

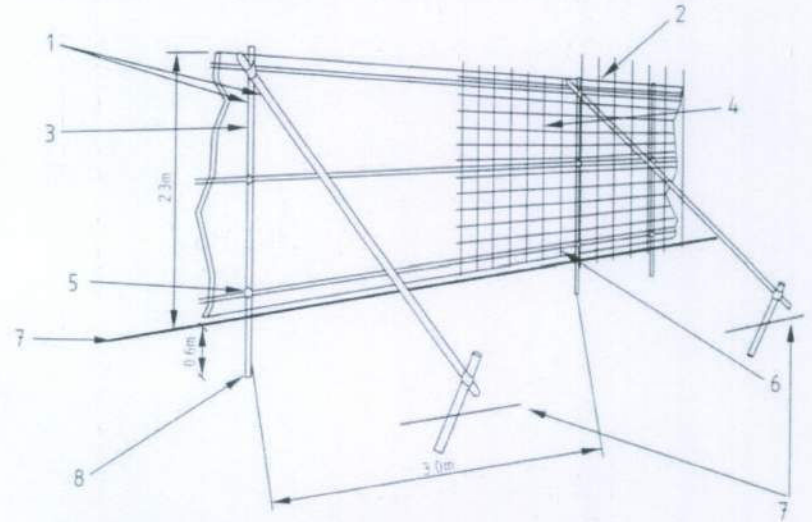
Specification for Construction of Tree Protection Barriers

In order to avoid unacceptable damage to trees as a result of severance or asphyxiation of their root systems, or direct damage to trunks or branch systems, an area around all trees shown to be retained on this drawing will be protected from disturbance by the construction of barriers.

Where indicated, a fence 2.4 metres high will be erected comprising a vertical and horizontal framework of scaffolding, well braced to resist impacts, supporting weld-mesh panels, securely fixed with wire or scaffold clamps, as shown in Figure CTP.01 below. Laminated signs, as illustrated below, will be attached to the face of the barriers at 10 metre intervals along its length.

This fence will be erected before any materials or machinery, other than those required for agreed tree surgery, are brought onto the site and before any development.

Figure CTP.01
Tree Protection Fencing - view from within protected area



1. Standard scaffold poles
2. Uprights driven into ground
- 3,4. Weldmesh panels secured to uprights and horizontals with wire ties or scaffold clamps
5. Standard clamps
6. Wire twisted and secured on inside, to avoid easy dismantling
7. Ground level
8. At least 600mm driven into the ground



GUIDELINES FOR HAND EXCAVATION

All excavations within RPAs must proceed using hand tools and materials such as: narrow spade, fork, breaker bar, secateurs, handsaw (folding and bow), hand trowel, small stiff brush and hessian sacking. Hand digging needs to be undertaken with care in order to retain and avoid damage to as many roots as possible. Therefore, closer supervision than normal is required and an understanding by all operatives and staff of what exactly is expected of them.

Roots Greater Than 25 mm Diameter

As hand digging proceeds all roots greater than 25 mm diameter should be retained and worked around. Great care should be taken to minimise damage to retained roots, including the bark around the roots. They must not be severed without the knowledge of the owner of the tree or without the advice of the Tree Officer, who should respond within one working day. If severance is unavoidable, roots must be cut back using a hand saw or secateurs, leaving the smallest possible wound.

Roots Less Than 25 mm Diameter

Where mats of smaller roots (including fibrous roots) are found these should be retained. During excavation great care should be taken to minimise damage to retained roots. It is often possible to displace or lower roots to accommodate construction levels for paving and services. This is more likely in the case of mats of fibrous roots. Where it is necessary to remove large sections of fibrous roots from within the precautionary area to achieve the required levels for reinstatement, this should not be done without first obtaining the advice of the Tree Officer.

