Biodiversity Habitat Enhancement Scheme

Land to the Rear of 125 Helme Lane, Meltham

5th January 2023

Prepared by:

Middleton Bell Ecology, School House, Green Moor, Sheffield, S35 7DQ

Document ref: MBE/OTH/2023/02/01				
Purpose and Description	Originated	Checked	Reviewed	Date
For Planning	Robert Bell MCIEEM	P Middleton MCIEEM	Robert Bell MCIEEM	05/01/23

Disclaimer

Contents

1. Summary

1.1.1 The Biodiversity Habitat Enhancement Scheme (BHES) for Land to the Rear of Helme Lane was originally commissioned by architect Dan Heneghan of Farrar Bamforth Associates Ltd on behalf of the client Conroy Brook on 25th June 2018. An update of the BEHS to reflect a revised site layout was commissioned by Will Haywood of Conroy Brook on 4th January 2023.

1.1.2 The BHES was originally requested in order to address Condition 17 of the outline planning permission (Application No: 2016/60/93411/W) which is presented below:

> *17. Prior to development commencing, details of a biodiversity habitat enhancement scheme shall be submitted for the written approval of the Local Planning Authority. The scheme shall include details and potential locations for bat/bird roost opportunities within the new development and neighbouring trees. The scheme shall be implemented prior to the occupation of any dwellings/ plots containing such opportunities.*

1.1.3 A detailed scheme prescription is included in this BHES which includes hedgehog friendly plot boundary fences or walls, the provision and installation of four new potential bat roosting features integral to the fabric of the new dwellings and 14 house sparrow boxes either integral to the fabric of the buildings or installed under soffits.

1.1.4 A landscaping plan for the site includes the planting of 28 new standard trees, a new length of native species rich hedge and small new areas of grass-wildflower mix, as well as new areas of ornamental planting and amenity grassland/lawn.

2. Introduction

2.1.1 The Biodiversity Habitat Enhancement Scheme (BHES) for Land to the Rear of 125 Helme Lane was originally commissioned by architect Dan Heneghan of Farrar Bamforth Associates Ltd on behalf of the client Conroy Brook on 25th June 2018. An update of the BEHS to reflect a revised site layout was commissioned by Will Haywood of Conroy Brook on 4th January 2023.

2.1.2 The scheme comprises the construction of 41 dwellings on a c.1.2 ha plot of land accessed from Helme Lane on the northern edge of Meltham.

2.1.3 The BHES was originally requested in order to address Condition 17 of the outline planning permission (Application No: 2016/60/93411/W) which is presented below:

> *17. Prior to development commencing, details of a biodiversity habitat enhancement scheme shall be submitted for the written approval of the Local Planning Authority. The scheme shall include details and potential locations for bat/bird roost opportunities within the new development and neighbouring trees. The scheme shall be implemented prior to the occupation of any dwellings/ plots containing such opportunities.*

2.1.4 The scheme was under construction at the time of this report revision, with bat and bird box locations selected to reflect this.

2.1.5 The Preliminary Ecological Appraisal of the site was completed in July 2016 (MEC, 2016).

3. Purpose and Conservation Objectives

3.1.1 The strategy is to achieve the following:

- To ensure the optimal benefits of biodiversity are achieved in line with the aims of NPPF Section 11.
- To provide bat roost provision suitable for a crevice dwelling species.
- To ensure correct locations of bat roost on site to maximise their likelihood of being used.
- To ensure the free movement of hedgehogs throughout the site.
- To ensure a soft landscaping scheme is implemented that contains native species of wildflowers, trees and shrubs.

4. Review of Site Potential and Constraints

Existing site

4.1.1 The Preliminary Ecological Appraisal Report (MEC, 2016) described the site has been of relatively low ecological value, based on evidence that the grassland on site had been significantly improved by the application of organic (Seaweed fertilizer) and inorganic fertilizer between 1996 and 2011 (owner, pers. comm.).

4.1.2 At the time of the initial survey undertaken by MEC on 6th July 2016 habitats present

on site included a species poor semi-improved grassland, buildings (stables) and a little tall ruderal vegetation.

Habitat assessment

4.1.3 The site is located at the northern edge of Meltham in a somewhat semi-rural location adjacent to a broad-leaved woodland. The immediate surrounding area consisted predominantly of improved grassland, woodland and residential development. Consequently, land adjacent to the northeast boundary of the site was expected to be used as part of a wider commuting route (corridor) for a range of mammalian and avian species (see Figure 1).

4.1.4 Considering that the site is located near to woodlands and other good foraging habitat, the potential for the future use of the proposed bat roost provision was considered to be high.

Figure 1. Site, as indicated by red line boundary

5. Detailed Scheme Prescription

Maintenance and access for hedgehogs

5.1.1 Boundaries to individual dwellings must provide for the free movement of hedgehogs through the site by installing hedgehog friendly fences or dry stone walls (see Plates 1 & 2). Holes measuring at least 12 cm x 12 cm should be provided in the locations shown on Appendix 1.

Plates 1 & 2. Hedgehog friendly fences


Bat roost enhancements

5.1.2 Four of the dwellings will have bat boxes integral to the fabric of the building (see Plates 3 & 4) installed high on gables in the locations shown on Appendix 1. It is recommended the PRO UK Build-in WoodStone Bat Box is the model of integral bat box fitted. Build-in habitat products are particularly beneficial because it is almost guaranteed that they will remain useable whilst the structure is still standing.

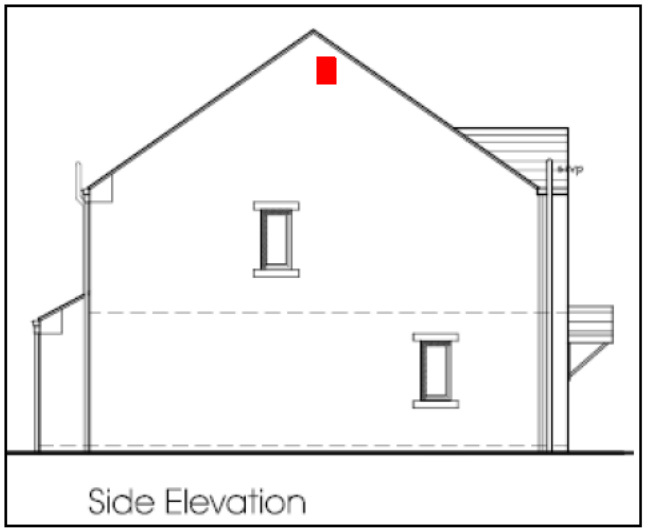
5.1.3 The PRO-UK Build-in Woodstone Bat Box is a crevice box designed to appeal to a range of bat species including the most common *Pipistrellus* species

Plates 3 & 4. PRO UK Build-in WoodStone Bat Box


5.1.4 The proposed new dwellings subject to the planning application will be constructed of stone with a concrete tiled roof. Bat boxes are to be incorporated into the masonry

as high as possible on the gables but not over windows or doors (see example location in Figure 1). No external lighting should impact upon the locations of the build-in Woodcrete boxes.

Figure 1. Example of bat box location on gables, as indicated by red rectangle



House sparrow nesting boxes

5.1.5 Fourteen of the dwellings will have house sparrow *Passer domesticus* installed integral to the fabric of the buildings close to the gables apexes or at wall top height on the façade or rear elevations but not over windows or doors. It is recommended that the Double Chamber Vivara Pro WoodStone House Sparrow Nest Box is the model of box installed.

5.1.6 House sparrows are sociable opportunists that survive in most UK habitats, from towns and cities to farmland and countryside. Substantial declines in both urban and rural populations (estimated 71% decrease between 1977 and 2008) have led to concerns for this species.

Plate 5. Vivara Pro WoodStone House Sparrow Nest Box.

