

SPECIFICATION

- Applies to all Plot landscape operations.

1 GENERAL

1.1 Preliminaries

Health and Safety considerations are as the Bior Homes Trade Specifications.
The following specification is to be read with the Trade Specifications, however, where there are specific requirements, these notes take precedence over the general guidance outlined within the Trade Specification.
The Site Manager should possess and distribute information to the relevant contractors regarding all underground services, engineering, drainage, lighting and ecological constraints and current proposed landscaping prior to external works and landscaping operations.
Tree and hedgehog protection, subsoil cultivation, topsoiling and levelling/grading operations outlined below are the responsibility of the Site Agent unless stated otherwise.
Trees in hard surfaces will require engineered tree pits which will require construction when surface and service roads are being installed. Reference should be made to the appropriate tree pit detail drawing provided by the engineers and on the landscape drawings where applicable.
Where tree pits are within 5m of roads and pavements, and within 3m of other paved surfaces, a linear root barrier is to be installed in accordance with the manufacturer's instructions. The barrier should be as near as possible to the surface or service route to be protected to provide as much rooting area as possible for the tree.
*Reference may vary according to requirements.

1.2 Soft Landscaping Considerations

All soft landscaping should be carried out by specialist landscape sub-contractor who is either British Association of Landscape Industries (BALI) accredited or can demonstrate a proven track record.
All plants shall conform to the specification details shown on this drawing, which are taken from the National Plant Specification, and must be well rooted, healthy stock. Plants required for hedging or mounding must be uniform in every respect.
Plants must be in accordance with the relevant section of the current BS 3398 Nursery Stock Specification, and trees to the most current BS 8545 Trees: From Nursery to Independence in the Landscape.
Supplying nurseries shall be registered under the VITA Nursery Certification Scheme.
All plants shall be packed, transported and handled in accordance with the Code of Practice for Plant Handling as produced by the Committee for Plant Supply and Establishment (CPSE) and handling of trees to the most current BS 8545.

Any variance from the specification stated on each landscape drawing may result in a request to replace planting, at the contractors expense.

1.3 Landscaping and Implementation

Contractors are required to tender and implement to get the schedule and specification.
It is recognised that there are seasonal variations in plant availability and so it may be necessary for plant specifications to be revised. However any substitutions should be with a suitable alternative of comparable size to meet the schedule requirements, and should be approved by the Bior Homes Landscape Design/ Commercial Department.
All landscape implementation will be audited. Plant material not approved will be rejected and replaced at the Landscape Contractor's own expense, as stated in 1.2.
The site should be found in a condition as described in the Ground Workers' Trade Specification document which includes the removal of all builder's debris and the hardcore base set for surfacing.

2 RETENTION OF EXISTING TREES AND HEDGEROWS

Precautions must be taken to ensure that trees and hedgerows sought for retention remain undisturbed with roots and branches protected with robust barriers in accordance with the most current BS 8587 Trees in Relation to Design, Demolition and Construction. Any tree surgery work should be in accordance with the most current BS 3998 Recommendation for Tree Work and must comply with any Conservation Area, Tree Preservation Orders or specific planning conditions where appropriate.
Reference must be made to Tree Protection Drawings.

3 PRE-PLANTING AND PRE-TURFING GROUND PREPARATION (Groundworking)

3.1 Subsoil Cultivation

Where any topsoiling or subsoil should be thoroughly 'topped' to relieve compaction using suitable machinery, or by hand in confined areas or in proximity to existing tree roots to a depth of 150mm.

3.2 Imported and Stored Topsoil

Wherever possible store and re-spread existing topsoil to FOS areas to encourage re-generation of localised native species.
Topsoil, all topsoiling and soil storage operations are to be carried out in accordance with the current BS 3882 Specification for Topsoil. Topsoil spreading should be carried out to the depths shown below and all topsoiling should be cleared of all extraneous matter such as perennial weeds, glass, wood, metal and stones greater than 50mm in any dimension which should be removed from site to a licensing facility.

