

Landscape Management and Maintenance Plan

Phase 1 & 2

Freeks Farm, Burgess Hill
S00023_L_DE_HB1_009 Rev C2
April 2021



MURDOCH WICKHAM
THE LANDSCAPE ATELIER

Freeks Farm, Burgess Hill
Phases 1 & 2 of Burgess Hill Northern Arc East
Landscape Management and Maintenance Plan
April 2021

Contents

		Page
1	Introduction	1
2	The Proposed Development and Green Infrastructure	4
3	Management Responsibilities and Liabilities	9
4	Vision and Management Aims	11
5	Management Objectives and Prescriptions	13
6	Typical Annual Maintenance Schedules	30
7	Monitoring and Review	32

Figures

Figure 1: Landscape Masterplan (Murdoch Wickham)

Appendix A: Phase 1 Drawings

Appendix B: Phase 2 Drawings

1. Introduction

This Landscape Management and Maintenance Plan (LMMP) has been prepared in accordance with the requirements of Planning Condition No. 13 of Planning Application DM/18/0509 approved by Mid Sussex District Council on 24th July 2019 relating to an application for residential development on land west of Freeks Lane, Burgess Hill, West Sussex, specifically:

Residential development comprising up to 460 dwellings, public open space, recreation areas, play areas, associated infrastructure including roads, surface water attenuation and associated demolition (outline application with all matters reserved except for principal means of access from Maple Drive).

Condition 13 states:

No phase of the development shall be occupied until a landscape management plan for that phase, including long- term design objectives, management responsibilities and maintenance schedules for all landscaped areas (except privately owned domestic gardens), has been submitted to and approved in writing by the LPA. The landscape management plan shall be carried out as approved and any subsequent variations shall be agreed in writing by the LPA. The scheme shall include the following elements:

- *detail extent and type of new planting (NB planting to be of native species)*
- *details of maintenance regimes*
- *details of any new habitat created on site*
- *details of treatment of site boundaries and/or buffers around ancient woodland*
- *details of management responsibilities*

Reasons: To ensure the protection of wildlife and supporting habitat and secure opportunities for the enhancement of the nature conservation value of the site and to accord with Policy DP38 of the Mid Sussex District Plan 2014 - 2031.

A LMMP was prepared in July 2020 with reference to Phase 1 of the development as shown on the Landscape Masterplan (Figure 1), to include the southern part of the site and the south eastern entrance area. Detailed planting plans for Phase 1 are included in Appendix B.

This updated LMMP includes Phase 2 of the development, to the north of Phase 1. The LMMP relates to all hard and soft landscape elements, including retained landscape, associated with the landscape infrastructure and public realm for Phases 1 and 2.

The LMMP draws on the following documents prepared in support of the planning application:

- Freeks Farm, Burgess Hill, Ecological Mitigation Strategy (EMS) (AECOM, October 2019)

The EMS considered a range of identified ecological constraints associated with the development (Phases 1 and 2) and included measures for the enhancement of retained wildlife habitat and the creation of new habitats to mitigate anticipated habitat loss within the development. The management objectives and prescriptions for areas of retained and new habitat set out in this LMMP are broadly consistent with recommendations in the EMS.

- Freeks Farm Reptile Mitigation Strategy (AECOM, April 2020)
- Freeks Farm Great Crested Newt Non Licenced Method Statement (AECOM, April 2020)
- Burgess Hill Planning Submission (Arboriculture) Arboricultural Impact (Tree Loss) Assessment, Tree Survey To BS5837:2012 Tree Survey And Retention & Removal Plan (FLAC, August 2019)

The purpose of this LMMP is to:

- Set out the principal management liabilities and responsibilities associated with the site;
- Describe the management aims and objectives and prescriptions for each element of the scheme, including hard landscape features;
- Set out a typical annual maintenance schedule;
- Describe requirements for monitoring and review.

This LMMP does not specifically address management responsibilities, but it is anticipated that open space, landscape infrastructure planting and wildlife habitat described in this document will be managed by a Management Company on behalf of residents.

The LMMP includes prescriptions which will be applicable to the site for up to 10 years. The management prescriptions include both annual and cyclical or periodic operations, such as tree thinning, and suggested frequencies for inspections, monitoring and repeat surveys. For cyclical operations such as tree thinning, suggested frequencies and scopes of work are defined. These should all be subject to review by the Site Manager nearer the time, to ensure operations are carried out at the optimum time and frequency and prescriptions deliver the intended management outcomes. Where necessary, in particular in relation to retained and new wildlife habitat, the advice of a suitably qualified ecologist should be sought to inform management decisions. Establishment maintenance prescriptions and recommended timeframes are also included for recently created landscape features.

The LMMP also includes recommendations for surveys and monitoring in order to inform future decisions on management and maintenance.

Figure 1: Landscape Masterplan

Legend

- Site boundary
- Existing trees & vegetation
- Proposed trees & vegetation
- Proposed shrubs
- Proposed hedges
- Native buffer planting
- Private realm
- Amenity grassland
- Attenuation basin
- 240 gauge tegula block paving
- 160 gauge tegula block paving
- Gravel dressed path
- Concrete block paving with a gravel finish
- Granite sett rumble strip
- Bitumen macadam
- LAP Play Area
- LEAP Play Area
- NEAP Play Area
- Existing watercourse
- Public right of way

Attenuation basin, refer to 1543-011
Attenuation Basin Landscape Vignette

Native buffer tree planting
along the site perimeter

Hedgerow planting and
native buffer tree planting

Pocket Park and LAP

Attenuation basin

Footway/cycleway

LEAP, refer to 1543-008 Northern
Gateway Landscape Vignette

Existing pond retained and enhanced
with additional planting and clearing

Existing retained tree and
greenway to Freeks Lane

Square, refer to 1543-007 Central
Square Landscape Vignette

Existing hedgerow retained and
connected with additional planting

Green Super Highway connecting
onto Freeks Lane

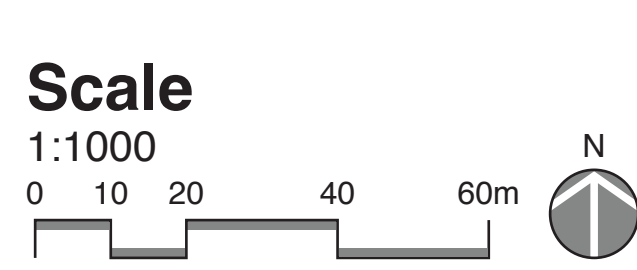
River crossing, refer to 1543-006 North-
South Gateway Landscape Vignette

Square, refer to 1543-009 Entrance
Square Vignette

Footway/cycleway

Planted swale

NEAP and MUGA, refer to 1543-005
Maple Drive Entrance Landscape Vignette



2. The Proposed Development and Green Infrastructure

2.1 Existing Site

The Site is located west of Freeks Lane at the northern fringe of Burgess Hill. The Arboricultural Impact Assessment (AIA) and Tree Survey, and Ecological Mitigation Strategy identify trees, woodland and other landscape features and habitats on site which are to be retained, protected and enhanced under the development proposals.

2.2 Trees and woodland

The AIA identifies a substantial number of mature trees, especially pedunculate oak (*Quercus robur*), tree groups featuring largely native species and woodland, including:

- Eastern boundary: much of the eastern Site boundary features a tree belt comprising mature/semi-mature trees of mixed deciduous species. The majority of trees are offsite, immediately adjacent to the Site boundary
- Substantial areas of existing woodland in the north and western areas of Phase 2, between the River Adur which follows a section of the Site boundary and the proposed development. These areas include a number of large oaks, alder and Scots pine with either sparse or more dense understorey of eg hazel, holly and hawthorn. Browsing by livestock and wild limits regeneration of taller tree species.
- Native hedgerow along the eastern Site boundary to be retained, with gaps replanted and routine management enhanced.

The AIA also identifies an area of Ancient and Semi Natural Woodland (ASNW) (Big Wood) to the north east of the Site and the requirement for a 15m buffer to be maintained between the ASNW and proposed development.

2.3 Ecological Mitigation Strategy

The EMS (October 2019) identifies ecological constraints associated with the proposed development Site and sets out mitigation strategies for habitats and species during construction and broad management recommendations post completion. This LMMP includes management objectives and prescriptions for retained habitats which are broadly consistent with the EMS management recommendations. These prescriptions should be reviewed and revised as appropriate in accordance with any updates to the EMS. Ongoing management regimes for the protection and enhancement of retained habitats and species identified in the EMS should be subject to regular review by the Site Manager in consultation with a suitably qualified ecologist.

The EMS identifies a number of priority habitats on site and assesses any measures required for protected species which may be present. Of particular relevance to the Site (including habitat to be retained) are:

- Areas of semi-natural broadleaved woodland (over 99% to be retained)
- Native hedgerow
- Pond

The EMS recommends creation of new habitat, including:

- Woodland buffer planting using native species to provide food for birds and small mammals
- New/replacement native hedgerow planting
- SuDs ponds to enhance biodiversity
- Wildflower grassland areas

Measures for the enhancement of retained areas, and for creation of new habitat and proposed planting, are set out in Section 2.4 of this LMMP. Ongoing management of these areas (and establishment maintenance for newly created habitats) is addressed in the management prescriptions in this LMMP (Section 5).

The EMS also recommends, as part of mitigation measures for habitat loss:

- Bats: boxes within retained woodland, creation of suitable new habitat offering good connectivity, and enhanced management of retained habitat
- Dormouse: dormouse nest boxes, creation of suitable new habitat offering good connectivity, and enhanced management of retained habitat
- Amphibians: hibernacula and refugia, creation of suitable new habitat, including new SuDs ponds, offering good connectivity, and enhanced management of retained habitat
- Reptiles: Creation of new woodland and wildflower grassland
- Nesting birds: creation of new hedgerow and woodland

2.4 Proposed Development and Green Infrastructure

The proposed residential development comprises up to 460 units with a principal access from Maple Drive.

The overall Landscape Infrastructure to the residential areas is shown on Figure 1 (Landscape Masterplan).

The residential development incorporates public realm and streetscape with specimen tree planting, ornamental shrubs, climbers and hedge planting, amenity turf with occasional swathes of bulb planting, open space and semi-natural areas of trees and woodland, species rich grassland and native shrub planting. Existing and new ponds, swales and attenuation basins will form a sustainable drainage (SuDS) system across the site and contribute to surface water management, visual amenity, recreation and access to nature, biodiversity, and habitat enhancement and creation.

The AIA (August 2019) identifies a substantial number of existing trees and woodland groups, including high and medium quality early mature/mature, chiefly oak, specimens and woodland in the northern and western parts of the Site associated

with the river corridor and along much of the length of the eastern Site boundary¹. Although a small number of existing trees are to be removed, either for arboricultural reasons or to facilitate the development, the majority of existing trees will be retained and will form a key contributor to boundary structures, visual amenity, habitat and biodiversity and will benefit from enhanced management and from the protection afforded by proposed landscape buffer planting.

Proposals include mitigation planting in areas of open space comprising new tree and woodland planting, native shrub mix, species-rich grassland and SuDS ponds and features intended to optimise biodiversity and habitat opportunities for wildlife as well as create visual and recreational amenity within the landscape setting for the development. Details of mitigation and woodland edge planting are shown on plans within Appendix B to this LMMP².

Existing features in the northern part of the Site (Phase 2) include areas of woodland, grassland and a pond. These will be retained and will be enhanced by newly created areas of habitat to mitigate for habitat loss incurred as a result of the proposed development and to create a more natural, graduated woodland edge. Woodland edge planting includes a suitable woodland edge grass mix around the perimeter of the existing woodland and a wider area of meadow grass mix to provide food and shelter for wildlife. The meadow areas will feature new tree planting.

The existing pond within the area of retained woodland will be enhanced with new aquatic and marginal planting and more active management. New attenuation ponds will form a central feature in the mitigation area, planted with aquatics and marginal, including pre-planted coir rolls, and set within meadow grass suitable for wetlands and new wetland trees. Details are shown on the Northern Woodland Edge Planting Plan (S00034_L_S_HB2_007) and Northern Mitigation Planting Plan (S00034_L_S_HB2_001). The ponds will form part of a site-wide SuDS system, which also includes new ponds within the Phase 1 area, one close to the southern boundary and the second in an area of open space to be created between the spine road and eastern boundary south of the river crossing. The pond areas will feature marginal and aquatic planting, new meadow grassland and specimen trees and will be maintained for the enhancement of wildlife habitat and biodiversity, as a contributor to the SuDS network and for the benefit of residents providing access to nature and visual amenity.

The eastern boundary will be reinforced with a native shrub mix and areas of woodland edge grass mix to create a graduated woodland edge forming a transition from the built form and infrastructure associated with the development to the neighbouring wooded boundary, to create new areas of wildlife habitat consistent with the recommendations in the EMS and to provide a visual buffer to protect the adjacent Public Right of Way which follows the eastern boundary. The existing native hedgerow will be retained and enhanced. The newly created habitats and woodland edge will be managed according to sound ecological principles to enhance

¹ Burgess Hill Planning Submission (Arboriculture) Arboricultural Impact (Tree Loss) Assessment, Tree Survey To BS5837:2012 - Tree Survey And Retention & Removal Plan (FLAC, August 2019)

² Phase 2 Northern Mitigation Planting Plan (S00034_L_S_HB2_001), Phase 2 Eastern Mitigation Planting Plan (S00034_L_S_HB2_002) and Northern Woodland Edge Planting Plan (S00034_L_S_HB2_007)

wildlife habitat, biodiversity and connectivity with the wider landscape, to buffer existing areas of woodland from the development, and to maintain a strong boundary structure which enhances the landscape setting to the development.

The Phase 1 western boundary will be planted with a native hedgerow and trees to create a soft landscape boundary structure which buffers the development from existing development to the west (a waste transfer site and, north of this, an area of more recent residential development at Fairbridge Way). There will be a further area of native buffer planting along the eastern part of the southern boundary to create a soft landscape boundary between the new built form and adjacent open grassland.