5.1.7 Both the PRO UK Build-in WoodStone Bat Box and the Vivara Pro WoodStone House Sparrow Nest Box can be bought from NHBS (https://www.nhbs.com/).

Landscaping plan inclusions

5.1.8 A soft landscaping scheme will be implemented to include native broadleaved trees, a section of native hedgerow, together with two small areas seeded with grass-wildflower seed mix and areas of ornamental planting, mainly at the entrance to dwellings (see Appendix 2). A total of 28 new standard or heavy standard trees are included in the planting plan, to include native species such as silver birch *Betula pendula*, field maple *Acer campestre*, wild cherry *Prunus avium* and rowan *Sorbus aucuparia*, as well as fruit trees such as apple *Malus domestica* and pear *Pyrus communis*. The section of native hedgerow to be planted on part of the southwest boundary will be species-rich comprising a range of six native species. Ornamental planting includes a range of wildlife friendly non-native species such as lavender *Lavandula angustifolia* and hebe *Hebe*.

6. Timetable of Works

Table 1. Works timetable

Development activities and timing		
Activity	**Timing**	**Notes**
In-situ installation of 14 house sparrow boxes	During construction when walls are almost complete	At wall top height or close to gable apexes in locations shown in Appendix 1
In-situ installation of four bat boxes on gables	During construction when walls are almost complete	Close to gable apexes in locations shown in Appendix 1
Construct/install hedgehog friendly fencing/walls	Prior to handover of site	Holes of 12 cm x 12 cm to be created in locations shown in Appendix 1
Soft landscaping scheme to include native species of trees	Prior to handover of site	See Appendix 2
Soft landscaping scheme to include area of wildflower meadow	Prior to handover of site	See Appendix 2

Persons responsible for implementation of works

6.1.1 The developer (Conroy Brook) is responsible for the installation of all measures detailed in this document.

Aftercare and long-term maintenance

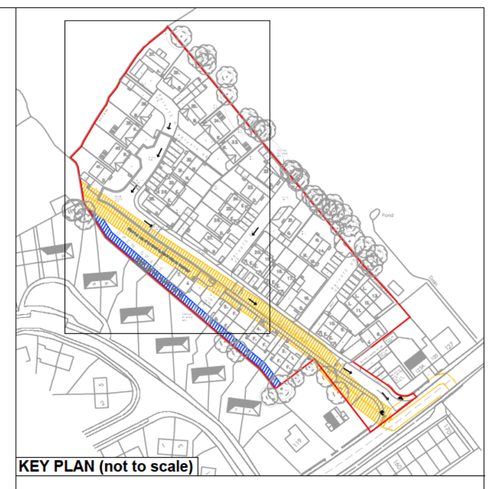
6.1.2 The house sparrow boxes ideally require cleaning at the end of the nesting season. The developer should advise the purchaser or occupants of the new dwellings of the need for annual maintenance of the house sparrow boxes. No maintenance is required for the bat boxes.

7. References

MEC (2016) Land Adjacent to 125 Helme Lane, Meltham – Preliminary Ecological Site Appraisal. Middleton Ecological Consultancy, Barnsley.

Appendix 1. Bat and Bird Box Plan

Appendix 2. Landscaping Plan


KEY PLAN (not to scale)

KEY

Soft Works

- Planting-Groundcover Mixes
- Planting-Hedges
- Planting-SemiNative Mixes
- Planting-Shrubs
- Proposed Bulbs
- Proposed Grass-Amenity Seed
  e.g. Germinal Seeds WFG20 Eco Species Rich Lawn - supplied by Germinal Seeds, or similar approved. Sowing rate: 10.00g/m2.
- Proposed Grass-Turf
  e.g LT2 - Low maintenance Fine Turf supplied by Lindum Seeded Turf, or similar. Shade tolerant species mix to be used in shady areas.
- Proposed Grass-Wildflower Mix
  e.g. Emorsgate EH1 - Hedgerow Mixture, or similar approved.
- Gravel over geotextile to be located in areas of limited space or where planting woudl be difficult to establish.
- Shrub-Specimen 10-15L
- Shrub-Specimen 3-7.5L
- Shrub-Topiary Specimen 10-25L
- Tree-Extra Heavy Standard
- Tree-Multi stem
- Tree-Standard

REV	DATE	DRAWN BY	CHECKED BY	REVISION COMMENT
C	16.11.20	KM	Ecus	Updated planting
B	08.10.20	KM	Ecus	Updated planting
A	27.02.20	HT	Ecus	Preliminary

DRAWING STATUS: For Planning

GENERAL NOTES

- Drawing for Planning purposes only
- Refer to drawing reference 14296_LD_01 and 14296_LD_02 for landcape proposals, and 14296_LD_03 for plant schedule and outline specification, and 14296_LD_04 for maintenance schedule.
- Building layout and masterplan provided by Farrar Bamforth Associates on Site Layout drawing number 18D33-FBA-ZZ-GF-DR-A-0101-P12.
- Refer to arboricultural report and drawings for details of existing vegetation to be retained and protection measures.
- Building foundations to be confirmed by Engineer with reference to planting proposals and NHBC guidance (or alternative where applicable). Tree locations to be fully co-ordinated once building foundation depth are confirmed. Requirements for root barriers to be confirmed by an engineer.
- Refer to Engineer's details for level and drainage information
- Setting out on site to be agreed with Landscape Architect
- Check all dimensions on site.
- Do not scale from this drawing
- Report any discrepancies and omissions to Ecus Ltd
- This drawing is Copyright
- All levels indicative only. Extrapolated from site levels. All require to be checked.

3RD-PARTY INFORMATION
NB This drawing includes information provided by independent surveyors and / or consultants, to whom all queries shall be made. Ecus Ltd can accept no liability for its context or accuracy.

DESIGN
Unless stated otherwise, the designs shown are subject to detailed site survey, investigations, and legal definition, the CDM regulations and the comments and / or approval of the various relevent Local Authority Officers, Statutory Undertakers, Fire Officers, Engineers and the like. They are copyright, project specific and confidential. No part is to be used or copied in anyway without the express prior consent of ECUS ltd.

TREE NOTES:
Note that all tree locations are subject to coordination with services, to be undertaken by others. The requirement for root barriers is to be confirmed by an engineer.
Note that it is best practice that root barriers are required to extend 2m beyond the mature canopy spread of new trees to protect all structures and hardlandscaping elements, such as highways, services and buildings. In addition, root barriers are required for all new trees within 5m of highways - e.g. Greenleaf 'Reroot 2000' or similar. Depth of tree root barrier to be confirmed by an engineer once services design has been produced at construction detail.

CDM - Risks / Hazards

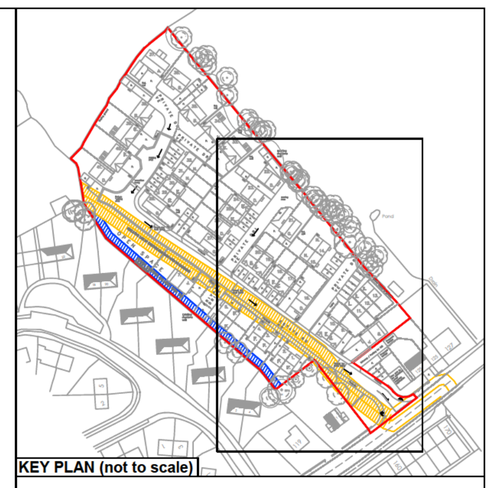
1. Proposed locations of landscape elements shown are subject to the presence of below ground services.
2. A detailed survey is to be undertaken and necessary method statements prepared & approved prior to undertaking any excavations / work within this area.
3. Care to be taken when working in proximity to the surrounding existing roads.
4. Care to be taken when clearing the existing site due to the potential presence of needles, litter etc.

