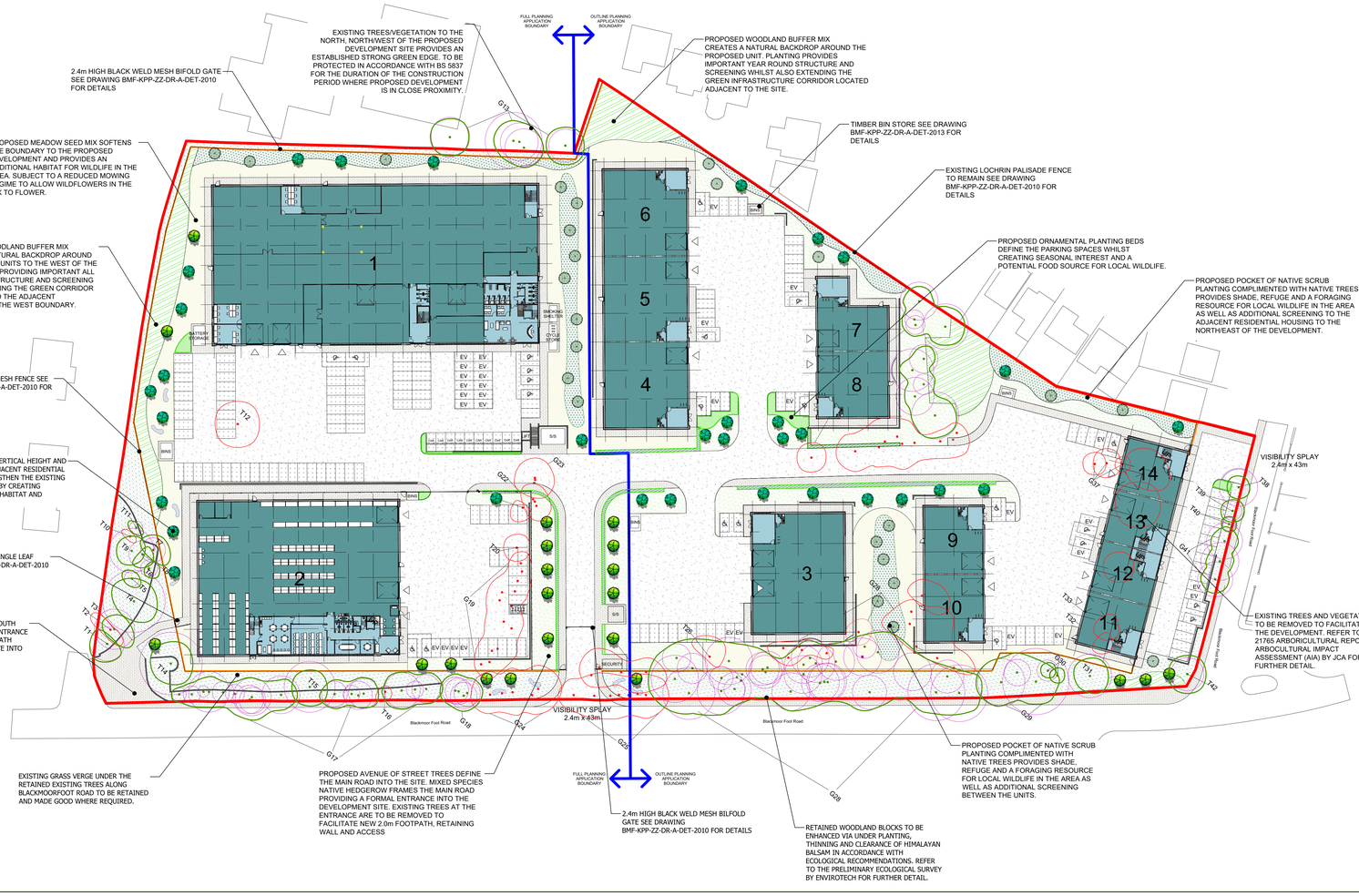

LANDSCAPE KEY

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

- Existing Trees and vegetation to be retained an associated RPA. All trees to be protected to BS5837:2012. Refer to 21765-A/AJB Arboricultural Report & Arboricultural Implications Plan by JCA for further detail.
- Existing trees and vegetation to be removed to facilitate development. Refer to 21765-A/AJB Arboricultural Report & Arboricultural Impact Assessment (AIA) by JCA for further detail.
- **Proposed Heavy Standard Trees** Girth 12-14cm Height 350-425cm
- **Proposed Standard Trees** Girth 8-10cm Height 250-300cm
- **Proposed Feathered Trees** Girth 6-8cm Height 250-300cm
- Proposed native scrub mix
- Native woodland / Buffer mix
- Structural Ornamental Planting
- Proposed mixed species native hedge
- Proposed flowering lawn seed
- Proposed meadow seeding
- Proposed bulb planting
- Existing Grassland To be retained and made good/over seeded where required.

HARD LANDSCAPE & BOUNDARIES

- Proposed access road and service yard: Including required surface markings where required. See architects drawing BMF-KPP-ZZ-DR-A-GA-2007 Rev E for details.
- Proposed car park: Including required surface markings where required. See architects drawing BMF-KPP-ZZ-DR-A-GA-2007 Rev E for details.
- Proposed pedestrian path/access routes: See architects drawings BMF-KPP-ZZ-DR-A-GA-2007 Rev E for details.
- Proposed boundary fence: Secured 2.4m High back weld mesh perimeter fence. See architects drawings. BMF-ZZ-DR-A-DET-2010 for details.
- Red line planning application boundary

SOFTWORKS SPECIFICATION NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

PLANTING SCHEDULES:

Any substitutions of plant species and varieties to be approved by landscape architect prior to installation. All planting to be undertaken as per the softworks specification

Trees:

HEAVY STANDARD TREES				
Total No. 26				