The south eastern part of the Phase 1 development includes the principal site access from Maple Drive. The landscape setting to the access road will include areas of meadow and new tree planting to provide a soft landscape edge north of the access road. The area south of the access road will feature a children's play area and MUGA (Multi Use Games Area) set in areas of meadow. New hedging around the play/games facility areas, combined with new tree planting around the south and eastern edges to the play area, will buffer these areas from the access road and help enhance tranquillity by screening views of the access road and Maple Drive. Retention of existing trees, planting of new trees and the creation of areas of meadow and planting of hedges will contribute to wildlife habitat and biodiversity in the entrance area.

A pocket park and LAP (Local Area for Play) will be created in the southern part of the site (Phase 1), adjacent to the site's western boundary. The area will be turfed and will include scattered trees. New hedge and shrub planting will buffer this area from proposed built form to the north, east and south. The northern part of the site (Phase 2) features a Neighbourhood Equipped Area of Play (NEAP) set within an area of open space. This area will be turfed but will also include a safety grass matting surface under the Crawling Pyramid. Other play equipment will feature natural elements including timber logs and Gabbro boulders. A Local Equipped Area for Play (LEAP) will be created within the northern woodland edge in an area of open space comprising new meadow and trees to enhance existing tree cover, provide a buffer between the proposed residential area and the spine road and create an attractive landscape setting for the play area.

The culvert located at the river crossing point will be planted with aquatics and marginal and will be set within areas of meadow created around existing semi-mature/mature trees to offer an attractive visual feature and habitat and foraging opportunities for wildlife. Management should take account of statutory requirements associated with maintenance of water flow and flood risk and prevention of obstructions and appropriate ecological management to optimise biodiversity value.

Hard landscape will include adoptable bitumen macadam road and footway surfaces. Parking bays and private drives will be surfaced with a range of block paving.

It is anticipated that in due course the spine road will be extended northwards to the site boundary through a proposed area of new grassland as new phases of

development are approved. This LMMP should be updated accordingly to take account of landscape proposals.

The following drawings show the proposed hard and soft landscape treatment associated with the site and have informed the preparation of the LMMP:

Phase 1

- 1543-010E Rev E Landscape Masterplan (Murdoch Wickham, August 2019)
- S00023 C S HB1 007 T3 Engineering Layout Sheet 1 (MLM, 27.05.2020)
- S00023 C S HB1 008 T3 Engineering Layout Sheet 2 (MLM, 27.05.2020)
- S00023 C S HB1 010 T2 Hard Landscaping Layout Sheet 1 (MLM, 04.05.2020)
- S00023 C S HB1 011 T2 Hard Landscaping Layout Sheet 2 (MLM, 20.05.2020)
- S00023 L S HB1 003 C3 Residential Phase 1 Planting Plan Sheet 1 (Murdoch Wickham, 03.07.2020)
- S00023 L S HB1 004 C3 Residential Phase 1 Planting Plan Sheet 2 (Murdoch Wickham, 03.07.2020)
- S00023 L S HB1 005 T3 Residential Phase 1 Western Mitigation Planting Plan (Murdoch Wickham, 11.05.2020)
- 21089rev3 Plan (Playdale, 06.02.2020)
- 186402-S00033 C S IN2 001 C3 Phase 1 Engineering Layout (Ardent, 11.10.2019)
- 186402-S00033 C S IN2 007 C2 Phase 1 Section 38 Agreement Plan (Ardent, 11.10.2019)
- 186402-S00033 C S IN2 011 C2 Phase 1 Surface Finishes Plan (Ardent 11.10.2019)
- S00033 L S IN2 001 C3 Infrastructure Phase 1 MUGA and Entrance Planting Plan (Murdoch Wickham, 25.10.2019)
- S00033 L SE IN2 003 C3 Infrastructure Phase 1 Entrance Planting Sections (Murdoch Wickham, 25.10.2019)

Phase 2

- S00034_L_S_HB2_001 C1 Residential Phase 2 Northern Mitigation Planting Plan (Murdoch Wickham 25.10.2019)
- S00034_L_S_HB2_002 C1 Residential Phase 2 Eastern Mitigation Planting Plan (Murdoch Wickham 25.10.2019)
- S00034_L_S_HB2_003 C1 Residential Phase 2 Planting Plan Sheet 1 (Murdoch Wickham 11.08.2020)
- S00034_L_S_HB2_004 C1 Residential Phase 2 Planting Plan Sheet 2 (Murdoch Wickham 11.08.2020)
- S00034_L_S_HB2_005 C1 Residential Phase 2 Planting Plan Sheet 3 (Murdoch Wickham 11.08.2020)
- S00034_L_S_HB2_006 C1 Residential Phase 2 Planting Plan Sheet 4 (Murdoch Wickham 11.08.2020)

- S00034_L_S_HB2_007 T1 Northern Edge Woodland Planting Plan (Murdoch Wickham 11.08.2020)
- S00033_L_S_IN4_004 T1 Infrastructure Phase 3 Culvert Works Planting Plan (Murdoch Wickham 17.07.2020)
- S00034_C_S_HB2_041 T3 Hard Landscaping Layout A0 Sheet 1 of 4 (CTP 19.02.2021)
- S00034_C_S_HB2_042 T3 Hard Landscaping Layout A0 Sheet 2 of 4 (CTP 19.02.2021)
- S00034_C_S_HB2_043 T3 Hard Landscaping Layout A0 Sheet 3 of 4 (CTP 19.02.2021)
- S00034_C_S_HB2_044 T3 Hard Landscaping Layout A0 Sheet 4 of 4 (CTP 19.02.2021)

The above drawings (and subsequent amendments) should be referred to with regard to any remedial or replacement works relating to the hard and soft landscape.

There are substantial areas of trees and woodland on the site perimeters. These are described in the Arboricultural Assessment prepared by FLAC (August 2019). Only trees within the site boundary are within the scope of this LMMP. However, where appropriate, management objectives and prescriptions should take account of areas of trees and woodland which may be adjacent to the boundary or partially off site, and seek a co-ordinated approach to management of woodland areas in conjunction with relevant landowners.

The Phase 1 and Phase 2 landscape components can be sub divided into the following landscape and management types:

Landscape Type 1 – Public Realm and Streetscape

Landscape Type 2 – Open space trees

Landscape Type 3 – Retained trees and woodland

Landscape Type 4 - Buffer planting and hedgerow

Landscape Type 5 – Open space grassland

Landscape Type 6 – Ponds and SuDs

Landscape Type 7 - Play areas and MUGA.

3. Management Responsibilities and Liabilities

The majority of the open space will be the responsibility of a Management Company. It is assumed that the highway and associated streetscape network will be adopted by the local highway authority. Allocation of management responsibility across the site is shown in the Conveyance Plan (Appendix A). A clear definition of responsibilities and consistency in maintenance regimes is considered essential to

the efficient management of the estate. The prescriptions set out in this LMMP should, therefore, be adopted by all bodies with management responsibilities across the site.

The principal duties, responsibilities and liabilities on the Management Company/ Highway Authority/ and/or landowner are described below:

- The Environmental Protection Act 1990 imposes duties under section 89(1) and (2) on certain landowners and occupiers to keep specified land clear of litter and refuse, and on local authorities and the Secretary of State to keep clean public highways for which they are responsible. Duties and responsibilities are described in the Act and in the supporting DEFRA Code of Practice on Litter and Refuse (April 2006).
- Compliance with the Wildlife and Countryside Act (1981), the Conservation of Habitats and Species Regulations 2010 and subsequent legislation is required in relation to protected species and the control of invasive non-native species (see also The Weeds Act 1959). The proposals include measures to encourage wildlife through the retention and creation of habitats, which are detailed in the EMS. Regular monitoring should also be undertaken to identify the presence of non-native invasive species listed under the 1959 Weeds Act and Wildlife and Countryside Act 1981, in order to implement measures to eradicate before species can spread to other areas of the site. Potential impacts on protected species and sites should be identified prior to land management works and advice sought from a suitably qualified professional ecologist where required.
- All nesting birds are protected under the Wildlife and Countryside Act 1981. Management operations with the potential to cause harm to nesting birds should not be carried out during the nesting season (mid-February to end August).
- All mature trees should be subject to a full tree condition survey not less frequently than every five years. In high risk locations it may be appropriate to reduce the interval between inspections to e.g. 3 years. The frequency of inspection, which may be determined by the Site Manager in consultation with a suitably qualified arboriculturalist, may be varied (increased or decreased) depending on identified levels of risk associated with the trees and the site context. Annual safety inspections should also be undertaken and management implemented in accordance with the recommendations of the condition survey and safety inspections. Risk based assessments will also be undertaken as required in accordance with the tree condition survey and in response to reports of damage or risk of failure.
- Where trees are subject to Tree Preservation Orders, Conservation Areas or tree planning conditions, suitable permission will be sought from the Local Authority, prior to works.

- Ash dieback is now widespread throughout south east England. Frequencies for inspections and timeframes for removal will be advised by the arboriculturalist.
- Compliance with the Environment Act (1990) and other legislation governing the use of chemicals and pollution control.
- Compliance with the emerging Environment Bill (2020) which places obligations and responsibilities on land owners and site operators with regard to carbon offsetting, waste and resource efficiency, air quality, water management and biodiversity gain.
- Biosecurity: trees, shrubs and other plants in the UK are under threat from an increasing number of pests and diseases. Where replacement plants are required, procurement should be in accordance with relevant current legislation, regulations and biosecurity recommendations and guidelines regarding the supply and procurement of plant material. Published guidance relevant to plant supply and in general to the arboriculture, horticulture and forestry sectors on the risks associated with, and management of, pests and pathogens is available from a range of sources including the Landscape Institute and the Arboricultural Association. All plant material should be regularly monitored for signs of pests or diseases, which should be reported immediately to the Site Manager.

4. Vision and Management Aims

The overall landscape concept and design objectives are shown on the Landscape Masterplan (Figure 1). The underlying management principles and landscape design concept for the site can be summarised as:

- Creation of a strong and attractive landscape infrastructure to the residential development;
- Retention and enhancement of existing Green Infrastructure, including trees and wooded boundaries;
- Management of retained trees to ensure continued long term health and conserve and enhance amenity and biodiversity value;
- Creation of a multifunctional network of open spaces and green corridors which link with surrounding areas of countryside and the wider development area;
- Management of the retained and newly created wildlife habitat to conserve and enhance habitat for reptiles and other wildlife, consistent with the recommendations in the EMS;
- Creation and maintenance of strong landscape buffers to protect existing woodland areas and other habitat;

- Contribute to wider Green Circle³ network through provision and maintenance of linked green spaces such as multi-functional greenways, footpaths and cycleways, including existing PRowWs.

4.1 Management Aims

Green Infrastructure and Asset Value/Visual Amenity

- To provide a linked green infrastructure which flows through the site providing a strong sense of place and a high quality living environment for residents, which enhances the asset value of the residential area and provides associated benefits linked to adaptability to climate change, health and well being;
- To provide access to high quality open spaces and to nature;
- To provide a well-managed GI network offering connectivity within the site and linking to the wider landscape, in particular through the Green Circle network;
- To protect the amenity value and character of existing PRowWs within or immediately adjacent to the site.

Biodiversity

- Protect, manage and enhance retained and created habitats and the ecological contribution of the landscape setting to the area as a whole;
- Enhance connectivity through maintenance of wildlife corridors within and linking to the surrounding landscape.

General

- Maintain and enhance landscape quality;
- Ensure sustainability and effective resource management;
- Ensure all maintenance operations comply with current UK and European legislation in relation to protected species and habitats, including seasonal requirements relating to nesting birds;
- Maximise safety and security;
- Continually monitor and review landscape provision and landscape management.

³ The 'Green Circle' is a ring of existing spaces around the edge of Burgess Hill. Proposals for the wider Northern Arc East site seek to connect with and contribute to the Green Circle by providing a sustainable green corridor that allows people and wildlife to migrate between the site and its surroundings. (DAS, Rydon January 2018)

5. Management Objectives and Management Prescriptions

This section is set out by Landscape Components or Types as outlined in section 2. It also sets out objectives and prescriptions for the management of hard landscape elements, furniture and general cleansing and litter duties.

Each section is set out as follows:

- Brief description of the landscape typology or feature
- Management Objective
- Management Prescription

Where new landscapes are created, recommended timeframes for establishment maintenance post-construction are given in each prescription, although these should be subject to review by the Site Manager. For each new soft landscape element or habitat an establishment maintenance prescription is included.

Management prescriptions for features associated with the ecological enhancements draw on recommendations in the EMS.

5.1 Public Realm and Streetscape

5.1.1 Soft Landscape

Description

The public realm includes specimen trees and shrubs, shrub beds, amenity turf along verges and around residential blocks, and ornamental hedging to delineate areas of the site, eg the pocket park. Within the streetscape the proposals include amenity turf and street trees, using species such as small leaved lime (*Tilia cordata* 'Rancho') and hornbeam (*Carpinus betulus* 'Frans Fontaine'), to be planted as semi mature specimens in grassed verges or in a more formal arrangement in tree pits, eg adjacent to the main access road from Maple Drive, and species planted within grassland including maple (eg *Acer campestre* 'Elsrijk') and wild cherry (*Prunus avium* 'Plena').

Built form will be softened with perimeter shrub beds featuring ornamental flowering and fruiting evergreen or semi evergreen species such as *Mahonia eurybracteata* 'Soft Caress', *Pyracantha* 'Red Cushion', *Ceanothus* 'Blue Mound', Rosa 'Kent' and *Pittosporum tenuifolium* 'Golf Ball' to offer year round colour and seasonal interest and edged with low ground cover planting such as *Liriope muscari* 'Super Blue'. Shrub planting around block perimeters or parking courts will also feature specimen trees such as *Sorbus aucuparia* 'Shearwater Seedling' and *Pyrus calleryana* 'Chanticleer'.

