Landscape and Ecological Management Plan

Rossett Road, Wrexham
Ref: P.1416.20

September 2021
(See revision dates below)

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Ascerta
Mere One, Mere Grange, Elton Head Road, St Helens WA9 5GG
T: 0845 463 4404 E: info@landscapetreesecology.com
www.landscapetreesecology.com

P.1416.20

Landscape and Ecological Management Plan

of

Rossett Road, Wrexham

for

Castle Green Homes

14th September 2021

Document Author	Chris Neilson CMLI
QA Review & Approval	Ciaran Power - Office Manager

Table of Contents

1 Introduction 4
2 Site Description 4
2.1 The Existing Site 4
2.2 Site Ecology 5
2.3 The Proposed Site Description 6
3 Landscape Design Objectives 7
4 Management Proposals 8
4.1 Management Proposals Objectives 8
4.2 Detailed Management Proposals 9
4.2.1 Maintenance Phase (Years 1-2) 9
4.2.2 Establishment Phase (Years 3-5) 11
4.2.3 Maturing Phase (Years 6-25) 13
5 Annual Maintenance Schedule 15
6 Long Term Maintenance Schedule (Years 6-25) 17
7 Summary 19

Appendix 1	P.1416.20.02 Planting Plan (5 sheets) Revision T

1 Introduction

Ascerta has been instructed by Castle Green Homes to carry out a landscape and ecological management plan for land at Rossett Road, Wrexham (hereafter referred to as the site). Our client seeks planning consent to develop the site for the erection of 132 residential units with associated access roads and public open space.

The detailed soft landscaping scheme is shown on the following drawing: P.1416.20.02 Planting Plan (5 sheets) Revision T.

This management plan covers a period of 25 years and it should be reviewed at the end of this period based on the condition of the site at that time to ensure the initial objectives are being achieved. The recommendations from the preliminary ecological report is included within the management prescriptions.

2 Site Description

2.1 The Existing Site

The site is made up of two parcels to the north and south of Rossett Road within Wrexham County. The site is located on the eastern urban fringe of the village called Rossett, and comprises agricultural fields largely bound by hedgerows and trees.

The northern parcel measures 2.9 ha comprising a field of improved grassland with a mature tree in the middle and bound by a mature tree group and trees long the north-eastern boundary and eastern boundary. The northern parcel is surrounded by a large playing field to the north-east, and neighbouring agricultural field to the east. Rossett Road runs parallel with the southern boundary, whilst residential properties along Trevalyn Hall View and Darland View back onto the western boundary of the northern parcel.

The southern parcel measures 3.4 ha and is part of a large-scale field containing arable crops bound by hedgerows and a few trees. Rossett Road runs parallel with the northern boundary of the southern parcel, whilst the hedgerow of a neighbouring isolated property and remaining part of the field are located to the east. The eastern boundary of the southern parcel is largely boundless. Harwood Lane runs parallel with the southern boundary, whilst residential properties along Trevalyn Way and Moss Green back onto the western boundary of the southern parcel.

The overall site is mainly bound by hedgerows (comprising hawthorn, laurel, holly, and elder), tree groups (comprising hawthorn, hazel, ash, elder, sycamore, oak, cherry, and Norway maple), and trees (comprising oak, ash, alder, and sycamore).

A public footpath runs near the eastern boundary of the northern parcel and parallel with the eastern boundary of the southern parcel as indicated by Figure 1.



Figure 1 Satellite image showing the proposed development site (in red dashed lines) and nearby footpaths (in dashed green lines)

2.2 Site Ecology

The following reports were completed following a series of site surveys and the recommendations made for ecological mitigation and arboricultural enhancements have been included in both the design and management proposals.

- *P.1416.20 Ascerta Arboricultural Impact Assessment, Rossett Road (by Ascerta)*
- *Rossett Rd, Rossett, Preliminary Ecological Appraisal & Badger Survey, June 2021_Rev1 (by Cheshire Ecological Services)*
- *Rossett Rd, Rossett, Biodiversity Action Plan, June 2021 (by Cheshire Ecological Services)*

The key habitats currently identified on site are listed below.

- Agricultural field,
- Improved Grassland,
- Intact species-poor hedge with trees,
- Intact species-poor hedge, and
- Scattered trees

The habitat composition of the site was considered to have potential to support legally protected wildlife species, including nesting birds, badger, brown hare, hedgehog, and polecat.

2.3 The Proposed Site Description

The residential development proposes the construction of 132 residential units with rear gardens, front gardens, and driveways. The development includes inner roads, tree planting, ornamental shrub and herbaceous planting beds, formal hedges, and perimeter open space with eco species rich lawn mix, native hedgerows and native scrub mix planting. Two small public open spaces, each with infiltration basins are located in the northern corner and centre of the northern parcel. While a large public open space is located in the southern part of the southern parcel.

Two new access roads will be created off Rossett Road that will require sections of existing native hedgerows to be removed (H1 (in part) and H6 (in part)) and will be compensated for along the roadside and around the perimeter of the whole site. The proposal will also require the removal of trees (T3, T4, T5 and G1 (in part)) and removal of small sections of hedgerow (H1 (in part), and H4 (in part)) within the site to accommodate the development proposal (See *P.1416.20E Ascerta Arboricultural Impact Assessment, Rossett Road*).

Replacement trees and shrub planting including species will reference the RHS *Perfect for Pollinators* plant lists. The landscaping design is shown *o*n P.1416.20.02 Planting Plan (5 sheets) Revision T which provides:

- Proposed ornamental shrub and herbaceous planting (Total area: 501.9m^2)
- Proposed tree planting (Total: 107 no.)
- Proposed mixed native hedgerow (Mixes 1-3) (Total length: 381.2 lin.m)
- Proposed formal hedge (Total length: 1275.5 lin.m)
- Front and side gardens turfed (Total area: 4724.73m^2)
- Wildflower seeding Germinal AberSustain mix (Total: 3829.23m^2)
- Wildflower seeding Germinal WFG20 Eco Species Rich Lawn mix (Total: 3005.14m^2)
- Wildflower seeding, Germinal WF19 Pollinators Paradise (Total: 349.6m^2)
- Wildflower seeding, Germinal RE3 River Floodplain / Water Meadow - MG8 Grassland (Total: 925.1m^2)
- Native scrub mix planting as whip planting, for additional wildlife habitat (Total: 2599m^2)

The proposed formal hedges will include single ornamental species of Euonymus japonicus, Photinia x fraseri ‘Little Red Robin’, and Prunus lusitanica.

The proposed native hedgerow mixes include Field Maple, Hazel, Hawthorn, Holly, European Crab-apple, Blackthorn, Dog Rose, and Guelder Rose to provide a food or shelter resource to wildlife and to be in keeping with the ecology report recommendation of proposing hedgerows with at least 5 different native species.

The proposed native scrub mix planting will include Field Maple, Hazel, Hawthorn, Holly, Blackthorn, and Dog Rose. These species will also provide a food or shelter resource to wildlife.

This landscape and ecological management plan details management of the landscape following development only.

This landscape and ecological management plan should be implemented in its entirety by a suitable management agent who will be responsible for achieving long term objectives.

A management agent will be confirmed and appointed by the developer once the main development works have commenced on site.

3 Landscape Design Objectives

The overall design objectives are as follows:

1. Carry out tree planting, formal hedges, ornamental shrub and herbaceous planting, and turfed grass around the housing plots to soften the development and provide an attractive setting;

2. To include the recommendations of the Arboricultural Impact Assessment report including:
    a. The planting of trees, shrubs, and where applicable hedges as part of a comprehensive landscape scheme to replace any vegetation lost and to integrate the development into the wider landscape; and
    b. The use of a mixture of native and ornamental species within planting schemes, where those species are suited to the site and local landscape.

3. To include the recommendations of the preliminary ecological report including:

    a. Crevice bat boxes should be integrated into the residential development.
    b. Bird boxes should be erected across the site, to compensate for the potential loss of hedgerows and the trees.
    c. Fence gaps for hedgehogs should be at ground level, approximately 13cm by 13cm, and in each garden.
    d. The landscape plan should include the creation of additional hedgerows to compensate for the loss of hedgerows on site. These hedgerows should derive from a minimum of five woody species.
    e. Grassland on site should be kept low (<10cm) to deter brown hare from breeding on site.
    f. Where possible, all woody/scrub vegetation to be affected should be removed by hand prior to potentially disturbing works taking place.
    g. Tree TN5 & TN6 to only be removed under RAMs as detailed and under the watching brief of a licensed bat ecologist. Site lighting to avoid illumination of suitable features for bats such as trees and hedgerows.
    h. Vegetation removal works should take place outside of the bird breeding season (i.e. October – February). A survey will not be required if potentially disturbing works are undertaken during this period although due diligence is required of site workers.

4. To carry out tree, shrub, and hedgerow planting to provide screening where required;

5. Habitat enhancement to include planting of native species and a variety of ornamental species at suitable locations to attract pollinators;

6. To retain natural buffers and other site features and enhance them by good management and species diversification; and

7. Implementation of new native hedgerows, grassland that is eco species rich, and shrub areas to benefit wildlife habitats.

4 Management Proposals

This management plan covers detailed maintenance operations for an initial maintenance period of two years, followed by an establishment period covering years three-five. During this period, the operations proposed will ensure new planting and grass is establishing well and showing healthy growth, and that groundcover planting is provided as per the attached planting plans (See Appendix 1).

Long term management proposals are included for years six to twenty-five (the maturing phase) and this period will involve less intensive management of planting, although ongoing monitoring will be essential to ensure the character of the public open space is maintained and replacement planting is accomplished when necessary to ensure good species diversification. Long term, any felled trees are to be replaced with a suitable species to retain the character of the previous tree.

Although this management plan covers a twenty-five-year period, it should be reviewed at a minimum of five-year intervals to ensure the initial objectives are being achieved. Additional monitoring of the different habitat areas is essential as natural changes are likely to occur and there could be future changes in legislation, both of which could have an impact on the future management of the site.

4.1 Management Proposals Objectives

Residential Development Management: To ensure good establishment of ornamental planting and the maintenance of communal planting areas. To retain and enhance the existing trees and hedgerows to maintain a range of different types and sizes of species, to support a wide variety of wildlife and provide a corridor to allow movement of wildlife. The hedgerows should have a continuous, dense base and adjacent perennial grass margin, although gaps created by badgers for access should be left.

Public Open Space Management: To ensure the existing vegetation and the new planting are managed to retain the character and diversity of the area and there is good protection of existing habitats. Monitor and enhance biodiversity of the existing habitats to ensure flora and fauna continue to thrive.

Sustainable Drainage Systems (SuDS) Management: To ensure the infiltration basins provide attractive surroundings for the community and creates opportunities for wildlife. To ensure the correct water flow is managed to retain the character and diversity of the area whilst preventing pollution by intercepting silt and cleaning runoff from hard surfaces.