Minimum depths of topsoil after firming and of subsoil cultivation to be achieved:		
Type of Soil Landscaping	Topsoil Depth	Depth of subsoil to be broken up
Planted areas*	150mm	150mm
Grass Areas	150mm	150mm
Rear Gardens	150mm	150mm

* Remove extraneous matter within cultivated subsoil above 75mm in any dimension.

3.3 Levelling/Grading

In final grading operations finished soil levels adjacent to buildings are to be 150mm below damp proof course. For planted areas where 75mm depth bark mulch is specified the soil should be graded down towards adjacent paved or grass surfaces to 100mm below the paving or grass. This allows for full depth of bark mulch with 15mm clearance. For turfed areas final soil levels should be 10mm above the adjacent paving ready to receive the turf and for seeded areas at least 30mm above.

3.4 Weed Treatment

Only where necessary, because significant weed growth has started to establish, treat existing weeds with a non-residual broad leaf, herbicide and allow a suitable period as recommended by the manufacturer for this to take effect. Herbicide should be used strictly in accordance with the Pesticides Act 1999 (or otherwise updated/superseded legislation), according to manufacturer's instructions and only by qualified staff. Use products that are approved by the Soil Association.
Remove small amounts of weed growth within shrub beds by hand at time of planting.

4 PLANTING

4.1 Ground Preparation

Planting shall not be carried out when the ground is waterlogged, frost-bound or during periods of cold drying winds.
All planting, seeding and turfing operations are to be in accordance with latest BS 4428 Code of Practice for General Landscape Operations.
A general purpose organic soil release fertiliser at the rate of 100g/m² is to be incorporated into the top 150mm of topsoil during final cultivation.

4.2 Setting Out

Shrubs and hedges are to be set out as shown on the drawing at the specified densities and centres. The operatives carrying out the works should be able to interpret drawings, set out landscaping areas and communicate any discrepancies with our Site Manager.

Ornamental hedges are to be planted in a single row unless otherwise stated.

Trees are to be planted in the positions shown on the drawing ensuring that they are at the correct distances from adjacent buildings and 1.5m from drainage runs.
It is imperative that trees are planted with the correct species and location as specified in the drawing in accordance with the NHRB Standards Chapter 4.2, or the LABC Standards, whichever is applicable.
It is the contractor's responsibility to ensure that all underground services have been located and identified in advance of tree pit excavation to avoid damage to any underground services or cables.
*Planting
Bare rooted and root balled stock to be planted between mid-November and end-February.
Planting pit sizes should be relative to the container size or root ball of the plant and shall be sufficiently large enough to accommodate the plants without root damage and to allow for backfill of topsoil and planting compost.

All ornamental hedges/ boundary plants are to be 'topped' cut to form a level hedge across each section of new hedging.

Plants are to be pit planted into the prepared soil incorporating peat free tree and shrub compost in quantities shown below, and firmed in.	
Quantities of peat free tree and shrub planting compost:	
2-3L Shrubs and Herbaceous	3 Litres
5-10L Shrubs	5 Litres
25L Specimens	10 Litres
Trees	20 Litres plus 100g/m ² organic slow release fertiliser and 150m ² mycorrhizal dressing such as 'Rootgrow'

All trees and shrubs are to be watered thoroughly, to full ground capacity, immediately after planting and before the application of mulch. The landscape contractor shall allow for provision of all equipment to complete this initial watering, using water supply point as directed on site.

4.3 Tree Planting

Tree planting operations should be in accordance with part 10 of the current BS 8545 Trees from Nursery to Independence in the Landscape.
Tree pits are to be excavated to a minimum of 2m x 1m x 800mm with the sides well scarified to prevent smothering, the base of tree pits are to be remain undisturbed and should only be broken up if there is a drainage problem and/or soil po. If conditions make drainage necessary this should be provided away from the tree, with the base of the pit sloped to direct water into a drainage pipe. Backfill of tree pits should be in layers of 150mm at a time starting with root ball followed by layers of topsoil with compost etc., as shown above.
Root flare of the newly planted tree should be clearly visible at the soil surface. It should not be buried by excess soil or by mulch.
Ensure trees in hard surfaces and in restricted areas are planted in accordance with the appropriate tree planting detail with sufficient volume of tree soil.