ecus ENVIRONMENTAL CONSULTANTS
Brook Holt
Blackburn Road
Sheffield S61 2DW
Tel. (0114) 2669292
www.ecusltd.co.uk

Job
Land off Helme Lane, Meltham

Title
Soft Landscape Proposals - Planting Plan

Drawn by	Date	Scale	Drg. no.
HT	FEB 20	1:200 at A1	14296_LD_01



KEY

Soft Works

- Planting-Groundcover Mixes
- Planting-Hedges
- Planting-SemiNative Mixes
- Planting-Shrubs
- Proposed Bulbs
- Proposed Grass-Amenity Seed
  e.g. Germinal Seeds WFG20 Eco Species Rich Lawn - supplied by Germinal Seeds, or similar approved. Sowing rate: 10.00g/m2.
- Proposed Grass-Turf
  e.g LT2 - Low maintenance Fine Turf supplied by Lindum Seeded Turf, or similar. Shade tolerant species mix to be used in shady areas.
- Proposed Grass-Wildflower Mix
  e.g. Emorsgate EH1 - Hedgerow Mixture, or similar approved.
- Gravel over geotextile to be located in areas of limited space or where planting woudl be difficult to establish.
- Shrub-Specimen 10-15L
- Shrub-Specimen 3-7.5L
- Shrub-Topiary Specimen 10-25L
- Tree-Extra Heavy Standard
- Tree-Multi stem
- Tree-Standard

3No. Cal KF 10L
10m2 SHADY MIX 21b
50No. plants @ 5/m2
Existing drystone wall
8m2 GROUNDCOVER MIX 43
48No. plants @ 6/m2
9m2 SUNNY MIX 2A
54No. plants @ 6/m2
1No. Phi BE 25L
1No. Spi Gol 10L
16m2 GROUNDCOVER MIX 43
96No. plants @ 6/m2
1No. PRU SNO xhs14
6m2 GROUNDCOVER MIX 5
36No. plants @ 6/m2
1No. Hyd Lan 25L
10m2 ORNAMENTAL MIX 15B
60No. plants @ 6/m2
9m Pru Zab Hedge 5L
36No. plants @ 4/m
Turning Area
12m Pru Zab Hedge 5L
48No. plants @ 4/m
11m2 SHADY MIX 21b
55No. plants @ 5/m2
1No. Vib EP 15L
5m2 GROUNDCOVER MIX 5
30No. plants @ 6/m2
Pond
6m2 SUNNY MIX 2A
36No. plants @ 6/m2
1No. PRU SNO xhs14
MIX 43
5m Pru Zab Hedge 5L
20No. plants @ 4/m
4m2 GROUNDCOVER MIX 7
16No. plants @ 4/m2
23m2 ORNAMENTAL MIX 15B
138No. plants @ 6/m2
1No. Spi Gol 10L
5m Pru Zab Hedge 5L
20No. plants @ 4/m
9m2 ORNAMENTAL MIX 15B
54No. plants @ 6/m2
1No. Phi BE 25L
6m2 GROUNDCOVER MIX 7
24No. plants @ 4/m2
4m2 GROUNDCOVER MIX 43
24No. plants @ 6/m2
1No. PRU SNO xhs14
8m2 SUNNY MIX 2A
48No. plants @ 6/m2
3m2 GROUNDCOVER MIX 5
18No. plants @ 6/m2
11m2 GROUNDCOVER MIX 5
66No. plants @ 6/m2
1No. Ara ela 25L
8m2 ORNAMENTAL MIX 15B
48No. plants @ 6/m2
3m2 GROUNDCOVER MIX 5
18No. plants @ 6/m2
1No. Phi BE 25L
12m2 SHADY MIX 21b
60No. plants @ 5/m2
3No. Cal KF 10L
1No. MAL Dis s 12-14
2m2 GROUNDCOVER MIX 7
8No. plants @ 4/m2
4m2 SUNNY MIX 2A
24No. plants @ 6/m2
2No. BET PEN hs12
5m Pru Zab Hedge 5L
20No. plants @ 4/m
1No. Hyd Lan 25L
2m2 GROUNDCOVER MIX 7
8No. plants @ 4/m2
6m Pru Zab Hedge 5L
24No. plants @ 4/m
8m2 GROUNDCOVER MIX 5
48No. plants @ 6/m2
See dwg No. 14296-LD-01
15m2 SUNNY MIX 2A
90No. plants @ 6/m2
3No. Cal KF 10L
1No. Car HB 10L
9m Pru Zab Hedge 5L
36No. plants @ 4/m
3No. Car HB 10L
1No. Bux sem B
7m2 GROUNDCOVER MIX 43
42No. plants @ 6/m2
16m2 GROUNDCOVER MIX 5
96No. plants @ 6/m2
1No. Car HB 10L
6m2 GROUNDCOVER MIX 5
36No. plants @ 6/m2
5m2 GROUNDCOVER MIX 5
30No. plants @ 6/m2
6m2 SHADY MIX 21b
30No. plants @ 5/m2
Round top road hump
13m2 BULB PLANTING 8
260No. plants @ 20/m2
12m NATIVE HEDGE MIX 7
72No. plants @ 6/m
21m2 GROUNDCOVER MIX 43
126No. plants @ 6/m2
1No. PYR CHA xhs16 RB
3No. Cal KF 10L
Proposed Garage
New plot to be submitted under separate application
Shared access to garages
Footpath
Layby
Dry Stone Wall
Bins
Bin Collection
BCP
RPA
0m 10m 20m
SCALE BAR 1:200
N

REV	DATE	DRAWN BY	CHECKED BY	REVISION COMMENT
C	16.11.20	KM	Ecus	Updated planting
B	08.10.20	KM	Ecus	Updated planting
A	27.02.20	HT	Ecus	Preliminary

DRAWING STATUS: For Planning

GENERAL NOTES

- Drawing for Planning purposes only
- Refer to drawing reference 14296_LD_01 and 14296_LD_02 for landcape proposals, and 14296_LD_03 for plant schedule and outline specification, and 14296_LD_04 for maintenance schedule.
- Building layout and masterplan provided by Farrar Bamforth Associates on Site Layout drawing number 18D33-FBA-ZZ-GF-DR-A-0101-P12.
- Refer to arboricultural report and drawings for details of existing vegetation to be retained and protection measures.
- Building foundations to be confirmed by Engineer with reference to planting proposals and NHBC guidance (or alternative where applicable). Tree locations to be fully co-ordinated once building foundation depth are confirmed. Requirements for root barriers to be confirmed by an engineer.
- Refer to Engineer's details for level and drainage information
- Setting out on site to be agreed with Landscape Architect
- Check all dimensions on site.
- Do not scale from this drawing
- Report any discrepancies and omissions to Ecus Ltd
- This drawing is Copyright
- All levels indicative only. Extrapolated from site levels. All require to be checked.

3RD-PARTY INFORMATION
NB This drawing includes information provided by independent surveyors and / or consultants, to whom all queries shall be made. Ecus Ltd can accept no liability for its context or accuracy.

DESIGN
Unless stated otherwise, the designs shown are subject to detailed site survey, investigations, and legal definition, the CDM regulations and the comments and / or approval of the various relevent Local Authority Officers, Statutory Undertakers, Fire Officers, Engineers and the like. They are copyright, project specific and confidential. No part is to be used or copied in anyway without the express prior consent of ECUS ltd.

TREE NOTES:
Note that all tree locations are subject to coordination with services, to be undertaken by others. The requirement for root barriers is to be confirmed by an engineer.
Note that it is best practice that root barriers are required to extend 2m beyond the mature canopy spread of new trees to protect all structures and hardlandscaping elements, such as highways, services and buildings. In addition, root barriers are required for all new trees within 5m of highways - e.g. Greenleaf 'Reroot 2000' or similar. Depth of tree root barrier to be confirmed by an engineer once services design has been produced at construction detail.