Feature shrub specimens, including clipped forms, will be planted to enhance the wider shrub planting and offer height and seasonal interest, including species such as multistem snowy mespilus (*Amelanchier lamarckii*) and *Hydrangea paniculata* 'Limelight' and *Photinia x fraseri* 'Red Robin'.

Walls and fences will feature a range of climbing shrubs such as *Hydrangea petiolaris*.

Formal hedging, e.g. around the perimeter of the residential blocks, will use evergreen species such as Japanese privet (*Ligustrum japonicum* 'Texanum') or Portuguese laurel (*Prunus lusitanica angustifolia*), planted as instant hedging. A new clipped hornbeam hedge (*Carpinus betulus*) will be planted (using container grown stock) to create a soft landscape boundary around the new play area close to the entrance off Maple Drive and the LEAP within the Phase 2 area.

Areas of amenity turf will be underplanted with bulb drifts using wild daffodil (or Lent lily) (*Narcissus pseudonarcissus*) to provide attractive areas of spring colour. Row lawn Medallion will be used for amenity turf.

Hard surfacing within the public realm comprises a mix of surfaces including tarmacadam, paving slabs, block paving for footways and parking courts and gravel dressed paths.

Management Objectives

- To create and maintain a high quality environment for residents which is attractive and enhances the overall asset value of the residential area.

Management Prescriptions

Trees in grass, shrub areas, street and parking court trees

Establishment Maintenance (Years 1 to 5)

- Maintenance of any guying/staking systems as required; check and repair or replace stakes and ties as required to ensure healthy growth; refirm trees loosened by wind or frost;
- Irrigation as required to ensure successful establishment; from April/May water every ten days if there have been ten consecutive days of dry weather;
- Formative pruning as required, principally of street trees to ensure strong leader and a balanced head;
- Maintain 700mm mulched circle in grassed areas at 50mm depth and keep mulched area weed free;
- Street trees in tree pits surfaced with self-binding hoggin gravel: maintain hoggin at required level to ensure health and safety of tree (as advised by Site Manager);
- Replacement of losses to ensure 100% establishment by Year 5.

Post establishment maintenance

- Irrigation as necessary to ensure continued healthy growth;
- Annual inspections and further formative pruning if required;
- As newly planted trees mature, implement three/five-year tree condition survey and annual safety checks and canopy management as required in

order to maintain trees in a safe condition and pedestrian and vehicle clearances where necessary;

- Remove basal sucker growth.

Ornamental shrub planting

- Weed control by hand means or spot weed control in order to maintain beds predominantly weed free (5% weed cover tolerance);
- Top up bark mulch annually to 50 mm depth;
- Pruning appropriate to individual shrub species to promote healthy growth, good cover and desirable ornamental features including flowering, fruiting, autumn colour and stem colour (avoid siding up with hedge trimmers); manage multi-stem specimens in accordance with species requirements to maintain good structure;
- Irrigation as required to ensure successful establishment; from April/May;
- Light trimming back as necessary of excess growth overhanging footways where this impedes access;
- Climbers: remove excess growth where this impedes access. Check and repair supporting structures as required, adjust ties as required.
- Replacement of losses to ensure 100% establishment by Year 5.

Ornamental hedging/hornbeam (*Carpinus betulus*) hedge

Establishment Phase

- Maintain hedge line in a weed free condition and top up mulch as required;
- Irrigation as required to ensure establishment;
- Formative pruning (timing appropriate to species) to encourage healthy plant growth;
- New hornbeam hedge: check trunk guards at each maintenance visit and replace damaged or missing guards as necessary. Remove guards once plants established;
- Replacement of losses during Years 1 to 5.

Annual maintenance (post-establishment)

- Maintain in weed-free condition; hand weed to remove climbers such as bind weed;
- Top up bark mulch annually to 50 mm depth;
- Watering if necessary during drought conditions;
- Annual trimming in late summer to the required height (hornbeam hedge 1.2m; other hedging to be advised by Site Manager);
- Light trimming back as necessary of excess growth overhanging footways where this impedes access.

Amenity Turf

- In first year irrigate regularly to ensure turf does not dry out and establishes successfully;
- Amenity grassland to be maintained at heights of between 25 and 50 mm (cut roughly fortnightly throughout the growing season (mid-March to mid-October); re-form edges abutting hard surfaces; remove arisings;
- Monitor condition and cover to maintain a predominantly grass sward with 90% cover;
- Weed control using a suitable selective herbicide (portable applicator and spot treatment if required) to control invasive weed species eg dandelion;
- Aerate areas of poor cover, reinstate worn areas with turf of quality and appearance to match existing and overseed bare patches, as required;
- Do not cut bulb areas until (approximately 6 weeks) after bulbs have flowered and died back (early/mid June);
- Where appropriate, leave swathe cuts of less frequently mown grass along the edge of native buffer planting (to be advised by Site Manager);
- Monitor for evidence of compaction for instance due to unauthorised vehicle access or parking and relieve compaction if required. Where necessary install temporary fencing to prevent unauthorised access.

5.1.2 Hard surfaces

Description

Parking areas and pedestrian routes within the residential areas and wider public realm combine bitumen macadam for the road surface and footway and a range of paving slabs and block paving.

It is anticipated that the main road and pedestrian network will be adopted and maintained by the local highway authority. Street cleansing will be the responsibility of the highway authority in accordance with requirements of the Environmental Protection Act.

See also Section 5.10 Litter, Leaf and Snow and Ice.

Management Objective

- To maintain a high quality, safe and accessible pedestrian and vehicular network for all users.

Management Prescription

- Street cleansing in accordance with local authority prescribed frequencies;
- Monitoring of condition of street and footway networks and repairs as required to maintain a safe and accessible network;
- Monitoring and removal of weed growth, in particular in block paved areas (levels of weed growth will be influenced by levels of use and frequency of cleansing) to maintain permeability;

- Trimming back overhanging growth to enable access to vehicles;

5.2 Open space trees

Description

The development will include a number of areas of open space featuring new tree planting around the site perimeter to reinforce existing vegetation in providing a buffer between the site and surrounding area, in open space and park areas to enhance the existing woodland edge, especially in the northern woodland area, and to enhance the landscape setting to the residential development and play areas. Trees will be planted as standards/semi mature specimens, singly or in clusters, and in new areas of meadow, including species suitable for wetland areas, to create a parkland feel. As well as the northern woodland area, this will include other key locations such as north of the access road from Maple Drive to provide a soft landscape setting to the new road and a boundary buffer with woodland blocks and open grassland to the north and around the play area off Maple Drive to create a visual, physical and noise buffer from the access road and traffic on Maple Drive.

Tree specimens include a variety of species such as field maple (*Acer campestre*) birch (*Betula pendula*), hornbeam (*Carpinus betulus*) and pine (*Pinus sylvestris*) planted in a naturalistic arrangement, and wetland species such as alder (*Alnus glutinosa*) and pollarded willow (*Salix alba*).

Management Objectives

- To create an attractive landscape setting to the residential development;
- To enhance the existing woodland edge;
- To provide enhanced and new habitat offering food and shelter for a range of wildlife and linkages to habitats in the surrounding area;
- To provide high quality open space offering access to nature and visual amenity;
- To protect the amenity value and character of PRoWs within the Site.

Management Prescription

Establishment Maintenance (Years 1 to 5)

- Maintenance of any guying systems as required; check and repair or replace stakes and ties as required to ensure healthy growth;
- Refirm trees loosened by wind or frost;
- Irrigation as required to ensure successful establishment; from April/May water every ten days if there have been ten consecutive days of dry weather;
- Formative pruning if required;
- Maintain 700mm mulched circle in grassed areas at 50mm depth;
- Replacement of losses to ensure 100% establishment by Year 5.

Post establishment maintenance

- Irrigation as necessary to ensure continued healthy growth (to be advised by Site Manager);
- Annual inspections and further formative pruning if required;
- Maintain pollarded specimens in accordance with species requirements;
- As newly planted trees mature, implement three/five-year tree condition survey and annual safety checks and canopy management as required in order to maintain trees in a safe condition and pedestrian and vehicle clearances where necessary.

5.3 Retained trees and woodland

Description

Parts of the Site, especially to the north and at the boundaries, include substantial blocks of retained woodland, as recorded by the AIA. This includes mature specimens of oak and other species as well as areas of scrubby woodland comprising blackthorn, ash, hawthorn and field maple, which although not intrinsically of high quality have a valuable screening function.

Existing woodland will be enhanced with woodland edge grassland to help create a graduated woodland edge and enhance biodiversity and wildlife habitat as part of mitigation planting (see Section 5.5). Retained woodland will benefit from the enhancement of the woodland edge and from more active management.

Some areas of woodland extend beyond the boundaries. While trees outside the site boundary are outside the scope of this LMMP, it is recommended that management is co-ordinated where possible with neighbouring landowners to maintain the health and quality of the woodland.

Management Objectives

- To manage the retained tree population in order to retain mature tree cover as a setting to the development;
- To maintain all trees in a safe and healthy condition which enhances the landscape setting to the development, contributes to the green infrastructure network and provides shelter for birds and other wildlife;
- Management of the woodland will consider the potential for usage by bats, reptiles, hazel dormouse, great crested newt and other wildlife and will seek to enhance the ecological value of the woodland through retention of deadwood where feasible and deployment of traditional woodland management techniques. Thinning and coppicing will be carried out in order to create a more open woodland structure with cuttings and brash used to create refugia and hibernation piles. Planting up of gaps will enhance connectivity;

- Ivy can provide nesting cover for birds although excess growth can increase risk of structural failures such as limb drop. Management should be advised by the Site Manager and/or a suitably qualified ecologist and reviewed annually.

Management Prescription

- Occasional thinning and/or coppicing of woodland understorey in order to maintain a strong landscape buffer with a diverse age range and structure to the woodland and a mosaic of habitats with a well-lit understorey; woodland management regimes to be agreed by Site Manager in consultation with a suitably qualified ecologist;
- Where appropriate, create and maintain small glades within the woodland areas;
- Monitor levels of invasive species such as sycamore and remove;
- Create refugia and hibernacula and habitat piles from thinnings and brush wood;
- Where possible (ie taking account of health and safety), retain deadwood to provide wildlife habitat;
- All trees in public open space and woodland edge trees: annual safety inspections (assumes no public access to the woodland);
- Trees adjacent to a PRow or in or adjacent to publicly accessible areas should additionally be checked by the Site Manager/Arboricultural Contractor after severe weather events and any works carried out accordingly. It is recommended that full tree condition surveys for all trees adjacent to a PRow, or in or adjacent to publicly accessible areas, are carried out not less frequently than every three years; all other trees within the public realm not less frequently than every five years, to be determined by the Site Manager and Arboriculturalist;
- Liaise with neighbouring landowners as necessary on tree condition and management.

5.4 Buffer planting (native mix and hedgerow)

Landscape buffer planting comprises new trees (see section 5.2), native hedgerow and native shrub mix to create and enhance boundary structures.

The planting is designed to buffer retained wooded boundaries and trees and to create a graduated woodland edge using native shrub planting and a soft landscape boundary between the site and surrounding areas. An area west of the spine road north of the river crossing will also be planted with native mix to buffer an area of open space from the spine road. Sections of existing hedgerow will be enhanced or replanted.

Native shrub species have been selected to include food plants for small mammals such as dormouse and winter foraging for birds.

Appropriate management of retained and new habitats, particularly woodland and hedgerow, will help to enhance habitat connectivity and increase available nesting habitat and foraging value for the hazel dormouse.

Eastern boundary

A native mix will be planted in swathes along the eastern boundary, using species such as field maple (*Acer campestre*), hazel (*Corylus avellana*) and dogwood (*Cornus sanguinea*) to provide a buffer between the development, farmland to the east, adjacent PRow and Ancient Semi Natural Woodland at Big Wood.

Western boundary

A new native hedgerow on the Phase 1 western boundary includes a mix of field maple, hazel, hawthorn (*Crataegus monogyna*), holly (*Ilex aquifolium*), blackthorn (*Prunus spinosa*) and dog rose (*Rosa canina*) and hedgerow trees such as field maple, hornbeam and wild cherry (*Prunus avium*).

Southern boundary

Along the southern boundary, the proposed development will be buffered from adjacent land by a continuous belt of native shrub planting and trees (mainly birch and whitebeam (*Sorbus aria* 'Lutescens')).

Southern boundary entrance area

The buffering effect of existing trees and woodland clumps will be enhanced by sections of native mix and new trees to help strengthen the boundary structure and maintain the character of the adjacent PRow.

Management Objectives

- To create dense structure to provide an attractive and efficient landscape buffer, good bird nesting habitat and shelter for wildlife;
- To provide a range of microhabitats providing cover and foraging for a range of wildlife such as birds, small mammals, reptiles and invertebrates;
- To reinforce boundary structure;
- To enhance habitat connectivity.

5.4.1 Native mix

Management Prescription

Establishment maintenance

- Check tree and shrub guards at each maintenance visit and replace as necessary; remove guards once plants established;
- Replacement of losses during Years 1 to 5;
- Maintain in a weed free condition and top up mulch as required;
- Irrigation as required to ensure establishment.

Post Establishment Maintenance

- Monitor performance of tree and shrub guards and remove when no longer required;
- Selective coppicing of edge species to create a scalloped edge to the native planting plots in order to enhance the ecological value of the woodland edges (to be advised by Site Manager in consultation with suitably qualified ecologist).

5.4.2 Native hedgerow

Management Prescription

Establishment Phase (new hedgerow and gapping up)

- Check stakes, ties and trunk guards at each maintenance visit and replace damaged or missing guards as necessary. Remove guards once plants established;
- Maintain hedge line in a weed free condition and top up mulch required;
- Irrigation as required to ensure establishment;
- Annual pruning as required to encourage healthy plant growth.
- Replacement of losses during Years 1 to 5.

