

Client	Watkin Jones	File Ref	151638-STL-XX-XX-SP-L-4080-SP001-Outline Soft Landscape Specification
Project	Thames Quarter, Reading	Date	26.03.2018
Status	S3 SUITABLE FOR REVIEW & COMMENT	Rev	P01

1.0 Site Preparation and Earthworks

1.1 All existing trees and vegetation to be retained within Site boundary shall be protected from damage by a scaffold framework comprising a vertical and horizontal framework, well braced to resist impacts, with vertical tubes spaced at a maximum interval of three metres. Onto this, weldmesh panels should be securely fixed with wire or scaffold clamps, in accordance with BS 5837 (2012). Protective fencing is to be located one metre beyond the Tree Root Protection Zone or canopy spread, whichever is the greater. Fencing to be provided for individual trees or tree groups, and the contained area is to remain completely undisturbed for the duration of the contract

1.2 Generally, all earthworks shall be executed, and topsoil and subsoil in accordance with BS4428 'General Landscape Operations, DEFRA Construction Code for the Sustainable Use of Soils on Construction Sites (2009), BS 3882:2015 and BS 8545:2014 Trees: from nursery to independence in the landscape – Recommendations.' It is assumed that existing subsoil will be reused subject to testing, however if required subsoil and topsoil shall be imported, and sampled and analysed in line with the detailed specification, including visual, physical and chemical analysis as per BS.

1.3 In line with BS 3882:2015 (p11), topsoil shall be spread to the following depths, with subsoil to make up the minimum overall rooting depth:

	Topsoil depth	Subsoil depth	Minimum rooting depth
Grass areas:	300mm	150mm	= 450mm
Planted (shrubs and perennials) areas:	300mm	300mm	= 600mm
Trees:	300mm	600mm	= 900mm

1.4 Subsoil to be broken and loosen to reduce bulk density in accordance to BS 8545:2014, Annexe B

1.5 Ground profiles to be left with smoothly flowing contours, free from localised depressions, high spots and abrupt angles. Cultivate topsoil to produce a fine tilth and even surface free from lumps and clods. Sides of tree pits that have been smeared or smothered during excavation should be scarified. The base of the tree pits is to be domed to aid drainage, where applicable.

1.6 The need for ameliorants and fertilisers should only been specified following receipt of the interpretive soil analysis report, prior to soil import and spreading in accordance with the DEFRA Construction Code for the Sustainable Use of Soils on Construction Sites (2009), BS 3882:2015 and BS 8545:2014.

No fertiliser should be applied to tree pits unless deficiencies are identified by testing, and compost shall only be applied where there is an identified need due to poor soil conditions.

1.7 Percolation and compaction testing of soils for tree planting should be as per BS 8545:2014 in accordance with guidance provided by the soils assessment.

2.0 Planting

- 2.1** Handling and transportation of all plants shall be carried out in accordance with Horticultural Trade Association's 'Plant Handling' recommendation (1987) and BS 8545:2014 Trees: from nursery to independence in the landscape – Recommendations ,Section 9 and Annexe E.
- 2.2** All planting operations shall be carried out in accordance with BS 8545:2014 Trees: from nursery to independence in the landscape – Recommendations Section 10 and Annexe F.
- 2.3** **Trees:** All trees shall be supplied in accordance with the plant schedules by named nurseries (all nurseries are to follow practice guidelines, as per BS8545:2014 Section 8 and Annexe D
- 2.4** Tree planting backfill shall contain:
- | | | |
|-------|---|---|
| 300mm | : | Topsoil |
| 600mm | : | Subsoil, |
| 300mm | : | Drainage layer (angular gravel separated with a geotextile layer) if required |
- 2.5** **Underground Guying:** All semi-mature and multi stemmed trees (over 2.5 metres in height) are to be anchored using "Duckbill" anchoring kit. Aeration tubes shall be supplied for all semi mature and multi-stemmed tree stock. To be 50mm diameter, black land flex perforated land drainage pipe with suitable rubber/plastic bung.
- 2.6** **Staking:** All extra heavy standards and feathered standards to be double staked. To be 50mm diameter, black land flex perforated land drainage pipe with suitable rubber/plastic bung.
- 2.7** **Tree pits:** Tree pits should be excavated to the following dimensions.

Dimensions of Tree Pit in soft landscape:

Semi Mature	2000mm square minimum x 1200mm depth
Extra Heavy Standard and <u>multi-stemmed</u>	2000mm square minimum x 1200mm depth
Heavy standard trees	1400mm square minimum x 1200mm depth
Standard and large feathered trees	900mm square minimum x 1200mm depth
Feathered trees, light and half standards	600mm square minimum x 1200mm deep
Whips	450mm square minimum x 1200mm deep

Semi Mature surrounded by hard landscape based on BS 8545:2014 Figure F.5:

Trench tree pit construction min 2000mm wide and varying length. Support system (structural soil or cellular cell system) may be required underneath the area of hard landscape, following confirmation of location and extent of services in the area, and confirmation of required soil volumes (BS 8545:2014 Annexe F 1.2.)

- 2.8** **Root barriers:** Urban Greenblue root barriers (depth and location of barrier to be confirmed), where required, following confirmation of location, extent and type of existing and proposed services, and hard landscape construction details.
- 2.9** **Transplants:** All transplants to be planted in a pit 300mm diameter x 300mm depth, to accommodate fully the outstretched spread of roots. Backfill with excavated topsoil and gently firm in place. Ensure plants are planted to level of nursery mark.

Plants to be evenly spaced and grouped in accordance with proportion of mix in small irregular blocks to give a 'natural' appearance, avoiding straight lines.

All transplants to be fitted with rabbit guards of an appropriate diameter. To be 12mm square plastic mesh tree guards, 600 mm high, in black, brown or green, fixed with soft wood stake.

- 2.10 Shrubs:** All shrubs shall be supplied in accordance with the plant schedules by named nurseries. Shrub pits to be excavated to allow a 75mm clearance around the edges of the root system. Sides and bottom of pits shall be loosened to relieve any compaction. Backfill for each plant to include 50g of SA1 Enmag, only if required, following recommendations from topsoil analysis results.
- 2.11 Bark mulch** shall consist of matured British conifer bark with an even particle size distribution between 5-35mm. The mulch to be General Landscape Grade Bark Mulch or equal equivalent, and a representative sample of the mulch shall be supplied for approval prior to delivery to site. Mulch layer to be spread at a consistent even depth of 50mm.
- 2.12 Turfing :** Turf to be Tillers "Arena", supplied to BS3969. Pre-turfing fertiliser to be Fisons 'PS5' applied at a rate of 70g/m². The turves will be laid with half lapped joints and well butted up.
- 2.13 Seeding:** Grass seeding to be British Seed House (BSH) A22 Low Maintenance Mixture, supplied to BS3969. Applied at a rate of 50g/m². Wildflower Seed Mixture to be BSH WFG15 Countrylife Mix, applied at a rate of 5g/m².
- 2.14 Watering:** All tree pits and shrub beds shall be thoroughly watered prior to application of mulch and subsequent maintained in a moist condition as per BS8545: 2014 section 11.3.
- Watering rates for trees and shrubs should follow guidance as stated in BS 8545:2014 Trees: from nursery to independence in the landscape – Recommendations, Annexe G.2 Irrigation
- 2.15 Ongoing maintenance:** Routine assessment and maintenance of tree should take place during the defect period and after care until the tree the trees is self-supporting, in accordance to BS 8545:2014 Section 11 and Annexe G