

## LANDSCAPE EARTHWORKS NOTES

Spreading Topsoil  
Soil Handling & Weather  
REFER TO THIS DOCUMENT FOR DETAILS ON:  
EXISTING TOPSOIL, IMPORTED TOPSOIL, TOPSOIL  
ANALYSIS  
TOPSOIL STRIP AND TOPSOIL STORAGE.

Vegetation to be retained  
The Main Contractor shall take the necessary measures to prevent damage to existing vegetation, and unless otherwise instructed by the Contract Administrator, retain existing levels beneath the canopy of existing trees.

Where so instructed by the Contract Administrator the Main Contractor shall protect existing vegetation by the erection of fencing in accordance with the Tree Retention/Removal drawings or in accordance with BS 5837:2012 'Trees in Relation to Design, Demolition and Construction - Recommendations'.

Herbicide Treatment  
Use of chemicals shall comply with the Plant Protection Products (Sustainable Use) Regulations 2012 and Codes of Practice prepared jointly by the Department for Environment, Food and Rural Affairs (Defra), the Health and Safety Executive (HSE) and the National Assembly for Wales Environment, Planning and Countryside Department. All herbicides shall be on current list of approved products.

Storage, handling and application of chemical shall be in accordance with the manufacturers' instructions. The Contractor shall be responsible for any damage caused by spray drift and will make good at own expense.

Sufficient time for herbicide to be effective shall be allowed to elapse between application of herbicide and the commencement of any stripping or grading works.

Subsoil Formation for Wildflower/Species Rich Grassland Areas  
Areas to be wildflower seeded are to be covered with 300mm depth well graded selected subsoil material which shall be suitable for the cultivation operations proposed, to achieve a fine til for seeding. Proposed subsoil material shall be tested to confirm that it is suitable for use for the specified seed mixes and free from contamination.

The subsoil shall be decompacted to a depth of at least 200mm to ensure the areas are free draining and be completely free of all large lumps of clay, rubbish, bricks and concrete. Subsoiled areas shall be completely cleared of all weed growth using an approved herbicide in accordance with the clause for herbicide treatment below.

A sample area of subsoil shall be prepared for approval by the Contract Administrator prior to preparation of remaining areas.

Formation level and subsoil preparation  
Prior to preparation of formation level, the subsoil shall be completely cleared of all weed growth by the main contractor using an approved herbicide in accordance with the clause for herbicide treatment below.

The site shall be brought to formation level by the main contractor using an approved subsoil material. All soil handling should be carried out when the soil is sufficiently dry and not plastic.

The subsoil shall be decompacted to a depth of at least 300mm in grass areas and 600mm in shrub planting areas to ensure the areas are free draining and be completely free of all rubbish, bricks and concrete.

For small planting beds and areas of restricted access decompaction may be carried out by hand or a small (1.5 tonnes) to medium sized (13 tonne) tracked excavator, fitted with a ripper tine attachment, shall be used. On larger, open areas a tractor mounted rigid tire harrow (300mm depth) or subsoiler (600mm depth) shall be used.

The base of tree pits shall be decompacted to a depth of at least 300mm and checked to ensure that they are free draining.

The Main Contractor shall obtain the Contract Administrator's acceptance of formation levels and subsoil preparation prior to the commencement of topsoil.