Post establishment (new and existing hedgerow)

- Management should *encourage a well connected and biodiverse hedgerow network managed to increase connectivity and food resources for hazel dormouse, winter food source and structure for foraging and nesting birds and habitat for sheltering and hibernating great crested newt and reptiles⁴*.
- Where possible, cut native hedgerows as recommended by the EMS, ie *on a three year cycle over winter to allow shrubs to fruit and set seed, and cutting one third of the hedge each year to maintain a height of 3m, leaving taller trees unmanaged. The width of the hedgerow should be maintained, with the aim of a minimum of 2m width at the base.*
- Otherwise (as advised by Site Manager), annual trimming in late winter (Jan/Feb, thereby retaining winter food supply for birds and other wildlife and outside bird nesting season). Maintain at height to be advised by Site Manager. If necessary to maintain access and sight lines, consider additional trim in late summer (as directed by Site Manager, minor trim only in order to safeguard nesting birds). Where practicable, retain arisings on site either as low brash or as chippings to act as a mulch, otherwise remove (as directed by Site Manager).
- As hedgerow trees mature, implement annual safety inspections of overhanging branches, works as required to maintain trees in a safe condition; full tree condition survey every 3-5 years; monitor for pests and diseases.

⁴ EMS (Aecom 2019)

5.5 Open space grassland

Open space areas will feature a range of species-rich grassland mixes suitable for meadow grassland, woodland edge and wetland areas which will enhance biodiversity, wildlife habitat and visual amenity and will help to create a graduated edge around areas of existing woodland.

Emorsgate EW1 woodland mix will be used in the northern woodland edge area to create an attractive ground layer which buffers existing woodland from the proposed residential area and along sections of the eastern boundary. The mix includes woodland wild flowers and grasses which bloom in spring and early summer and require a level of shade to thrive, eg ramsons (*Allium ursinum*), foxglove (*Digitalis purpurea*), lady's bedstraw (*Galium verum*), common bent, sweet vernal grass (*Anthoxanthum odoratum*) and tufted hair grass. Establishment may be slower in deeper shade and may not reach 100% cover. In areas of lighter shade growth is likely to be stronger and will produce more grasses.

Emorsgate EM2 Standard Meadow mix will be used around the areas of woodland edge grass mix to create a naturalistic edge which provides enhanced biodiversity and an attractive visual amenity. EM2 features a wildflower and grass species mix characteristic of traditional meadows across a wide range of soil types and includes, for example, yarrow (*Achillea millefolium*), common knapweed (*Centaurea nigra*) and field scabious (*Knautia arvensis*), common bent (*Agrostis capillaris*), crested dogstail (*Cynosurus cristatus*) and slender creeping red fescue (*Festuca rubra*). Meadow will also be created in other open space areas across the site.

In wetland areas, around the new attenuation ponds, a wet meadow mix will provide a transition between the waterbodies and surrounding meadow. Emorsgate EG8 Wet Meadow mix is designed for seasonally wet soils based on traditional floodplain vegetation and water meadows and features additional grass species such as quaking grass (*Briza media*) and tufted hair grass (*Deschampsia cespitosa*).

The northern woodland edge will also feature an area of strong lawn grass mix (Emorsgate EG22) left to grow long to create a more naturalistic area of woodland and grassland. EG22 comprises species including slender creeping red fescue (*Festuca rubra*) perennial ryegrass (*Lolium perenne*), smooth stalked meadow grass (*Poa pratensis*), and *Agrostis* spp. The mix is designed to be resilient and tolerant of a wide range of conditions.

Mown paths will allow pedestrian access through the meadow areas. The routes may be altered periodically, as advised by the Site Manager, to avoid compaction. Mowing regimes should encourage floristic diversity and allow for the presence of great crested newt and reptiles and should therefore be agreed annually by the Site Manager in consultation with a suitably qualified ecologist.

Management Objectives

- To maintain all grassland areas in an attractive condition with good grass cover;
- To create an attractive landscape setting to the residential development;
- To provide enhanced and new habitat with good floristic diversity offering food and shelter for a range of wildlife and linkages to habitats in the surrounding area;
- To provide high quality open space offering access to nature and visual amenity;
- To protect the amenity value and character of PRoWs within the site;
- To contribute to SuDs function.

5.5.1 EM2 Meadow mix and EG8 Meadow mix for wetlands

Management Prescription

Establishment maintenance

- Perennial meadow mixes may be slow to germinate and may not flower in the first season. Control annual weeds by topping or mowing. Mow regularly to a height of 40-60mm in the first growing season, remove arisings;
- Dig out or spot treat residual perennial weeds such as dock (to be advised by Site Manager and in accordance with any restrictions with reference to land adjacent to watercourses).

Post-establishment maintenance (EM2 Standard Meadow mix)

- In subsequent years, the mix can be managed as meadow based around a summer hay cut combined with mowing through to autumn. The meadow is not mown until late summer to allow the different species to flower. Arisings should be left for up to a week to allow seeds to drop, then removed. Further mowing through autumn, as required, to a height of 50mm.

Post-establishment maintenance (EG8 Wet Meadow mix)

- In subsequent years, the type of management adopted will determine the nature of the established grassland. The grass may be regularly mown to produce lawn or managed as meadow based on a late summer cut after grasses have flowered and set seed, followed by further mowing as required until the end of the growing season. Uncut swards will become coarse and tussocky over time. Persistent perennial weeds can be controlled by selective spot treatment (to be advised by Site Manager and in accordance with any restrictions with reference to land adjacent to watercourses).

5.5.2 EW1 Woodland edge mix

Management Prescription

- Where sown under established woodland, little maintenance required during establishment but long term the mix will benefit from good tree and woodland management, as appropriate;
- Cut in late summer to height of around 75 mm and remove cuttings.

5.5.3 EG22 strong grass lawn mix

Management should aim to maintain this area as long grass.

Management Prescription

Establishment Maintenance (Year 1)

- Maintain and mow in accordance with supplier's recommendations for first season management;
- After first cut, mow regularly, progressively reducing the cut height during spring/summer to the desired height;
- Regular checks for invasive weed species and removal by hand or spot herbicide treatment;
- Scarify and re-seed any areas where cover is poor (less than 75% cover).

Annual maintenance

- Mowing to be as advised by Site Manager. Mowing until early April and again in September will enable the grass to grow longer in the summer, providing shelter for wildlife;
- Monitor condition and cover to maintain a predominantly grass sward with 90% cover;
- Weed control using a suitable selective herbicide (portable applicator and spot treatment where required) to control invasive weed species eg dandelion;
- Aerate areas of poor cover and overseed bare patches, as required;
- Monitor for evidence of compaction for instance due to unauthorised vehicle access or parking and relieve compaction if required. Where necessary install temporary fencing to prevent unauthorised access.

5.6 Ponds and SuDs

An existing pond will be retained and enhanced with additional planting. New attenuation basins will be created in a naturalistic style as part of a site wide SuDs system to contribute to surface water management, provide attractive features and access to nature within areas of open space, enhance biodiversity and create a range of microhabitats offering food and shelter for wildlife, including Great Crested Newt. Pond areas will feature marginal and aquatic planting including pendulous sedge *Carex pendula*, flowering rush *Butomus umbellatus* and coir rolls pre-planted with lesser pond sedge *Carex acutiformis*, common rush *Juncus effusus*, purple loosestrife *Lythrum salicaria*, yellow iris *Iris pseudacorus* and reed canary grass *Phalaris arundinacea*. Planted swales will be created along the route of the new

access road off Maple Drive. Ponds will be monitored by a suitably qualified ecologist for use by Great Crested Newts as part of the mitigation strategy for the wider development.

Ponds which retain water year round will provide suitable habitat for great crested newt, foraging bats and grass snake.

The culvert east of the spine road will be planted with aquatics and marginals. Management should ensure that the culvert is kept free from obstructions preventing risk of localised flooding. Vegetation management should ensure that excess vegetation does not impede flow.

Management Objectives

- To provide open water and wetland habitats providing breeding habitat for amphibians and wetland birds and foraging habitat for a range of species including bats, birds, reptiles and amphibians;
- To provide an attractive open space as part of the green infrastructure offering habitat connectivity and access to nature;
- To ensure waterbodies continue to function as part of the SuDS network.
- To maintain the efficient functioning of the culvert

Management Prescription

- Litter picking and clearance of debris from waterbody edges;
- Inspect after major rainfall events for evidence of damage and to remove litter and debris;
- Weeding to remove invasive species from marginal and herbaceous planting – annual inspections to review individual species cover – species such as yellow iris can spread and suppress other species. Hand weed to control;
- Ponds: Cut out invasive or excessive vegetation growth in autumn (Great Crested Newts are unlikely to be present in ponds November-January) on 5 year cycle (no more than 30% of pond in any one year); arisings to be left on banks for 72 hours to allow fauna to return to pond, then removed;
- When necessary, lift and divide aquatic plants, according to species (as advised by Site Manager or ecologist);
- Planted swales: cut back vegetation to 50mm (in base of swale/channel only) monthly (*subject to restrictions within bird nesting season*); remove arisings. As required, or every 5 years, silt removal may be needed (no more than 20% at each operation) to maintain water flow and SuDs function; retain arisings on banks for 24 hours prior to removal
- Culvert: remove obstructions to maintain free flow at all times. Monitor presence of invasive species such as Himalayan balsam and remove as instructed by Site Manager. Aquatic and marginal vegetation management: consider trimming alternate banks each year to remove excessive vegetation in order to maintain wildlife habitat. Silt build up may require removal from

time to time to maintain water flow. It is recommended that this is instructed as required by the Site Manager in consultation with a suitably qualified drainage engineer;

- Inspect trash screens/grilles for leaves and debris and rake off where necessary (ensuring safe access for the purpose of inspection and works and in compliance with all Health and Safety regulations).

5.7 Play areas and MUGA

The site will feature a number of areas for play. A Local Area for Play (LAP) will be created in the pocket park on the western site boundary). Within the entrance area there will be a NEAP (Neighbourhood Equipped Area for Play) for older children, including play equipment supplied by a specialist provider, and a MUGA. The NEAP will be set within an area of meadow and enhanced with hedge and tree planting, including a new hornbeam hedge (*Carpinus betulus*) around the play area (see Section 5.1) and specimen *Pyrus calleryana* 'Chanticleer' trees around the south and east of the play area off Maple Drive to create a visual, physical and noise buffer from the access road and traffic on Maple Drive. Within the northern open space area there will be a Local Equipped Area for Play (LEAP) with a mix of natural and more formal play equipment including a climbing log, see-saw, climbing frame, slide and swings. A further play area will be located near the eastern boundary, using mainly natural play elements such as Gabbro boulders and timber stepping logs. Safety grass matting will be used underneath the Crawling Pyramid.

Management Objectives

- To maintain all play area and MUGA structures, equipment and surfaces in a clean, safe and serviceable condition fit for purpose at all times.

Management Prescription

- Daily inspections and checks of all elements in accordance with maintenance guidance (manufacturer's instructions) and minor repairs as required to ensure equipment remains in a safe and serviceable condition;
- Evidence of wear and tear with potential to require equipment replacement to be highlighted and equipment replaced at earliest opportunity;
- Safety surfacing and 'Grasslok' surface to be checked and cleared as part of daily safety checks. Repair as necessary in accordance with manufacturer's instructions;
- Annual RoSPA (Royal Society for the Prevention of Accidents) inspection of all play areas and equipment and MUGA by a suitably qualified and approved RoSPA inspector.

5.8 Structures and furniture

Description

It is anticipated that structures and furniture will include timber benches, signage and lighting, bollards etc.

Management Objective

- To maintain all structures and furniture in a safe and serviceable condition, fit for purpose.

Management Prescription

- Weekly checks of all structures and furniture;
- Cleansing as required (anticipate this will be twice per annum) suggest in late spring and early autumn;
- Replacement of any furniture damaged beyond repair with identical specification, or similar, if no longer available;
- Regular checks of lighting to ensure continued operation.

5.9 Fencing, gates and boundary treatments

Description

There is a range of boundary and fencing treatments across the site, including fencing and gates round the MUGA and NEAP, walls, knee rails and close board fencing.

Management Objective

- Ensure all boundary treatments are maintained in a secure and safe condition.

Management Prescription

- Regular (weekly) site walkovers to check condition;
- Minor repairs as required;
- Replace any sections of boundary treatment which are deemed to no longer provide the appropriate secure boundary or are deemed unsafe.

5.10 Artificial wildlife habitats

Description

In addition to mitigation planting and enhanced management of existing habitats to improve habitat connectivity and optimise opportunities for wildlife, the scheme includes artificial wildlife habitats such as nesting boxes for dormice and birds or bat boxes. A number of proposed artificial habitats are described in the EMS.

Management Objective

- To maximise the use of the artificial habitats by target species.

Management Prescription

- Monitor condition and evidence of use. Where evidence of damage, a suitably qualified ecologist to advise on timing for repairs in order to avoid nesting season or hibernation periods.

5.10 Litter, Leaf and Snow and Ice

Description

Street cleansing will be the responsibility of the highway authority in accordance with requirements of the Environmental Protection Act. Litter picking within the open spaces and public realm which do not fall within the remit of the local authority shall be the responsibility of the Management Company.

Management Objective

- To ensure the open spaces and public realm are managed in a safe, serviceable and attractive condition with no litter build up.

Management Prescription

- Any evidence of fly tipping to be removed or reported to the Local Authority for removal within 24 hours (depending on location);
- Litter picking on a weekly rotation in the Public Realm and Open Space areas during summer months (April to September) and every two weeks during winter months. Site Manager to monitor evidence of litter build up and increase or decrease frequencies as necessary;
- Leaf clearance from amenity landscape areas and main streetscape landscape areas during October through to end November;
- Clearance of ice and snow from principal routes, pavements and parking courts as required.

5.11 Inspections and surveys

Description

Inspections and monitoring regimes as prescribed above are intended to monitor the condition and quality of the landscape, the effectiveness of on-going maintenance regimes and to ensure the site and individual elements remain in a safe and serviceable condition. The management prescription below provides an overview of the recommended Inspections and Monitoring and those responsible for each task.