CDM - Risks / Hazards

1. Proposed locations of landscape elements shown are subject to the presence of below ground services.
2. A detailed survey is to be undertaken and necessary method statements prepared & approved prior to undertaking any excavations / work within this area.
3. Care to be taken when working in proximity to the surrounding existing roads.
4. Care to be taken when clearing the existing site due to the potential presence of needles, litter etc.

ecus ENVIRONMENTAL CONSULTANTS
Brook Holt
Blackburn Road
Sheffield S61 2DW
Tel. (0114) 2669292
www.ecusltd.co.uk

Job
Land off Helme Lane, Meltham

Title
Soft Landscape Proposals - Planting Plan

Drawn by	Date	Scale	Drg. no.
HT	FEB 20	1:200 at A1	14296_LD_02

PLANT SCHEDULE

TREES

QTY	CODE	PLANT NAME	STOCK	FORM	GIRTH/HEIGHT	SPECIFICATION
1No.	ACE STR xhs14	Acer campestre 'Streetwise'	RB	STD	14-16cm	3x; Extra Heavy Standard; clear stem minimum 200cm; 5 breaks
5No.	BET PEN hs12	Betula pendula	RB	STD	12-14cm	3x; heavy standard; clear stem minimum 175-200; 350-425cm ht; 5 breaks
5No.	BET JAC ms3+	Betula utilis "Jaquemontii"	RB	MSTEM3	350-400cm	4x;multi stem; bushy; 3 stems minimum
1No.	CRA PAU xhs14	Crataegus laevigata "Pauls Scarlet"	RB	STD	14-16cm	3x; standard;clear stem minimum 175-200, 400-450cm ht; 5 breaks
6No.	MAL Dis s 12-14	Malus domestica "Discovery"	RB	STD	12-14cm	3x; Heavy Standard; clear stem 175-200cm; 5 breaks; ht 350-425cm
3No.	PRU SNO xhs14	Prunus 'Snow Goose'	RB	EHS	14-16cm	3x; Extra Heavy Standard; clear stem 175-200cm; 5 breaks; 400-450 ht
1No.	PRU PLE xhs16	Prunus avium "Plena"	RB	STD	16-18cm	3x; Extra Heavy Standard; clear stem minimum 200cm
1No.	PYR CHA xhs16 RB	Pyrus calleryana "Chanticleer"	RB	STD	16-18cm	3x;extra heavy standard;clear stem minimum 175-200, 5 breaks; 400-450cm height
1No.	PYR CON s	Pyrus communis "Conference"	B	STD	10-12cm	Standard; 175 minimum height, Pyrus communis rootstock
4No.	Sor She xhs14	Sorbus aucuparia "Sheerwater Seedling"	RB	STD	14-16cm	3x; Extra Heavy Standard; clear stem 175-200cm; 5 breaks; 400-450cm ht

HEDGES

QTY	CODE	PLANT NAME	STOCK	SIZE	SPECIFICATION
146m	Pru Zab Hedge 5L	Prunus laurocerasus 'Zabeliana'	C 5L	40-60cm	Bushy; 5 breaks

584No. Plants spaced @ 4/m in a Double Staggered Row

SHRUBS

QTY	CODE	PLANT NAME	STOCK	SIZE	SPACING	SPECIFICATION
2No.	Ara ela 25L	Aralia elata	C 25L	125-150cm	1/m2	Single leader: 2 breaks
2No.	Bux sem B	Buxus sempervirens (Topiary Ball 50cm)	C 20-25L	50-60D	1/m2	Ball shape; neatly clipped
6No.	Car HB 10L	Caryopteris x clandonensis "Heavenly Blue"	C 10L	40-60cm	3/m2	Branched; 6 breaks
6No.	Cha C&G	Chaenomeles x superba 'Crimson and Gold'	C 3L	40-60cm	3/m2	Branched; 2 breaks
12No.	Heb pin SU 5L	Hebe pinguifolia "Sutherlandii"	C 5L	20-30D	5/m2	Bushy; 7 breaks
6No.	Hyd Lan 25L	Hydrangea macrophylla "Lanarth White"	C 25L	80-100cm	1/m2	Branched; 10 breaks
14No.	Lav Hid 5L 5/m2	Lavandula angustifolia "Hidcote"	C 5L	40-60cm	5/m2	Bushy; 7 breaks
3No.	Per Spi 5L	Perovskia atriplicifolia "Blue Spire"	C 5L	40-60cm	4/m2	Bushy; 5 breaks
7No.	Phi BE 25L	Philadelphus "Belle Etoile"	C 25L	60-80cm	1/m2	Branched; 9 breaks
3No.	Spi Gol 10L	Spiraea japonica "Goldflame"	C 10L	40-60cm	1/m2	Bushy; 9 breaks
4No.	Vib EP 15L	Viburnum tinus "Eve Price"	C 15L	40-60cm	1/m2	Bushy; 9 breaks

HERBACEOUS PLANTS

QTY	CODE	PLANT NAME	STOCK	SPACING	SPECIFICATION
21No.	Cal KF 10L	Calamagrostis x acutiflora "Karl Foerster"	C 10L	1/m2	Full pot
18No.	Sti Pon 5-7.5L 5/m2	Stipa tenuissima 'Pony Tails'	C 5-7.5L	5/m2	Full pot

HEDGE MIXES

PERCENT	QTY	PLANT NAME	STOCK	SIZE

12m NATIVE HEDGE MIX 7 planted @ 6/m in a Double Staggered Row

20%	14No.	Crataegus monogyna	B Trans	60-80cm
30%	22No.	Corylus avellana	B Trans	60-80cm
20%	14No.	Cornus sanguinea	B Trans	60-80cm
10%	7No.	Ilex aquifolium	C 3L	40-60cm
10%	7No.	Prunus spinosa	B Trans	60-80cm
10%	7No.	Rosa canina	B Trans	60-80cm

PLANT MIXES

PERCENT	QTY	PLANT NAME	STOCK	SIZE	SPECIFICATION

107m2 GROUNDCOVER MIX 5 planted @ 6/m2

25%	161No.	Geranium macrorrhizum "Johnsons Blue"	C 2L	20-30cm	
25%	161No.	Hedera helix "Green Ripple"	C 2L	20-30cm	3 breaks
25%	161No.	Pachysandra terminalis	C 2L	20-30cm	9 breaks
25%	161No.	Vinca minor "Gertrude Jekyll"	C 2L	20-30cm	3 breaks

Individual varieties to be planted in groups of between 9 and 17.

14m2 GROUNDCOVER MIX 7 planted @ 4/m2

50%	28No.	Geranium macrorrhizum "Album"	C 2L	20-30cm	Full pot
50%	28No.	Hypericum x moserianum	C 2L	20-30cm	Bushy; 5 breaks

Individual varieties to be planted in groups of between 5 and 7.

272m2 GROUNDCOVER MIX 43 planted @ 6/m2

15%	245No.	Hypericum x moserianum	C 3L	30-40cm	Bushy; 7 breaks
15%	245No.	Rosa "Max Graff"	C 3L	40-60cm	Cutting; bush; 3 breaks
20%	326No.	Hebe 'Red Edge'	C 5L	30-40cm	Bushy; 7 breaks
20%	326No.	Euonymus fortunei 'Emerald Gaiety'	C 5-7.5L	25-30cm	Bushy; 9 breaks
15%	245No.	Pachysandra terminalis 'Variegata'	C 2L	15-20D	Several shoots; 6 breaks
15%	245No.	Pyracantha coccinea 'Red Cushion'	C 3L	30-40D	Bushy; 5 breaks

Individual varieties to be planted in groups of between 3 and 5.