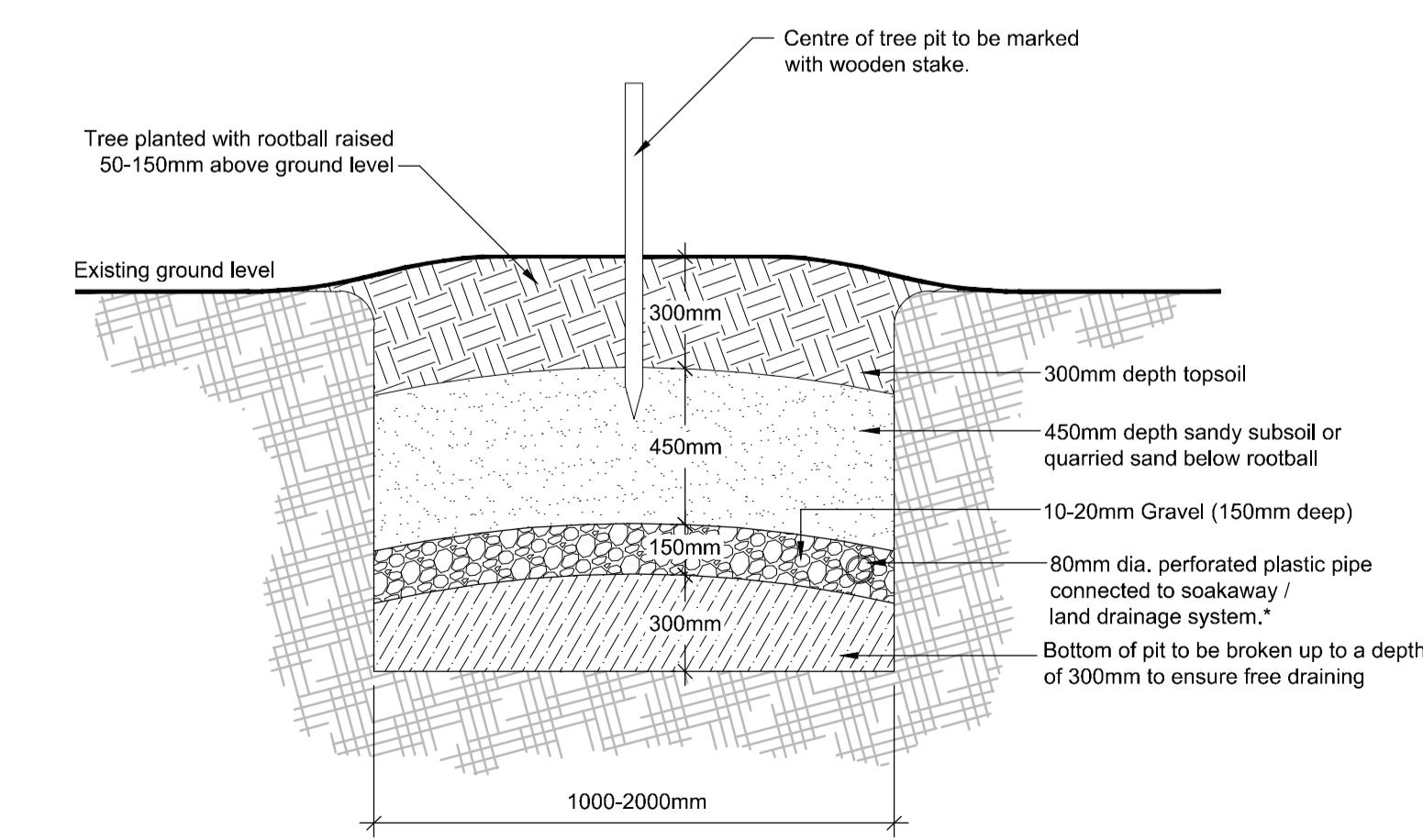
Tree Pits  
(Refer to Typical Tree Pit in Soft Landscape). The Main Contractor shall provide short stakes to mark the exact positions of tree pits for acceptance by the Contract Administrator, prior to pit excavation and retain in the same position after topsoiling.

Tree pits are to be:  
1500 x 1500 x 900 overall depth; (18-20cm)

Topsoil Depths  
Minimum subsoil depths are to be as follows:

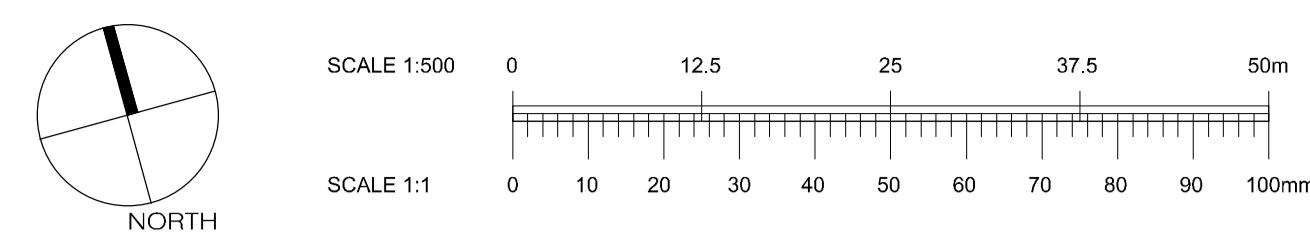
- i in shrub bed areas 300mm
- ii in thicket areas 600mm
- iii in grassed areas 300mm

