SPECIFICATION NOTES

All plants supplied shall comply with the National Plant Specification. Supplying nurseries shall be registered under the Horticultural Trade Association (HTA) Nursery Certification Scheme. All plants shall be packed and transported in accordance with the Code of Practice for Plant Handling as produced by CPSE. Native shrubs, where specified, shall be British provenance, where available, and certified to confirm origin.

Good Horticultural Practice
All landscaping work shall adopt good horticultural practices. Compost, mulch and soil conditioners shall be peat-free. The use of pesticides (herbicides, insecticides, fungicides, slug pellets etc) shall be discouraged. Any pesticides used shall be non-residual. i.e. glyphosate.

Nesting Birds
To ensure compliance with the Wildlife & Countryside Act 1981 (as amended), vegetation clearance shall be undertaken outside the bird nesting season, which generally extends between March and September inclusive, dependent on weather. If birds are found to be nesting any works which may affect them shall be stopped until the young have fledged and the nest abandoned naturally.

GROUND PREPARATION
Weed Control
Prior to any excavation or cultivation of soft landscape areas treat existing weeds where necessary with a glyphosate based herbicide and allow a suitable period as recommended by the manufacturer for this to take effect.

Subsoil Depths & Acceptable Materials
Provide a minimum depth of subsoil beneath topsoil formation levels to the clearances specified below in all soft landscaped areas. Where there is insufficient depth excavate and dispose of material, loosen the formation and make up with additional subsoil or second quality topsoil. Grade to smooth flowing contours to achieve specified finished levels of topsoil.

Acceptable Materials
Additional subsoil or second quality topsoil shall be free of pests, diseases, visible fragments and roots of aggressive weeds, sticks, straw, turf and significant quantities of foreign matter such as building materials, vegetation, lumps of clay, and the like. Do not use any materials contaminated with rubbish or other materials that are:
- corrosive, explosive, or flammable
- hazardous to human or animal life
- detrimental to healthy plant growth

Contaminated Subsoil
Thoroughly clean existing subsoil of all builders rubbish to full depth before ripping the ground.

Subsoil Treatment
Prior to spreading topsoil and when ground conditions are reasonably dry the subsoil shall be thoroughly loosened to full depth using a winged tine cultivator. The spacing between the tine furrows shall be close enough to cause the uplifting and fracturing of the soil throughout the treatment depth. Remove any stones larger than 75mm and other items including bricks, kerbs, lumps of concrete, plaster, timber, plastic, glass, metal and any other building debris brought to the surface.

Soil Requirements & Soil Profile Depths
Imported subsoil to ***BS 8601: 2013***
Imported topsoil to ***BS 3882: 2015*** - multi-purpose for general landscaping operations.

Soil placement depths for topsoil and subsoil:
- Amenity grass & flowery verges: 450mm comprising 150mm topsoil over 300mm cultivated subsoil
- Meadow grass: 450mm comprising 50mm topsoil over 400mm cultivated subsoil
- Shrub beds: 600mm comprising 300mm topsoil over 300mm cultivated subsoil
- Tree pits: 900mm comprising 300mm topsoil over 400mm free-draining subsoil - refer to key for specific tree pit requirements

Handle topsoil in the driest conditions possible. Do not handle during heavy rainfall. Break up compacted topsoil to full depth prior to cultivation.

New Tree Planting Adjacent Services & Structures
All trees and shrubs, whether existing, felled, or proposed, on or adjacent to the site shall be taken into consideration by the client's structural engineer when calculating foundation types and depths.

- In accordance with Sewers for Adoption 7th Edition; No tree shall be planted directly over sewers or where excavation onto the sewer would require removal of the tree. A sewer or lateral drain shall not be located closer to trees/bushes/shrubs than the canopy width at mature height, except where special protection measures are provided in accordance with Clause C8.6 (see below)
- Clause C8.8: where there is a risk of tree root intrusion the sewer system shall be resistant to tree root ingress (e.g. by use of appropriate barriers or constructed from polyethylene with welded joints)
- All trees planted within 3m of a building or heavily loaded structure shall have their roots deflected away by means of a high density deep application root barrier to avoid direct damage from future tree growth.
- All trees within 2m of a masonry boundary wall, or within 3m of any hard paved surface or underground service, shall have their roots deflected away by the installation of a tree root barrier system to avoid direct damage from future tree growth.