97m2 ORNAMENTAL MIX 15B planted @ 6/m2

10%	58No.	Euphorbia amygdaloides robbiae	C 2L	-	Full pot
10%	58No.	Nepeta 'Six Hills Giant'	C 3L	-	Full pot
10%	58No.	Hakonechloa macra 'Aureola'	C 3L	-	Full pot
10%	58No.	Lonicera nitida 'Maigrün'	C 3L	30-40cm	Bushy; 6 breaks
10%	58No.	Viburnum tinus 'Eve Price'	C 5L	30-40cm	Bushy; 5 breaks
15%	87No.	Sarcococca humilis	C 3L	20-25cm	Bushy; 6 breaks
10%	58No.	Escallonia laevis 'Gold Ellen'	C 5L	40-60cm	Bushy; 5 breaks
15%	87No.	Skimmia x confusa 'Kew Green'	C 5L	30-40cm	Bushy; 4 breaks
10%	58No.	Vinca minor "Gertrude Jekyll"	C 3L	20-30cm	Several shoots; 3 breaks

Individual varieties to be planted in single species groups of 3, 5, 7 or 9no.
Viburnum, Escallonia and Skimmia to be planted to the back of the border, or in the centre of bed if located away from a boundary feature, either singularly or in groups of 3no.

13m2 SHADY MIX 13B planted @ 5/m2

15%	10No.	Dryopteris filix-mas	C1.5L-2L		Full Pot
20%	13No.	Lonicera pileata	C3L	30-40cm	Bushy; 6 breaks
20%	13No.	Euonymus fortunei 'Silver Queen'	C3L	20-30D	Bushy; 5 breaks
15%	10No.	Pachysandra terminalis 'Variegata'	C2L	15-20cm	Several shoots; 6 breaks
20%	13No.	Sarcococca hookeriana digyna	C5L	30-40cm	Bushy; 6 breaks

Individual varieties to be planted in groups of 1, 3, and 5.

39m2 SHADY MIX 21b planted @ 5/m2

20%	39No.	Dryopteris filix-mas	C1.5L-2L		Full Pot
25%	49No.	Hydrangea macrophylla 'Lanarth White'	C3L	30-40cm	Branched; 3 Breaks
5%	10No.	Pachysandra terminalis 'Variegata'	C2L	15-20cm	Several shoots; 6 breaks
25%	49No.	Sarcococca hookeriana digyna	C5L	30-40cm	Bushy; 6 breaks
25%	49No.	Viburnum davidii	C3L	20-30cm	Bushy; 3 breaks

Individual varieties to be planted in groups of 1, 3, 5 and 7.

74m2 SUNNY MIX 2A planted @ 6/m2

30%	133No.	Brachyglottis "Sunshine"	C5-7.5L	40-60cm	Branched; 6 breaks
20%	89No.	Hebe brachysiphon "White Gem"	C5L	30-40cm	Bushy; 5 breaks
30%	133No.	Spiraea japonica "Anthony Waterer"	C5L	30-40cm	Bushy; 7 breaks
20%	89No.	Perovskia atriplicifolia "Blue Spire"	C5L	40-60cm	Bushy; 5 breaks

Individual varieties to be planted in groups of 1, 3 and 5.

39m2 BULB PLANTING 8 planted @ 20/m2

50%	390No.	Narcissus pseudonarcissus		Grade 5/6
25%	195No.	Crocus chrysanthus 'Snow Bunting'		Grade 5/7
25%	195No.	Crocus speciosus		Grade 5/6

Individual varieties to be planted in groups of approximately 7-11.

NOTES AND ABBREVIATIONS:

B = Bare root (bagged).
C = Container (or pot) grown, followed by size of the container (or pot).
FORM = Shape of tree as supplied by the nursery.
QTY = Quantity
RB = Rootballed (balled and wrapped).
SIZE = Height or Spread of juvenile plant.
Std = (clear stem) Standard.
STOCK = Root condition/protection method eg Bare root.
Trans = Transplant (or undercut seedling).

- Refer to specification for further information.
- All plants to be completely hardened off
- Substitutions to be agreed with Landscape Architect.

Plant Schedule generated by "Qscape" software 16/11/2020

OUTLINE SPECIFICATION (FOR PLANNING)

STANDARD OF OPERATIONS
All works shall be carried out in accordance with good professional horticultural practice by qualified and experienced staff. Works shall comply with all relevant and current British Standards and codes of practices including:
Topsoil: BS 3882: 2015 Multipurpose Grade
Nursery Stock: BS 3936 1-9
Turf, BS 3969: 1998 +A1: 2013
Tree work, BS 3998: 2010
Transplanting root balled trees, BS 4043: 1989
Code of Practice for general landscape operations, BS 4428: 1989
Trees in relation to construction BS 5837: 2012
Grounds maintenance, BS 7370: 1998
Joint Council for Landscape Industries (JCLI) Committee for Plant Supply and Establishment 'Guidance on Handling and Establishing Landscape Plants' see Appendix 1, HTA National Plant Specification.

SITE PREPARATION

General Requirements for Site Clearance , Preparation and Cultivation
Old foundations, slabs and the like in areas to be planted/ seeded: break out in locations and to the extents stated by engineer.
Foreign matter: On visual inspection, areas to be planted or seeded to be free of fragments and roots of aggressive weeds, sticks, straw,
subsoil, pieces of brick, concrete, glass, wire, large lumps of clay or vegetation, and the like.
Contamination: Do not use topsoil contaminated with subsoil, rubbish or other materials that are:
- Corrosive, explosive or flammable.
- Hazardous to human or animal life.
- Detrimental to healthy plant growth.

Purity: Free of pests and disease.
Subsoil: In areas to receive topsoil or planting media, do not use subsoil contaminated with the above materials.
Objectionable odour: None.
Give notice: If any evidence or symptoms of soil contamination are discovered on the site or in topsoil or planting media to be imported.

Grading Subsoil for Soft Landscaped Areas
Standard: In accordance with BS 8601.
General: Grade to smooth flowing contours to achieve specified finished levels of topsoil.
Areas of thicker topsoil: Excavate locally.
Avoid compaction.
Excess subsoil: Remove.

Subsoil Surface Preparation
Standard: In accordance with BS 3882.
General: Excavate and/ or place fill to required profiles and levels.
Loosening:
- When ground conditions are sufficiently dry to allow breaking up of soils, loosen thoroughly to specified depth:
  Light and non-cohesive subsoils: 150mm
  Stiff clay and cohesive subsoils: 300mm
  Rock and chalk subgrades: Lightly scarify to promote free drainage.
- Wet conditions: Do not loosen subsoils.

Stones: Immediately before spreading topsoil, remove stones larger than 75mm.
Remove from site: all coarse rubble or artefacts greater than 75mm in diameter, remove to a licenced facility.

TOPSOIL

Preparation of Undisturbed Topsoil:
Standard: In accordance with BS 4428.
- Grading and cultivation: to suit cultivation operations suited to specified seeding/ planting.

Hard ground: Break up thoroughly.
Clearing: Clear of rubbish, debris, remove visible roots and large stones with a diameter greater than 75mm.
Do not compact topsoil.
Areas covered with turf or thick sward: Plough or dig over to full depth of topsoil.
Fallow period (minimum): One month.
- Weed control: At appropriate times treat with a suitable translocated non-residual herbicide.

Grading of Topsoil:
Topsoil condition: Reasonably dry and workable.
Contours: Smooth and flowing, with falls for adequate drainage.
- Hollows and ridges: Not permitted.

Give notice: If required levels cannot be achieved by movement of existing soil.

Handling Topsoil:
Standard: In accordance with BS 3882.
Aggressive weeds: Give notice and obtain instructions before moving topsoil.
Plant: Select and use plant to minimize disturbance, trafficking and compaction.
Contamination: Do not mix topsoil with:
- Subsoil, stone, hardcore, rubbish or material from demolition work.
- Other grades of topsoil.