Whereas larger roots have a bark layer which provides some protection against desiccation and temperature change, fine roots are vulnerable to desiccation once they are exposed to the air. The greatest risk to fine roots occurs when there are rapid fluctuations in air temperature around them, e.g. winter diurnal temperatures. It is important therefore, to protect exposed roots where an area of work is to be left open overnight and when there is a risk of frost. In winter, before leaving the site at the end of the day, the exposed roots should be wrapped with dry sacking. This sacking must be removed before the trench is backfilled. In the summer months desiccation of roots can occur quickly due to exposure to direct sunlight or wind. In these conditions the roots must also be covered with damp sacking at all times during the excavation. The sacking must remain in place until just before backfilling commences.

NOTES

Phasing

1. Initial tree works – removal and pruning to BS3998
2. Installation of Tree Protection Barriers
3. Installation of no-dig permanent access
4. Installation of special protection measures
5. Main construction, including main hard landscape works
6. Removal of Tree Protection Barriers
7. Final hard and soft landscape works, including sensitive construction of refuse / recycle store and boundary walls and fences.

Arboricultural Works

The tree survey schedule CCPEP.0207.TS01 RevA, includes includes proposals for works to trees on the site. These will be carried out before commencement of other site operations including erection of protective fencing.

- No tree surgery vehicles will be allowed to enter areas to be subsequently protected by Tree Protection Barriers.
- All tree works will be carried out in accordance with British Standard 3998, 1989 Recommendations for Tree Work.

Tree Protection Barriers

Before the commencement of any works on site, other than tree work set out in the tree survey schedule CCPEP.0207.TS01 RevA, Tree Protection Barriers will be erected around all trees to be retained, in the positions and to the specification shown at Figure CTP.01 on this drawing.

General Precautions

No materials that are likely to have an adverse effect on tree health such as oil, bitumen or cement will be stored or discharged within 10 metres of the trunk of a tree that is to be retained.

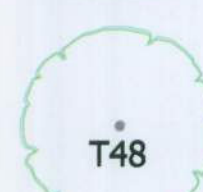
No fires will be lit within 20 metres of the trunk of any tree that is to be retained.

Special Protection Measures Inside RPA

Within those areas outside the proposed tree protection barriers, but inside Root Protection Areas, (shaded blue and brown on this drawing) the following precautions will be adhered to.

- All excavation will be carried out by hand in accordance with the Guidelines for Hand Excavation, reproduced on this drawing.
- Construction of access and parking areas will be in accordance with the Method Statement for Construction of No-Dig Access, and the No-Dig Temporary and Permanent Access Detail drawing, reproduced on this drawing.

KEY:



EXISTING TREES (SURVEYED) TO REMAIN



EXISTING TREES TO BE REMOVED



EXISTING TREES / SHRUBS / HEDGES (NOT SURVEYED)



ROOT PROTECTION AREA (RPA)



AREA FOR IMPLEMENTATION OF SPECIAL PROTECTION PRECAUTIONS



AREA FOR IMPLEMENTATION OF SPECIAL PROTECTION PRECAUTIONS - POST CONSTRUCTION



POSITION FOR ERECTION OF TREE PROTECTION BARRIERS



TREE QUALITY ASSESSMENT - CATEGORY 'I'



TREE QUALITY ASSESSMENT - CATEGORY 'A'



TREE QUALITY ASSESSMENT - CATEGORY 'B'



TREE QUALITY ASSESSMENT - CATEGORY 'C'