Management Prescription

- Tree Condition Survey – Every 3-5 years – Arboricultural Contractor.

- Annual Tree Safety Inspections - Site Manager with Arboricultural Contractor.
- Trees at woodland edge and adjacent to footways or PRow – after severe weather events – Site Manager/Arboricultural Contractor.
- Annual Management Prescriptions and Maintenance Tasks Reviews - Site Manager.
- Other eg boundary treatments and furniture – regular checks to ensure maintained in a safe and serviceable condition – Site Manager.
- All play areas and MUGA – daily safety checks – Site Manager/Maintenance Team, and annual RoSPA inspection.
- Ecology – ongoing monitoring as required; survey every 5 years – suitably qualified ecologist.

6. Typical Annual Maintenance Schedule

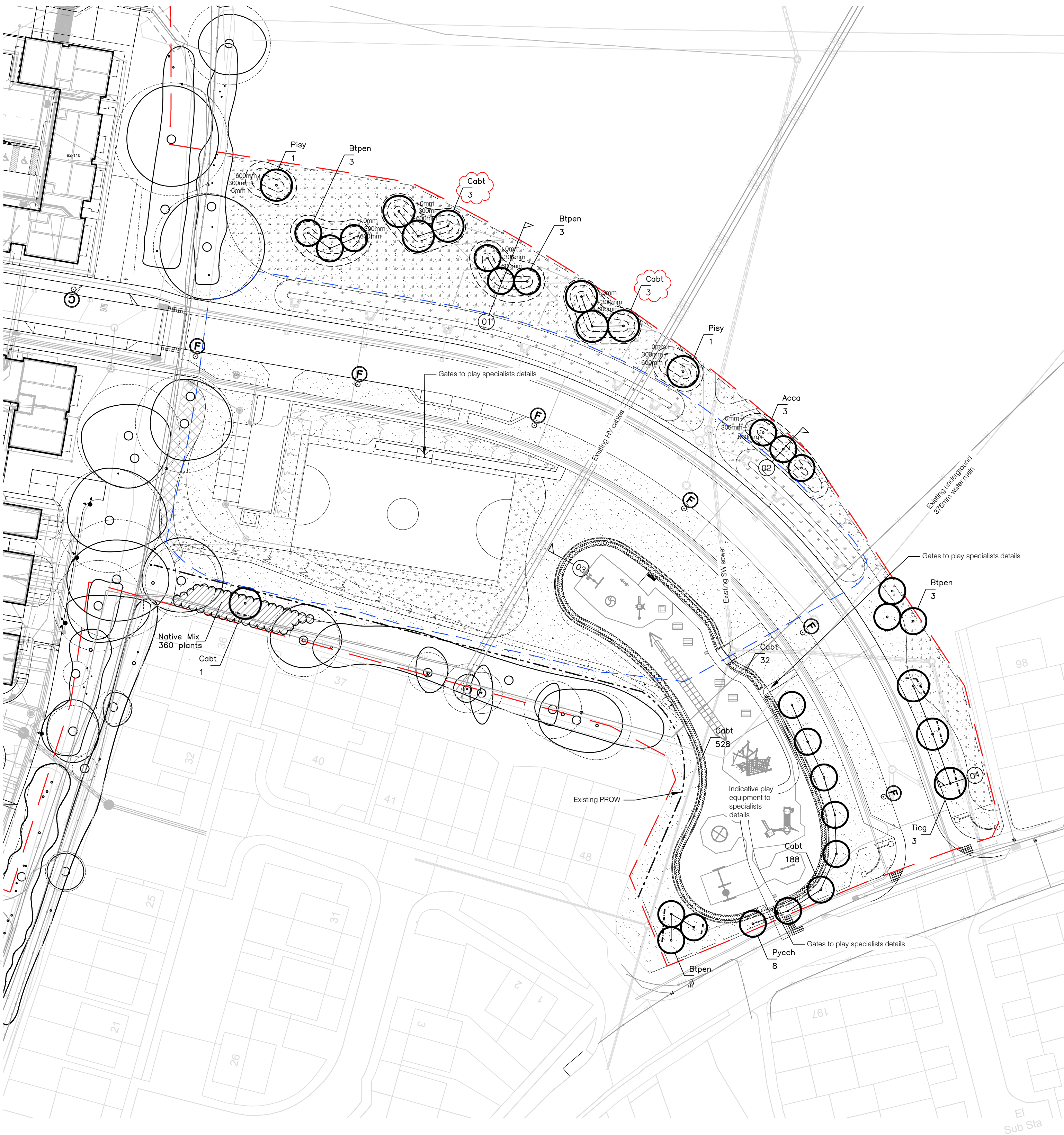
Landscape Type	Component	Operation	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Public Realm Landscape	Street Trees and Specimen Trees	Irrigation if required													
		Weed control													
		Remove sucker growth													
		Annual Inspections													
		Formative Pruning													
		Top up bark mulch													
	Ornamental Shrub Planting	Irrigation if required													
		Weed control													
		Top up bark mulch													
		Pruning (to suit species)													
		Trimming back from path edges													
	Ornamental Hedges	Irrigation if required													
		Weed control													
		Top up bark mulch													
		Pruning													
	Amenity Turf	Cutting													
		Bulb areas cutting													
		Aeration and repairs													
Amenity Landscape – Hard Surfaces	Streetscape and Public realm	Sweeping and cleansing													
		Weed control - paving													
		Leaf clearance													
		Snow and ice clearance													
Open Space Trees		Irrigation if required													
		Annual Inspections													
		Top up bark mulch													
		Formative pruning if required													
		Specialist pruning (pollarding) - frequency as advised by Site Mgr													
		Remove sucker growth													
Retained trees and woodland		Management													
		Annual Safety Inspections													
		Three/Five year condition survey													
Buffer planting	Native mix	Management													

Landscape Type	Component	Operation	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Native hedgerow	<i>Cutting (as advised by Site Mgr/ecologist)</i>												
	Hedgerow trees	<i>Annual safety inspection</i>												
		<i>Management</i>												
		<i>Three/Five-year condition survey</i>												
Grassland	EM2 meadow/EG8 wet meadow/EW1 woodland edge mix	<i>Cutting</i>												
		<i>Weeding as required</i>												
	EG22 lawn grass	<i>Cutting (or as advised by Site Mgr)</i>												
		<i>Weed control</i>												
Ponds and SuDs	Management													
MUGA & Play Areas		<i>Daily checks, repairs as necessary</i>												
		<i>Annual RoSPA inspection</i>												
Structures and furniture		<i>Inspections (weekly)</i>												
		<i>Cleansing</i>												
Fencing, gates and boundary treatments		<i>Inspections (weekly)</i>												
Artificial wildlife habitats		<i>Inspections monthly and repairs (repairs only when not in use)</i>												
Litter picking & cleansing		<i>Summer months - weekly</i>												
		<i>Winter months – every 2 weeks</i>												
Inspections and surveys	Trees	<i>Annual safety inspection</i>												
		<i>Three/Five-year condition survey</i>												
		<i>Inspection after severe weather</i>												
	Site	<i>Management Reviews</i>												
		<i>Boundary treatments and furniture</i>												
	Play areas/MUGA	<i>Daily safety checks</i>												
		<i>Annual RoSPA inspection</i>												
	Site	<i>Five-year ecology survey</i>												

7 Monitoring and Review

This LMMP and the prescriptions will be subject to annual review. At this annual review any changes to prescriptions and frequencies should be recorded. The LMMP should be subject to full review at Practical Completion and updated as necessary to reflect as built works. Suggested frequencies for inspections, surveys and monitoring are described in the main body of the document. It is recommended that a full update of this LMMP is prepared every five years. This update should be informed by the recommended three/five-year tree condition and ecology surveys.

Appendix A: Phase 1 Drawings



Legend

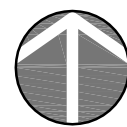
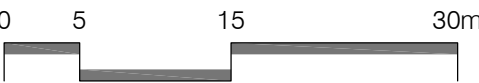
- Existing trees
- Nursery stock trees
- Shrub planting
- Native mix
- EG22 Grass mix
- EM2 meadow mix
- EW1 woodland edge mix
- EG8 meadow mix for wetlands
- ReRoot 1000 root barrier
- Extent of stabilised and treated ground - See IDOM/Merebrook report for details
- Proposed mounding to accommodate tree planting, 300mm rise increments. See MW S00033_L_SE_IN2_003 for details
- Detail Tags - See MW S00033_L_SE_IN2_003 for details

Planting
All planted areas are to be mulched with 50mm of Melcourt Ornamental Bark Mulch.
www.melcourt.co.uk
All large specimen shrubs are to be underground guyed.
EG22 Strong Lawn Grass Mixture is to be sown at a rate of 25g/m2 where specified by Emorsgate
EM2 Standard General Purpose Meadow Mixture is to be sown at a rate of 10g/m2 where specified by Emorsgate.
www.wildseed.co.uk
EW1 Woodland Mix is to be sown at a rate of 10g/m2 where specified by Emorsgate.
www.wildseed.co.uk
EG8 Meadow Grass Mixture for wet soils is to be sown at a rate of 15g/m2 where specified by Emorsgate.
www.wildseed.co.uk

Protective Shelters
All transplants are to be fitted with tubex green protective shelters in conjunction with 0.9m high 32 x 32mm softwood stakes.
www.tubex.com
0.75m high, 160mm dia. shrubshelter - for all plants except those listed below.
0.6m high, 250mm dia. netguard - for holly

Staking & Guying
Tree stakes shall be machine rounded stakes 2.4 metres x 75mm diameter, with one end pointed. Two stakes shall be driven into the base of each pit equally distant from the trunk either side of the rootball, so that 1.5m remains above finished ground level. A cross bar 900mm x 38mm x 75mm shall be secured to each post with sheradised screws.
Trees shall be secured to the cross bar using a Toms Big Block (L3) in conjunction with 50mm special reinforced rubber belt as supplied by Toms Tree Ties' (www.toms.co.uk/catalog) or other equal and approved. Each belt is to be secured to the cross bar using 4 galvanised nails per strap.
All feathered trees, multistems and trees over 20cm girth are to be secured underground using 'Platipus' Tree Anchoring and Plati-Mat systems as per the schedule below (www.platipus-anchors.com) or similar and approved. Fixing should be strictly in accordance with the manufacturer's recommendations. Where trees are guyed underground tree stakes are not to be used.
Trees up to 25cm girth - Product code RF1P
Trees 25-45cm girth - Product code RF2P
Where trees sit in areas affected by lime cement capping a deadman system is to be used, Plati-mat Deadman System RF1RDMP by Platipus or equal approved.

Scale 1:500



Baseline Information

This drawing is based on Ardent's drawing S00023_C_S_IN2_001 Phase 1 Engineering Plan

Health & Safety Comments

No specific comments

General Notes

None

Planting Notes

Soiling
For soiling information refer to Tim O'Hare's soil management plan TOHA/19/8503/AC and CPPLC Specification for Landscape Works and CPPLC Groundworks Trade Specification.

Grassed Areas (plot gardens and open/communal spaces) to be 300mm topsoil

Shrub and Transplant planting (plot front gardens and open/communal spaces) to be 300mm topsoil over 300mm imported subsoil

All depths are after firming and settlement

Tree Pits
Nursery stock trees - planting hole 1000mm x 1000mm x 700mm deep
Semi-mature trees 20-25cm girth - planting hole 1200mm x 1200mm x 1000mm deep
Semi-mature trees 25-30cm girth - planting hole 1300mm x 1300mm x 1000mm deep
The base of each planting hole shall be broken up to a minimum depth of 400mm.
GreenBlue Urban's manual watering systems are to be incorporated within all tree pits as per the schedule below:
Trees 12-18cm girth - Root Rain Metro, code RRPC4.
Trees 20-35cm girth - Root Rain Civic, code RRCVIC1.
ReRoot 1000 root barrier by green blue urban or equal approved to be installed where shown to the side of tree pits where they are located in close proximity to service runs.
Obtain further information from
www.greenblueurban.com
Any waterlogged tree pits are to be positively drained before planting.
The base of the tree pit is to be backfilled with imported washed sand and the final 400mm of the pit backfilled with topsoil. The upper 200mm is to have a 30mm compost layer mixed into the topsoil.