All trees are to be watered thoroughly, immediately after planting. The landscape contractor shall allow for provision of all equipment to complete this initial watering, using water supply point as directed on site.
Each tree is to receive at least 30 gallons when watered.

4.5 Tree Support

All trees up to and including selected standards are to be supported with single 25mm diameter stake.
Unless otherwise specified on drawing all bare rooted trees and standard grown heavy standard size and over shall be double supported with 100mm diameter stakes and a half round timber cross-brace fitted to the windward side of the tree within 25mm of the top of the stakes ensuring that the tree is vertically and straight. Stakes are to be securely driven into the ground prior to planting to a height above ground that is one third of the height above ground of the tree when planted to allow free movement of the crown. Secure street trees to cross-brace with an adjustable plastic / rubber tie with spacer and buckle (buckle end to be nailed to stake).
Each tree should be fitted with a tree irrigation/irrigation system unit fitted to fully surround the root ball in accordance with the details. Refer to specific tree planting details.
Linear root barriers where required should be installed as near to the surface or service route to be protected as possible to provide as much rooting area for the trees as possible. Ensure that there are no sharp objects close to either side of the barrier and that the top edge of the root barrier remains 30mm above the surface on the tree side with no growing medium over the top of the barrier. Overlapping ends should be joined by lapping both sides with jointing tape.

4.6 Mulch

All trees and shrubs are to be watered thoroughly, to full ground capacity, immediately after planting and before the application of mulch. The landscape contractor shall allow for provision of all equipment to complete this initial watering, using water supply point as directed on site.
Ensure the area to be mulched is entirely free from annual and perennial weeds and has been watered prior to applying an even spread of mulch to planting areas to control weeds and retain moisture.

Unless instructed otherwise apply good quality bark mulch to a depth of 75mm in planting beds, hedges and tree stumps.
Where stone mulch is requested by the regional office apply 40mm of stone over Flaxtech Geotextile membrane or equivalent pegging down with metal pegs.
Finished soil levels adjacent to buildings are to be 150mm below damp proof course. For planted areas where 75mm depth bark mulch is specified the soil should be graded down to adjacent paved or grass surfaces to 100mm below the paving or grass. This allows for full depth of bark mulch with 15mm clearance.
Where stone depth stone mulch is specified with geo-textile membrane grade to 150mm below paving or grass within 100mm.
Finished mulch levels should be no higher than 15mm below adjacent pavement or grass levels to avoid any spillages.

5 GRASS

5.1 Turf Preparation

The area to be turfed shall be cultivated to a minimum depth of 150mm removing all weeds, debris and stones over 25mm diameter which should be placed in waste skips provided or as directed by the site manager. The surface shall be raked to smooth flowing contours with a fine 10th, incorporating pre-seeding fertiliser at 50 g/m².

5.2 Delivery and Storage

Turf shall be supplied in accordance with the most current BS 3969 Recommendation for Turf for General Purposes.
Turf shall be cultivated high grade turf well rooted seeded turf free from stones, weeds and coarse grasses. It shall be close textured, green in colour and be sufficiently fibrous to withstand handling. Turf rolls shall be regular in shape, 300mm wide and of uniform thickness (minimum 25mm). The grass shall be clearly mown and shall not exceed 25mm in height.
Turf shall be stacked in piles of up to 1 metre. It shall not be laid in frosty or waterlogged conditions and shall not be stacked in rolls for more than three days. Any turf deemed to be substandard shall be replaced at the landscape sub-contractors cost.

5.3 Turf

Turfing operations shall be in accordance with the most current BS 4428.
Turf should be laid when weather conditions are suitable and not during exceptionally frosty or dry weather conditions.
Turf is to be laid with staggered joints, well butted together, and in firm contact with the soil working from plants positioned on turves already laid. At no time should freshly laid turf be walked on without the use of boards.
The turf shall be watered immediately on completion. The landscape contractor shall allow for provision of all equipment to complete this initial watering, using water supply point as directed on site.
Any unevenness shall be made good by lifting the turf and adjusting the levels. Should shrinkage occur, fine topsoil shall be brushed into the joints.
Where trees are planted in turfed areas a 750mm diameter circle around each tree is to be kept clear of turf.