4.2 Detailed Management Proposals

4.2.1 Maintenance Phase (Years 1-2)

Feature	Description and specification
Existing Vegetation	
Existing trees to be retained	Re-inspect once and specify any applicable management / and any on-going monitoring to ensure trees are safe and to improve / maintain health where necessary. Preliminary recommendations made at the time of the Tree Survey can be found within P.1416.20E Ascerta Arboricultural Impact Assessment, Rossett Road.
Existing Hedgerow	Prune in January / February on a 3-year rotational basis (1/3 per year) and carry out new planting, if required.
New Planting	
New tree planting	Water to ensure good establishment. Undertake formative pruning. Annually replace dead or dying stock and check stakes and tree ties and adjust / replace if necessary. Hand weed around the base of tree to ensure weed free and top up mulch annually.
New native scrub mix planting:	Weed control by hand to ensure planting area is weed free. Check stakes and shelter guards are in place and replace where necessary. Replace dead / dying stock in winter.
New formal hedge	Weed control by hand to ensure planting area is weed free. Check stakes and shelter guards are in place and replace where necessary. Application of compost / fertiliser twice yearly. Replace dead / dying stock in winter. Prune if required, to encourage good establishment and water when necessary.
Native mixed hedgerow and hawthorn hedgerow planting	Prune in January / February on a 3-year rotational basis (1/3 per year) and carry out new planting if required.
Ornamental shrub and herbaceous planting	Weed control by hand to maintain weed free area around planting during the growing period. Apply fertiliser twice yearly and top up mulch annually. Prune as necessary to ensure health growth and natural shape of the plant.
Turf and Seeding Areas	
Amenity grass (Germinal AberSustain mix)	Mow every two weeks during the growing season to a height of 30mm. Apply fertiliser annually and spot treat pernicious weeds.
Informal grass areas (Germinal Eco Species Rich Lawn mix)	Cut twice a year, once during the late spring and once after the flowering season (September / October) to maintain a sward of 40mm. The clippings shall be left in situ for 3 days to allow seed drop, then removed to prevent nutrient build up.
Wildflower RE3 River Floodplain / Water Meadow (MG8 Grassland)	Autumn Sown: during the first year: first cut shall be early July, then monthly during August, September, and October to maintain a sward of 70mm. Thereafter: shall be cut 2 times a year mid-July to early September to maintain a sward of 70mm. Spring Sown: during the first year: first cut shall be mid-September, then again during October to maintain a sward of 70mm. Thereafter: shall be cut 1 time a year mid-July to early September or as required leaving at least fortnight between cuts to maintain a sward of 70mm.

	The clippings shall be left in situ for 3 days to allow seed drop, then removed to prevent nutrient build up. An area of up to one third should be left uncut when cutting in late summer, until the following spring for overwintering invertebrates. This operation should rotate areas each year.
Remaining wildflower areas (Germinal WF19 Pollinators Paradise)	Wildflower areas shall be cut 2 times a year during the late spring and after the flower season (September / October) to maintain a sward of 40mm. The clippings shall be left in situ for 3 days to allow seed drop, then removed to prevent nutrient build up.
Other Features	
Hard surfacing	Check annually and repair any defects. Remove encroaching moss/ grass annually on paths and pavements to keep edging exposed.
Fencing/ boundary treatments	Check annually, repair any defects, and replace when necessary.
Bat / Bird Boxes	Bird boxes to be checked annually. Bat boxes to be checked annually by a licensed bat ecologist. Repair any defects and replace when necessary. The bat box, if damaged, should only be replaced by a licensed bat ecologist.
Inlet structures	Check monthly for obstructions and remove as necessary, to allow free water flow into the infiltration basins.
Silt management	Check twice a year for silt accumulation and remove as necessary.
Litter Management	
Litter	Check monthly for litter or other debris and remove as necessary.
Suds litter	Check monthly for litter or other debris and remove as necessary.
Weed Control	
Weed control within Suds areas	Occasionally remove pond vegetation if it spreads across the basins by hand clearing or raking. Monitor for invasive weeds such as Japanese Knotweed and control if found.
Hard surfacing weed control	Check pavements and kerbs annually for weeds and spray affected areas with herbicide to keep weed free.
Paths	Remove encroaching moss/ grass from paths and pavements annually to keep edging exposed. Spray with herbicide if necessary.

4.2.2 Establishment Phase (Years 3-5)

Feature	Description and specification
Existing Vegetation	
Existing trees to be retained	Re-inspect as advised in Maintenance Phase (Years 1-2) and specify any applicable management / and any on-going monitoring to ensure trees are safe and to improve / maintain health where necessary.
Existing Hedgerow	Prune in January / February on a 3-year rotational basis (1/3 per year) and carry out new planting if required.
New Planting	
New tree planting	Undertake formative pruning if necessary. Annually replace dead or dying stock and check stakes and tree ties and adjust / replace if necessary. Hand weed around the base of tree to ensure weed free and top up mulch annually. Year 3 and 4 – Adjust tree ties where necessary. Year 5 – Remove tree stakes and ties. Leave any tree stakes and ties where trees appears to be on weak rootstocks.
New native scrub mix planting:	Replace any dead stock in winter. Weed control to maintain weed free area around planting during the growing period. Apply fertiliser twice yearly and top up mulch annually. Year 3 - Remove the shelters and stakes. Prune the scrub mix as necessary to ensure healthy growth and create a natural shape.
New formal hedge	Weed control by hand to ensure planting area is weed free. Check stakes and shelter guards are in place and replace where necessary remove stakes and shelter guards by the end of year 5. Prune to encourage good establishment and a neat appearance at maximum height of 1.0m.
Native mixed hedgerow and hawthorn hedgerow planting	Prune in January / February on a 3-year rotational basis (1/3 per year) and carry out new planting if required. Check stakes and shelter guards are in place and replace where necessary remove stakes by the end of year 5. Prune to encourage good establishment and a neat appearance at maximum height of 2.0m.
Ornamental shrub and herbaceous planting	Weed control by hand to maintain weed free area around planting during the growing period. Apply fertiliser twice yearly and top up mulch annually. Prune as necessary to ensure health growth and natural shape of the plant. Replace any dead stock in winter.
Turf and Seeding Areas	
Amenity grass (Germinal AberSustain mix)	Mow every two weeks during the growing season to a height of 30mm. Apply fertiliser annually and spot treat pernicious weeds.
Informal grass areas (Germinal Eco Species Rich Lawn mix)	Cut twice a year, once during the late spring and once after the flowering season (September / October) to maintain a sward of 40mm. The clippings shall be left in situ for 3 days to allow seed drop, then removed to prevent nutrient build up.
Wildflower RE3 River Floodplain / Water Meadow (MG8 Grassland)	Cut twice a year, once during the late spring and one after the flowering season (September / October) to maintain a sward of 40mm. The clippings shall be left in situ for 3 days to allow seed drop, then removed to prevent nutrient build up.

Remaining wildflower areas (Germinal WF19 Pollinators Paradise)	Wildflower areas shall be cut 2 times a year during the late spring and after the flower season (September / October) to maintain a sward of 40mm. The clippings shall be left in situ for 3 days to allow seed drop, then removed to prevent nutrient build up.
Other Features	
Hard surfacing	Check annually and repair any defects. Remove encroaching moss/ grass annually on paths and pavements to keep edging exposed.
Fencing/ boundary treatments	Check annually, repair any defects, and replace when necessary.
Bat / Bird Boxes	Bird boxes to be checked annually. Bat boxes to be checked annually by a licensed bat ecologist. Repair any defects and replace when necessary. The bat box, if damaged, should only be replaced by a licensed bat ecologist.
Inlet structures	Check monthly for obstructions and remove as necessary, to allow free water flow into the infiltration basins.
Silt management	Check twice a year for silt accumulation and remove as necessary.
Litter Management	
Litter	Check monthly for litter or other debris and remove as necessary.
Suds litter	Check monthly for litter or other debris and remove as necessary.
Weed Control	
Weed control within Suds areas	Occasionally remove pond vegetation if it spreads across the basins by hand clearing or raking. Monitor for invasive weeds such as Japanese Knotweed and control if found.
Hard surfacing weed control	Check pavements and kerbs annually for weeds and spray affected areas with herbicide to keep weed free.
Paths	Remove encroaching moss/ grass from paths and pavements annually to keep edging exposed. Spray with herbicide if necessary.

4.2.3 Maturing Phase (Years 6-25)

Feature	Description and specification
Existing Vegetation	
Existing trees to be retained	Re-inspect as advised in Maintenance Phase (Years 1-2) and specify any applicable management / and any on-going monitoring to ensure trees are safe and to improve / maintain health where necessary.
Existing Hedgerow	Prune in January / February on a 3-year rotational basis (1/3 per year) and carry out new planting if required.
New Planting	
New tree planting	Year 10 - Formative pruning of established trees to remove crossing/rubbing branches and any other defects. Removal of competing leaders if considered appropriate. Year 15- carry out inspections on a 5-year rotation to advise on any works to improve quality of trees and maintain safety / prevent any developing hazards.
New native scrub mix planting:	Prune back the scrub mix as necessary to ensure healthy growth and create a tidy natural shape. Carry out replacement of dead plants in winter. Weed control by hand to maintain weed free area around planting during the growing period.
New formal hedge	Weed control by hand to ensure planting area is weed free. Prune to encourage good establishment and a neat appearance at maximum height of 1.0m.
Native mixed hedgerow and hawthorn hedgerow planting	Prune in January / February on a 3-year rotational basis (1/3 per year) and carry out new planting if required. Prune to encourage good establishment and a neat appearance at maximum height of 2.0m.
Ornamental shrub and herbaceous planting	Weed control by hand to maintain weed free area around planting during the growing period. Apply fertiliser twice yearly and top up mulch annually. Prune as necessary to ensure health growth and natural shape of the plant. Carry out replacement of dead plants in winter.
Turf and Seeding Areas	
Amenity grass (Germinal AberSustain mix)	Mow every two weeks during the growing season to a height of 30mm. Apply fertiliser annually and spot treat pernicious weeds.
Informal grass areas (Germinal Eco Species Rich Lawn mix)	Cut twice a year, once during the late spring and once after the flowering season (September / October) to maintain a sward of 40mm. The clippings shall be left in situ for 3 days to allow seed drop, then removed to prevent nutrient build up.
Wildflower RE3 River Floodplain / Water Meadow (MG8 Grassland)	Cut twice a year, once during the late spring and one after the flowering season (September / October) to maintain a sward of 40mm. The clippings shall be left in situ for 3 days to allow seed drop, then removed to prevent nutrient build up.
Remaining wildflower areas (Germinal WF19 Pollinators Paradise)	Wildflower areas shall be cut 2 times a year during the late spring and after the flower season (September / October) to maintain a sward of 40mm. The clippings shall be left in situ for 3 days to allow seed drop, then removed to prevent nutrient build up.
Other Features	
Hard surfacing	Check annually and repair any defects. Remove encroaching moss/ grass annually on paths and pavements to keep edging exposed.

Fencing/ boundary treatments	Check annually, repair any defects, and replace when necessary.
Bat / Bird Boxes	Bird boxes to be checked annually. Bat boxes to be checked annually by a licensed bat ecologist. Repair any defects and replace when necessary. The bat box, if damaged, should only be replaced by a licensed bat ecologist.
Inlet structures	Check monthly for obstructions and remove as necessary, to allow free water flow into the infiltration basins.
Silt management	Check twice a year for silt accumulation and remove as necessary.
Litter Management	
Litter	Check monthly for litter or other debris and remove as necessary.
Suds litter	Check monthly for litter or other debris and remove as necessary.
Weed Control	
Weed control within Suds areas	Occasionally remove pond vegetation if it spreads across the basins by hand clearing or raking. Monitor for invasive weeds such as Japanese Knotweed and control if found.
Hard surfacing weed control	Check pavements and kerbs annually for weeds and spray affected areas with herbicide to keep weed free.
Paths	Remove encroaching moss/ grass from paths and pavements annually to keep edging exposed. Spray with herbicide if necessary.