Topsoil depths are to be as follows:  
i in tree pits 300mm  
ii in shrub bed areas 300mm  
iii in thicket areas 300mm  
iv in grassed areas 150mm



TYPICAL TREE PIT DETAIL IN SOFT LANDSCAPE

Scale 1:20



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DO NOT SCALE FROM THIS DRAWING

## NOTES

### CDM COMMUNICATION SYMBOLS



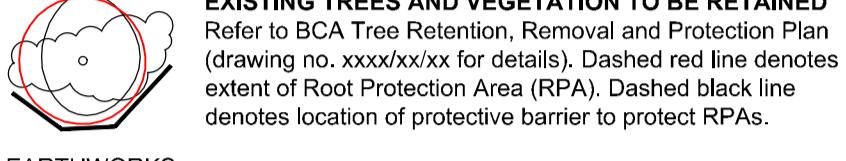
SIGNIFICANT HAZARDS  
(Significant/unusual hazards that are difficult to manage and cannot be designed out, e.g. overhead/underground cables, gas, easements).

To be read in conjunction with:

- BCA Tree Pit Within Raised Planters' (drawing no. 00501-S4-P01)

Layout based on NWA Associates drawing no. DCS20109-NWA-DC-01-LP-DR-A-10201 'Site Layout'.

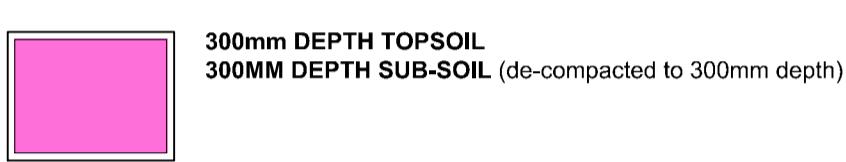
### KEY



EXISTING TREES AND VEGETATION TO BE RETAINED  
Refer to BCA Tree Retention, Removal and Protection Plan (drawing no. xxxx/xx/xx for details). Dashed red line denotes extent of Root Protection Area (RPA). Dashed black line denotes location of protective barrier to protect RPAs.

### EARTHWORKS

TREE PIT WITHIN RAISED PLANTERS  
(Refer to BCA drawing 00501-S4-P01 for detail)



300mm DEPTH TOPSOIL  
300MM DEPTH SUB-SOIL (de-compacted to 300mm depth)

300mm DEPTH TOPSOIL  
600MM DEPTH SUB-SOIL (de-compacted to 300mm depth)

150mm DEPTH TOPSOIL  
300MM DEPTH SUB-SOIL (de-compacted to 300mm depth)

REINFORCED GRASS AREAS  
Gopta Pre Grown grass system supplied by Geosynthetics Limited, Or similar approved. To be installed in line with manufacturers recommendations

