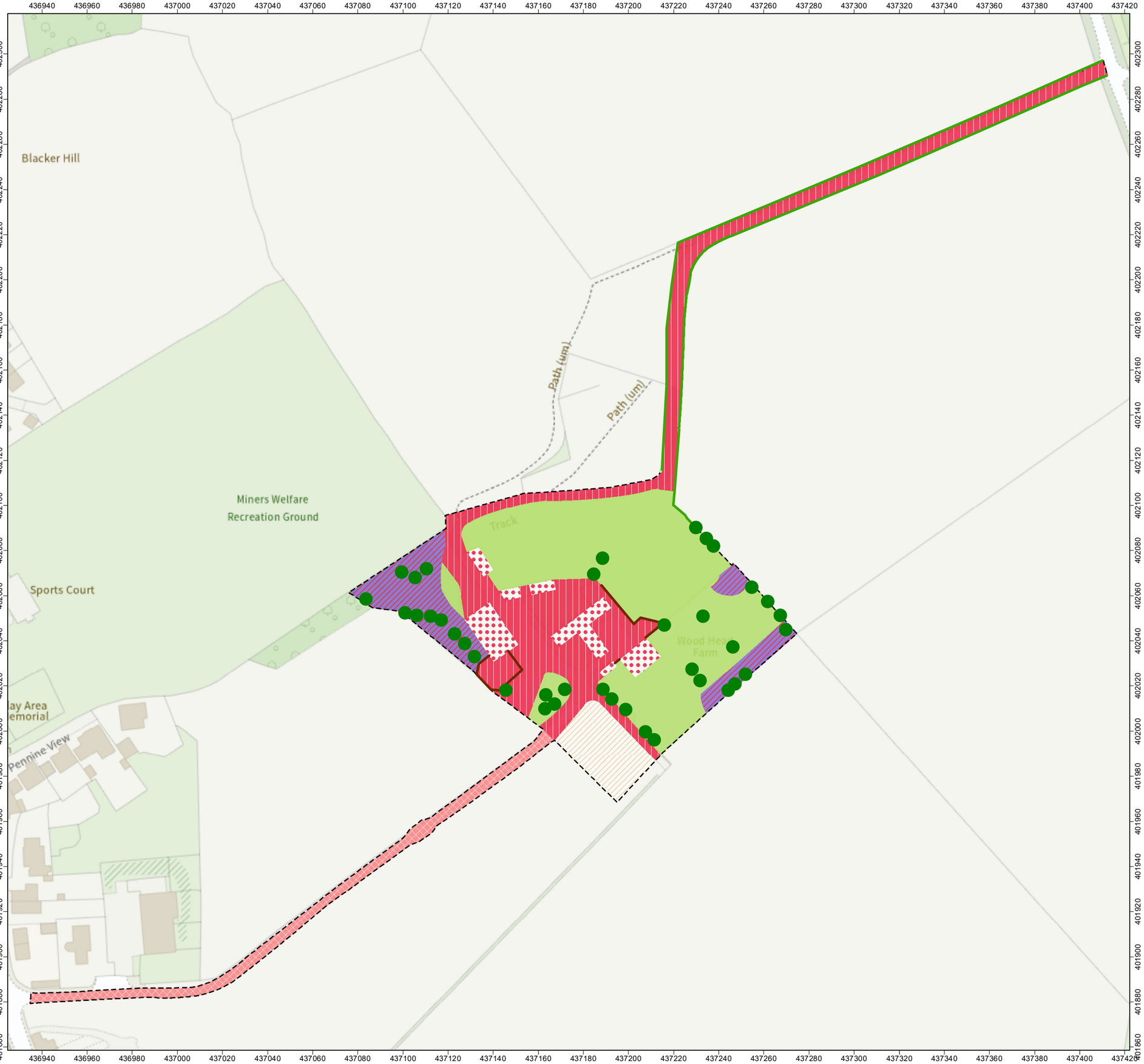
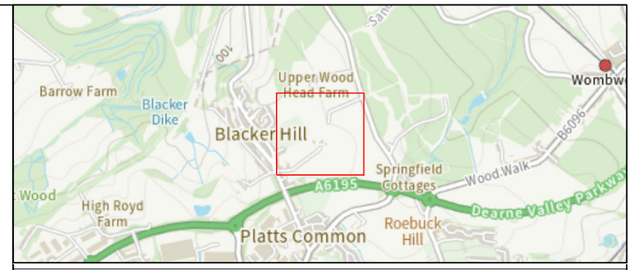
PWP DESIGN