5 Annual Maintenance Schedule

The annual schedule summarises the maintenance operations required for a one year period, to be repeated for the first five years and should be reviewed on an annually to allow for any changes that may be required as the site develops and matures.

MONTH OPERATION	J	F	M	A	M	J	J	A	S	O	N	D
Management of Existing Trees												
Inspect for hazards and deteriorations in health and/ or structural integrity								X				
Pruning/ Crown lift / thin existing trees above footpaths, paths, and near buildings	In accordance with recommendation made during inspection / identification of work											
Other tree works	In accordance with recommendation made during inspection / identification of work											
Management of Existing Hedgerow												
Prune in January / February on a 3-year rotational basis (1/3 per year) and carry out new planting if required.	X	X										
New Tree Planting												
Water as required to ensure good establishment				X	X	X	X	X	X			
Basic formative pruning	X											
Check stakes and tree ties and adjust / replace (years 1 to 4, remove at year 5) if necessary and hand weed around base	X				X				X			
Top up mulch											X	
Carry out replacement of dead or dying stock											X	
New Native Scrub Mix Planting												
Weed control					X		X		X			
Water as required to ensure establishment				X	X	X	X	X	X			
Apply fertiliser				X				X				
Top up mulch											X	
Replacement planting of dead or dying stock											X	
Check shelters and stakes (years 1 to 2, remove at year 3)	X				X				X			
Prune the scrub mix to ensure healthy growth and create a natural shape.	X	X										
Management of Native Mixed Hedgerow and Hawthorn Hedgerow Planting												
Trim on a three-year rotation	X											
Formative pruning to new hedgerow	X											
Monitor and weed around new planting and check and adjust stakes, ties, and shelter guards	X				X				X			
Carry out planting to fill any gaps in hedgerow											X	
Apply compost or fertiliser to new planting				X				X				

Replace dead or dying plant stock											X	
Ornamental and Herbaceous Shrub Planting												
Weed control					X		X		X			
Water as required to ensure establishment				X	X	X	X	X	X			
Apply fertiliser				X				X				
Top up mulch											X	
Replacement planting of dead or dying stock											X	
Management of Amenity Grass (Germinal AberSustain mix)												
Mow every two weeks during spring / summer to a height of 30mm				X	X	X	X	X	X	X		
Spot treat pernicious weeds					X			X				
Apply fertiliser			X									
Wildflower and Informal Grass Areas (Germinal Eco Species Rich Lawn mix)												
Mow twice a year to a height of 40mm. The clippings shall be left in situ for 3 days to allow seed drop, then removed to prevent nutrient build up.				X					X			
Spot treat pernicious weeds					X			X				
Wildflower RE3 River Floodplain / Water Meadow (MG8 Grassland)												
Mow twice a year to a height of 40mm. The clippings shall be left in situ for 3 days to allow seed drop, then removed to prevent nutrient build up.				X					X			
Spot treat pernicious weeds					X			X				
Remaining wildflower areas (Germinal WF19 Pollinators Paradise)												
Mow twice a year to a height of 40mm. The clippings shall be left in situ for 3 days to allow seed drop, then removed to prevent nutrient build up.				X					X			
Spot treat pernicious weeds					X			X				
Management of Other Site Features												
Check and repair fencing, surfacing and street furniture and repair when required					X						X	
Visually inspect bird and bat boxes and replace if damaged by suitably licenced ecologist.										X		
Crown lift trees above footpaths and pavements	X											
Check monthly for litter or other debris and remove as necessary.	X	X	X	X	X	X	X	X	X	X	X	X
Check monthly for suds litter or other debris and remove as necessary.	X	X	X	X	X	X	X	X	X	X	X	X
Check pavements and kerbs annually for weeds and spray affected areas with herbicide to keep weed free.										X		
Remove encroaching moss/ grass from paths and pavements annually to keep edging exposed. Spray with herbicide if necessary.										X		

6 Long Term Maintenance Schedule (Years 6-25)

The long-term management plan is a guideline for the maturing phase of the site. As mentioned earlier this should be reviewed every 5 years as a minimum to take account of site based ecological changes and amendments to legislation.

YEAR OPERATION	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Management of Trees																				
Monitor and manage standard trees	Annually if appropriate				x					x					x					x
Remove stakes / ties as required	x	x	x	x	x															
Crown lift / thin existing trees above footpaths, paths, and near buildings					x					x					x					x
Monitor for invasive species	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Management of Native Hedgerows																				
Manage hedgerows by trimming 1/3 each year	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Manage hedgerows by laying or coppicing,			Lay or coppice hedgerow initially between 8 to 15 years when condition of the hedge is poor.								Lay or coppice hedgerow a second time after 8 to 12 years after first cut.									
Manage hedgerows by planting in gaps	x				x					x					x					x
Formal Hedgerow																				
Prune as necessary to maintain a neat appearance	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Ornamental Shrub and Herbaceous Planting																				

Continue to carry out annual pruning and weed control	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Other Site Features																				
Monitor and repair fencing, surfacing and street furniture and repair when required	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Visually inspect bird and bat boxes and replace if damaged by suitably licenced ecologist.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Check monthly for litter or other debris and remove as necessary.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Check monthly for suds litter or other debris and remove as necessary.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Check pavements and kerbs annually for weeds and spray affected areas with herbicide to keep weed free.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Remove encroaching moss/ grass from paths and pavements annually to keep edging exposed. Spray with herbicide if necessary.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

7 Summary

This report described the proposed development, the landscape design objectives and set out detailed management proposals to ensure a high-quality environment within the development.

This report provides:

- Public Open Space management proposals to ensure the existing vegetation and new planting are managed to retain and enhance the character and diversity of the area. To ensure there is good protection of the existing habitats. To monitor and enhance biodiversity of the existing habitats to certify that flora and fauna continue to thrive, providing attractive surroundings for the community and create opportunities for wildlife.

- Provide a detailed description of the maintenance operations required for Maintenance Phase (Years 1-2), Establishment Phase (Years 3-5) and Long-Term Management Guidelines (Years 6-25).

- Provide an annual schedule that summarises the maintenance operations required for a one-year period to be repeated for the first five years and a Long-Term Maintenance Schedule (Years 6-25).

Appendix 1

Plant Schedule

Trees

Number of Plants	Abbreviation	Species	Specification	Height	Girth	Density
6 -	A ca	Acer campestre	Heavy Standard: 5 brks: 3x: RB: Clear Stem minimum 200cm	350-425cm	12-14cm	Counted
13 -	A ca 'El'	Acer campestre 'Elsrijk'	Heavy Standard: 5 brks: 3x: RB: Clear Stem minimum 200cm	350-425cm	12-14cm	Counted
8 -	ACEOLMA	Acer platanoides 'Olmsted'	Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm	350-425cm	12-14cm	Counted
3 -	ALN GLU	Alnus glutinosa	Heavy Standard: 5 brks: 3x: RB: Clear Stem min. 200cm	350-425cm	12-14cm	Counted
14 -	A lam	Amelanchier lamarckii	Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm	300-350cm	12-14cm	Counted
2 -	BET PEN	Betula pendula	Extra Heavy Standard: 3x: RB: Clear Stem min. 200cm	450-500cm	18-20cm	Counted
12 -	B pub	Betula pubescens	Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm	350-425cm	12-14cm	Counted
6 -	C be 'F F'	Carpinus betulus 'Frans Fontaine'	Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm	350-425cm	12-14cm	Counted
9 -	PRU PAD	Prunus padus	Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm	350-425cm	12-14cm	Counted
4 -	PRUPADA	Prunus padus	Extra Heavy Standard: 3x: RB: Clear Stem min. 200cm	450-500cm	18-20cm	Counted
15 -	PRUPAAL	Prunus padus 'Albertii'	Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm	350-425cm	12-14cm	Counted
8 -	Q pe	Quercus petraea	Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm	350-425cm	12-14cm	Counted
3 -	QUE ROB	Quercus robur	Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm	350-425cm	12-14cm	Counted
4 -	S c	Salix caprea	Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm	350-425cm	12-14cm	Counted
Total :107 -						

Shrubs

Number of Plants	Abbreviation	Species	Specification	Height	Pot Size	Density	Area
180 -	BER NAN	Berberis thunbergii 'Atropurpurea Nana'	Branched: 4 brks: C	20-25cm	3L	4/m²	42.4m²
46 -	BRA SUN	Brachyglottis 'Sunshine'	Branched: 4 brks: C	30-40cm	3L	2/m²	20.2m²
7 -	CEA MOU	Ceanothus 'Blue Mound'	Branched: 5 brks: C		3L	3/m²	2.2m²
3 -	CEA REP	Ceanothus thyrsiflorus repens	Bushy: 5 brks: C		3L	3/m²	1m²
5 -	CHO PEA	Choisya 'Aztec Pearl'	Bushy: 5 brks: C	30-40cm	3L	3/m²	1.6m²
12 -	CHO SUN	Choisya ternata 'Sundance'	Bushy: 4 brks: C	30-40cm	3L	3/m²	3.5m²
4 -	CIS PIN	Cistus 'Silver Pink'	Bushy: 4 brks: C	20-30cm	3L	3/m²	1.2m²
3 -	COR ELE	Cornus alba 'Elegantissima'	Branched: 4 brks: C	40-60cm	3L	3/m²	0.9m²
9 -	COT PUR	Cotinus coggygria 'Royal Purple'	Branched: 3 brks: C	30-40cm	3L	3/m²	2.4m²
9 -	ELA EBB	Elaeagnus x ebbingei	Branched: 3 brks: C	30-40cm	3L	3/m²	2.7m²
104 -	ERI PIN	Erica carnea 'Springwood Pink'	Bushy: C		3L	5/m²	19.7m²
92 -	ERI WHI	Erica carnea 'Springwood White'	Bushy: C		3L	5/m²	17.3m²
196 -	EUO GAI	Euonymus fortunei 'Emerald Gaiety'	Bushy: 7 brks: C	20-30cm	3L	3/m²	60.7m²
14 -	EUO QUE	Euonymus fortunei 'Silver Queen'	Bushy: 5 brks: C	20-30cm	3L	4/m²	3.4m²
4 -	FUC POP	Fuchsia 'Mrs Popple'	Bushy: 5 brks: C	20-30cm	3L	3/m²	1.2m²
9 -	GEN LYD	Genista lydia	Bushy: 5 brks: C		3L	3/m²	2.8m²
82 -	HEB GLO	Hebe 'Autumn Glory'	Bushy: 5 brks: C	20-30cm	3L	3/m²	23.7m²
24 -	HEB GEM	Hebe 'Green Globe'	Bushy: 7 brks: C	15-20cm	3L	7/m²	3.4m²
76 -	HEB WIN	Hebe 'Mrs Winder'	Bushy: 5 brks: C	30-40cm	3L	3/m²	22.4m²
39 -	HEB RAK	Hebe rakaiensis	Bushy: 5 brks: C		3L	3/m²	12.1m²
30 -	HYD WAV	Hydrangea macrophylla 'Blue Wave'	Branched: 5 brks: C	40-60cm	5L	2/m²	13.5m²
13 -	HYD LIM	Hydrangea paniculata Little Lime	Branched: 3 brks: C	30-40cm	3L	3/m²	4.2m²
63 -	HYD BLU	Hydrangea serrata 'Bluebird'	Branched: 5 brks: C	40-60cm	5L	2/m²	28m²
27 -	LAV HID	Lavandula angustifolia 'Hidcote'	Bushy: 5 brks: C	20-30cm	3L	3/m²	7.9m²
13 -	LON PIL	Lonicera pileata	Bushy: 6 brks: C		3L	3/m²	4.1m²
44 -	MAH APO	Mahonia aquifolium 'Apollo'	Branched: 2 brks: C	20-30cm	3L	4/m²	10.5m²
83 -	PHOFRLRR	Photinia x fraseri 'Little Red Robin'	Bushy: 6 brks: C	30-40cm	3L	4/m²	19.4m²
6 -	PIE FLA	Pieris 'Forest Flame'	Bushy: 3 brks: C	30-40cm	3L	3/m²	1.8m²
44 -	POT ABB	Potentilla fruticosa 'Abbotswood'	Bushy: 4 brks: C		3L	3/m²	13.8m²
43 -	POT ELI	Potentilla fruticosa 'Elizabeth'	Bushy: 3 brks: C		2L	4/m²	10.3m²
11 -	PRU LUS	Prunus lusitanica	Bushy: 4 brks: C	30-40cm	3L	2/m²	5m²
16 -	SAN CHA	Santolina chamaecyparissus	Bushy: 7 brks: C	20-30cm	3L	3/m²	4.8m²
101 -	SKI RUB	Skimmia japonica 'Rubella'	Bushy: 3 brks: C	30-40cm	3L	4/m²	24m²
13 -	SPI PRI	Spiraea japonica 'Little Princess'	Bushy: 7 brks: C	20-30cm	3L	3/m²	3.8m²
18 -	VIB DAV	Viburnum davidii	Bushy: 3 brks: C	20-30cm	3L	3/m²	5.6m²
19 -	VIB PRI	Viburnum tinus 'Eve Price'	Bushy: 4 brks: C	30-40cm	3L	2/m²	7.6m²
12 -	VIN MAJ	Vinca major	Several Shoots: 3 brks: C		3L	3/m²	3.9m²
Total :1474 -							Total :413m²