Multiple handling: Keep to a minimum. Use or stockpile topsoil immediately after stripping.
Wet conditions: Handle topsoil in the driest condition possible. Do not handle during or after heavy rainfall.

Imported Topsoil to BS3882: Quantity: Provide as necessary to make up any deficiency of topsoil existing on site and to complete the work.
Standard: To BS 3882.
Classification: Multipurpose Grade
- Soil textural class to BS 3882, Figure 1: Any Class

Spreading Topsoil
Standard: In accordance with BS 3882.
Temporary roads/ surfacing: Remove before spreading topsoil.
Layers:
- Depth (maximum): 150 mm.
- Gently firm each layer before spreading the next.

Depth after firming and settlement: Grass – 150mm, Planting/ shrubs – 450mm, Trees 750mm (or to dimensions shown on any tree pit detail).
Crumb structure: Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.

Loose Tipping Of Topsoil:
Standard: In accordance with BS 3882.
General: Do not firm, consolidate or compact topsoil when laying. Tip and grade to approximate levels in one operation with minimum of trafficking by plant.

Final Cultivation of Areas to be Planted/ Seeded
Compacted topsoil: Break up to full depth.
Tilth: Loosen, aerate and break up topsoil to a fine tilth depth of 150mm suitable for blade grading.
Particle size (maximum): 10mm.
Timing: Prior to seeding and planting. Weather and ground conditions: Suitably dry.
Surface: Leave regular and even.
Undesirable material brought to the surface:
- Remove visible weeds.
- Remove roots and large stones with any dimension exceeding 25mm in turfed areas, 50mm planted areas.

Finished Levels of Topsoil after Settlement
In relation to adjoining paving, kerbs or hard surfaces: 25mm above (including bark mulch).
In relation to dpc of adjoining buildings: minimum 150mm below.
In relation to adjacent grass areas: 25mm above.
Seeded areas: Extend cultivation into existing adjacent grassed areas sufficient to ensure full marrying in of levels.
Within root spread of existing trees and shrubs to be retained: Do not dig or cultivate.
Adjoining soil areas: Marry in.
Thickness of turf or mulch: Included.

Weed Treatment
All areas to be planted are to be treated with Roundup a minimum of 10 days prior to planting. Planted areas are to be kept weed free with the use of herbicides. Following the use of herbicides remove dead vegetation.

PLANTING

Planting General
All plant material to be supplied in accordance with HTA National Plant Specification.
All planting to be local provenance wherever possible and from local supplier.

General Planting Notes
All plants to be healthy, hardened-off and with good fibrous root systems and to comply with the requirements of BS3936 Specification for Nursery Stock. All planting to be undertaken in accordance with BS4428 Code of Practice for General Landscape Operations.
All plants to be protected from wind exposure at all times. All plants to be soaked in water for several hours prior to planting and to be well watered in.
No planting to be carried out during poor weather conditions, i.e. when ground is frozen, waterlogged, or during droughts, hot sunshine or persistent dry or cold winds. All plant material to receive enough water to ensure healthy establishment.

Labelling and Information:
General: Provide each plant/ tree or group of plants/ trees of a single species or cultivar with supplier's labelling for delivery to site, showing:
- Full botanical name.
- Total number.
- Number of bundles.
- Part bundles.
- Supplier's name.
- Employer's name and project reference.
- Plant specification, in accordance with scheduled National Plant Specification categories.

Additional information: Submit on request: Country of Origin.

Times of year for planting/ seeding:
Deciduous trees and shrubs: Late November to late March.
Container grown stock - Any time of year as providing adequately watered, autumn planting desirable.
Conifers and evergreens: September/ October or April/ May.
Herbaceous plants: September/ October or March/ April.
Container grown plants: At any time if ground and weather conditions are favourable.
- Watering and weed control: Provide as necessary.

Dried bulbs, corms and tubers: September/ October.
Turfing: All year round providing adequately watered, avoid hot sunny conditions.
Grass seeding: March - September (best in Spring or Autumn)
Wildflower seeding: Spring or autumn

Soil Conditioner/ Ameliorant
As part of good horticultural practice, use peat-free composts, mulches and soil conditioners.
Soil analysis shall be completed by a reputable laboratory to determine any nutritional requirements, and any pH and organic matter adjustments necessary. Once determined, the soil shall be appropriately amended to a range suitable for the species to be established.
Locations: All new trees, plant beds and new turf and seeded areas.
• Type: Peat free sanitized and stabilzed compost or spent mushroom compost and to conform to the Numerical Product Specification for Landscape Compost..
• Reference/Description/Grading: Compost shall be produced from biodegradable materials and shall fall within the recommended ranges for the horticultural parameters outlined in the specification table, as well as fall within the limits for contaminant parameters in PAS 100.
• Coverage: Plant beds -Uniformly apply a (25mm-50mm) layer over the area to be treated, trees - incorporate into backfill 1:3 mixture of compost and topsoil, grass seeding / turf cover the entire treatment area at an average depth of 25 to 50 mm, then incorporate it to a minimum depth of 150 mm using a rotovator or other appropriate equipment
• Timing: Apply prior to cultivation.

Compost: typical specification.
Horticultural Parameters Reported as (units of measure) Recommended Range
pH pH units (1:5 water extract) 7.0 – 8.7
Electrical Conductivity µS/cm or mS/m (1:5 water extract) 2000 µS/cm or 200 mS/m max
Moisture Content % m/m of fresh weight 35 – 55
Organic Matter Content % dry weight basis >25
Particle Sizing % m/m of air-dried sample passing 99% pass through 25mm screen the selected mesh aperture size 90% pass through 10mm screen
C:N Ratio 20:1 maximum
Contaminant Parameters Various Meet BSI PAS 100* Criteria

Cultivation
Cultivate the soil of all areas prior to seeding and planting. This should include loosening, aerating and breaking up soil into particles 2-9mm to depth of 150mm.
Remove any undesirable material brought to surface to a depth of 100mm including visible weeds, roots and large stones or clay balls with any dimension exceeding 30mm.
Final Cultivation prior to seeding topsoil shall be brought to a fine tilth by approved mechanical means or by hand raking, and if necessary regrading of the surface will be carried out to conform to the prescribed finished levels.

TREES

Tree Planting
Trees to be pit planted with root access to a minimum 7m3 area of topsoil. Minimum pit size to be 300mm greater than rootball in all directions. Excavate tree pits with slightly raised centre. Retain topsoil for reuse. Dig a hole which is substantially bigger than the volume of roots to be accommodated. Break up and loosen the base and sides of the pit and shape base to falls towards the edge of pit to aid drainage. All tree pits should be constructed to be free draining - in areas of impeded drainage, additional measures may be required such as adding 150mm depth clean pea gravel to base of pit. The trees will be planted to the same depth as they were in the nursery. Back fill the pit in stages, whilst firming up the soil around the roots until the original ground level is restored.
Tree pits to be filled with 1:3 mixture of compost and topsoil. Topsoil to contain peat free organic matter and Growtab fertiliser to be incorporated into each pit.

Tree Support
Extra heavy standard trees, rootballed trees and bareroot trees: short double stakes as BS8548:2014 with an adjustable rubber tie from each stake, and no spacer pad. Stake to be driven into the ground either side of the tree pit. Height of stakes: cut to no higher than approximately one third of the tree height above ground level, and at least 300mm into the ground.
Stakes to be first grade pressure impregnated round timber with chamfered tops. Backfilling: consolidate material around stake. Tying: secure tree firmly but not rigidly to stake with ties within 25mm of top of stake.