Appendix 2. Baseline UK Habitat Classification Plan





Survey Information	
	Site boundary (18,149.1m^2)
UK Habitat Survey (Primary Habitats)	
	c1 - Arable and horticulture (1,008.7m^2)
	g4 - Modified grassland (7,341.5m^2)
	h3 - Dense scrub (1,900.3m^2)
	u1b - Developed land; sealed surface (5,759.0m^2)
	u1b5 - Building (902.7m^2)
	u1c - Artificial unvegetated, unsealed surface (1,236.9m^2)
	h2a - Native hedgerow (631.4m)
	u1e - Built linear features (97.3m)
	32 - Scattered tree (38)

N

0 10 20 40
Metres

PROJECT TITLE

WOODHEAD HALL FARM

DRAWING TITLE

Figure 1. UK Habitat Survey Plan

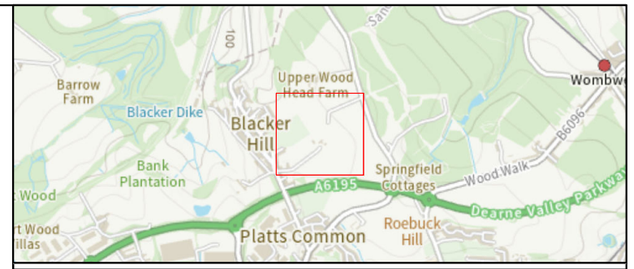
VER	DATE	REMARKS	Drawn	Checked
1.0	20/11/24	UKHab	MP	RB

DRAWING NUMBER:
MIDDLETONBELLECOLOGY/WoodheadHallFarm/UKHab

SCALE	PLOT SIZE	DATUM	PROJECTION
1:1,650	A3	OSGB	BNG

Middleton Bell Ecology
33 Wilthorpe Road, Barnsley, South Yorkshire, S75 1JA
www.middletonbellecology.co.uk
T: 01226 286282

Appendix 3. Proposed UK Habitat Classification Plan



Survey Information	
	Site boundary (18,149.1m^2)
UK Habitat Survey (Primary Habitats)	
	g3c - Other neutral grassland, retained/enhanced (1,750.6m^2)
	g3c - Other neutral grassland, newly created (3,302.7m^2)
	h3 - Dense scrub, retained (1,069.7m^2)
	h3 - Dense scrub, newly created (1,140.8m^2)
	u1b - Developed land; sealed surface (4,665.5m^2)
	u1b5 - Building (1,156.3m^2)
	u1c - Artificial unvegetated, unsealed surface (1,236.9m^2)
	828 - Vegetated garden (3,826.6m^2)
	h2a - Native hedgerow, retained (631.4m)
	Mixed native hedgerow, newly created (135.4m)
	32 - Scattered tree, retained (36)
N	Proposed native tree (24)
F	Proposed feature tree (8)

N

0 10 20 40
Metres

PROJECT TITLE

WOODHEAD HALL FARM

DRAWING TITLE

Figure 2. Proposed Habitat Plan

VER	DATE	REMARKS	Drawn	Checked
2.1	25/02/25	Proposed	MP	RB

DRAWING NUMBER:

MIDDLETONBELLECOLOGY/WoodheadHallFarm/Proposed

SCALE	PLOT SIZE	DATUM	PROJECTION
1:1,650	A3	OSGB	BNG

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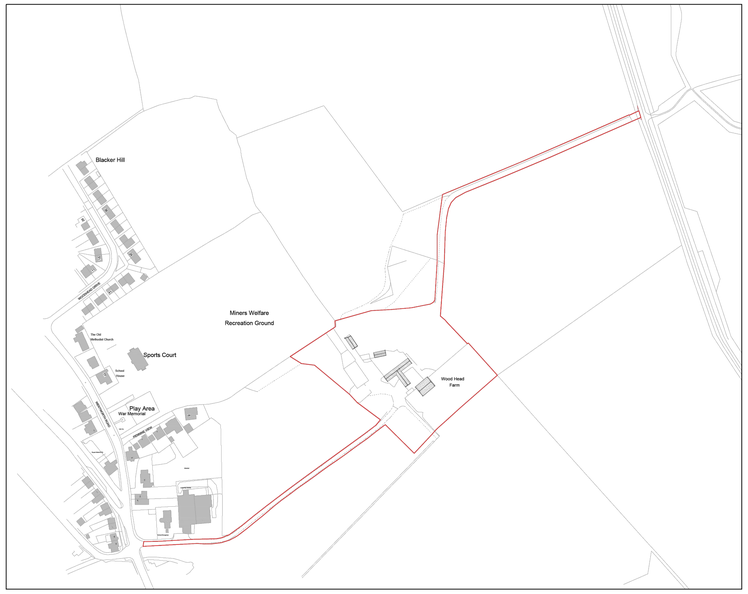
Appendix 4. Headline Results Table From The Statutory Biodiversity Metric