Herbaceous

Number of Plants	Abbreviation	Species	Specification	Height	Pot Size	Density	Area
16 -	ALC MOL	Alchemilla mollis	Full Pot: C		3L	3/m²	4.9m²
14 -	AST FAN	Astilbe 'Fanal'	Full Pot: C		3L	4/m²	3.3m²
14 -	AST GRA	Astilbe 'Granat'	Full Pot: C		3L	4/m²	3.4m²
51 -	BER COR	Bergenia cordifolia	Full Pot: C		3L	5/m²	9.6m²
10 -	ECH MAG	Echinacea purpurea 'Magnus'	Full Pot: C		3L	4/m²	2.3m²
45 -	GER BLU	Geranium 'Johnson's Blue'	Full Pot: C		3L	4/m²	10.4m²
37 -	GER ALB	Geranium macrorrhizum 'Album'	Full Pot: C		3L	4/m²	8.3m²
32 -	HEU RUF	Heuchera 'Chocolate Ruffles'	Full Pot: C		3L	4/m²	7.5m²
121 -	HEU MAR	Heuchera 'Marmalade'	Full Pot: C		3L	4/m²	28.6m²
28 -	HEU PUR	Heuchera micrantha 'Palace Purple'	Full Pot: C		3L	4/m²	6.4m²
12 -	RUD GOL	Rudbeckia fulgida sullivantii 'Goldsturm'	Full Pot: C		3L	4/m²	2.7m²
6 -	SAL TRI	Salvia officinalis 'Tricolor'	Full Pot: C		3L	4/m²	1.5m²
Total :386 -							Total :88.9m²

Formal Hedge

Number	Abbreviation	Species	Specification	Height	Pot Size	Density	Length
1704 -	EUOJAPA	Euonymus japonicus	Branched: 3 brks: C	40-60cm	2L	5/m	338m
1891 -	PfLRR	Photinia x fraseri 'Little Red Robin'	Branched: 3 brks: C	20-30cm	2L	5/m	375.1m
2844 -	PRU LUS	Prunus lusitanica	Bushy: 3 brks: C	40-60cm	2L	5/m	562.4m
							Total :1275.5m

Grass Areas

Seed Mix Name	Seed Mix Supplier	Density	Area
RE3	Germinal	5g/m²	925.1m²
WF19	Germinal	2g/m²	349.6m²
			Total :1274.7m²

Native Hedgerow Mix 1

Number	Abbreviation	Species	Specification	Height	Pot Size	Density	Percentage Contribution	Length
144 -	COR AVE	Corylus avellana	1+2: Transplant - seed raised: Branched: 3 brks: B	60-80cm		0.3Ctr Double Staggered at 0.3m offset	15%	21.4m
381 -	CRA MON	Crataegus monogyna	1+1: Transplant - seed raised: B	60-80cm		0.3Ctr Double Staggered at 0.3m offset	40%	56.8m
144 -	ILE AQU	Ilex aquifolium	Leader with Laterals: C	40-60cm	3L	0.3Ctr Double Staggered at 0.3m offset	15%	21.4m
96 -	MAL SYL	Malus sylvestris	1+1: Transplant - seed raised: B	60-80cm		0.3Ctr Double Staggered at 0.3m offset	10%	14.2m
96 -	PRU SPI	Prunus spinosa	1+1: Transplant - seed raised: Branched: 2 brks: B	60-80cm		0.3Ctr Double Staggered at 0.3m offset	10%	14.2m
96 -	VIBOP	Viburnum opulus	1+2: Transplant - seed raised: Branched: 3 brks: B	60-80cm		0.3Ctr Double Staggered at 0.3m offset	10%	14.2m
Total :957 -								Total :142.2m

Native Hedgerow Mix 2

Number	Abbreviation	Species	Specification	Height	Pot Size	Density	Percentage Contribution	Length
95 -	ACE CAM	Acer campestre	1+1: Transplant - seed raised: B	60-80cm		0.3Ctr Double Staggered at 0.3m offset	10%	14m
142 -	COR AVE	Corylus avellana	1+2: Transplant - seed raised: Branched: 3 brks: B	60-80cm		0.3Ctr Double Staggered at 0.3m offset	15%	21.1m
377 -	CRA MON	Crataegus monogyna	1+1: Transplant - seed raised: B	60-80cm		0.3Ctr Double Staggered at 0.3m offset	40%	56.4m
142 -	ILE AQU	Ilex aquifolium	Leader with Laterals: C	40-60cm	3L	0.3Ctr Double Staggered at 0.3m offset	15%	21.1m
95 -	PRU SPI	Prunus spinosa	1+1: Transplant - seed raised: Branched: 2 brks: B	60-80cm		0.3Ctr Double Staggered at 0.3m offset	10%	14m
95 -	VIBOP	Viburnum opulus	1+2: Transplant - seed raised: Branched: 3 brks: B	60-80cm		0.3Ctr Double Staggered at 0.3m offset	10%	14m
Total :946 -								Total :140.6m

Native Hedgerow Mix 3

Number	Abbreviation	Species	Specification	Height	Pot Size	Density	Percentage Contribution	Length
100 -	COR AVE	Corylus avellana	1+2: Transplant - seed raised: Branched: 3 brks: B	60-80cm		0.3Ctr Double Staggered at 0.3m offset	15%	14.7m
264 -	CRA MON	Crataegus monogyna	1+1: Transplant - seed raised: B	60-80cm		0.3Ctr Double Staggered at 0.3m offset	40%	39.3m
100 -	ILE AQU	Ilex aquifolium	Bushy: 3 Brks: C	40-60cm	3L	0.3Ctr Double Staggered at 0.3m offset	15%	14.7m
67 -	PRU SPI	Prunus spinosa	1+1: Transplant - seed raised: Branched: 2 brks: B	60-80cm		0.3Ctr Double Staggered at 0.3m offset	10%	9.9m
67 -	ROS CAN	Rosa canina	1+1: Transplant - seed raised: Branched: 3 Brks: C	40-60cm	3L	0.3Ctr Double Staggered at 0.3m offset	10%	9.9m
67 -	VIBOP	Viburnum opulus	1+2: Transplant - seed raised: Branched: 3 brks: B	60-80cm		0.3Ctr Double Staggered at 0.3m offset	10%	9.9m
Total :665 -								Total :98.4m

Native Scrub Mix

Number	Abbreviation	Species	Specification	Height	Pot Size	Density	Percentage Contribution	Area
396 -	COR AVE	Corylus avellana	1+2: Transplant - seed raised: Branched: 3 brks: B	60-80cm		1Ctr	15%	390m²
1044 -	CRA MON	Crataegus monogyna	1+1: Transplant - seed raised: B	60-80cm		1Ctr	40%	1039.7m²
396 -	ILE AQU	Ilex aquifolium	Leader with Laterals: C	40-60cm	3L	1Ctr	15%	390m²
525 -	PRU SPI	Prunus spinosa	1+1: Transplant - seed raised: Branched: 2 brks: B	60-80cm		1Ctr	20%	519.9m²
266 -	VIBOP	Viburnum opulus	1+2: Transplant - seed raised: Branched: 3 brks: B	60-80cm		1Ctr	10%	259.8m²
Total :2627 -								Total :2599.4m²



Planting Plan Key:

- Site Boundary
- Existing trees and hedgerows to be retained and protected during the works.
- Existing trees to be removed
- Proposed ornamental planting on 400mm depth of topsoil with 75mm bark mulch.
- Proposed native tree planting, tree pit and double staking as detailed in the specification.
- Small ornamental tree/ large shrub planting, tree pit and double staking as detailed in the specification.
- Proposed mixed native hedgerow planted in a double staggered row at 0.3m centres and 0.3m offset. Bare root transplants with shelter guard tubes and stakes.
- Proposed single species formal hedges planted in a single row at 0.25m centres/ 4no per lin.m. Container transplants.
- Front gardens to be turfed on 150mm topsoil.
- Public open space to be sown with Germinal AberSustain mix, or similar approved, to be sown at a rate of 40g/m2 on 150mm topsoil.
- Public open space to be sown with Germinal Eco Species Rich Lawn mix, or similar approved, to be sown at a rate of 10g/m2 on 150mm topsoil.
- Native scrub planting to be planted as 60-80cm whip planting at 1m centres, for additional wildlife habitat.
- Wildflower seeding, Germinal RE3 River Floodplain / Water Meadow (MG8 Grassland), to the existing water course to public open space to be sown at 5g/m2.
- Wildflower seeding, WF19 Pollinators Paradise, to the public open space to be sown at 2g/m2.
- Gravel areas - 20mm Limestone chippings (or similar approved).

DO NOT SCALE

ALL COORDINATES RELATED TO LOCAL GRID LOCATED TO OS NG BY BEST FIT TO DETAIL, EXTRACTED FROM OS DIGITAL DATA.

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LANDSCAPE AND MAINTENANCE SPECIFICATION

All operations to comply with appropriate British Standards unless otherwise stated on drawings or in the specification.

GENERAL TREATMENT OF PLANTING AREAS

Ensure that planting areas are protected from consolidation by heavy construction plant.

For work near a retained tree: Refer to BS 5837 *Trees in relation to design, demolition & construction - Recommendations*- Section 9 (Appendix C).