Tree Accessories
Rootbarrier: The need for root barriers to be confirmed by engineer. Trees adjacent to hard surfacing and/or services to have growing area defined by Greenleaf Reroot 1000 high density root barrier, or similar approved, in accordance with manufacturer's and Engineer's guidance.
Irrigation:
Trees in soft landscape (EHS and Standard trees) - All trees to receive a Greenblue Rootrain Metro irrigation pipe, or similar and approved.

SHRUBS

Semi-native mixes
To be pit planted in staggered rows, 1000mm between rows and 1000mm between plants, with rabbit protection to aid establishment. Planted in single species groups, as indicated in the Plant Schedule.

Native Hedgerow Planting
All transplants to be planted with rabbit protection (tree/ shrub shelters) and stake support. Trench to be excavated 800mm wide x 450mm deep then backfilled with topsoil mixed with compost in a 3:1 ratio.
Hedge plants to be planted in a double staggered row 450mm apart at 450mm centres (5 per linear metre). All hedgerow planting to be covered with bark mulch to 50mm depth.

Ornamental Shrub Planting
Soil analysis shall be completed by a reputable laboratory to determine any nutritional requirements necessary. Once determined, the soil shall be appropriately amended to a range suitable for the species to be established. If required, apply an organic based fertiliser to manufacturer's recommended rates.

To be pit-planted, with sufficiently large pit to accommodate root system without bending roots (minimum size of 150mm wider than roots when fully spread and 200mm deep).

Climbing Plants
Climbing plants to be planted 150mm clear of supporting structures, with branches lightly secured to climber support with tarred twine and roots spread outward. Climber support to be 5no. zinc coated wire, set at 450mm vertical centres to 8-10cm vine eyes securred at min 900mm horizontal centres. Wires to be fixed to supporting structure (wall or fence) with galvanised screw eyes. Climber support to extent 1.5m either side of centred plant.

Climbing Plants Used as Ground Cover:
Planting:
- Canes or other supports: Remove.
- Arrangement: Spread stems.

Fixing: Pinned to ground to ensure good contact.

GRASS SEEDING/TURF

Turfed Areas
Turf must meet the Turfgrass Grower's Association (TGA) Quality Standards for Cultivated Turf for the supply and laying of turf.
The turf soil should be of a sandy loam nature with no stones. The grass will be dense, of uniform green colour, free of broadleaved weeds and not visibly affected by pest or disease. Existing vegetation and stones should be removed and a light
tilth prepared. Turf to be laid within 24 hours of receipt. Turfing shall comply with BS 3969 and be carried out when the weather and soil conditions are suitable. Turfing should not be carried out in exceptionally dry or frosty weather or when the ground is waterlogged. Allowance should be made to keep the turf watered during dry periods encountered throughout the establishment period.

Grass Seeding
After cultivation operations have been carried out, use a pre-seed herbicide on areas to be seeded. Existing vegetation and stones should be removed and a light tilth prepared. Sow areas to be seeded with grass seed which has been stored off the ground in a clean, dry place free from vermin. Following an even distribution of seed, the contractor shall carry out a light raking or light harrowing of the area and ensure consolidation of the seed with the soil by the use of a light roller.
All reasonable precautions shall be taken to ensure that pedestrian and other traffic does not cross areas during cultivation and until the grass has established.
The grass will be dense, of uniform green colour, free of broadleaved weeds and not visibly affected by pest or disease.
Allowance should be made to keep the grass watered during dry periods encountered throughout the establishment period.
300mm mowing strips to perimeter of all grassed and planted areas abutting building

Species Rich Meadow
Prepare ground in accordance with **Emorsgate Seeds** cultivation, sowing and after care guidance and the following instructions.
A minimum 150mm depth of existing clean non-contaminated subsoil (**or soil stripped of topsoil to lower fertility**) to be spread over all areas of proposed wildflower seeding. Any imported subsoil to be tested by soil analysis to confirm appropriate for landscape use.
A clean, weed free seed bed is required to establish the meadow. To prepare a seed bed first remove weeds using repeated cultivation or a herbicide. Cultivation close to established trees and shrubs can be damaging to their root systems so take care not to dig too deep, keeping disturbance to the minimum required to expose fresh soil.
Soil to be cultivated using a disk harrow or rotovator to 100mm depth then further cultivated to 30mm depth, graded and rolled to produce a firm, level seed bed.
Sow the seed onto a sterile mulch which has been spread evenly over the prepared seed bed to an average depth of around 75 mm just before sowing. Use locally sourced PAS 100 green waste compost, the function of the mulch is to supress the germination of the thousands of annual seeds that will be in the soil bank.
Seed must be surface sown and can be applied by machine or broadcast by hand. To get an even distribution and avoid running out, divide the seed into two or more parts and sow in overlapping sections. Do not incorporate or cover the seed but firm in with a roll, or by treading, to give good soil/seed contact. **Refer to the sowing guide: Emorsgate Seeds**

wp-content/uploads/2016/02/HOW-TO-Establish-a-Perennial-Meadow-from-seed.pdf

Meadow mix to be sown at any time of year as long as the ground is workable and area can be watered adequately. The optimum time is early winter as the cold period encourages more seedings to germinate in the very first spring.

Emorsgate Seeds: Meadow mix to be sown in August-September or March-April but can be sown at other times of the year if there is sufficient warmth and moisture.

OTHER PLANTING (BULBS / PLUGS etc)

Bulb Planting
Where planting in established grass, grass to be mown to 50mm high before planting, cuttings removed. Planting hole of an approximate diameter and depth for each bulb to be created. Bulbs to be planted root down at depth specified for each species, then soil backfilled and firmed over the top.
Naturalized planting in grassed areas:
- Scattering: Random. Plant bulbs/ corms/ tubers where they fall.
- Planting: Neatly remove a plug of turf and replace after planting.

MULCH

Bark Mulch Materials
General: Free from toxins, pathogens or other extraneous substances harmful to plant, animal or human life, all to be Forestry Stewardship Council (FSC) Certifie and have fire resistant characteristics, being certified in accordance with BS4790: 1987.
Submit certification of source, analysis, suitability for purpose and absence of harmful substances.
Certified materials: Composted bark mulch, 2 years minimum service life.
Purity: Free of pests, disease, fungus and weeds. Preparation: Clear all weeds. Water soil thoroughly.
Mulch: ornamental fine grade mulch (5-35mm nominal particle size) to all shrub/ herbaceous beds and ornamental trees in grass (Melcourt Ornamental Bark Mulch or similar), coarse grade bark mulch (15-65mm nominal grade) to structure planting / woodland mix / hedgerow (Melcourt Bark Nuggets or similar approved).
Coverage: planted areas and ornamental trees to 75 mm settled depth.
Trees in grass: 500mm radius from trunk.
Finished level of mulch: 30 mm below adjacent grassed or paved area.

REV	DATE	DRAWN BY	CHECKED BY	REVISION COMMENT
C	16.11.20	KM	Ecus	Updated plant schedule
B	08.10.20	KM	Ecus	Updated plant schedule
A	27.02.20	HT	Ecus	Preliminary

DRAWING STATUS: For Planning

ecus ENVIRONMENTAL CONSULTANTS
Brook Holt
Blackburn Road
Sheffield S61 2DW
Tel. (0114) 2669292
www.ecusltd.co.uk

Job
Land off Helme Lane, Meltham

Title
Planting Schedule and Outline Planting Specification

Drawn by	Date	Scale	Drg. no.
HT	Feb 20	N/A at A1	14296_LD_03

5 YEAR MAINTENANCE SCHEDULE (for Planning purposes only)

Replacements (general)
Any plants that fails to establish within a period of 5 years from the completion are to be replaced in the next planting season with others of similar size and species unless written consent is provided by the Local Authority to vary the approved details.
Any seeding that fails to establish within a period of 5 years from completion or occupation is to be re-seeded the following seeding season.