Woodhead Hall Farm			
Headline Results	Return to results menu		
Scroll down for final results ⚠			
On-site baseline	*Habitat units*	15.02	
	Hedgerow units	1.45	
	Watercourse units	0.00	
On-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	16.72	
	Hedgerow units	2.36	
	Watercourse units	0.00	
On-site net change (units & percentage)	*Habitat units*	1.70	
	Hedgerow units	0.91	
	Watercourse units	0.00	
Off-site baseline	*Habitat units*	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site net change (units & percentage)	*Habitat units*	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Combined net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	1.70	
	Hedgerow units	0.91	
	Watercourse units	0.00	
Spatial risk multiplier (SRM) deductions	*Habitat units*	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
FINAL RESULTS			
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	1.70	
	Hedgerow units	0.91	
	Watercourse units	0.00	
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	11.31%	
	Hedgerow units	62.42%	
	Watercourse units	0.00%	
Trading rules satisfied?	Yes ✓		

Unit Type	Target	Baseline Units	Units Required	Unit Deficit
Habitat units	10.00%	15.02	16.52	0.00
Hedgerow units	10.00%	1.45	1.60	0.00
Watercourse units	10.00%	0.00	0.00	0.00

Appendix 5. Curtilage and Ownership Boundary Plan

NOT FOR CONSTRUCTION



LOCATION PLAN
NTS

Key

- Woodhead Hall Farm: Domestic Curtilage
- Woodhead Hall Farm: Wider Curtilage (Habitat Enhancement Area)
- House 2: Domestic Curtilage/Ownership Boundary
- The Cottage: Domestic Curtilage/Ownership Boundary
- House 3: Domestic Curtilage/Ownership Boundary
- House 3a: Domestic Curtilage/Ownership Boundary
- House 4: Domestic Curtilage/Ownership Boundary
- New Dwelling: Domestic Curtilage/Ownership Boundary
- Cottage 1: Domestic Curtilage/Ownership Boundary
- Cottage 2: Domestic Curtilage/Ownership Boundary
- Cottage 3: Domestic Curtilage/Ownership Boundary
- Privately Managed/ManCo

ALL AREAS OUTSIDE OF DOMESTIC AND WIDER CURTILAGE OWNERSHIP TO FALL UNDER PRIVATE MANAGEMENT OF A MANAGEMENT COMPANY. AREAS INCLUDE EXISTING ACCESS TRACKS, FOOT PATHS AND SHARED DRIVEWAYS/COURTS.

NOTES:

Boundaries & Ownership

Woodhead Hall ownership boundary to include the domestic curtilage, which is limited to the immediate surroundings to the converted hall and the wider curtilage, which includes the wider landscape setting surrounding Woodhead Hall and additional open space to the western boundary. The wider curtilage is to be managed and maintained in accordance with the Biodiversity Enhancement Management Plan (BEMP) prepared by the project Ecologist, Middleton Bell. Reference PWP 911 100 Landscape Management Plan for management and maintenance for all other areas to be privately managed not included in the BEMP.

Drawing to be read in conjunction with:

PWP 911 001 Outline Landscape Masterplan & Specification
PWP 911 003 Boundary Treatment Plan & Cycle Store Details

For further detail in relation to the extent of domestic and wider curtilage ownership boundaries and privately managed areas please refer to PWP 911 002 Curtilage & Ownership Boundaries

Project: Woodhead Hall Farm		**Client:** Thomas Daley Homes	
Title: Curtilage & Ownership Boundaries		**Drawn:** BP	**Chk'd:** LW / **App'd** SH
Drawing Number: PWP 911 002	**Revision:** 01	**Drawing Scale:** 1:500 @ A1	

Rev	Date	Detail	Made	Chk'd	App'd
01	23/11/24	For Planning: Condition Discharge	BP	LW	SH
00	14/11/24	For Planning: Condition Discharge	BP	LW	SH

FOR PLANNING PURPOSES ONLY

Notes:

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