Root Barrier System
- For protection of building foundations: ReRoot 2000 high density deep application root barrier
- For protection of pavements only (surround applications): Root Director RD1050 or RD1400, dependent on predicted girth (circumference) of mature trunk (manufacturer to advise)
- For protection of pavements, underground services/utilities and masonry boundary walls (linear applications) : ReRoot 600, 1000 or 2000 ribbed root barrier, dependent on predicted girth (circumference) of mature trunk and/or depth of service/utility (manufacturer to advise)

As supplied by GreenBlueUrban Ltd., or similar approved.
Installation in full accordance with manufacturer's instructions, located as far away from the main stem as possible to maximise rooting area.

The Landscape Contractor shall be responsible for acquiring 'As-Built' drain and service plans before commencing work on site.

ESTABLISHMENT AFTERCARE

Maintenance operations, including Contractor's initial 12 months defects and aftercare period, shall include:

Shrubs & Hedges
- Weed Control - All planting beds shall be kept weed free by hand weeding or herbicide treatment. Top up mulch twice annually in spring and autumn to maintain original specified depth.
- Firming & Pruning - firm and prune all newly planted shrubs in accordance with good horticultural practice to promote healthy, bushy growth and to ensure individual plants establish dense cover as rapidly as possible. Any damaged shoots or branches shall be pruned back to healthy wood
- Trim back growth overhanging adjacent footpaths and parking areas
- Native mixed hedges: Once established, trim hedges annually on rotation one side at a time. Trimming shall be carried out during the dormant season from November to March, taking care not to disturb any nesting birds
- Trimming ornamental hedges - Once established, clip annually one to three times during the summer to maintain desired shape and height
- Monitor health and control pests and diseases
- Apply an annual application of slow-release fertiliser to planting beds during March/April
- Watering - water as required to ensure establishment and survival (see below)

Specimen Trees
Individual trees planted as specimens shall be inspected annually during the growing season and maintained as follows:
- Firm and straighten to an upright position as required
- Monitor health and control pests and diseases
- Maintain irrigation systems/pipes in good working order. Irrigation pipes shall be checked and repaired as necessary
- All tree stakes and ties are to be checked and adjusted if too loose, too tight, or if chaffing is occurring. Any broken stakes are to be replaced
- Formative pruning to include: removal of epicormic shoots, deadwood, competing secondary leader shoots, and closely spaced, duplicated branches with potentially weak or tight forks. All tree works to be carried out in accordance with BS 3998:2010.
- Apply an annual application of slow release fertiliser during March and April at a rate of 50g per tree
- Watering - Water as required to ensure establishment and survival (see below)

Watering
During the first two years after planting a monitored watering regime shall be implemented, commencing from the end of March/early April to the end of October - depending on weather conditions. Apply water when there has been no appreciable rain for 7 days or when there has been drying winds or very high temperatures.

Replacement of Failed or Defective Plants
Following the initial 12 months defects period any trees or plants which within a period of 5 years from the completion of the development are missing, found dead, or are seriously damaged or diseased shall be replaced in the next planting season.