Species	**Height cm**	**Girth**	**Size**	**Spec.**
Acer campestre "Streetwise" (AcS)	350-425	12-14cm	HS	RB, clear stem 175-200cm
Betula utilis 'Jacquemontii' (BuJ)	350-425	12-14cm	HS	RB, clear stem 175-200cm
Carpinus betulus 'Fastigiata' (Cb)	350-425	12-14cm	HS	RB, clear stem 175-200cm
Malus 'Street Parade' (MSP)	350-425	12-14cm	HS	RB, clear stem 175-200cm
Prunus avium 'Plena' (PaP)	350-425	12-14cm	HS	RB, clear stem 175-200cm
Pyrus calleryana 'Chanticleer' (PyCC)	350-425	12-14cm	HS	RB, clear stem 175-200cm
Sorbus aucuparia 'Joseph Rock' (SJR)	350-425	12-14cm	HS	RB, clear stem 175-200cm

STANDARD TREES				
Total No. 25				
Species	**Height cm**	**Girth**	**Size**	**Spec.**
Acer campestre "Streetwise" (AcS)	250-300	8-10cm	S	B, clear stem 175-200cm
Betula pendula (Bp)	250-300	8-10cm	S	B, clear stem 175-200cm
Carpinus betulus 'Fastigiata' (Cb)	250-300	8-10cm	S	B, clear stem 175-200cm
Crataegus monogyna (Cm)	250-300	8-10cm	S	B, clear stem 175-200cm
Prunus avium 'Plena' (PaP)	250-300	8-10cm	S	B, clear stem 175-200cm
Pyrus calleryana 'Chanticleer' (PyCC)	250-300	8-10cm	S	B, clear stem 175-200cm
Sorbus aucuparia (Sau)	250-300	8-10cm	S	B, clear stem 175-200cm

FEATHERED TREES				
Total No. 24				
Species	**Height cm**	**Girth**	**Size**	**Spec.**
Acer campestre (Ac)	250-300	6-8cm	F	Feathered
Alnus glutinosa (Ag)	250-300	6-8cm	F	Feathered
Betula pendula (Bp)	250-300	6-8cm	F	Feathered
Crataegus monogyna (Cm)	250-300	6-8cm	F	Feathered
Quercus robur (Qr)	250-300	6-8cm	F	Feathered
Populus tremula (Pt)	250-300	6-8cm	F	Feathered
Sorbus aria (Sa)	250-300	6-8cm	F	Feathered
Sorbus aucuparia (Sau)	250-300	6-8cm	F	Feathered

Schedule provides an indicative, but not exhaustive species list. All trees are to be supported and mulched in accordance with the specification. Protective fencing/guards to be provided where required in vulnerable areas. Root protection to be incorporate where required and in close proximity to services and buildings.