Damage to Plants to be Retained: If a plant is to be retained is damaged, the plant is to be repaired or replaced by the contractor at their own expense. "Damaged" means:

- The destruction of a plant the breaking of branches or roots
- The debarking of trunks or limbs
- The contamination of root zone soil or plants from drift sprays, dust or contaminated storm water
- The damage by the placement of fill or building materials within the canopy perimeter or otherwise.

1) GROUND PREPARATION AND SOIL SPECIFICATION

Subsoil:
Before receiving topsoil, subsoil shall be loosened using appropriate equipment to a depth of 300mm. This shall be done when the subsoil is dry so as to encourage soil shattering. All stones and other objects larger than 50mm shall be removed from the prepared surface. The loosened subsoil shall be roughly levelled so that an even depth of topsoil can be achieved.

Topsoil (To Comply with British Standard 3882:2015 - Specification for Topsoil):
Imported topsoil shall be Multipurpose Grade as described in BS 3882:2015 and suitable for sustaining plant life. Stockpiling of soil shall be avoided whenever possible to minimise loss of physical quality, diffusion of oxygen and biological activity.
Any stockpiling shall not exceed 1.5 metres high and shall be sited so as to avoid risk of muddy water run-off into a watercourse, not exceeding 1.5 metres high.
The site of the stockpile will be prepared in advance by grading, removing rubbish and ensuring no fuel or chemicals were previously stored in area.
Topsoil shall be lightly consolidated in layers not exceeding 150mm using track laying machinery.
Soil shall not be handled in inappropriate conditions of weather and soil moisture i.e.
During or shortly after heavy precipitation
When soil is in a waterlogged condition
When the ground is frozen or covered by snow
When there are pools of water on the grounds surface.
Topsoil shall be laid to the following minimum depths:
150mm below new grass areas
300mm to rear gardens
400mm beneath new shrub areas.
Finished levels, after settlement, shall be as follows:
25mm above adjacent paving from new grassed areas and non-mulched shrub beds
75mm below adjacent paving and grass for mulched planting beds.
150mm below damp proof courses.

2) GROUND CONDITIONING
40 litres of compost to be incorporated into the top 200mm of each square metre of topsoil for all ornamental shrub beds.

3) PLANT AND PLANTING SPECIFICATION
All plant stock, plant handling and planting to be undertaken in accordance with the following British Standard Specifications and Code of Practice:
BS 8545:2014 'Trees: from nursery to independence in the landscape
BS 3936: Part 1 1992 Nursery stock (Specification for trees and shrubs)
BS 3936: Part 4 1984 Nursery stock (Specification for forest trees)
BS 3936: Part 9 1987 Nursery stock (Specification for bulbs, corms and tubers)
BS 3936: Part 10 1990 Nursery stock (Specification for ground cover plants)
BS 4428: 1989 Recommendations for general landscaping operations.
BS 4043: 1989 Recommendations for transplanting root-balled trees. (withdrawn)
The Code of Practice for Plant Handling 1985. (Horticultural Trades Association).

Plant Stock:
Plant stock to be supplied in accordance with the size and description specified ion the plant schedule and position indicated on the most current revision of the planting plan.

Plant stock shall be healthy, vigorous, free from pests and diseases and suitably hardened off for the proposed situation of planting and lifted at a time in accordance with good nursery practice. Stock shall have a well-formed fibrous root system and be free from perennial weeds. The form of trees shall be in accordance with BS 3936: Part 1:1992, Section 7, *Form of Trees*.

Plant Handling:
All plant materials shall be lifted, bundled, labelled, packaged, transported, temporarily stored and planted in accordance with the procedures and methods illustrated in the publication, *"Plant Handling"* (Horticultural Trades Association) and relevant sections of BS 4043: 1989 *Transplanting Root-Balled Trees*.

Tree Planting:
Trees to be pit planted following supplier recommendations. Minimum pit size: Extra Heavy standard tree 1500 x 1500 x 900, and Heavy standard tree 1000 x1000 x 750mm.
Pits to be prepared to base and sides of pit to be further scarified.
Trees to be double staked using two stakes (75mm dia.), driven into ground 300mm below bottom of pit. Base of pit to be filled with 200mm of 3:1 mix of approved topsoil / compost.
Trees to be centrally located and stem placed in an upright position. Pit to be backfilled with a 3:1 mix of an approved topsoil / compost. Backfill firmly to 50mm above previous ground level to allow for settlement. Stakes to be saw leave 600mm above soil level.
Water in same day with 52 litres per tree.
All works shall be carried out to the minimum standard according to BS 3936: 1992 Part 1 Nursery Stock. Specification for Trees and Shrubs. BS 4043: 1989 Recommendations for transplanting root-balled trees.

Staking:
Stake all heavy standard trees with double short stakes. Stakes to be round timber with chamfered tops. Position stake close to tree on windward side and drive vertically at least 400mm into bottom of pit before planting. Backfilling: consolidate material around stake. Height of stakes: cut to approximately one third of the tree height above ground level, taking care not to damage the bark. Ties: Hessian. Tying: secure tree firmly but not rigidly to stake with at least 2 ties within 25mm of top of stake.

Mulch:
All shrub beds shall be spread with a medium grade bark mulch to a settled depth of 75mm. Mulch to be free from fines, weeds, disease and contaminants.

Ornamental shrub planting:
To be set out carefully and evenly over indicated areas. Remove plants from pots and plastic containers, plant and water in thoroughly. Shrubs shall be individually pit planted in prepared
pits sized to accommodate full spread of roots. Plants shall be evenly spaced over the planting area. Firm backfill by treading, ensuring the ground is not overly compacted and that the plant is positioned upright.

Native shrub planting
Bare root stock shall be planted between November and March. Consistent in species, cultivar and clone to ensure a uniform hedge. Plants to be planted in groups of 3, 5 or 7 of the same species.
Plants shall be evenly spaced over the planting area. Ensure plants are planted to the correct depth to correspond to the soil mark on main stems. Plants to be protected with 60cm high Tubex shrub shelter guards and stakes with ties.
Undertake formative pruning if necessary.

New formal hedges - Bare root stock shall be planted between November and March. Consistent in species, cultivar and clone to ensure a uniform hedge.
To be planted in a previous prepared planting bed 0.6metre wide. Planted to be centrally in a single row. Ensure plants are planted to the correct depth to correspond to the soil mark on main stems.
Prune back to a height of 1 metres.

New mixed native hedgerows
Bare root stock shall be planted between November and March. Consistent in species, cultivar and clone to ensure a uniform hedge. Plants to be planted in groups of 3, 5 or 7 of the same species.
To be planted in a previous prepared planting bed 1metre wide. Planted to be centrally in a double row, 300mm between plants and 300mm between rows. Ensure plants are planted to the correct depth to correspond to the soil mark on main stems. Plants to be protected with 60cm high Tubex shrub shelter guards and stakes with ties.
Prune back to a height of 2 metres.

Turfed Areas:
To be specified and laid in accordance with BS. 3936:1998 Recommendations for turf for general purposes. Turf to be Lindum Festival Turf (or similar approved). Hardwearing with a dense sward containing a mixture of 25% perennial ryegrass, 55% fescues and 20% smooth stalked meadow grass. This mix is easy to maintain and will recover well from general wear.
Turf to be laid in suitable weather conditions on a prepared bed with no weeds and a suitable slow release fertiliser applied to bed prior to laying. Turf to be watered regularly until it is well established.

Rear gardens:
Subsoil to be prepared to a depth of 300mm as per ground preparation and soil specification.
Topsoil to be supplied as per ground preparation and soil specification to a depth of 300mm, after gentle compaction and to be left bare in rear gardens.

Grass Seeding:
Public open spaces shall be Germinal AberSustain mix, or similar approved. Sowing to be taken between March and October.
Topsoil shall be cultivated to a fine tilth, be free from weeds, stones and other debris. Levels to be graded to form finished levels as indicated in section, 'Topsoil'.
Roll, fertilise at 50gms/sq m, 10-14 days prior to seeding, sow at rate of 40g/m2 and lightly rake. First cut to be undertaken when grass reaches 50mm.

Wildflower **Seeding:**
Seed mix shall be Germinal WFG20 Eco Species Rich Lawn, or similar approved. Sowing to be taken between March and October.
Topsoil shall be cultivated to a fine tilth, be free from weeds, stones and other debris. Sow at rate of 10 g/m2 and lightly rake. First cut to be undertaken 6 weeks after sowing or when reaches 70-mm.

Seed mix shall be Germinal RE3 River Floodplain / Water Meadow (MG8 Grassland), or similar approved within the proposed pond. Sowing to be taken between March and October.
Topsoil shall be cultivated to a fine tilth, be free from weeds, stones and other debris. Sow at rate of 5 g/m2 and lightly rake. First cut to be undertaken 6 weeks after sowing or when reaches 70mm.

Seed mix shall be Germinal WF19 Pollinators Paradise, or similar approved. Sowing to be taken between March and October.
Topsoil shall be cultivated to a fine tilth, be free from weeds, stones and other debris. Sow at rate of 2 g/m2 and lightly rake. First cut to be undertaken 6 weeks after sowing or when reaches 70mm.

4) MAINTENANCE AND MANAGEMENT

Plant stock and soft landscaped areas shall be maintained for a period of five years via the developers' agent or appointed Management Company during which time the following operations shall be carried out:

Regular visits:
Monthly maintenance visits to include the following operations:

- Hand weed planting beds
- Remove litter
- Sweep mulch spillage
- Re-firming plant stock to ensure the new planting is all planting to upright positions.
- Adjust stakes and ties as necessary
- Prune plant stock as required to encourage good form
- Check all plant stock and report signs of pests, disease, death and damage

Mulch:
Top up mulch levels (using matching material) surrounding trees and within beds to 75mm at the end of the maintenance period.

Watering:
Plant stock to receive the following minimum quantities of water:
Extra Heavy Standard trees:50 litres each month between April and September
Heavy Standard trees: 35 litres each month between April and September
Shrubs and transplants: 5 litres/plant on three occasions throughout growing season.
Watering to be undertaken during the first 24 months as needed to maintain plant health.

Grass Maintenance:
Grass shall be cut throughout the growing season to maintain a sward of approximately 38mm. Shall be edged, watered as necessary and clippings removed.

Wildflower Maintenance:
Wildflower areas shall be cut 2 times a year during the late spring and after the flower season (September / October) to maintain a sward of approximately 40mm. The clippings shall be left in situ for 3 days to allow seed drop, then removed to prevent nutrient build up.

WFG20 Eco Species Rich Lawn Maintenance:
Autumn Sown: during the first year: first cut shall be early July, then monthly during August, September and October to maintain a sward of approximately 70mm.
Thereafter: shall be cut 2 times a year mid-July to early September to maintain a sward of approximately 70-100mm.
Spring Sown: during the first year: first cut shall be mid-September, then again during October to maintain a sward of approximately 70mm.
Thereafter: shall be cut 1 time a year mid-July to early September or as required leaving at least fortnight between cuts to maintain a sward of approximately 70mm.
The clippings shall be left in situ for 3 days to allow seed drop, then removed to prevent nutrient build up.

New tree/shrub planting:
Weed control by hand to ensure planting area is weed free. Check stakes and guards are in place and replace where necessary. Prune, thin and remove suckers, seedlings, dead, damaged, or diseased branches annually between October and January to avoid the bird nesting season. Replace dead / dying stock in winter.