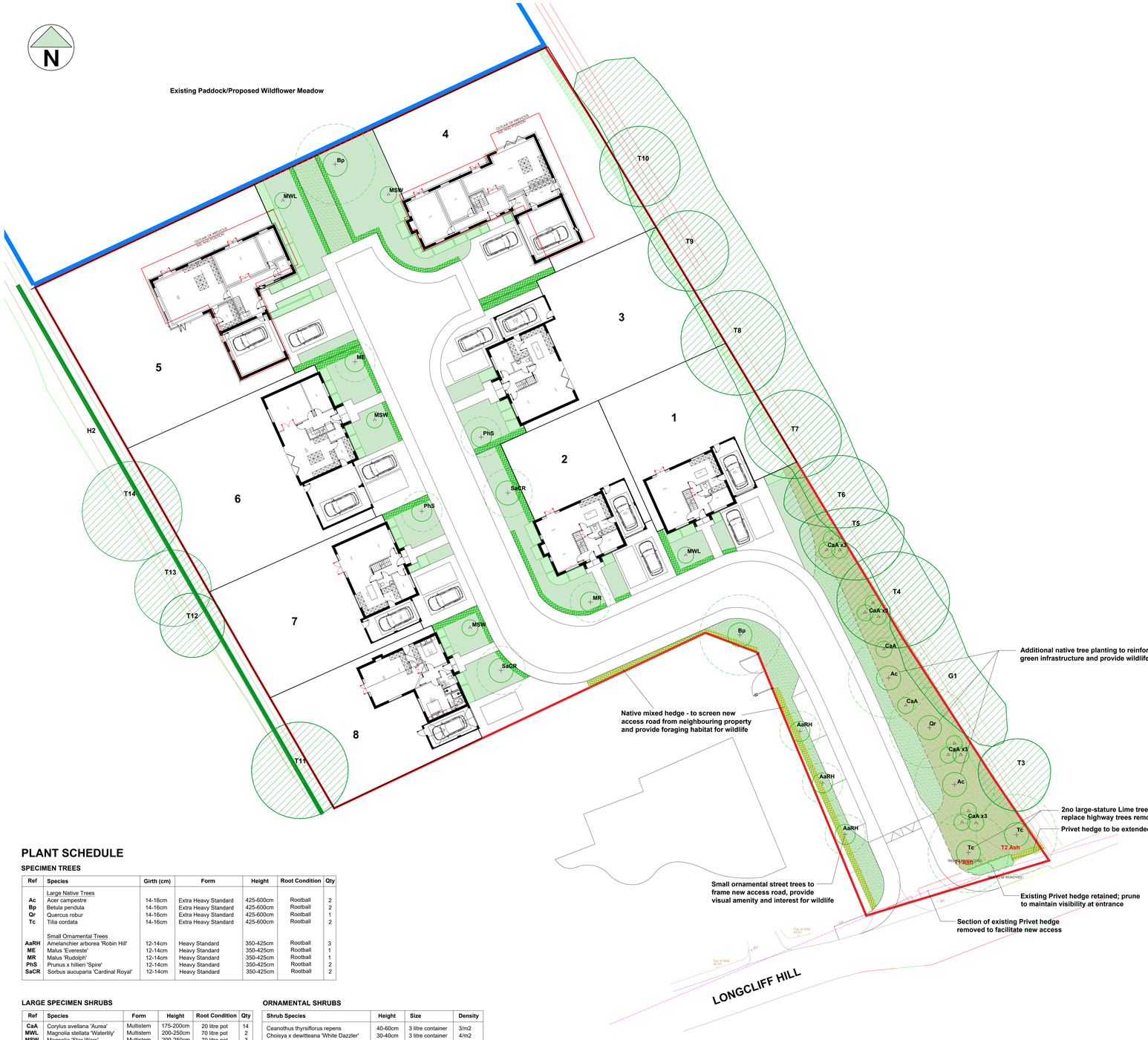
GRASS ESTABLISHMENT & MANAGEMENT

Establishment (first year after turfing/sowing)
- Areas which fail to germinate or establish shall be re-turfed or re-seeded as required
- Amenity Grass & Flowery Verges - all areas shall receive two establishment cuts; first cut carried out once height of initial growth reaches 50mm, with grass cut to a finished height not exceeding 30mm. Second cut shall be carried out when the grass once again reached 50mm. All arising shall be removed. After the second cut, all turfed areas shall be rolled and any stones removed.
- Meadow Grass - annual weeds shall be controlled by topping or regular mowing until the sown grasses are established. Control perennial weeds by spot application of herbicide, or by pulling (Ragwort)

Management once established:

Amenity Grass & Flowery Verges
- Amenity Grass - cut to a height of 20-30mm throughout the growing season (March to October inclusive) to maintain a neat tidy appearance. Remove all arisings. Reform edges as required.
- Flowery Verges - Cut as amenity grass but not too short (30-40mm). To permit flowering, mowing shall be relaxed from late June. Resume cutting when the sward gets untidy (after 4-8 weeks)
- After each cut, all mown areas shall be treated for invasive weed species as necessary.