Trees and Shrubs
Trees are to be supplied by Deepdale in airports or rootballs during the dormant season.
www.deepdale-trees.co.uk
Nursery stock trees are to be supplied by Barcham Trees in Light Pots
www.barcham.co.uk
Shrubs are to be supplied in containers by Robin Tacchi Plants.
www.robin-tacchi-plants.com
Instant hedges are to be supplied by Readyhedge.
www.readyhedge.co.uk

Planting Schedule

Trees – all trees are to be supplied in air-pots/containers or can be rootballed if planted in winter			
Code Name	Scientific Name	Quantity	Size
Acca	Acer campestre	3	20–25cm girth
Btpen	Betula pendula	12	18–20cm girth
Cabt	Carpinus betulus	7	18–20cm girth
Pisy	Pinus sylvestris (feathered)	2	3.5–4.0m high
Pycch	Pyrus calleryana 'Chanticleer'	8	18–20cm girth
Ticg	Tilia cordata 'Greenspire'	3	20–25cm girth

Native Mix – all plants are to be supplied field grown (unless otherwise specified). Planted at a density of 3 plants per m2 (800mm centres) in random groups of species.			
%	Scientific Name	Quantity	Size
10	Acer campestre	36	80–100cm
15	Corylus avellana	54	80–100cm
5	Cornus sanguinea	18	60–80cm
30	Crataegus monogyna	108	80–100cm
5	Ilex aquifolium	18	60–80cm
10	Ligustrum vulgare	36	80–100cm
15	Prunus spinosa	54	80–100cm
5	Rosa canina	18	40–60cm
5	Viburnum opulus	18	60–80cm

Hedging – all hedging plants are to be supplied container grown			
Code Name	Scientific Name	Quantity	Size
Cabt	Carpinus betulus (4 plants per metre)	716	3L, 80–100cm

C6	02.03.21	Trees and grass revised for VE exercise
C5	20.01.21	Detail tag 04 moved, legend item referencing detail sheet
C4	14.01.21	Trees moved for highways lighting, added root barrier
C3	08.06.20	Hedge removed from MUGA, area amended for bunding
C2	27.05.20	Ardent tree pit linework removed
C1	26.05.20	Issued for construction, mounding shown for tree planting
T5	12.05.20	Drawing number changed for Phase 1 Infrastructure
T4	18.03.20	Trees removed due to drainage/capping restrictions
T3	06.03.20	Updated inline with engineers latest layout
T2	20.11.19	Revised inline with engineers latest layout
T1	08.11.19	Revised inline with comments, drawing sheet updated
Rev:	Date:	Revision History:

Countryside House
The Drive, Brenchley
Kent, ME17 2JQ
01777 265000
countryside-properties.com

The Tide Barn
Boscombe, Poole, Dorset
01328 752780
murdochwickham.com

Originator:

Project:

Freeks Farm,
Burgess Hill

Name:	Date:	Name:	Date:
Drawn By: JL	25.10.19	Approved: BS	25.10.19

Scale:	Status:
1:500 @ A1	Construction

Drawing Title:	
Infrastructure Phase 1 MUGA & Entrance Planting Plan	
Drawing No: S00033_L_S_IN2_001	Rev: C6

Baseline Information

This drawing is based on MLM Engineering Layout
C_S_HB1_007-009

Health & Safety Comments

No specific comments

General Notes

Where tree protection fencing occurs, all soil levels to be left as existing

Planting Notes

Soiling
For soiling information refer to Tim O'Hare's soil management plan TCM4/19/BS03/AC and CPFLC Specification for Landscape Works and CPFLC Groundworks Trade Specification.

Grassed Areas (plot gardens and open/communal spaces) to be 300mm topsoil

Shrub bed planting (plot front gardens and open/communal spaces) to be 300mm topsoil over 300mm imported subsoil

All depths are after firming and settlement

Finished Levels

Turfed and seeded areas 25mm above adjacent hard surfaces & 150mm below DPC
Shrub beds 30mm below adjacent hard surfaces & 150mm below DPC

Tree Pits

Nursery stock trees - planting hole 1000mm x 1000mm

Semi-mature trees 20-25cm girth - planting hole 1200mm x 1200mm x 1000mm deep

Semi-mature trees 25-30cm girth - planting hole 1300mm x 1300mm x 1000mm deep

Multi-stem umbrellas trees planting hole 1.5 x the rootball diameter x 1000mm deep

The base of each planting hole shall be broken up to a minimum depth of 400mm

GreenBlue Urban's manual watering systems are to be incorporated within all tree pits as per the schedule below

Trees 12-14cm girth - Root Rain Metro, code RRCPC1

Trees 20-35cm girth - Root Rain Civic, code RRCVC1

Trees over 35cm girth - Root Rain Civic, code RRCVC2

ReRoot 1000 root barrier to be installed where shown. Obtain further information from www.greenblueurban.com

Any waterlogged tree pits are to be positively drained before planting

The base of the tree pit is to be backfilled with imported washed sand and the final 400mm of the pit backfilled with topsoil. The upper 200mm is to have a 30mm compost layer mixed into the topsoil

Trees and Shrubs

Trees are to be supplied by Deepdale in airports or rootballs during the dormant season

www.deepdale-trees.co.uk

Nursery stock trees are to be supplied by Barcham

Trees in Light Pots

Specimen plants are to be supplied by Europlants

www.europlants.net

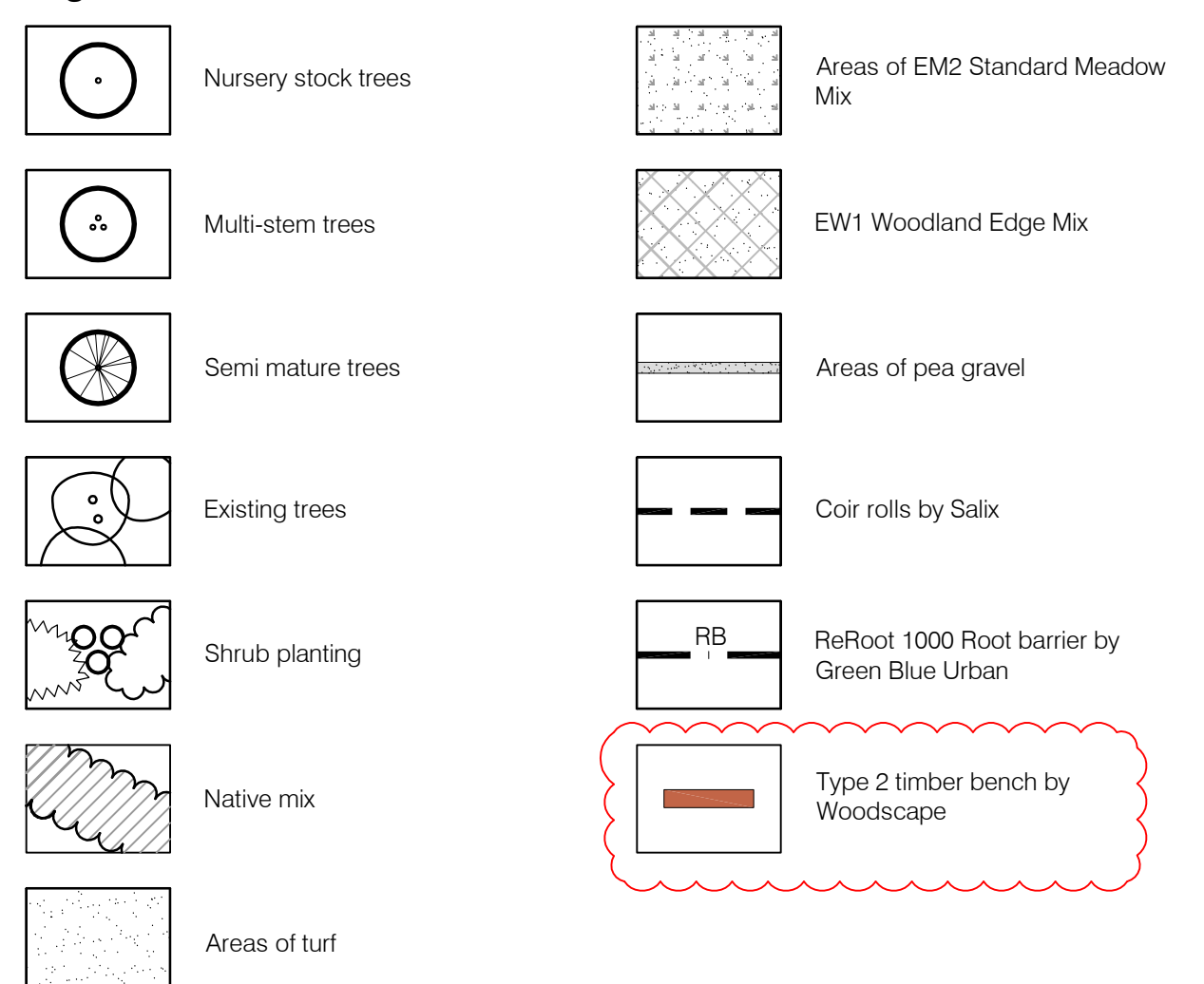
Shrubs are to be supplied in containers by Robin Tachin Plants

www.robin-tachin-plants.com

Instant hedges are to be supplied by Ready/Hedge

www.readyhedge.co.uk

Legend



Planting Schedule

Shrubs - all shrubs are to be supplied container grown (unless otherwise specified). (D) = diameter				
Code Name	Scientific Name	Quantity	Size	
Abir	Abelia x grandiflora 'Little Richard'	114	5L, 30-40cm	
Aujr	Aucuba japonica 'Rozanne'	46	5L, 40-60cm	
Brdo	Brachyglottis 'Silver Dalmouse'	88	5L, 40-50cm (D)	
Cebm	Ceanothus 'Blue Mound'	86	5L, 30-40cm (D)	
Chdwd	Chamaelirium 'White Dazzler'	86	5L, 40-60cm	
Chle	Chamaelirium 'White Dazzler'	245	5L, 40-60cm	
Cixpu	Cistus x purpureus	54	3L, 30-40cm	
Cocne	Coronilla varia	31	3L, 30-40cm	
Codcb	Cotoneaster dammeri 'Coral Beauty'	24	3L, 30-40cm (D)	
Elebb	Elaeagnus ebbingei	97	5L, 60-80cm	
Eufoe	Eurythmus fortunei 'Emerald Gaiety'	374	3L, 20-30cm (D)	
Eufae	Eurythmus fortunei 'Silver Queen'	44	5L, 40-60cm (D)	
Eujjh	Eurythmus japonicus 'Jean Hugues'	104	3L, 30-40cm	
Eujpg	Eurythmus japonicus 'President Gauthier'	104	5L, 40-60cm	
Gendr	Geranium 'Dreadnought'	42	2L	
Gri	Gratiola litorea	24	5L, 60-80cm	
Hebls	Hebe 'Blue Star'	126	5L, 30-40cm (D)	
Hemet	Hebe 'Mette'	156	5L, 40-60cm	
Hewi	Hebe 'Wiri Image'	20	5L, 40-60cm	
Hyhi	Hypericum 'Hidote'	193	3L, 30-40cm	
Hypet	Hydrangea petiolaris (climber)	12	10L, 100-125cm	
Lamun	Lavandula 'Munstead'	57	5L	
Limb	Liriodendron muscari 'Super Blue'	322	3L	
Lomog	Lonicera 'May Green'	179	3L, 30-40cm (D)	
Loni	Lonicera nitida 'Loughall Evergreen' (min 5 breaks)	109	3L, 25-30cm (D)	
Moesc	Mahonia eurybracteata 'Soft Caress'	49	5L, 30-40cm	
Nadfp	Nandina domestica 'Fire Power'	36	3L, 20-30cm (D)	
Pahen	Parthenocissus henryana (climber)	7	10L, 175-200cm	
Phfir	Photinia x fraseri 'Little Red Robin'	197	5L, 40-60cm	
Phig	Pittosporum tenuifolium 'Soft Ball'	25	5L, 40-60cm	
Prial	Prunus laurocerasus 'Otto Luyken'	247	3L, 30-40cm	
Pycu	Pyracantha 'Red Cushion'	19	3L, 30-40cm (D)	
Sckkg	Sarcococca hookeriana var humilis	146	5L, 30-40cm	
Sahu	Skimmia x confusa 'Kew Green'	162	5L, 40-60cm	
Vidav	Viburnum davidii	124	5L, 30-40cm	
Vimgt	Vincetoxicum 'Grüner Teppich'	45	2L, 30-40cm (D)	
Vtep	Viburnum tinus 'Eve Price'	78	5L, 45-60cm	
Vtib	Viburnum tinus 'Ladybird'	119	5L, 40-60cm	
Water	Waldsteinia ternata	155	2L, 25-30cm (D)	

Trees - all trees are to be supplied in air-pots/containers or can be rootballed if planted in winter				
Code Name	Scientific Name	Quantity	Size	
Accoe	Acer campestre 'Elatik'	2	20-25cm	
Algl	Alnus glutinosa (standard)	3	18-20cm	
Blpen	Betula pendula (standard)	9	16-18cm	
Moave	Malus 'Everest'	1	14-16cm	
Prap	Prunus avium 'Plena'	2	20-25cm	
Pycch	Pyrus calleryana 'Chanticleer'	3	18-20cm	
Saol	Salix alba (polaroid)	3	16-18cm	
Soil	Sorbus aria 'Lutescens'	3	16-18cm	
Tiera	Tilia cordata 'Ranch'	2	20-25cm	

Hedging - all hedging is to be supplied container grown (unless otherwise specified)				
Code Name	Scientific Name	Quantity	Size	
Litex	Ligustrum japonica 'Texanum' (4 plants/metre)	208	5L, 80-100cm	
Priva	Prunus laurocerasus 'Angustifolia' (4 plants/metre)	124	5L, 80-100cm	

Native Mix - all plants are to be supplied field grown (unless otherwise specified). To be planted at 600mm centres (3/m ²)				
Code Name	Scientific Name	Quantity	Size	
20%	Corylus avellana	112	80-100cm	
5%	Cornus sanguinea	28	60-80cm	
30%	Crataegus monogyna	168	80-100cm	
10%	Ligustrum vulgare	56	80-100cm	
20%	Prunus spinosa	112	80-100cm	
5%	Rosa canina	28	40-60cm	
10%	Viburnum opulus	56	60-80cm	

Specimen Plants - container grown clipped forms (unless otherwise specified)				
Code Name	Scientific Name	Quantity	Size	
Euala	Eurythmus alatus (multi-stem umbrella)	4	1.5-1.75m high, 100-200cm wide	
Hyph	Hydrangea paniculata 'Limelight'	24	20L	
Lano	Laurus nobilis (1/2 Standard)	2	30L, 60cm ball on 1.1m clear stem	
Lano	Laurus nobilis (clipped cone)	1	50L, 2.0-2.2m	
Moat	Magnolia strobilata (bush)	2	50L, 1.75-2.0m high	
Phfir	Photinia x fraseri 'Red Robin' (bush)	1	90L, 2.5-3.0m high	

Aquatic & Marginal Plants				
Code Name	Scientific Name	Quantity	Size	
Cocne	Cornus pendula	164	2L	
Coil	Coir roll (pre-established)	10	3m long, 200mm dia.	