Plant replacements:
All dead, dying and vandalised plant stock shall be replaced, at the landscape contractor's expense, at the end of each growing season throughout the maintenance period.



NTS

REV	DESCRIPTION	DATE
T	Minor amendments	23/10/25
S	Minor amendments	29/07/25
R	Minor amendments	07/05/25
Q	Minor amendments	07/04/25
P	Minor amendments	07/04/25
O	Minor amendments	03/03/25
N	Minor amendments	04/10/24
M	Amendments based on comments from Council's ecologist	24/09/24
L	Amended to layout "...Rev R"	14/06/24
KA	Amended to layout "...Rev Q"	10/06/24
J	Amended to layout "...Rev LA1"	08/03/24
I	Amended to layout "...Rev K"	09/01/24
H	Amended to layout "...Rev J"	07/12/23

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t: 0845 463 4404
e: info@landscapetreesecology.com
www.landscapetreesecology.com

CLIENT:
Castle Green Homes

PROJECT:
Rossett Road, Wrexham

DRAWING TITLE:
Planting Plan (Sheet 1 of 5)

SCALE:	DRAWING No:	REV:
1:200 @ A0		

DRAWN BY:	CHKD BY:	DATE:	DRAWING No:	REV:
CN	CO	20/01/2021	P.1416.20.02	T

Plant Schedule

Trees

Number of Plants	Abbreviation	Species	Specification	Height	Girth	Density
6 -	A ca	Acer campestre	Heavy Standard: 5 brks: 3x: RB: Clear Stem minimum 200cm	350-425cm	12-14cm	Counted
13 -	A ca 'El'	Acer campestre 'Elsrijk'	Heavy Standard: 5 brks: 3x: RB: Clear Stem minimum 200cm	350-425cm	12-14cm	Counted
8 -	ACEOLMA	Acer platanoides 'Olmsted'	Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm	350-425cm	12-14cm	Counted
3 -	ALN GLU	Alnus glutinosa	Heavy Standard: 5 brks: 3x: RB: Clear Stem min. 200cm	350-425cm	12-14cm	Counted
14 -	A lam	Amelanchier lamarckii	Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm	300-350cm	12-14cm	Counted
2 -	BET PEN	Betula pendula	Extra Heavy Standard: 3x: RB: Clear Stem min. 200cm	450-500cm	18-20cm	Counted
12 -	B pub	Betula pubescens	Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm	350-425cm	12-14cm	Counted
6 -	C be 'F F'	Carpinus betulus 'Frans Fontaine'	Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm	350-425cm	12-14cm	Counted
9 -	PRU PAD	Prunus padus	Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm	350-425cm	12-14cm	Counted
4 -	PRUPADA	Prunus padus	Extra Heavy Standard: 3x: RB: Clear Stem min. 200cm	450-500cm	18-20cm	Counted
15 -	PRUPAAL	Prunus padus 'Albertii'	Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm	350-425cm	12-14cm	Counted
8 -	Q pe	Quercus petraea	Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm	350-425cm	12-14cm	Counted
3 -	QUE ROB	Quercus robur	Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm	350-425cm	12-14cm	Counted
4 -	S c	Salix caprea	Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm	350-425cm	12-14cm	Counted
Total :107 -						

Shrubs

Number of Plants	Abbreviation	Species	Specification	Height	Pot Size	Density	Area
180 -	BER NAN	Berberis thunbergii 'Atropurpurea Nana'	Branched: 4 brks: C	20-25cm	3L	4/m²	42.4m²
46 -	BRA SUN	Brachyglottis 'Sunshine'	Branched: 4 brks: C	30-40cm	3L	2/m²	20.2m²
7 -	CEA MOU	Ceanothus 'Blue Mound'	Branched: 5 brks: C		3L	3/m²	2.2m²
3 -	CEA REP	Ceanothus thyrsiflorus repens	Bushy: 5 brks: C		3L	3/m²	1m²
5 -	CHO PEA	Choisya 'Aztec Pearl'	Bushy: 5 brks: C	30-40cm	3L	3/m²	1.6m²
12 -	CHO SUN	Choisya ternata 'Sundance'	Bushy: 4 brks: C	30-40cm	3L	3/m²	3.5m²
4 -	CIS PIN	Cistus 'Silver Pink'	Bushy: 4 brks: C	20-30cm	3L	3/m²	1.2m²
3 -	COR ELE	Cornus alba 'Elegantissima'	Branched: 4 brks: C	40-60cm	3L	3/m²	0.9m²
9 -	COT PUR	Cotinus coggygria 'Royal Purple'	Branched: 3 brks: C	30-40cm	3L	3/m²	2.4m²
9 -	ELA EBB	Elaeagnus x ebbingei	Branched: 3 brks: C	30-40cm	3L	3/m²	2.7m²
104 -	ERI PIN	Erica carnea 'Springwood Pink'	Bushy: C		3L	5/m²	19.7m²
92 -	ERI WHI	Erica carnea 'Springwood White'	Bushy: C		3L	5/m²	17.3m²
196 -	EUO GAI	Euonymus fortunei 'Emerald Gaiety'	Bushy: 7 brks: C	20-30cm	3L	3/m²	60.7m²
14 -	EUO QUE	Euonymus fortunei 'Silver Queen'	Bushy: 5 brks: C	20-30cm	3L	4/m²	3.4m²
4 -	FUC POP	Fuchsia 'Mrs Popple'	Bushy: 5 brks: C	20-30cm	3L	3/m²	1.2m²
9 -	GEN LYD	Genista lydia	Bushy: 5 brks: C		3L	3/m²	2.8m²
82 -	HEB GLO	Hebe 'Autumn Glory'	Bushy: 5 brks: C	20-30cm	3L	3/m²	23.7m²
24 -	HEB GEM	Hebe 'Green Globe'	Bushy: 7 brks: C	15-20cm	3L	7/m²	3.4m²
76 -	HEB WIN	Hebe 'Mrs Winder'	Bushy: 5 brks: C	30-40cm	3L	3/m²	22.4m²
39 -	HEB RAK	Hebe rakaiensis	Bushy: 5 brks: C		3L	3/m²	12.1m²
30 -	HYD WAV	Hydrangea macrophylla 'Blue Wave'	Branched: 5 brks: C	40-60cm	5L	2/m²	13.5m²
13 -	HYD LIM	Hydrangea paniculata Little Lime	Branched: 3 brks: C	30-40cm	3L	3/m²	4.2m²
63 -	HYD BLU	Hydrangea serrata 'Bluebird'	Branched: 5 brks: C	40-60cm	5L	2/m²	28m²
27 -	LAV HID	Lavandula angustifolia 'Hidcote'	Bushy: 5 brks: C	20-30cm	3L	3/m²	7.9m²
13 -	LON PIL	Lonicera pileata	Bushy: 6 brks: C		3L	3/m²	4.1m²
44 -	MAH APO	Mahonia aquifolium 'Apollo'	Branched: 2 brks: C	20-30cm	3L	4/m²	10.5m²
83 -	PHOFRLRR	Photinia x fraseri 'Little Red Robin'	Bushy: 6 brks: C	30-40cm	3L	4/m²	19.4m²
6 -	PIE FLA	Pieris 'Forest Flame'	Bushy: 3 brks: C	30-40cm	3L	3/m²	1.8m²
44 -	POT ABB	Potentilla fruticosa 'Abbotswood'	Bushy: 4 brks: C		3L	3/m²	13.8m²
43 -	POT ELI	Potentilla fruticosa 'Elizabeth'	Bushy: 3 brks: C		2L	4/m²	10.3m²
11 -	PRU LUS	Prunus lusitanica	Bushy: 4 brks: C	30-40cm	3L	2/m²	5m²
16 -	SAN CHA	Santolina chamaecyparissus	Bushy: 7 brks: C	20-30cm	3L	3/m²	4.8m²
101 -	SKI RUB	Skimmia japonica 'Rubella'	Bushy: 3 brks: C	30-40cm	3L	4/m²	24m²
13 -	SPI PRI	Spiraea japonica 'Little Princess'	Bushy: 7 brks: C	20-30cm	3L	3/m²	3.8m²
18 -	VIB DAV	Viburnum davidii	Bushy: 3 brks: C	20-30cm	3L	3/m²	5.6m²
19 -	VIB PRI	Viburnum tinus 'Eve Price'	Bushy: 4 brks: C	30-40cm	3L	2/m²	7.6m²
12 -	VIN MAJ	Vinca major	Several Shoots: 3 brks: C		3L	3/m²	3.9m²
Total :1474 -							Total :413m²

Herbaceous

Number of Plants	Abbreviation	Species	Specification	Height	Pot Size	Density	Area
16 -	ALC MOL	Alchemilla mollis	Full Pot: C		3L	3/m²	4.9m²
14 -	AST FAN	Astilbe 'Fanal'	Full Pot: C		3L	4/m²	3.3m²
14 -	AST GRA	Astilbe 'Granat'	Full Pot: C		3L	4/m²	3.4m²
51 -	BER COR	Bergenia cordifolia	Full Pot: C		3L	5/m²	9.6m²
10 -	ECH MAG	Echinacea purpurea 'Magnus'	Full Pot: C		3L	4/m²	2.3m²
45 -	GER BLU	Geranium 'Johnson's Blue'	Full Pot: C		3L	4/m²	10.4m²
37 -	GER ALB	Geranium macrorrhizum 'Album'	Full Pot: C		3L	4/m²	8.3m²
32 -	HEU RUF	Heuchera 'Chocolate Ruffles'	Full Pot: C		3L	4/m²	7.5m²
121 -	HEU MAR	Heuchera 'Marmalade'	Full Pot: C		3L	4/m²	28.6m²
28 -	HEU PUR	Heuchera micrantha 'Palace Purple'	Full Pot: C		3L	4/m²	6.4m²
12 -	RUD GOL	Rudbeckia fulgida sullivantii 'Goldsturm'	Full Pot: C		3L	4/m²	2.7m²
6 -	SAL TRI	Salvia officinalis 'Tricolor'	Full Pot: C		3L	4/m²	1.5m²
Total :386 -							Total :88.9m²

Formal Hedge

Number	Abbreviation	Species	Specification	Height	Pot Size	Density	Length
1704 -	EUOJAPA	Euonymus japonicus	Branched: 3 brks: C	40-60cm	2L	5/m	338m
1891 -	PfLRR	Photinia x fraseri 'Little Red Robin'	Branched: 3 brks: C	20-30cm	2L	5/m	375.1m
2844 -	PRU LUS	Prunus lusitanica	Bushy: 3 brks: C	40-60cm	2L	5/m	562.4m
							Total :1275.5m

Grass Areas

Seed Mix Name	Seed Mix Supplier	Density	Area
RE3	Germinal	5g/m²	925.1m²
WF19	Germinal	2g/m²	349.6m²
			Total :1274.7m²