Restrictions
Thinning or tree removal should be undertaken outside nesting bird season which is March to August inclusive unless checked by a suitably experienced ecologist.

Component	Management Objectives	Code	Operation(s)	Time of Year	Frequency (per Year)	Year 1-5
1. General maintenance requirements to all planted areas, unless otherwise stated in the detailed schedule below.	To maintain high standard planting scheme across site and ensure healthy establishment of plants.	A	Inspection	March-September	Annually.	x
		B	Inspect tree stakes, ties and shelters and replace where necessary. Remove in Year 5.	February and after strong winds	Annually. In Year 5- Remove.	x
		C	Watering - during establishment and to ensure continued thriving	As necessary during dry spells, or indicated in the detailed schedule below.	As required- daily in dry spells mainly April-September.	x
		D	Refirm new tree / shrub planting	February and after strong winds	Annually and as required following inspection.	x
		E	Removal of debris and litter	Throughout	Each maintenance visit.	x
		F	Plant replacements and reinstatement to Year 5 when instructed	November to March	Annually next following planting season.	x
		G	Fertiliser	March	Annually.	x
		H	Top up mulch to 60mm or 75mm depth (bark or gravel - refer to specification)	November	Annually.	x
2. New tree planting (incl. standard trees, multi-stemmed specimens and feathered trees)	To ensure that trees establish and remain in a healthy condition.	A	Establishment maintenance (weed control, fertiliser, tree guy wires, refirming, formative pruning)	As necessary following inspection	As required.	x
		B	Maintain 1m diameter weed free area, adjust soil and maintain depth of mulch	As necessary following inspection	As required.	x
3. Existing Trees	To ensure continued healthy growth of trees and safety of the site	A	Inspect to record pests and diseases, deadwood, impaired physiological and structural condition	Late spring/summer and following severe weather (heavy snow, strong wind)	Annuallly.	x
		B	Tree management operations or removal as required (observing Tree Preservation Orders and Conservation Areas as well as wildlife legislation)	As necessary in winter or immediately following receipt of inspection report if urgent action is required	As required.	
4. Native Hedgerow	To ensure the healthy establishment of new hedgerows. To encourage bushy side growth of hedgerow and maintain A-shaped profile once established.	A	Establishment pruning- heavy trim sides first year to encourage bushy side growth followed by light trimming to sides until established.	November- March	First year.	x
	To provide more fruit, berries, flowers and nesting opportunities. To protect from rabbit damage during establishment phase.	B	Trimming- alternate sides on an annual basis to promote berrying/ fruit	November- February	Once, annually on alternate sides, from Year 2 onwards.	x
5. Low Ornamental Hedge	To maintain a neat level height appropriate for species. To control weed growth.	A	Pruning to encourage best display of given species, taking into account of natural habit and form:			
			a) Winter flowering	Prune Spring	Annually	x
			b) Shrubs flowering between March and July	Prune immediately after flowering	Annually	x
			c) Shrubs flowering between July and October	Prune back to old wood in winter	Annually	x
		B	Weed Control	March- September	As required	x
		C	Soil aeration	April	When required	x
		D	Soil level readjustment/ edging	Spring	Annually	x
6. semi-Native/Native Shrub Mix	To create a good, healthy block of semi-natural vegetation.	A	Ensure the area is kept entirely free of weeds by careful application of Roundup 3 times per annum around each shrub until canopies close.	As necessary following inspection	3 times per annum.	x
		B	Strim off weed growth and remove arisings off site. Avoid damage to tree and shrub stems from nylon filament rotary cutters or other mechanical tools.	As necessary following inspection	3 times per annum.	x
		C	After 5 years establishment, management of the planting will be low key with minimal management intervention to reduce disturbance and allow a semi-natural vegetation establish.	-	-	-
7.Ornamental planting - shrubs and herbaceous material	To provide attractive and healthy landscape year-round. To create healthy attractive plant mixes. To control weed growth.	A	Pruning to encourage best display of given species, taking into account of natural habit and form:			
			a) Winter flowering	Prune Spring	Annually	x
			b) Shrubs flowering between March and July	Prune immediately after flowering	Annually	x
			c) Shrubs flowering between July and October	Prune back to old wood in winter	Annually	x
		B	Thinning	As necessary following inspection	Annually if required	x
		C	Weed Control	March- September	As required	x
		D	Soil aeration	April	When required	x
		E	Soil level readjustment/ edging	Spring	Annually	x
		F	All herbaceous perennials and ornamental grasses that die back in winter to soil level can be cut back inn autumn and winter, using the following guidance: •Using a knife, shears or secateurs, cut stems close to the 'crown' or dormant base of the plant •If there is any young growth, cut to just above it •Take the opportunity to remove weeds, digging out those with thick or fleshy roots •Cut back perennials that produce leaves and flower stems from below the soil level, to soil level •Less severely cut back perennials showing new basal shoot growth (e.g. Sedum) •Any attractive dead stems or flower heads can be left until early spring to provide structral interest throughout the winter. •Seperate and dispose of diseased material (showing signs of leaf-spots, mildew and rusts, for example).	Autumn / Winter	Annually	x
		G	Evergreen perennials are not to be cut back, but should be tided during spring and summer by removing dead foliage.	Spring and Summer	Annually	x
		H	Thinning herbaceous perennials	Spring	As required	x
		I	Maintain climber growth and train along wires where necessary	Mach - September	As required.	x
8. Amenity Grassland	Good sward of even colour and smooth gradients. Height maximum 50mm	A	Reinstatement of eroded / damaged areas:	May-September	As required	x
		B	Cutting, remove arisings, trim edges and collect trimmings- remove	April-October Note: allow six weeks between end of flowering to cutting bulbs areas. Note: Ox-Eye Daisy drifts from end of May do not cut until end of August.	15 visits. Maintain 50-70mm height. Approx. every 2 weeks in growing season	x
		C	Reforming edges to paths	Autumn	Annually	x
		D	Fertiliser- Spring	April	Annually	x
		E	Fertiliser- Autumn	October	Annually	x
		F	Light scarification / raking	March	Annually (if required)	x
		G	Weed control	March - October	As required	x
9. Bulbs	To display to best advantage.	A	Areas of bulbs shall be left uncut until after they have finished flowering and their foliage yellowed and died back, after which they shall be cut as part of the routine grass cutting regime (see 8 above).	Throughout, according to flowering time.	As required	x
10. Hedgerow Meadow Mix e.g. Emorsgate EH1 - Hedgerow Mixture or similar	Maintain to achieve the greatest species diversity. Prevent future encroachment by scrub/ saplings. Control coarse grasses from outcompeting perennial wildflowers.	A	Year 1 Establishment cut (to a height of 40-60mm)- AUTUMN SOWN. Remove cuttings if dense	Monthly August-October	3	x (Y1)
		B	Year 1 Establishment cut (to a height of 40-60mm) SPRING SOWN. Remove cuttings if dense.	6 weeks after sowing. Monthly May - October	6	x (Y1)
		C	Cutting (after establishment): Cut to 40-60mm after flowering. In all cases, remove the clippings. Leave a 1m width margin closest to the hedgerow as an undisturbed refuge for wildlife - cutting every 2-3 years.	October / November	Annually	x

REV	DATE	DRAWN BY	CHECKED BY	REVISION COMMENT
B	08.10.20	KM	Ecus	Updated schedule
A	27.02.20	HT	Ecus	Preliminary

DRAWING STATUS: For Planning

ecus ENVIRONMENTAL CONSULTANTS
Brook Holt
Blackburn Road
Sheffield S61 2DW
Tel. (0114) 2669292
www.ecusltd.co.uk

Job
Land off Helme Lane, Meltham

Title
Maintenance Schedule

Drawn by	Date	Scale	Drg. no.
HT	Feb 20	N/A at A1	14296_LD_04