Meadow Grass
- A single cut shall be carried out in late August/early September after seeding of desirable species. Cut height shall be between 50-60mm. All arisings shall be raked off and removed after 7 days to allow further seed dispersal.
- Control perennial weeds by occasional spot treatment with a herbicide, or by pulling (Ragwort)



PLANT SCHEDULE

SPECIMEN TREES

Ref	Species	Girth (cm)	Form	Height	Root Condition	Qty
	Large Native Trees					
Ac	Acer campestre	14-16cm	Extra Heavy Standard	425-600cm	Rootball	2
Bp	Betula pendula	14-16cm	Extra Heavy Standard	425-600cm	Rootball	2
Qr	Quercus robur	14-16cm	Extra Heavy Standard	425-600cm	Rootball	1
Tc	Tilia cordata	14-16cm	Extra Heavy Standard	425-600cm	Rootball	2
	Small Ornamental Trees					
AaRH	Amelanchier arborea 'Robin Hill'	12-14cm	Heavy Standard	350-425cm	Rootball	3
ME	Malus 'Evereste'	12-14cm	Heavy Standard	350-425cm	Rootball	1
MR	Malus 'Rudolph'	12-14cm	Heavy Standard	350-425cm	Rootball	1
PhS	Prunus x hillieri 'Spire'	12-14cm	Heavy Standard	350-425cm	Rootball	2
SaCR	Sorbus aucuparia 'Cardinal Royal'	12-14cm	Heavy Standard	350-425cm	Rootball	2

LARGE SPECIMEN SHRUBS

Ref	Species	Form	Height	Root Condition	Qty
CaA	Corylus avellana 'Aurea'	Multistem	175-200cm	20 litre pot	14
MWL	Magnolia stellata 'Waterlily'	Multistem	200-250cm	70 litre pot	2
MSW	Magnolia 'Star Wars'	Multistem	200-250cm	70 litre pot	3

NATIVE MIXED HEDGE

Species	Height	Root Condition	%
Cornus sanguinea	60-80cm	1+1 bareroot transplant	15
Corylus avellana	60-80cm	1+1 bareroot transplant	15
Crataegus monogyna	60-80cm	1+1 bareroot transplant	50
Ilex aquifolium	60-80cm	3 litre container	10
Viburnum opulus	60-80cm	1+1 bareroot transplant	10

NATIVE PRIVET HEDGE

Species	Height	Root Condition	%
Ligustrum vulgare	60-80cm	1+1 bareroot transplant	100

IMPLEMENTATION PROGRAMME

All soft landscape works including preparatory operations shall be carried out when all building works are complete and before the end of the first planting season, subject to the following constraints:
- No planting or preparatory operations shall take place when the ground is frost bound, covered by snow, excessively wet or waterlogged, or in excessively dry or windy conditions
- Turf may be laid at any time during favourable weather and soil conditions
- Seed shall be sown in autumn or spring during calm wether and not when the ground is frost bound or waterlogged
- Container grown plants may be planted at any time during favourable weather and soil conditions. Watering and weed control to be provided as necessary
- Planting of bare-root and rootballed deciduous trees and shrubs, where specified, shall be carried out from late October to late March. All bare root stock, where used, shall be root dipped in mycorrhizal inoculant such as Alginure or similar, applied in accordance with the manufacturer's recommendations.

ORNAMENTAL SHRUBS

Shrub Species	Height	Size	Density
Ceanothus thyrsiflorus repens	40-60cm	3 litre container	3/m2
Choisya x dewitteana 'White Dazzler'	30-40cm	3 litre container	4/m2
Cistus 'Silver Pink'	30-40cm	3 litre container	4/m2
Deutzia gracilis 'Nikko'	30-40cm	3 litre container	4/m2
Hebe albicans	20-30cm	3 litre container	4/m2
Hebe 'Autumn Glory'	20-30cm	3 litre container	3/m2
Hebe 'Marjorie'	20-30cm	3 litre container	3/m2
Lavandula angustifolia 'Hidcote'	15-20cm	2 litre container	4/m2
Philadelphus coronarius 'Aureus'	30-40cm	3 litre container	3/m2
Prunus laurocerasus 'Otto Luyken'	30-40cm	3 litre container	3/m2
Ribes sanguineum	60-80cm	3 litre container	3/m2
Rosa 'Bonica'	-	3 litre container	4/m2
Rosa 'White Meidiland'	-	3 litre container	4/m2
Sarcococca x hookeriana 'Winter Gem'	20-30cm	3 litre container	4/m2
Senecio 'Sunshine'	30-40cm	3 litre container	4/m2
Skimmia japonica 'Rubella'	30-40cm	3 litre container	4/m2
Spirea japonica 'Anthony Waterer'	30-40cm	3 litre container	4/m2
Viburnum x davidii	20-30cm	3 litre container	4/m2
Weigela florida 'Foliis Purpureis'	30-40cm	3 litre container	4/m2