Native Hedgerow Mix 1

Number	Abbreviation	Species	Specification	Height	Pot Size	Density	Percentage Contribution	Length
144 -	COR AVE	Corylus avellana	1+2: Transplant - seed raised: Branched: 3 brks: B	60-80cm		0.3Ctr Double Staggered at 0.3m offset	15%	21.4m
381 -	CRA MON	Crataegus monogyna	1+1: Transplant - seed raised: B	60-80cm		0.3Ctr Double Staggered at 0.3m offset	40%	56.8m
144 -	ILE AQU	Ilex aquifolium	Leader with Laterals: C	40-60cm	3L	0.3Ctr Double Staggered at 0.3m offset	15%	21.4m
96 -	MAL SYL	Malus sylvestris	1+1: Transplant - seed raised: B	60-80cm		0.3Ctr Double Staggered at 0.3m offset	10%	14.2m
96 -	PRU SPI	Prunus spinosa	1+1: Transplant - seed raised: Branched: 2 brks: B	60-80cm		0.3Ctr Double Staggered at 0.3m offset	10%	14.2m
96 -	VIBOP	Viburnum opulus	1+2: Transplant - seed raised: Branched: 3 brks: B	60-80cm		0.3Ctr Double Staggered at 0.3m offset	10%	14.2m
Total :957 -								Total :142.2m

Native Hedgerow Mix 2

Number	Abbreviation	Species	Specification	Height	Pot Size	Density	Percentage Contribution	Length
95 -	ACE CAM	Acer campestre	1+1: Transplant - seed raised: B	60-80cm		0.3Ctr Double Staggered at 0.3m offset	10%	14m
142 -	COR AVE	Corylus avellana	1+2: Transplant - seed raised: Branched: 3 brks: B	60-80cm		0.3Ctr Double Staggered at 0.3m offset	15%	21.1m
377 -	CRA MON	Crataegus monogyna	1+1: Transplant - seed raised: B	60-80cm		0.3Ctr Double Staggered at 0.3m offset	40%	56.4m
142 -	ILE AQU	Ilex aquifolium	Leader with Laterals: C	40-60cm	3L	0.3Ctr Double Staggered at 0.3m offset	15%	21.1m
95 -	PRU SPI	Prunus spinosa	1+1: Transplant - seed raised: Branched: 2 brks: B	60-80cm		0.3Ctr Double Staggered at 0.3m offset	10%	14m
95 -	VIBOP	Viburnum opulus	1+2: Transplant - seed raised: Branched: 3 brks: B	60-80cm		0.3Ctr Double Staggered at 0.3m offset	10%	14m
Total :946 -								Total :140.6m

Native Hedgerow Mix 3

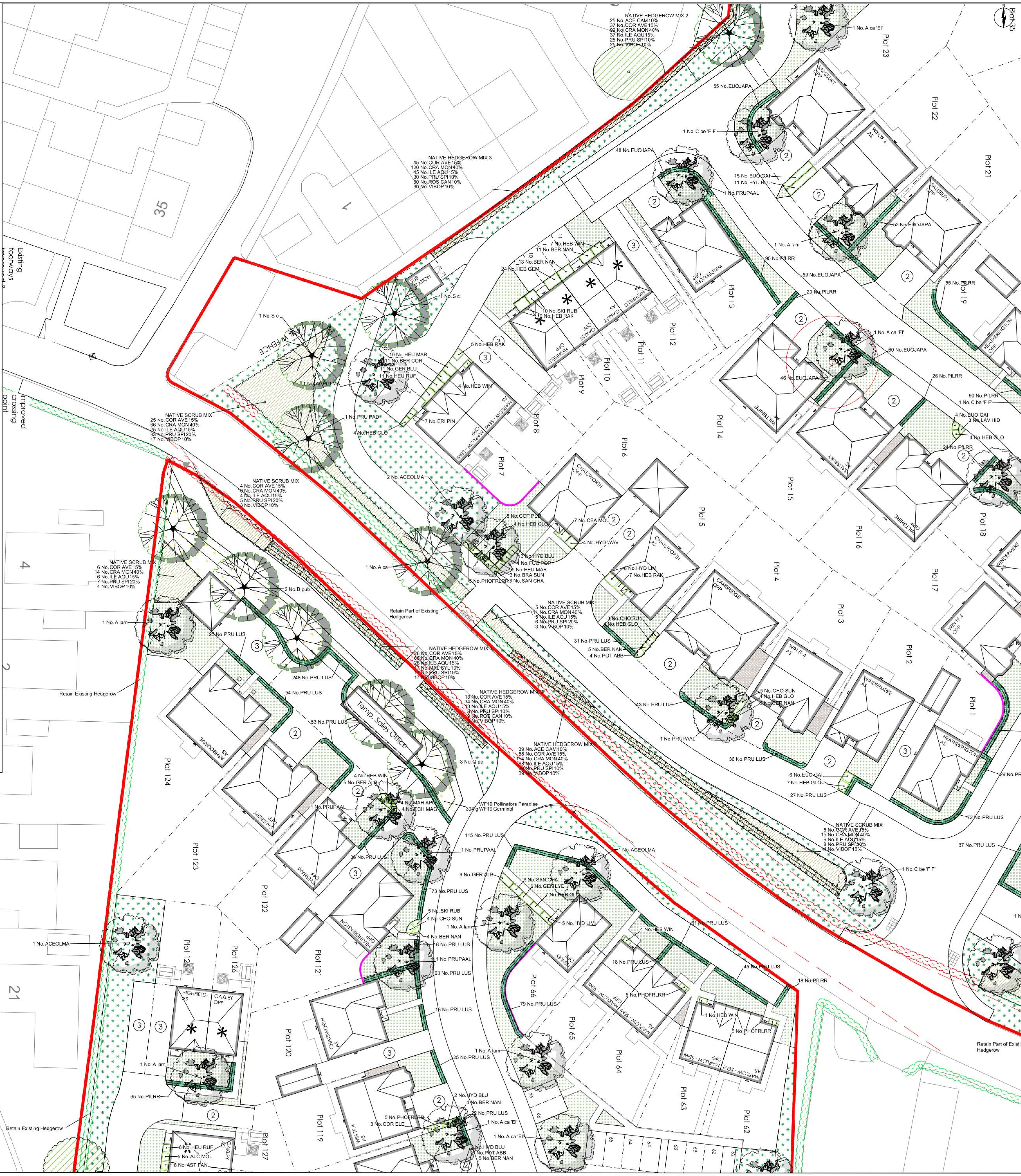
Number	Abbreviation	Species	Specification	Height	Pot Size	Density	Percentage Contribution	Length
100 -	COR AVE	Corylus avellana	1+2: Transplant - seed raised: Branched: 3 brks: B	60-80cm		0.3Ctr Double Staggered at 0.3m offset	15%	14.7m
264 -	CRA MON	Crataegus monogyna	1+1: Transplant - seed raised: B	60-80cm		0.3Ctr Double Staggered at 0.3m offset	40%	39.3m
100 -	ILE AQU	Ilex aquifolium	Bushy: 3 Brks: C	40-60cm	3L	0.3Ctr Double Staggered at 0.3m offset	15%	14.7m
67 -	PRU SPI	Prunus spinosa	1+1: Transplant - seed raised: Branched: 2 brks: B	60-80cm		0.3Ctr Double Staggered at 0.3m offset	10%	9.9m
67 -	ROS CAN	Rosa canina	1+1: Transplant - seed raised: Branched: 3 Brks: C	40-60cm	3L	0.3Ctr Double Staggered at 0.3m offset	10%	9.9m
67 -	VIBOP	Viburnum opulus	1+2: Transplant - seed raised: Branched: 3 brks: B	60-80cm		0.3Ctr Double Staggered at 0.3m offset	10%	9.9m
Total :665 -								Total :98.4m

Native Scrub Mix

Number	Abbreviation	Species	Specification	Height	Pot Size	Density	Percentage Contribution	Area
396 -	COR AVE	Corylus avellana	1+2: Transplant - seed raised: Branched: 3 brks: B	60-80cm		1Ctr	15%	390m²
1044 -	CRA MON	Crataegus monogyna	1+1: Transplant - seed raised: B	60-80cm		1Ctr	40%	1039.7m²
396 -	ILE AQU	Ilex aquifolium	Leader with Laterals: C	40-60cm	3L	1Ctr	15%	390m²
525 -	PRU SPI	Prunus spinosa	1+1: Transplant - seed raised: Branched: 2 brks: B	60-80cm		1Ctr	20%	519.9m²
266 -	VIBOP	Viburnum opulus	1+2: Transplant - seed raised: Branched: 3 brks: B	60-80cm		1Ctr	10%	259.8m²
Total :2627 -								Total :2599.4m²

Planting Plan Key:

- Site Boundary
- Existing trees and hedgerows to be retained and protected during the works.
- Existing trees to be removed
- Proposed ornamental planting on 400mm depth of topsoil with 75mm bark mulch.
- Proposed native tree planting, tree pit and double staking as detailed in the specification.
- Small ornamental tree/ large shrub planting, tree pit and double staking as detailed in the specification.
- Proposed mixed native hedgerow planted in a double staggered row at 0.3m centres and 0.3m offset. Bare root transplants with shelter guard tubes and stakes.
- Proposed single species formal hedges planted in a single row at 0.25m centres/ 4no per lin.m. Container transplants.
- Front gardens to be turfed on 150mm topsoil.
- Public open space to be sown with Germinal AberSustain mix, or similar approved, to be sown at a rate of 40g/m2 on 150mm topsoil.
- Public open space to be sown with Germinal Eco Species Rich Lawn mix, or similar approved, to be sown at a rate of 10g/m2 on 150mm topsoil.
- Native scrub planting to be planted as 60-80cm whip planting at 1m centres, for additional wildlife habitat.
- Wildflower seeding, Germinal RE3 River Floodplain / Water Meadow (MG8 Grassland), to the existing water course to public open space to be sown at 5g/m2.
- Wildflower seeding, WF19 Pollinators Paradise, to the public open space to be sown at 2g/m2.
- Gravel areas - 20mm Limestone chippings (or similar approved).





DO NOT SCALE

ALL COORDINATES RELATED TO LOCAL GRID LOCATED TO OS NG BY BEST FIT TO DETAIL, EXTRACTED FROM OS DIGITAL DATA.

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LANDSCAPE AND MAINTENANCE SPECIFICATION

All operations to comply with appropriate British Standards unless otherwise stated on drawings or in the specification.

GENERAL TREATMENT OF PLANTING AREAS

Ensure that planting areas are protected from consolidation by heavy construction plant.

For work near a retained tree: Refer to BS 5837 *Trees in relation to design, demolition & construction - Recommendations*- Section 9 (Appendix C).

Damage to Plants to be Retained: If a plant is to be retained is damaged, the plant is to be repaired or replaced by the contractor at their own expense. "Damaged" means:

- The destruction of a plant the breaking of branches or roots
- The debarking of trunks or limbs
- The contamination of root zone soil or plants from drift sprays, dust or contaminated storm water
- The damage by the placement of fill or building materials within the canopy perimeter or otherwise.

1) GROUND PREPARATION AND SOIL SPECIFICATION

Subsoil:
Before receiving topsoil, subsoil shall be loosened using appropriate equipment to a depth of 300mm. This shall be done when the subsoil is dry so as to encourage soil shattering. All stones and other objects larger than 50mm shall be removed from the prepared surface. The loosened subsoil shall be roughly levelled so that an even depth of topsoil can be achieved.