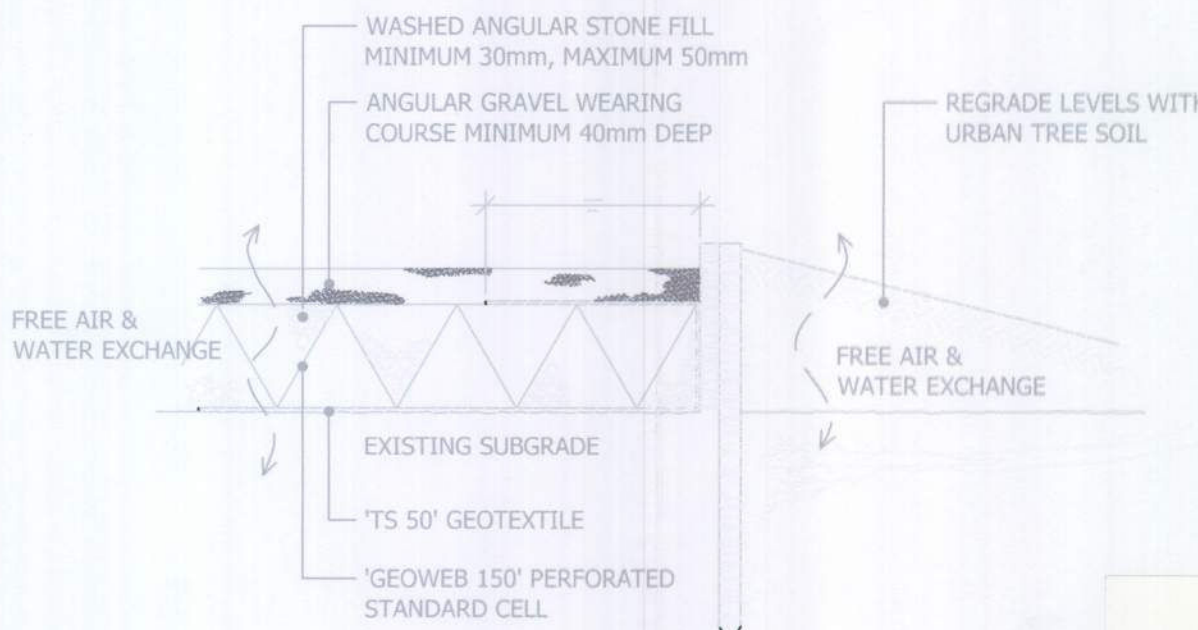
Method Statement for Construction of No-Dig Access

To minimize damage to the roots of adjacent trees and hedge plants, access areas within the area shaded blue on this drawing will be constructed in accordance with this method statement and as illustrated on the accompanying No-Dig Temporary and Permanent Access Detail, also on this drawing.

- Remove surface vegetation by hand, in accordance with the Guidelines for Hand Excavation, resulting in soil strip not exceeding 50mm.
- If any roots are encountered during the vegetation strip, the prescriptions contained in Guidelines for Hand Excavation will be followed.
- Ensure a level and well graded sub grade is achieved to receive driveway, using infill of sharp sand where necessary.
- Lay polyfelt TS50 geotextile* over the prepared sub grade area, with all dry lays a minimum of 300mm.
- Expand and lay standard perforated cellular confinement system 'Geo 150*' to the required width of 2.5 metres to accommodate driveway and access areas.
- Install timber edge restraints to contain movement of infill and, where permanent access is being installed, regrade edges using Urban Tree Soil**.
- Infill using angular fill of a general minimum particle size 30mm and maximum particle size 50mm. The fines fraction of the infill will not exceed 10%.
- Where permanent access is being installed, apply 50mm wearing surface of angular gravel.
- Following completion of development, temporary access will be removed and area will be lightly forked by hand to a depth of 300mm.

*Available from Cooper Clarke Group Ltd, Bloomfield Road, Farnworth, Bolton, BL4 9LP

**Available from Urban Soils Ltd, High Leigh Estate Office, Knutsford, Cheshire, WA16 0QS



'NO-DIG' - TEMPORARY & PERMANENT ACCESS DETAIL

SCALE 1:10

Octave
HOMES



www.canopytjp.co.uk

Land At Church Field, East Preston

Title	Tree Survey & Constraints
Client	Cliveden Homes
OS reference	TQ065026
Scale	1:200 @ A1
Date	July 2007
Drawing No.	CCPEP.0207.TCP01.Rev.B