Ornamental Planting:

STRUCTURAL ORNAMENTAL PLANTING MIX				
Total Area 119m²				
Species	**Spec.**	**Size in cm**	**Pot Size**	**Density**
Choisya ternata 'Orange Blossom'	C	60-80	3L	4/m²
Cornus sanguinea 'midwinter fire'	C	60-80	3L	3/m²
Euonymus fortunei 'Emerald Gaiety'	C	30-40	3L	4/m²
Hebe 'Pagei'	C	20-30	3L	5/m²
Lonicera pileata	C	30-40	2L	5/m²
Pachysandra terminalis	C	15-20	3L	6/m²
Potentilla fruticosa 'Manchu'	C	30-40	3L	5/m²
Pittosporum tenuifolium 'Tom Thumb'	C	30-40	3L	4/m²
Spiraea japonica 'Goldflame'	C	30-40	3L	4/m²
Sarcococca hookeriana	C	30-40	3L	4/m²
Skimmia japonica 'Rubella'	C	30-40	3L	4/m²
Viburnum davidii	C	30-40	3L	3/m²

Schedule provides an indicative, but not exhaustive species list. All newly planted areas are to be mulched in accordance with the specification.

Hedge:

MIXED SPECIES NATIVE HEDGE				
Total Length 234m				
% of mix	**Species**	**Size (cm)**	**Spec**	**Notes**
10	Acer campestre	60-80	BR	5 per linear m in a double staggered row
5	Cornus sanguinea	40-60	BR	
10	Corylus avellana	60-80	BR	
40	Crataegus monogyna	60-80	BR	
10	Ilex aquifolium	40-60	3L	
10	Ligustrum vulgare	60-80	BR	
5	Prunus spinosa	60-80	BR	
10	Viburnum opulus	60-80	BR	

To be planted as per specification. Biodegradable plastic free tubes and cane supports to be provided to each plant, where required. All hedges to be mulched in accordance with specification.

Native Planting Mixes:

NATIVE WOODLAND/BUFFER MIX				
Total Area 929m²				
Species	**% of mix**	**Height cm**	**Form/Spec**	**Spacing**
Alnus glutinosa	10	125-150	Feathered	3m Centres
Acer campestre	5	80-100	1+1 Bare Root	3m Centres
Betula pubescenes	10	80-100	1+1 Bare Root	3m Centres
Betula pubescenes (f)	5	125-150	Feathered	3m Centres
Corylus avellana	5	80-100	1+1 Bare Root	1m Centres
Crateagus monogyana	10	80-100	1+1 Bare root	1m Centres
Ilex aquifolium	5	60-80	1+1 Bare Root	1m Centres
Prunus avium	15	125-150	Feathered	3m Centres
Prunus spinosa	5	60-80	1+1 Bare Root	1m Centres
Quercus robur	10	125-150	Feathered	3m Centres
Rosa canina	10	60-80	1+1 Bare Root	1m Centres
Sorbus aucuparia	5	125-150	Feathered	3m Centres
Viburnum opulus	5	40-60	1+1 Bare Root	1m Centres

Mix to be utilised for areas of new planting and to enhance and infill existing retained woodland groups. To be planted as per specification in staggered rows. Shrub species to be planted in groups of 3-11nr. of a single species. Biodegradable plastic free tubes and cane supports to be provided to each plant, where required. Angled timber stake supports to be provided to feathered tree species. Taller shrubby species to be planted in the centre or rear along the boundary, with smaller species to the edges or front. Tree species to be planted throughout the mix, with tree pits mulched in accordance with specification. All areas of new native planting to be undersown with a woodland/shade tolerant meadow seed mix.