5.4 Seeding Preparation

The area to be seeded shall be cultivated to a minimum depth of 150mm removing all weeds, debris and stones over 25mm diameter which should be placed in waste skips or as directed by the site manager. The surface shall be raked to smooth flowing contours with a fine 10th, incorporating pre-seeding fertiliser at 50 g/m² unless otherwise stated and work into top 50mm during final cultivation.

5.5 Seeding

All Grass seed shall be sown in March / April or September during calm weather conditions and not when the ground is frost bound or waterlogged. Seed shall be sown in two equal sowings in transverse directions at 35g/m² total unless otherwise stated. After sowing the contractor shall lightly rake the seed into intimate contact with the soil.

5.6 Wildflower Seeding

All wildflower seed mixes are to be from a certified source with local provenance seed stock. Ground preparation to be 20 g/m² of sowing/sowing/seed. Sowing applications may vary but are likely to be carried out in early spring or late autumn. If an annual nurse seed mix is specified this is to be sown at 2g/m² plus the specified wildflower seed rate. After sowing lightly rake the seed into intimate contact with the soil.

6 MAINTENANCE

The landscape contractor shall maintain all none private landscape areas for a period of 12 months following practical completion to ensure successful establishments. All stock deemed to be dead, dying or distressed within the 12 months defects period shall be replaced by the contractor at own risk. The contractor should factor in 12 months of repeat visits sufficient for the establishment and aftercare of all planting. None private areas can be identified for each site. Private plot landscaping will be handed over to the householders and when each house is occupied the client will be responsible for watering until handover.

6.1 Weed Clearance

All planting areas are to be kept weed free by hand weeding unless otherwise specified. Providing adequate water, as specified, should aid this. Mulch should also be topped up as required.

6.2 Litter Clearance

All areas are to be kept litter free.

6.3 Watering

Watering to planted areas is to be undertaken as necessary to ensure plants become established.
All trees and shrubs are to be watered thoroughly, to full ground capacity, immediately after planting and before the application of mulch. The landscape contractor shall allow for provision of all equipment to complete this initial watering, using water supply point as directed on site.
Each tree is to receive at least 30 gallons when watered.
During maintenance visits, watering should take place as required. Watering visits should be factored in within the 12 months defects period, especially during times of prolonged dry weather.

6.4 Checking Ties

All tree ties and stakes are to be checked, adjusted (if too loose, too tight or if chaffing is occurring) and replaced if damaged or missing. Any broken stakes are to be replaced.

6.5 Formative Pruning

Any damaged shoots/branches are to be pruned back to healthy wood. Plants are to be pruned in accordance with good horticultural practice to maintain healthy well-shaped specimens. Shrubs grown for their coloured stems, such as Cornus, are to be cut back each spring to encourage new growth.

All hedges are to be clipped to help form hedge to dimensions on drawings/ Management Report. Cut back off pavement & kept to a maximum height of 1.2m unless specified otherwise.

6.6 Turfed and Seeded Areas

When newly turfed & seeded areas reach 10mm they should be lightly rolled and cut to a height of 40mm. All arising shall be removed. Any bare patches shall be made good at this time. Lawn areas should then be cut at appropriate intervals during the growing season to maintain a 40mm high sward. Watering, weeding and repair of any erosion and settlement with re-seeding or turfing shall be undertaken as required to establish a uniform and healthy sward of grass.

PLANTING SCHEDULE

- All Plot areas

PROPOSED TREES - Heavy Standard

Number	Abbreviation	Species	Girth	Height	Pot Size	Density Specification
4 -	ACECAM	Acer campestre	12-14cm	350-425cm	45-85L	Heavy Standard: 5 brks: C: Clear Stem min. 200cm
4 -	ACECAMST	Acer campestre 'Streetwise'	12-14cm	350-425cm	45-85L	Heavy Standard: 5 brks: C: Clear Stem min. 200cm
1 -	BETPE	Betula pendula	12-14cm	350-425cm	45-85L	Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm
5 -	CARBET	Carpinus betulus	12-14cm	350-425cm	45-85L	Heavy Standard: 5 brks: C: Clear Stem 175-200cm
2 -	LIRLU	Liriodendron tulipifera	12-14cm	350-425cm	45-85L	Heavy Standard: 5 brks: C: Clear Stem 175-200cm
4 -	PRUJAV	Prunus avium	12-14cm	350-425cm	45-85L	Heavy Standard: 5 brks: 3x: B: Clear Stem 175-200cm
2 -	SORARLU	Sorbus aria 'Lutescens'	12-14cm	350-425cm	45-85L	Heavy Standard: 5 brks: C: Clear Stem 175-200cm