Bulbs - to be planted within grassed areas in autumn				
Code Name	Scientific Name	Quantity	Size	
Napae	Narcissus pseudonarcissus	600		

Planting Schedule

Shrubs – all shrubs are to be supplied container grown (unless otherwise specified). (D) = diameter				
Code Name	Scientific Name	Quantity	Size	
Abilr	Abelia x grandiflora 'Little Richard'	124	5L, 30–40cm	
Brado	Brachyglottis 'Silver Dornmuse'	113	5L, 40–50cm (D)	
Cebm	Ceanothus 'Blue Mound'	103	5L, 30–40cm (D)	
Chdwd	Chalysia x dewitiana 'White Dazzler'	190	5L, 40–60cm	
Chle	Chalysia ternata	170	5L, 40–60cm	
Copu	Cistus x purpureus	115	3L, 30–40cm	
Codcb	Cotoneaster dammeri 'Coral Beauty'	177	3L, 30–40cm (D)	
Eabb	Eleagnus ebbingei	64	5L, 60–80cm	
Escb	Escallonia 'Apple Blossom'	48	5L, 40–60cm	
Eufdb	Euonymus fortunei 'Dart's Blanka'	225	5L, 30–40cm (D)	
Eufoe	Euonymus fortunei 'Emerald Gaiety'	303	3L, 20–30cm (D)	
Eufsq	Euonymus fortunei 'Silver Queen'	50	5L, 40–60cm (D)	
Eujjh	Euonymus japonicus 'Jean Hugues'	35	3L, 30–40cm	
Eujpg	Euonymus japonicus 'President Gauthier'	333	5L, 40–60cm	
Hebls	Hebe 'Blue Star'	133	3L, 30–40cm (D)	
Hemat	Hebe 'Metite'	152	5L, 40–60cm	
Hevli	Hebe 'Wiri Image'	95	5L, 40–60cm	
Hyhti	Hypericum 'Hidcote'	297	3L, 30–40cm	
Hypat	Hydrangea petiolaris	12	10L, 100–125cm	
Limb	Liriodendron muscari 'Super Blue'	396	3L	
Litex	Ligustrum japonica 'Texanum'	154	5L, 80–100cm	
Lomag	Lonicera 'May Green'	279	3L, 30–40cm (D)	
Lontle	Lonicera nitida 'Loughall Evergreen' (min 5 breaks)	81	3L, 25–30cm (D)	
Maesc	Mahonia eurhalestis 'Soft Caress'	226	5L, 30–40cm	
Nadfp	Nandina domestica 'Fire Power'	120	3L, 20–30cm (D)	
Pohen	Parthenocissus henryana	6	10L, 175–200cm	
Pate	Pachysandra terminalis	156	3L, 20–30cm (D)	
Phlfr	Photinia x fraseri 'Little Red Robin'	87	5L, 40–60cm	
Pitgb	Pittosporum tenuifolium 'Golf Ball'	195	5L, 40–60cm	
Priol	Prunus laurocerasus 'Otto Luyken'	122	3L, 30–40cm	
Pyrca	Pyracantha 'Red Cushion'	165	3L, 30–40cm (D)	
Sahu	Sarcococca humilis	394	5L, 30–40cm	
Skckg	Skimmia x confusa 'Kew Green'	274	5L, 40–60cm	
Skjar	Skimmia japonica 'Rubella'	19	5L, 40–60cm	
Vidav	Viburnum davidii	144	5L, 30–40cm	
Vimgt	Vincetoxicum minor 'Grüner Teppich'	239	2L, 30–40cm (D)	
Vtep	Viburnum tinus 'Eve Price'	69	5L, 45–60cm	
Vtbb	Viburnum tinus 'Ladybird'	307	5L, 40–60cm	
Water	Wolstenholmeia ternata	459	2L, 25–30cm (D)	

Specimen Plants – container grown clipped forms (unless otherwise specified)				
Code Name	Scientific Name	Quantity	Size	
Lontle	Lonicera nitida 'Loughall Evergreen' (min 5 breaks)	3	3.0–3.5m high	
Eucoc	Euonymus alatus 'Compactus'	1	35L, 1.0–1.25m	
Hypli	Hydrangea paniculata 'Limelight'	51	20L	
Moat	Magnolia stellata (bush)	2	50L, 1.75–2.0m high	
Phlfr	Photinia x fraseri 'Red Robin' (bush)	4	90L, 2.5–3.0m high	

Hedging – all hedging is to be supplied container grown (unless otherwise specified)				
Code Name	Scientific Name	Quantity	Size	
Litex	Ligustrum japonica 'Texanum' (4 plants/metre)	120	5L, 80–100cm	
Prius	Prunus lusitanica 'Angustifolia' (4 plants/metre)	454	5L, 80–100cm	

Native Mix – all plants are to be supplied field grown (unless otherwise specified). To be planted in at 600mm centres (3/2m)				
%	Scientific Name	Quantity	Size	
10%	Acer campestre	68	80–100cm	
15%	Corylus avellana	102	80–100cm	
5%	Cornus sanguinea	34	60–80cm	
30%	Crataegus monogyna	204	80–100cm	
5%	Ilex aquifolium	34	3L, 60–80cm	
10%	Ligustrum vulgare	68	80–100cm	
15%	Prunus spinosa	102	80–100cm	
5%	Rosa canina	34	40–60cm	
5%	Viburnum opulus	34	60–80cm	

Aquatic & Marginal Plants				
Code Name	Scientific Name	Quantity	Size	
Baum	Butomus umbellatus	72	2L	
Copen	Carex pendula	296	2L	
Coral	Cairn Roll (pre-established)	11	3m long, 200mm dia.	
Irps	Iris pseudacorus	95	5L	

Trees – all trees are to be supplied in air-pots/containers or can be rootballed if planted in winter				
Code Name	Scientific Name	Quantity	Size	
Acocae	Acer campestre 'Elsrijk'	3	20–25cm	
Acfab	Acer x freemanii 'Autumn Blaze'	6	25–30cm	
Algl	Alnus glutinosa	3	18–20cm	
Btben	Betula pendula	9	16–18cm	
Cabff	Carpinus betulus 'Frans Fontaine'	6	18–20cm	
Cabt	Carpinus betulus	2	16–18cm	
Maove	Malus 'Everest'	6	14–16cm	
Saor	Sorbus aria	1	16–18cm	
Soas	Sorbus aucuparia 'Sheerwater Seedling'	4	18–20cm	
Ticg	Tilia cordata 'Green Spike'	8	25–30cm	
Tiera	Tilia cordata 'Renecho'	10	20–25cm	

Bulbs – to be planted within grassed areas in autumn				
Code Name	Scientific Name	Quantity	Size	
Napse	Narcissus pseudonarcissus	900	Bulb	

S00033/LS/IN4/004 Culvert Works Planting Plan



Legend

- Nursery stock trees
- Multi-stem trees
- Semi mature trees
- Existing trees
- Shrub planting
- Native mix
- Areas of turf
- Areas of EM2 Standard Meadow Mix
- EM8 Meadow Mx for wet soils
- EW1 Woodland Edge Mx
- Bulb drifts
- Areas of pea gravel
- Coil rolls by Salix
- ReRoot 1000 Root barrier by Green Blue Urban
- ReRoot 2000 Root barrier by Green Blue Urban
- Tree pit with Hoggins self binding gravel - see S00023_L_DE_HB1_006 for more detail
- RootSpace soil cell system by GreenBlueUrban. Approximate extent of soil cells shown. See S00023_L_DE_HB1_006 for more detail
- Grasscrete to Engineers details. MLM drawing C_S_S0019 Fire Tender Vehicle Trucking Block 2

Scale 1:200

0 2 4 8 12m

Baseline Information

This drawing is based on MLM Engineering Layout C_S_HB1_007-009

Health & Safety Comments

No specific comments

General Notes

Where tree protection fencing occurs, all soil levels to be left as existing

Planting Notes

Soiling
For soiling information refer to Tim O'Hare's soil management plan TCH4/198532AC and CPPLC Specification for Landscape Works and CPPLC Groundworks Trade Specification.

Grassed Areas (plot front gardens and open/commonal spaces) to be 300mm topsoil

Shrub bed planting (plot front gardens and open/commonal spaces) to be 300mm topsoil over 300mm imported subsoil

All depths are after firming and settlement

Finished Levels
Turfed and seeded areas 25mm above adjacent hard surfaces & 150mm below DPC
Shrub beds 30mm below adjacent hard surfaces & 150mm below DPC.

Tree Pits
Nursery stock trees - planting hole 1000mm x 1000mm x 700mm deep
Semi-mature trees 20-25cm girth - planting hole 1200mm x 1200mm x 1000mm deep
Semi-mature trees 25-30cm girth - planting hole 1300mm x 1300mm x 1000mm deep
Trees over 35cm girth and Multi-stem trees planting hole 1.5 x the rootball diameter x 1000mm deep
The base of each planting hole shall be broken up to a minimum depth of 400mm
GreenBlue Urban's manual watering systems are to be incorporated within all tree pits as per the schedule below
Trees 12-18cm girth - Root Rain Metro, code RRPC4
Trees 20-35cm girth - Root Rain Civic, code RRCWC1
Trees over 35cm girth - Root Rain Civic, code RRCWC2
ReRoot 1000 and 2000 root barrier to be installed where shown
Obtain further information from www.greenblueurban.com
Any waterlogged tree pits are to be positively drained before planting
The base of the tree pit is to be backfilled with imported washed sand and the final 400mm of the pit backfilled with topsoil. The upper 200mm is to have a 30mm compost layer mixed into the topsoil.

Trees and Shrubs
Trees are to be supplied by Deepdip in airpots or rootballed during the dormant season.
www.deepdip-trees.co.uk
Nursery stock trees are to be supplied by Barham Trees in Light Pots
www.barham.co.uk
Specimen plants are to be supplied by Europlants.
www.europlants.net
Shrubs are to be supplied in containers by Robin Tachti Plants.
www.robinatchtplants.com
Instant hedges are to be supplied by Readyhedge.
www.readyhedge.com

Planting
All planted areas are to be mulched with 50mm of Melcourt Ornamental Bark Mulch.
www.melcourt.co.uk
Rowspan Medallion is to be used where turf is specified.
www.rowspan.co.uk
EM2 Standard Meadow Mix is to be sown at a rate of 10g/m² where specified by Enrosage
www.wildseed.co.uk
EM8 Meadow Mix for Wet Soils is to be sown at a rate of 10g/m² where specified by Enrosage
www.wildseed.co.uk
EW1 Woodland Edge Mix is to be sown at a rate of 10g/m² where specified by Enrosage
www.wildseed.co.uk
On timber fences climbers are to be supported using a heavy duty fixed panel wooden fan trellis 1.8m x 0.9m. On brickwork support climbers on a stainless steel wire fan with galvanised fittings, size 1.5m x 1.0m. All large specimen shrubs are to be underground guyed.

Aquatics
Coil Rolls are to be supplied by Salix and installed in accordance with their instructions. They are to be 200mm dia pre-established coil rolls 3 metres long are planted with the following aquatic plants, 10 plants per linear metre, standard mix: Carex acutiformis, Juncus effusus, Lythrum salicaria, Iris pseudacorus and Phalaris arundinacea.
www.sallan.com

Staking & Guying
Tree stakes shall be machine rounded stakes 2.4 metres x 75mm diameter, with one end pointed. Two stakes shall be driven into the base of each pit equally distant from the trunk either side of the rootball, so that 1.5m remains above finished ground level. A cross bar 900mm x 38mm x 75mm shall be secured to each post with threaded screws.
Trees shall be secured to the cross bar using a Toms Big Block (L3) in conjunction with 50mm special reinforced rubber belt as supplied by 'Toms Tree Ties' (www.toms.co.uk/catalog/) or other equal and approved. Each belt is to be secured to the cross bar using 4 galvanised nails per strap.
All feathered trees, multistems and trees over 20cm girth are to be secured underground using Platipus Tree Anchoring and Plat-Mat systems as per the schedule below (www.platipus-anchors.com) or similar and approved. Firing should be strictly in accordance with the manufacturer's recommendations. Where trees are guyed underground tree stakes are not to be used. Trees up to 25cm girth - Product code RFP1
Trees 25-45cm girth - Product code RFP2
Trees 45-75cm girth - Product code RFP3

Protective Shelters
All transplants are to be fitted with tubex green protective shelters in conjunction with 0.6m high 32 x 30mm softwood stakes.
www.tubex.com
0.75m high, 160mm dia shrubshelter - for all plants except those listed below.
0.6m high, 250mm dia. netguard - for holly

C7 02.03.21 Trees, hedges & specimens revised for V16 exercise



Baseline Information
This drawing is based on Ardent's drawing
S00023_C_S_IN2_001 Phase 1 Engineering Plan

Health & Safety Comments
No specific comments

General Notes
To be read in conjunction with Phase 1 Planting Plan.
Sheet 1 S00023_L_S_HB1_003 & Phase 1 Planting Plan
Sheet 2 S00023_L_S_HB1_004

Planting Notes
Soiling
For soiling information refer to Tim O'Hare's soil management plan TOHA/19/8503/AC and CPPLC Specification for Landscape Works and CPPLC Groundworks Trade Specification.
Grassed Areas (plot gardens and open/communal spaces) to be 300mm topsoil
Shrub and Transplant planting (plot front gardens and open/communal spaces) to be 300mm topsoil over 300mm imported subsoil
All depths are after firming and settlement

Finished Levels
Turfed and seeded areas 25mm above adjacent hard surfaces.
Shrub and transplant beds 30mm below adjacent hard surfaces.

Tree Pits
Nursery stock trees - planting hole 1000mm x 1000mm x 700mm deep.
The base of each planting hole shall be broken up to a minimum depth of 400mm.
GreenBlue Urban's manual watering systems are to be incorporated within all tree pits as per the schedule below.
Trees 12-18cm girth - Root Rain Metro, code RRPC4.
ReRoot 2000 root barrier to be installed where shown.
Obtain further information from www.greenblueurban.com
Any waterlogged tree pits are to be positively drained before planting.
The base of the tree pit is to be backfilled with imported washed sand and the final 400mm of the pit backfilled with topsoil. The upper 200mm is to have a 30mm compost layer mixed into the topsoil.