ORNAMENTAL HEDGES

Species	Size	Root Condition	Spacing
Carpinus betulus	40-60cm	3 litre container	45cm apart, 5/m (double row)
Escallonia 'Apple Blossom'	40-60cm	3 litre container	45cm apart, 5/m (double row)
Euonymus japonicus	30-40cm	3 litre container	45cm apart, 5/m (double row)
Hebe 'Mrs Winder'	30-40cm	3 litre container	45cm apart, 5/m (double row)
Osmanthus x burkwoodii	30-40cm	3 litre container	45cm apart, 5/m (double row)
Photinia x fraseri 'Red Robin'	30-40cm	3 litre container	45cm apart, 5/m (double row)
Pyracantha rogersiana	30-40cm	3 litre container	45cm apart, 5/m (double row)
Viburnum tinus 'Eve Price'	30-40cm	3 litre container	45cm apart, 5/m (double row)

KEY

Existing Trees Retained
Protect in accordance with BS 5837: 2012 'Trees in Relation to Design, Demolition and Construction - Recommendations'. See Ramm Sanderson Arboricultural Method Statement & Tree Protection Plan RSE_3998_01.V1 for details of protection measures.

Existing Hedgerow Retained
Protect in accordance with BS 5837: 2012 'Trees in Relation to Design, Demolition and Construction - Recommendations'. See Ramm Sanderson Arboricultural Method Statement & Tree Protection Plan RSE_3998_01.V1 for details of protection measures.

Existing Tree Removed
To facilitate development. Replacement tree planting proposed to mitigate for loss (see below)

Existing Privet Hedge Removed
To facilitate development

Specimen Tree
Tree planting in accordance with BS 8545: 2014 'Trees: from nursery to independence in the landscape - Recommendations'
Dashed circle denotes estimated mature canopy spread

Trees in Soft Landscape Areas
- Trees shall be planted into prepared pits. Excavated topsoil and subsoil shall be retained for backfilling. Tree pits shall be at least 300mm wider and 75mm deeper than the tree root system/rootball when fully spread, with a minimum pit size of 1000mm x 1000mm x 900mm deep for heavy standard (12/14cm) trees, and 1200mm x 1200mm for extra heavy standard trees (14/16cm). Where necessary the depth shall be increased to accommodate the depth of the rootball and to obtain the correct planting level. Fork over the bottom of the pit to an additional depth of 200mm, and leave slightly domed to assist drainage, air movement, and root penetration. Care shall be taken to prevent smearing of tree pit sides; roughen any smooth sides.
- Tree pits shall be backfilled with excavated topsoil and subsoil (where suitable for re-use) to replicate a natural soil profile comprising 300mm depth of topsoil above a free-draining subsoil layer. During backfilling, the tree shall be gently shaken at regular intervals to settle the soil closely around the roots. The backfill shall be firmed in layers not exceeding 150mm to a finished level equivalent to the nursery soil mark on the tree.
- Trees shall be supported with double stakes driven vertically at least 300mm into the bottom of the tree pit before planting, close to the tree position on the windward side. Tree shall be fixed firmly but not rigidly to stake with Toms rubber tree ties. The above ground height of the stake should be a minimum of a third of the stem height. All stakes shall be 60mm diameter softwood, peeled chestnut, larch or oak, free from projections and large or edge knots, with a pointed lower end.
- All stakes shall be 60mm diameter softwood, peeled chestnut, larch or oak, free from projections and large or edge knots, with a pointed lower end.
- All tree pits shall be fitted with a perforated flexible plastic irrigation pipe, diameter 80mm, inserted around the rootball during planting, at a depth of 150mm below the ground surface. The pipe shall be of sufficient length to coil completely around the root system or rootball. To be provided with two 'T' piece connections with aeration caps, located opposite each other.
- The finished compacted pit shall be topped with organic mulch spread evenly to a depth of 75mm after settlement within a 1m diameter circle around each tree. Mulch to comprise composted wood chips or bark, free of pests, disease, fungus, and weeds. Prior to application clear all grass and weed growth and water soil thoroughly.