Total :23 -

PROPOSED TREES - Selected Standard

Number	Abbreviation	Species	Girth	Height	Pot Size	Density Specification
PRUSNG	Prunus	Snow Goose	10-12cm	300-350cm	45L	Selected Standard: 4 brks: C: Clear Stem 175-200cm

Total :7 -

PROPOSED TREES - Standard

Number	Abbreviation	Species	Girth	Height	Pot Size	Density Specification
1 -	ACEPLDR	Acer platanoides 'Drummondii'	8-10cm	250-300cm	25-35L	Standard: 3 brks: C: Clear Stem 175-200cm
1 -	AMEBA	Amygdalus 'Ballerina'	8-10cm	250-300cm	35-45L	Standard: 3 brks: C: Clear Stem 150-175cm
1 -	BETUTJ	Betula utilis jacquemontii	8-10cm	250-300cm	35-45L	Standard: 4 brks: C: Clear Stem 175-200cm
7 -	MALBASP	Malus baccata 'Street Parade'	8-10cm	250-300cm	25-35L	Standard: 3 brks: C: Clear Stem 175-200cm
2 -	PRUPALP	Prunus padus 'Alberi'	8-10cm	250-300cm	25-35L	Standard: 3 brks: C: Clear Stem 175-200cm
9 -	PYRSPAE	Pyrus salicifolia 'Pendula'	8-10cm	250-300cm	35-45L	Standard: 3 brks: C: Clear Stem 150-175cm

Total :24 -

ORNAMENTAL HEDGE

Number	Abbreviation	Species	Height	Diameter	Pot Size	Density Specification
462 -	ELAEB	Elaeagnus x ebbingei	60-80cm	5-7.5L	3/m	Branched: 4 brks: C
641 -	PHOFRRER	Photinia x fraseri 'Red Robin'	60-80cm	5-7.5L	3/m	Branched: 6 brks: C
434 -	PRULU	Prunus lusitanica	40-60cm	5L	3/m	Bushy: 5 brks: C