Trees and Shrubs
Nursery stock trees are to be supplied by Barcham Trees in Light Pots.
www.barcham.co.uk
Shrubs are to be supplied in containers by Robin Tacchi Plants.
www.robin tacchi plants.com

Protective Shelters
All transplants are to be fitted with tubex green protective shelters in conjunction with 0.9m high 32 x 32mm softwood stakes.
www.tubex.com
0.75m high, 160mm dia. shrubshelter - for all plants accept those listed below.
0.6m high, 250mm dia. netguard - for holly

Staking & Guying
Tree stakes shall be machine rounded stakes 2.4 metres x 75mm diameter, with one end pointed. Two stakes shall be driven into the base of each pit equally distant from the trunk either side of the rootball, so that 1.5m remains above finished ground level. A cross bar 900mm x 38mm x 75mm shall be secured to each post with sheradised screws.
Trees shall be secured to the cross bar using a Toms Big Block (L3) in conjunction with 50mm special reinforced rubber belt as supplied by Toms Tree Ties' (www.toms.co.uk/catalog) or other equal and approved. Each belt is to be secured to the cross bar using 4 galvanised nails per strap.

	Existing trees
	Nursery stock trees
	Native hedge
	ReRoot 2000 Root barrier by Green Blue Urban



Planting Schedule

Trees – all trees are to be supplied in air-pots/containers or can be rootballed if planted in winter			
Code Name	Scientific Name	Quantity	Size
Acca	Acer campestre	4	16–18cm girth
Btpen	Betula pendula	5	16–18cm girth
Cabt	Carpinus betulus	10	16–18cm girth
Prav	Prunus avium	5	16–18cm girth

Native Hedge – 180cm wide planted in 4 staggered rows, 12 plants/metre. All plants to be supplied field grown unless specified, sub species planted in groups of 3/5.			
%	Scientific Name	Quantity	Size
10	Acer campestre	498	100–125cm
25	Corylus avellana	1245	100–125cm
35	Crataegus monogyna	1743	100–125cm
10	Ilex aquifolium	498	3L, 60–80cm
15	Prunus spinosa	747	80–100cm
5	Rosa canina	249	2L, 40–60cm

C2	14.01.21	Updated to show latest highway lighting
C1	05.08.20	Root barriers added to trees for rising main in footpath
T3	11.05.20	Drawing number changed to Resi Phase 1
T2	23.04.20	Updated for coordination with residential planting scheme
T1	08.11.19	Drawing sheet updated
Rev:	Date:	Revision History:

Countryside House
The Drive, Brenchley
Epsom, Surrey, Surrey
S20 0JY
01277 360020
countryside-places.com

The Tide Barn
Bridgwater House
East Mead, Kent, ME19 6DZ
01795 752100
murdowickham.com

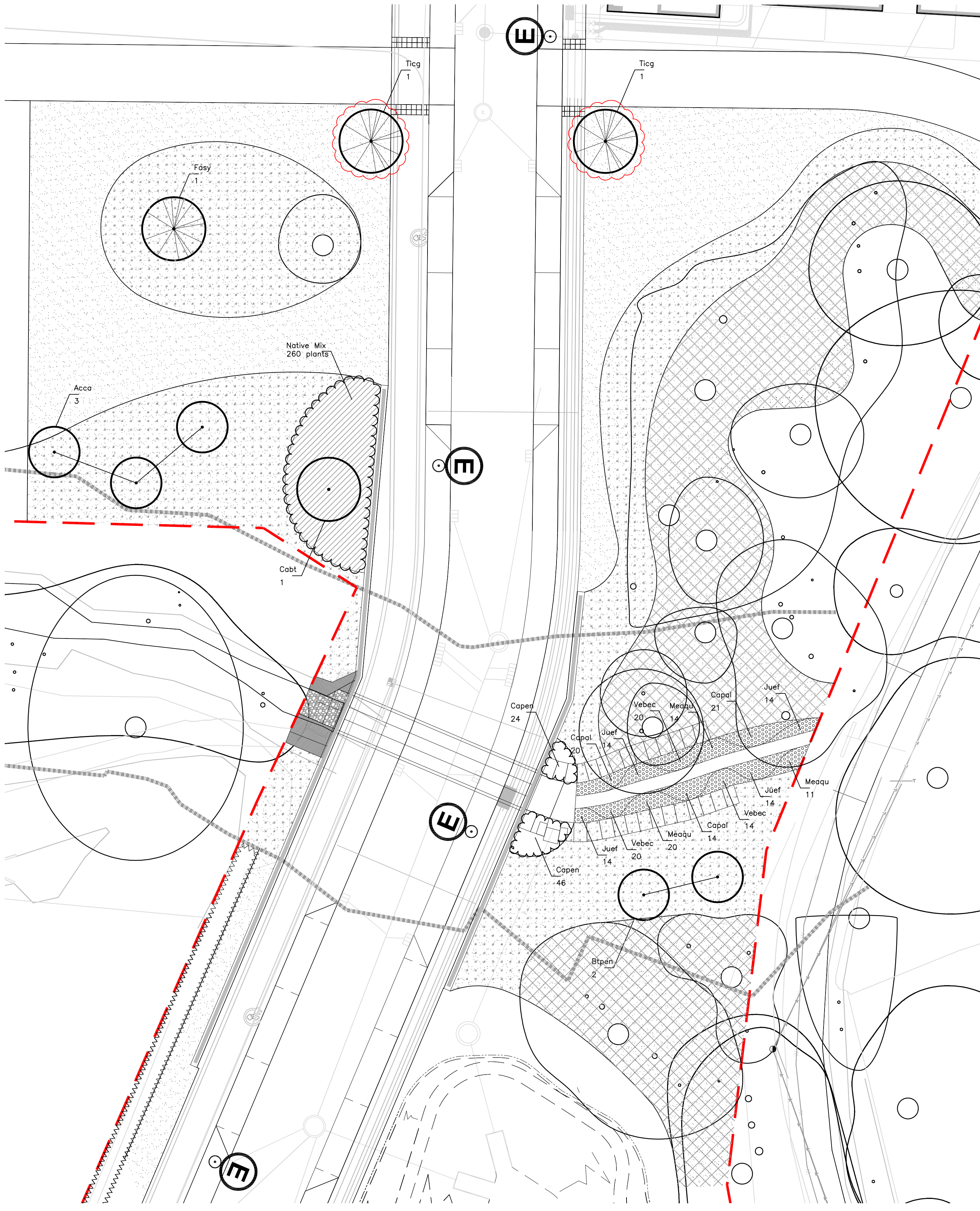
Project:

Freeks Farm, Burgess Hill

Name:	Date:	Name:	Date:
Drawn By: JL	25.10.19	Approved: BS	25.10.19

Scale:	Status:
1:500 @ A1	Construction

Drawing Title: Residential Phase 1 Western Mitigation Planting Plan	
Drawing No: S00023_L_S_HB1_005	Rev: C2



S00023/LS/HB1/004 Planting Plan Sheet 2

Scale 1:200



Baseline Information

This drawing is based on Ardent's drawing S00033_C_S_IN4_001 Phase 3 Engineering Layout

Health & Safety Comments

No specific comments

General Notes

None

Planting Notes

Soiling

For soiling information refer to Tim O'Hare's soil management plan TOHA/19/8503/AC and CPPLC Specification for Landscape Works and CPPLC Groundworks Trade Specification.

Grassed Areas (plot gardens and open/communal spaces) to be 300mm topsoil

Shrub and Transplant planting (plot front gardens and open/communal spaces) to be 300mm topsoil over 300mm imported subsoil

All depths are after firming and settlement

Finished Levels

Turfed and seeded areas 25mm above adjacent hard surfaces.

Shrub beds 30mm below adjacent hard surfaces.

Tree Pits

Nursery stock trees - planting hole 1000mm x 1000mm x 700mm deep.

Semi-mature trees 20-25cm girth - planting hole 1200mm x 1200mm x 1000mm deep.

Semi-mature trees 25-30cm girth - planting hole 1300mm x 1300mm x 1000mm deep.

The base of each planting hole shall be broken up to a minimum depth of 400mm.

GreenBlue Urban's manual watering systems are to be incorporated within all tree pits as per the schedule below.

Trees 12-18cm girth - Root Rain Metro, code RRPC4.

Trees 20-35cm girth - Root Rain Civic, code RRCVIC1.

Obtain further information from

www.greenblueurban.com

Any waterlogged tree pits are to be positively drained before planting.

The base of the tree pit is to be backfilled with imported washed sand and the final 400mm of the pit backfilled with topsoil. The upper 200mm is to have a 30mm

compost layer mixed into the topsoil.

Trees and Shrubs

Trees are to be supplied by Deepdale in airpots or rootballs during the dormant season.

www.deepdale-trees.co.uk

Nursery stock trees are to be supplied by Barcham

Trees in Light Pots.

www.barcham.co.uk

Shrubs are to be supplied in containers by Robin

Tacchi Plants.

www.robin-tacchi-plants.com

Planting

All planted areas are to be mulched with 50mm of Melcourt Ornamental Bark Mulch.

www.melcourt.co.uk

Rowlawn Medallion is to be used where turf is specified.

www.rolawn.co.uk

EM2 Standard Meadow Mix is to be sown at a rate of 10g/m2 where specified by Emorsgate

www.wildseed.co.uk

EW1 Woodland Edge Mix is to be sown at a rate of 10g/m2 where specified by Emorsgate

www.wildseed.co.uk

Staking & Guying

Tree stakes shall be machine rounded stakes 2.4

metres x 75mm diameter, with one end pointed. Two

stakes shall be driven into the base of each pit equally

distant from the trunk either side of the rootball, so that

1.5m remains above finished ground level. A cross bar

900mm x 38mm x 75mm shall be secured to each post

with sheradised screws.

Trees shall be secured to the cross bar using a Toms

Big Block (L3) in conjunction with 50mm special

reinforced rubber belt as supplied by 'Toms Tree Ties'

(www.jtoms.co.uk/catalog) or other equal and

approved. Each belt is to be secured to the cross bar

using 4 galvanised nails per strap.

All feathered trees, multistems and trees over 20cm

girth are to be secured underground using Platipus'

Tree Anchoring and Plati-Mat systems as per the

schedule below (www.platipus-anchors.com) or similar

and approved. Fixing should be strictly in accordance

with the manufacturer's recommendations. Where trees

are guyed underground tree stakes are not to be

used. Trees up to 25cm girth - Product code RF1P

Protective Shelters

All transplants are to be fitted with tubex green

protective shelters in conjunction with 0.9m high 32 x

32mm softwood stakes.

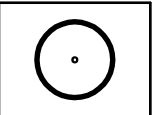
www.tubex.com

0.75m high, 160mm dia. shrubshelter - for all plants

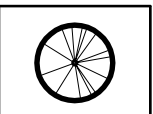
accept those listed below.

0.6m high, 250mm dia. netguard - holly.

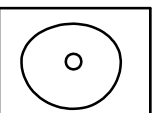
Legend



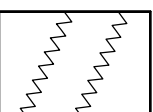
Nursery stock trees



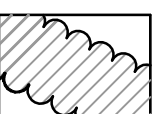
Semi mature trees



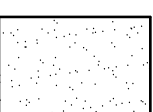
Existing trees



Shrub planting
See drawing
S00023_L_S_HB1_005



Native mix



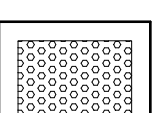
Areas to be turfed



Areas of EM2 Standard Meadow Mix



EW1 Woodland Edge Mix



Aquatic planting



River easement - 8m

Planting Schedule

Trees -- all trees are to be supplied in air-pots/containers or can be rootballed if planted in winter			
Code Name	Scientific Name	Quantity	Size
Acca	Acer campestre	3	16-18cm girth
Btpen	Betula pendula	2	16-18cm girth
Cabt	Carpinus betulus	2	18-20cm girth
Fasy	Fagus sylvatica	1	20-25cm girth
Ticg	Tilia cordata 'Greenspire'	2	25-30cm girth

Native Mix -- all plants are to be supplied field grown (unless otherwise specified). To be planted in at 600mm centres (3/m2)			
%	Scientific Name	Quantity	Size
10%	Acer campestre	26	80-100cm
15%	Corylus avellana	39	80-100cm
5%	Cornus sanguinea	13	60-80cm
30%	Crataegus monogyna	78	80-100cm
5%	Ilex aquifolium	13	3L, 60-80cm
10%	Ligustrum vulgare	26	80-100cm
15%	Prunus spinosa	39	80-100cm
5%	Rosa canina	13	40-60cm
5%	Viburnum opulus	13	60-80cm

Aquatic & Marginal Plants			
Code Name	Scientific Name	Quantity	Size
Capal	Caltha palustris	55	2L
Capen	Carex pendula	68	2L
Juef	Juncus effusus	56	2L
Meaqu	Mentha aquatica	45	2L
Vebec	Veronica beccabunga	54	2L

T1	14.01.21	Tree planting updated for highways lighting
P3	24.07.20	Added existing trees retained, adjusted landscape to suit
P2	22.07.20	Planting shown around headwall
P1	17.07.20	First Issue
Rev:	Date:	Revision History:

Countryside House
The Drive, Brighthelm
East Sussex, BN1 9DA
01323 752780
countryside-properties.com

The Tide Barn
Boscombe, Bournemouth
East Dorset, BH6 3BT
01323 752780
murdockwigham.com

Originator:

Project:

Freeks Farm,
Burgess Hill

Name:	Date:	Name:	Date:
Drawn By: JL	16.07.20	Approved: BS	17.07.20

Scale:	Status:
1:200 @ A1	Tender

Drawing Title:	
Infrastructure Phase 3 Culvert Works Planting Plan	
Drawing No:	Rev:
S00033_L_S_IN4_004	T1