NATIVE SCRUB MIX				
Total Area 1087m²				
% of Mix	**Species**	**Spec**	**Size in cm**	**Age**
10	Cornus sanguinea	BR	40-60cm	1+1
10	Corylus avellana	BR	40-60cm	1+0
35	Crataegus Monogyana	BR	40-60cm	1+1
5	Ligustrum Vulgare	BR	60-80cm	1u1
15	Prunus spinosa	BR	60-80cm	1u1
5	Rosa canina	BR	40-60cm	1+0
10	Ulex europaeus	Cell	25-30cm	1+1
10	Viburnum opulus	BR	40-60cm	2+0

To be planted as per specification in staggered rows, at 0.5m² centres. Planted in groups of 3, 5, 7 to ensure an even distribution of species throughout the specified area. Taller species to be planted in the centre or rear along the boundary, with smaller species to the edges or front. Biodegradable plastic free tubes and cane supports to be provided to each plant, where required. All areas of new native planting to be undersown with a woodland/shade tolerant seed mix

Seed Mixes:

MEADOW MIX
Habitat Aid Basic Native Wildflower Meadow Seed Mix. 80% Grass Seed 20% Wildflower
Sowing rate @ 4g/m²
Total Area 3093m²
Common Bent, Smaller Cat's-tail, Creeping Red Fescue,Crested dogstail, Smooth-stalked meadow grass Yarrow , Common Knapweed, Wild carrot, Hedge Bedstraw, Ladies Bedstraw, Oxeye Daisy , Birdsfoot Trefoil, Ribwort Plantain, Selfheal, Meadow Buttercup , Common Sorrel, Red Campion

AMENITY FLOWERING LAWN
Habitat Aid Flowering Lawn Mix. 20% native British wildflowers and 80% mixed slow-growing grasses
Sowing rate @ 5g/m²
Total Area 2380m²
Yarrow, Daisy, Ladies Bedstraw, Cats-ear, Smooth Hawkbit, Rough Hawkbit, Birdsfoot Trefoil, Ribwort Plantain, Cowslip, Selfheal, Bulbous Buttercup, Dandelion, Common Bent, Highland Bent, Chewings Fescue, Native Fescues, Crested dogstail

To be sown as per suppliers recommendations. Subject to a reduced mowing regime. To incorporate mown margins/edge where required. Areas of retained grassland to be made good where required utilising the suggested seed mixes.

Bulbs:

NATIVE BULBS MIX		
Species	**Grade**	**Density**
Anemone nemorosa	12/30	50/m²
Galanthus nivalis (g)	4/5	100/m²
Hyacinthoides non-scripta	6/7	20/m²
Narcissus pseudonarcissus	10/15	35/m²

UK cultivated stock to be used for native bulbs

NOTES:

Trees & Services

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

Project: Blackmoorfoot Road, Huddersfield	**Client:** Park Valley Huddersfield		
Title: Outline Landscape Masterplan & Specification	**Drawn:** BP	**Chk'd:** LW	**App'd** LW
Drawing Number: PWP 876 001	**Revision:** P03	**Drawing Scale:** 1:500@A0	

Rev	Date	Detail	Made	Chk'd	App'd
P03	28/08/24	FOR PLANNING	BP	LW	LW
P02	06/06/24	FOR PLANNING	BP	LW	LW
P01	31/05/24	FOR PLANNING	BP	LW	LW
P00	30/05/24	FOR PLANNING	BP	LW	LW

Notes:

1. Not for construction all dimensions to be confirmed on site.
Based on Layout Drawing - Proposed Scheme KKP Architects - BMF-KPP-ZZ-DR-A-GA- 2007 - Rev E
2. Layout by KKP Architects
3. Refer to architects/engineers drawing for site levels, drainage, retaining walls, services and utilities .
4. Build ups/footings to engineers specification.
5. Location of services to be confirmed by contractor prior to installation of any planting.
6. All existing trees to be protected to BS 5837.

PWP Design Ltd
Unit 1, Whiteley Court
Pool Road
Otley
LS21 1FR

0113 4572508
info@pwpdesign.co.uk

PWP DESIGN