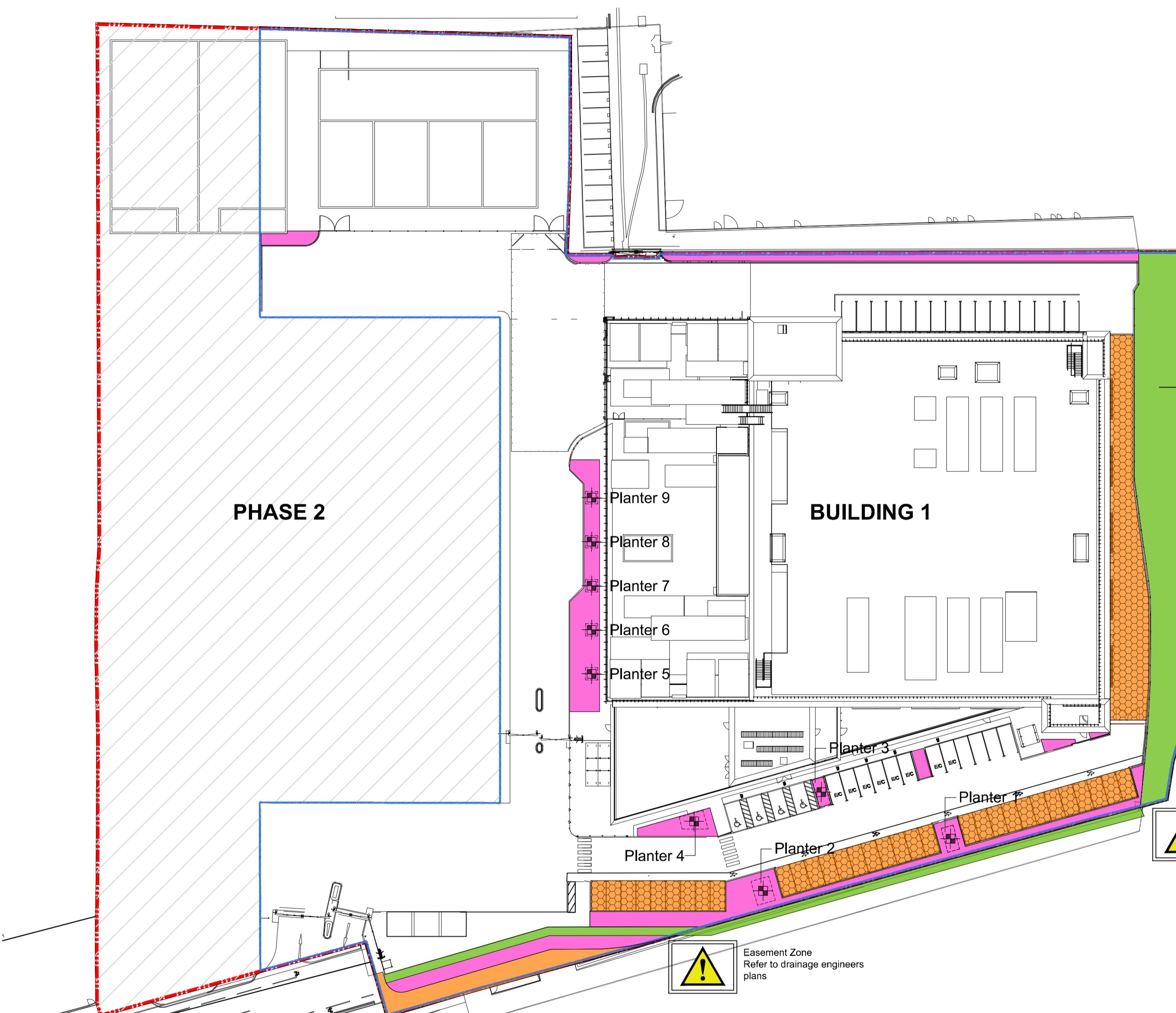
### SECURITY FENCE



### PHASE 1 BOUNDARY



### APPLICATION BOUNDARY



Formation level shall be completely free of all rubbish, bricks and concrete, and shall be decompacted using a hired ripper (300mm depth grass areas and 600mm depth for planted areas) prior to any topsoil taking place to ensure free drainage and plant root penetration. For small areas de-compaction may be carried out by hand or tracked excavator fitted with ripper tine attachment.

Manhole covers inclined to suit ground profiles

Rootbarrier installation if required to protect drainage apparatus, ducting or utilities if within 3m of proposed tree pits (Main Contractor site Engineer to confirm requirement)

150mm depth topsoil

300mm depth subsoil

300mm depth topsoil

300mm depth subsoil

1 in 10 margin for minimum of 1m to prevent soil wash onto hard surfacing.

Generally topsoil depths should be as follows:

300mm depth for shrub and ornamental hedge planted areas

300mm depth for thicket/woodland and native hedge planted areas

150mm depth for grass seeded/turf areas

Generally subsoil depths should be as follows:

300mm depth for shrub and ornamental hedge planted areas

600mm depth for thicket/woodland and native hedge planted areas

300mm depth for grass seeded/turf areas

300mm depth for wildflower seeded areas

Tree Pit  
See Typical Tree Pit Detail in Soft Landscape for detail (Appendix C of Earthworks Specification)

If earthworks profile is at a gradient then depth of tree pit to be established from centre point of tree pit.

Tree pit sizes to be as specification. To be 300mm depth topsoil with 450mm depth sandy subsoil or quarried sand below rootball (over 150mm depth gravel drainage layer if ground conditions require). Base of tree pit to be assisted free drainage.

Manhole covers to be inclined to marry with ground modelling.

NOTE: Finished levels are to be smooth and flowing, free of minor hollows and high spots, and to marry neatly with paving, kerbs, edgings, manhole covers and existing levels to be retained.

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