Topsoil (To Comply with British Standard 3882:2015 - Specification for Topsoil):
Imported topsoil shall be Multipurpose Grade as described in BS 3882:2015 and suitable for sustaining plant life. Stockpiling of soil shall be avoided whenever possible to minimise loss of physical quality, diffusion of oxygen and biological activity.
Any stockpiling shall not exceed 1.5 metres high and shall be sited so as to avoid risk of muddy water run-off into a watercourse, not exceeding 1.5 metres high.
The site of the stockpile will be prepared in advance by grading, removing rubbish and ensuring no fuel or chemicals were previously stored in area.
Topsoil shall be lightly consolidated in layers not exceeding 150mm using track laying machinery.
Soil shall not be handled in inappropriate conditions of weather and soil moisture i.e.
During or shortly after heavy precipitation
When soil is in a waterlogged condition
When the ground is frozen or covered by snow
When there are pools of water on the grounds surface.
Topsoil shall be laid to the following minimum depths:
150mm below new grass areas
300mm to rear gardens
400mm beneath new shrub areas.
Finished levels, after settlement, shall be as follows:
25mm above adjacent paving from new grassed areas and non-mulched shrub beds
75mm below adjacent paving and grass for mulched planting beds.
150mm below damp proof courses.

2) GROUND CONDITIONING
40 litres of compost to be incorporated into the top 200mm of each square metre of topsoil for all ornamental shrub beds.

3) PLANT AND PLANTING SPECIFICATION
All plant stock, plant handling and planting to be undertaken in accordance with the following British Standard Specifications and Code of Practice:
BS 8545:2014 'Trees: from nursery to independence in the landscape
BS 3936: Part 1 1992 Nursery stock (Specification for trees and shrubs)
BS 3936: Part 4 1984 Nursery stock (Specification for forest trees)
BS 3936: Part 9 1987 Nursery stock (Specification for bulbs, corms and tubers)
BS 3936: Part 10 1990 Nursery stock (Specification for ground cover plants)
BS 4428: 1989 Recommendations for general landscaping operations.
BS 4043: 1989 Recommendations for transplanting root-balled trees. (withdrawn)
The Code of Practice for Plant Handling 1985. (Horticultural Trades Association).

Plant Stock:
Plant stock to be supplied in accordance with the size and description specified ion the plant schedule and position indicated on the most current revision of the planting plan.

Plant stock shall be healthy, vigorous, free from pests and diseases and suitably hardened off for the proposed situation of planting and lifted at a time in accordance with good nursery practice. Stock shall have a well-formed fibrous root system and be free from perennial weeds. The form of trees shall be in accordance with BS 3936: Part 1:1992, Section 7, *Form of Trees*.

Plant Handling:
All plant materials shall be lifted, bundled, labelled, packaged, transported, temporarily stored and planted in accordance with the procedures and methods illustrated in the publication, "*Plant Handling*" (Horticultural; Trades Association) and relevant sections of BS 4043: 1989 *Transplanting Root-Balled Trees*.

Tree Planting:
Trees to be pit planted following supplier recommendations. Minimum pit size: Extra Heavy standard tree 1500 x 1500 x 900, and Heavy standard tree 1000 x1000 x 750mm.
Pits to be prepared to base and sides of pit to be further scarified.
Trees to be double staked using two stakes (75mm dia.), driven into ground 300mm below bottom of pit. Base of pit to be filled with 200mm of 3:1 mix of approved topsoil / compost.
Trees to be centrally located and stem placed in an upright position. Pit to be backfilled with a 3:1 mix of an approved topsoil / compost. Backfill firmly to 50mm above previous ground level to allow for settlement. Stakes to be saw leave 600mm above soil level.
Water in same day with 52 litres per tree.
All works shall be carried out to the minimum standard according to BS 3936: 1992 Part 1 Nursery Stock. Specification for Trees and Shrubs. BS 4043: 1989 Recommendations for transplanting root-balled trees.

Staking:
Stake all heavy standard trees with double short stakes. Stakes to be round timber with chamfered tops. Position stake close to tree on windward side and drive vertically at least 400mm into bottom of pit before planting. Backfilling: consolidate material around stake. Height of stakes: cut to approximately one third of the tree height above ground level, taking care not to damage the bark. Ties: Hessian. Tying: secure tree firmly but not rigidly to stake with at least 2 ties within 25mm of top of stake.

Mulch:
All shrub beds shall be spread with a medium grade bark mulch to a settled depth of 75mm. Mulch to be free from fines, weeds, disease and contaminants.

Ornamental shrub planting:
To be set out carefully and evenly over indicated areas. Remove plants from pots and plastic containers, plant and water in thoroughly. Shrubs shall be individually pit planted in prepared
pits sized to accommodate full spread of roots. Plants shall be evenly spaced over the planting area. Firm backfill by treading, ensuring the ground is not overly compacted and that the plant is positioned upright.

Native shrub planting
Bare root stock shall be planted between November and March. Consistent in species, cultivar and clone to ensure a uniform hedge. Plants to be planted in groups of 3, 5 or 7 of the same species.
Plants shall be evenly spaced over the planting area. Ensure plants are planted to the correct depth to correspond to the soil mark on main stems. Plants to be protected with 60cm high Tubex shrub shelter guards and stakes with ties.
Undertake formative pruning if necessary.

New formal hedges - Bare root stock shall be planted between November and March. Consistent in species, cultivar and clone to ensure a uniform hedge.
To be planted in a previous prepared planting bed 0.6metre wide. Planted to be centrally in a single row. Ensure plants are planted to the correct depth to correspond to the soil mark on main stems.
Prune back to a height of 1 metres.

New mixed native hedgerows
Bare root stock shall be planted between November and March. Consistent in species, cultivar and clone to ensure a uniform hedge. Plants to be planted in groups of 3, 5 or 7 of the same species.
To be planted in a previous prepared planting bed 1metre wide. Planted to be centrally in a double row, 300mm between plants and 300mm between rows. Ensure plants are planted to the correct depth to correspond to the soil mark on main stems. Plants to be protected with 60cm high Tubex shrub shelter guards and stakes with ties.
Prune back to a height of 2 metres.

Turfed Areas:
To be specified and laid in accordance with BS. 3936:1998 Recommendations for turf for general purposes. Turf to be Lindum Festival Turf (or similar approved). Hardwearing with a dense sward containing a mixture of 25% perennial ryegrass, 55% fescues and 20% smooth stalked meadow grass. This mix is easy to maintain and will recover well from general wear.
Turf to be laid in suitable weather conditions on a prepared bed with no weeds and a suitable slow release fertiliser applied to bed prior to laying. Turf to be watered regularly until it is well established.

Rear gardens:
Subsoil to be prepared to a depth of 300mm as per ground preparation and soil specification.
Topsoil to be supplied as per ground preparation and soil specification to a depth of 300mm, after gentle compaction and to be left bare in rear gardens.

Grass Seeding:
Public open spaces shall be Germinal AberSustain mix, or similar approved. Sowing to be taken between March and October.
Topsoil shall be cultivated to a fine tilth, be free from weeds, stones and other debris. Levels to be graded to form finished levels as indicated in section, 'Topsoil'.
Roll, fertilise at 50gms/sq m, 10-14 days prior to seeding, sow at rate of 40g/m2 and lightly rake. First cut to be undertaken when grass reaches 50mm.

Wildflower **Seeding:**
Seed mix shall be Germinal WFG20 Eco Species Rich Lawn, or similar approved. Sowing to be taken between March and October.
Topsoil shall be cultivated to a fine tilth, be free from weeds, stones and other debris. Sow at rate of 10 g/m2 and lightly rake. First cut to be undertaken 6 weeks after sowing or when reaches 70-mm.

Seed mix shall be Germinal RE3 River Floodplain / Water Meadow (MG8 Grassland), or similar approved within the proposed pond. Sowing to be taken between March and October.
Topsoil shall be cultivated to a fine tilth, be free from weeds, stones and other debris. Sow at rate of 5 g/m2 and lightly rake. First cut to be undertaken 6 weeks after sowing or when reaches 70mm.

Seed mix shall be Germinal WF19 Pollinators Paradise, or similar approved. Sowing to be taken between March and October.
Topsoil shall be cultivated to a fine tilth, be free from weeds, stones and other debris. Sow at rate of 2 g/m2 and lightly rake. First cut to be undertaken 6 weeks after sowing or when reaches 70mm.

4) MAINTENANCE AND MANAGEMENT

Plant stock and soft landscaped areas shall be maintained for a period of five years via the developers' agent or appointed Management Company during which time the following operations shall be carried out:

Regular visits:
Monthly maintenance visits to include the following operations:

- Hand weed planting beds
- Remove litter
- Sweep mulch spillage
- Re-firming plant stock to ensure the new planting is all planting to upright positions.
- Adjust stakes and ties as necessary
- Prune plant stock as required to encourage good form
- Check all plant stock and report signs of pests, disease, death and damage

Mulch:
Top up mulch levels (using matching material) surrounding trees and within beds to 75mm at the end of the maintenance period.

Watering:
Plant stock to receive the following minimum quantities of water:
Extra Heavy Standard trees: 50 litres each month between April and September
Heavy Standard trees: 35 litres each month between April and September
Shrubs and transplants: 5 litres/plant on three occasions throughout growing season.
Watering to be undertaken during the first 24 months as needed to maintain plant health.

Grass Maintenance:
Grass shall be cut throughout the growing season to maintain a sward of approximately 38mm. Shall be edged, watered as necessary and clippings removed.

Wildflower Maintenance:
Wildflower areas shall be cut 2 times a year during the late spring and after the flower season (September / October) to maintain a sward of approximately 40mm. The clippings shall be left in situ for 3 days to allow seed drop, then removed to prevent nutrient build up.

WFG20 Eco Species Rich Lawn Maintenance:
Autumn Sown: during the first year: first cut shall be early July, then monthly during August, September and October to maintain a sward of approximately 70mm.
Thereafter: shall be cut 2 times a year mid-July to early September to maintain a sward of approximately 70-100mm.
Spring Sown: during the first year: first cut shall be mid-September, then again during October to maintain a sward of approximately 70mm.
Thereafter: shall be cut 1 time a year mid-July to early September or as required leaving at least fortnight between cuts to maintain a sward of approximately 70mm.
The clippings shall be left in situ for 3 days to allow seed drop, then removed to prevent nutrient build up.

New tree/shrub planting:
Weed control by hand to ensure planting area is weed free. Check stakes and guards are in place and replace where necessary. Prune, thin and remove suckers, seedlings, dead, damaged, or diseased branches annually between October and January to avoid the bird nesting season. Replace dead / dying stock in winter.

Plant replacements:
All dead, dying and vandalised plant stock shall be replaced, at the landscape contractor's expense, at the end of each growing season throughout the maintenance period.



NTS

REV	DESCRIPTION	DATE
T	Minor amendments	23/10/25
S	Minor amendments	29/07/25
R	Minor amendments	07/05/25
Q	Minor amendments	07/04/25
P	Minor amendments	07/04/25
O	Minor amendments	03/03/25
N	Minor amendments	04/10/24
M	Amendments based on comments from Council's ecologist	24/09/24
L	Amended to layout "...Rev R"	14/06/24
KA	Amended to layout "...Rev Q"	10/06/24
J	Amended to layout "...Rev LA1"	08/03/24
I	Amended to layout "...Rev K"	09/01/24
H	Amended to layout "...Rev J"	07/12/23

ASCERTA
LANDSCAPE | TREES | ECOLOGY

t: 0845 463 4404
e: info@landscapetreesecology.com
www.landscapetreesecology.com

CLIENT:
Castle Green Homes

PROJECT:
Rossett Road, Wrexham

DRAWING TITLE:
Planting Plan (Sheet 2 of 5)

SCALE:	DRAWING No:	REV:
1:200 @ A0		
DRAWN BY: CN	CHKD BY: CO	DATE: 20/01/2021
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