Total :1437 -

GROUND COVER SHRUBS AND PERENNIAL PLANTS - Shrubs

Number	Abbreviation	Species	Height	Diameter	Pot Size	Density	Specification	
40 -	ABEGR	Abelia x grandiflora	40-60cm	9L	2/m ²	Bushy	4 brks: C	
70 -	AUCJACR	Aucuba japonica 'Crotonifolia'	40-60cm	10L	2/m ²	Bushy	4 brks: C	
61 -	BRASU	Brachyglottis 'Sunshine'	40-60cm	5-7.5L	2.5/m ²	Branched	6 brks: C	
63 -	CHOAP	Choisy 'Aztec Pearl'	40-60cm	7.5L	2/m ²	Bushy	6 brks: C	
40 -	CHOTE	Choisy ternata	40-60cm	7.5L	2/m ²	Bushy	5 brks: C	
63 -	CISCO	Cistus x corbariensis	40-60cm	5-7.5L	3/m ²	Bushy	6 brks: C	
38 -	ESCLAB	Escallonia 'Apple Blossom'	60-80cm	10L	1.8/m ²	Bushy	9 brks: C	
30 -	ESCLACB	Escallonia laevis 'Gold Brian'	40-60cm	10L	2/m ²	Bushy	6 brks: C	
20 -	EUFOPENG	Euonymus fortunei 'Emerald 'n' Gold'	25-30cm	30-40cm	5-7.5L	3.5/m ²	Bushy	9 brks: C
16 -	EUFODEG	Euonymus fortunei 'Emerald Gaiety'	25-30cm	30-40cm	5-7.5L	3.5/m ²	Bushy	9 brks: C
12 -	HEBGO	Hebe 'Great Orme'	40-60cm	10L	2/m ²	Bushy	7 brks: C	
21 -	HEBALRE	Hebe 'Red Edge'	30-40cm	5-7.5L	3.5/m ²	Bushy	7 brks: C	
91 -	HYPH	Hypericum 'Hidcote'	40-60cm	7.5L	2.5/m ²	Bushy	7 brks: C	
4 -	LAVAVNI	Lavandula angustifolia 'Hidcote'	30-40cm	7.5L	2.5/m ²	Bushy	9 brks: C	
17 -	MAHAQ	Mahonia aquifolium	40-60cm	10L	2/m ²	Branched	4 brks: C	
34 -	OSMBU	Osmanthus x burkwoodii	60-80cm	10L	2/m ²	Bushy	7 brks: C	
37 -	PHOFRLR	Photinia x fraseri 'Little Red Robin'	40-60cm	10L	2/m ²	Bushy	9 brks: C	
15 -	PHOFRRER	Photinia x fraseri 'Red Robin'	60-80cm	10L	1.8/m ²	Branched	7 brks: C	
10 -	PIEFLS	Pieris 'Flaming Silver'	30-40cm	9L	3/m ²	Bushy	5 brks: C	
44 -	PITFET	Pittosporum tenuifolium 'Tom Thumb'	30-40cm	10L	2/m ²	Bushy	7 brks: C	
6 -	PRULAOL	Prunus laurocerasus 'Otto Luyken'	40-60cm	10L	2/m ²	Bushy	6 brks: C	
27 -	ROSOF	Rosmarinus officinalis	40-60cm	5L	3/m ²	Bushy	5 brks: C	
20 -	SARCO	Sarcococca confusa	40-60cm	10L	2/m ²	Bushy	8 brks: C	
24 -	VIBDA	Viburnum davidii	30-40cm	5-7.5L	3/m ²	Bushy	4 brks: C	
57 -	VIBTEVP	Viburnum tinus 'Eve Price'	40-60cm	10L	2/m ²	Bushy	7 brks: C	
Total: 360								

Total :860 -

NATIVE HEDGE MIX - Individual species to be planted together in groups of 3-7

Number	Abbreviation	Species	Height	Pot Size	Density Specification
239 -	CORAV	Corylus avellana	60-80cm	6/m	1+2: Transplant - seed raised: Branched: 3 brks: B
711 -	GRAMON	Crataegus monogyna	60-80cm	6/m	1+1: Transplant - seed raised: B
162 -	MALSYLB	Malus sylvestris	60-80cm	6/m	1+1: Transplant - seed raised: B
239 -	PRUSP	Prunus spinosa	60-80cm	6/m	1+1: Transplant - seed raised: Branched: 2 brks: B
239 -	SAMNI	Sambucus nigra	60-80cm	6/m	1+1: Transplant - seed raised: Branched: 3 brks: B

Total :1590 -

SENSORY MIX - Individual species to be planted together in groups of 3-7

Number	Abbreviation	Species	Height	Pot Size	Density	Specification
40 -	BRASU	Brachyglottis 'Sunshine'	30-40cm	3L	3/m²	Branched: 4 brks: C
40 -	CARCLHB	Caryopteris x claudonensis 'Heavenly Blue'	30-40cm	3L	3/m²	Branched: 4 brks: C
40 -	DEJHYMR	Deutzia x hybrida 'Mont Rose'	40-60cm	3L	3/m²	Branched: 4 brks: C
40 -	OLEHA	Oleaia x hastata	30-40cm	3L	3/m²	Bushy: 4 brks: C
40 -	PERBS	Perovskia 'Blue Spire'	30-40cm	3L	3/m²	Bushy: 3 brks: C
40 -	ROSOF	Rosmarinus officinalis	30-40cm	3L	3/m²	Bushy: 4 brks: C

Total :240 -

PLANTING DETAILS

- Applies to all Plot landscape operations.

PROPOSED TREE PLANTING DETAIL

- Plot Trees in Soft Landscaping

Standard/ Select Standard Heavy Standard