Large Specimen Shrubs
To be planted individually as shown to add structure to the landscape where space is restricted for larger trees - see plant schedule for species and sizes.

Native Mixed Hedge/Privet Hedge
Double staggered row hedging at 400mm between rows and 450mm centres within each row. Plant in single species groups of 3-9no with groups spaced irregularly along the entire length of the hedge.

Ornamental Shrubs
Evergreen and deciduous flowering shrubs attractive to wildlife planted in small single-species blocks to soften and integrate the development and provide visual amenity - see plant schedule for species, sizes, and nursery stock type.

Ornamental Hedge
Evergreen shrubs planted in a double staggered row at 450mm centres to define front garden boundaries and soften fences - see plant schedule for species, sizes, and nursery stock type.

Areas for planting shall be treated with a translocated herbicide such as Glyphosate to clear existing weeds and herbage prior to planting and cultivated to a depth of 300mm. All weeds, roots, and stones larger than 50mm brought to the surface shall be removed off site. All planting shall use pit planting techniques. Shrub pits shall be backfilled with a previously prepared mixture of 80% by volume topsoil excavated from the pit/or imported topsoil as required, with 20% well rotted organic peat free compost and a slow-release fertiliser applied at the manufacturer's recommended rate. All bare root stock shall be root dipped in mycorrhizal inoculant, such as Alginure or similar, applied in accordance with the manufacturer's recommendations. Water thoroughly immediately after planting and evenly spread a layer of organic bark mulch to a depth of 75mm over all planting beds. Weed membrane to be installed under all bark mulch.

Amenity Grass (Private Lawns)
Cultivated lawn turf to BS 3936: 1998 & 4428.

Flowery Grass Verge
To be seeded with slow-growing grasses with a selection of wildflowers that respond well to regular short mowing, e.g. Emorsgate EL1 Flowering Lawn Mixture, or similar

Species-Rich Meadow Grass
To be seeded with native wildflowers and grasses to suit site conditons, e.g. within shaded areas under the canopy of existing mature trees and along hedgerow edges seed with Emorsgate EH1 Hedgerow Mixture, or similar. IN more open areas seed with a general purpose meadow mixture such as Emorsgate EM2, or similar

Areas to be turfed and seeded shall be sprayed out with a glyphosate herbicide and cultivated to a depth of 100mm taking care to protect roots of existing trees retained. All weeds, debris, and stones over 25mm in diameter shall be removed off site and the surface raked to smooth flowing contours with a fine tilth.

Turfed Areas: Incorporate Growmore Fertiliser, or equivalent, in accordance with manufacturer's instructions, to be worked into top 50mm of soil. After laying, dress turf with finely sifted topsoil/sand and brush well in to completely fill all joints, and trim around each newly planted tree to provide a clear radius of 500mm. Thoroughly water the turf immediately after laying. Turf shall be laid on soil that is moist but not frozen or waterlogged. No turf shall be layed during periods of drought or onto soil that is excessively dry, or during heavy rainfall.

Seeded Areas: Seed shall be sown in two equal sowings in transverse directions at the rates specified. Sow in autumn or spring during calm weather and not when the ground is frost bound or waterlogged.

DRAWING NOTES
This drawing is based on The Art of Building Architecture Proposed Site Plan 19-95-02 Rev AH.

Kova Landscape Ltd. accept no responsibility or liability for any use that is made of this drawing other than by the client for the purposes for which it was originally commissioned or prepared.

Location of specimen trees and shrubs indicative only, subject to final location of underground services and drainage layout.

DO NOT SCALE THIS DRAWING. Use only figured dimensions where shown. All dimensions to be verified by contractor on site prior to commencement of works.

PLANNING

P3: Site layout updated (Plots 4 & 5)	LK	16.09.21
P2: Plot 5 adjusted, site entrance updated	LK	23.02.21
P1: First Issue	LK	13.07.20
Revisions:	Dwn:	Date:

Project: **Proposed Residential Development on Land at Longcliff, Old Dalby**

Client: **Mr Hutson**

Drawing: **Soft Landscaping Proposal**

Date:	16.09.21	Drawn:	LK
Dwg No:	KL-436-001	Scale:	1:200 @ A0
Revision:	P3		

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