

Trunk Protection

Protective trunk Wrapping:

To be attached to the trunks of retained trees prior to the commencement of all works on site, and retained in place throughout construction. To comprise of a minimum of three wrappings of clean dry hessian around the trunk from ground level up to 2.3m high and held in place using sisal. Onto the hessian a minimum of three wraps of chestnut palling and is to be held in place by 2.50mm mild steel galvanized wire in three locations and fixed into place using fencing staples fixed into the chestnut palling.

Protective hoarding:

To be erected prior to the commencement of all works on site, and retained in place throughout construction. To comprise of 2.4m wooden site hoarding constructed upon a timber frame work situated around the outside of the planting pit. Where the timber frame is constructed around the tree trunk a minimum of 4 layers of clean dry hessian is to be wrapped around the trunk to protect the bark.

All weather notices should be erected at regular intervals on the weld mesh panels with words such as "Construction exclusion zone - Keep out".

Ground boarding

New temporary ground protection should be capable of supporting any traffic entering or using the site without being distorted or causing compaction of underlying soil.

Note The ground protection might comprise one of the following:

a) for pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold frame, as to form a suspended walkway, or on top of a compression-resistant layer (e.g. 100mm depth of woodchip), laid onto a geotextile membrane;

b) for pedestrian-operated plant up to a gross weight of 2t, proprietary inter-linked ground protection boards placed on top of a compression-resistant layer(e.g. 150mm depth of woodchip), laid onto a geotextile membrane;

c) for wheeled or tracked construction traffic exceeding 2 t gross weight, an alternative system (e.g. proprietary system or pre-cast reinforced concrete slabs) to an engineering specification designed in conjunction with arboricultural advice, to accommodate the likely loading to which it will be subjected.

'No Dig' Surfacing

Multi-dimensional confinement system

Existing vegetation may be removed with hand tools or sprayed with an approved non residual herbicide such as 'Glyphosate'. The new 'hard' surfacing will be constructed using a 'No Dig' surfacing situated entirely above the existing soil surface and where needed using a proprietary cellular confinement system (GeoWeb or similar) laid over a bi-axial geo-grid (tensar TriA or similar). Prior to this any small hollows on the surface may be filled with clean sharp sand (not builders sand) to a maximum depth of 150mm. The 'GeoWeb' is to be back filled by hand with a no-fines aggregate of 20mm - 30mm. The area of 'GeoWeb' will be covered with a permeable geotextile fabric and the finished wearing course laid on top. Edge supports of an appropriate size and strenght should be set above ground level and secured with haunching or steel pins driven into the ground. the outer edge of the supports may be banked up with clean top soil.

Road deck system

Where the area of the RPA(s) is covered by the proposed hard surfacing exceeds 20% of the total area of the uncovered RPA it is proposed that the section of the proposed roadway/drive will be suspended entirely above the existing ground level. This will be achieved by constructing the suspended road platform by the minimum number of mini pile required to provide a stable structure.

The design, materials and methodology of the 'road deck' are to be undertaken to an engineering specification in conjunction with arboricultural advice, to accommodate the likely loading to which it will be subjected to, however the following principles should be followed:

a. The road deck is to be suspended entirely above the existing ground level.

b. Prevention of the void beneath the road deck being inhabited by rodents or other small mammals.

c. A watering system is to be designed to either capture rain water and direct it onto the soil below the road deck or for the roadway to be permeable. These systems must take into account that if the surface is to be subjected to de-icing salt, an impermeable barrier or filtration system will be required to prevent contamination of the rooting area.

d. Pile locations are to be designed in conjunction with advice of the project arboriculturist and as identified during the site investigations to allow for the retention of roots that are important to the trees stability.

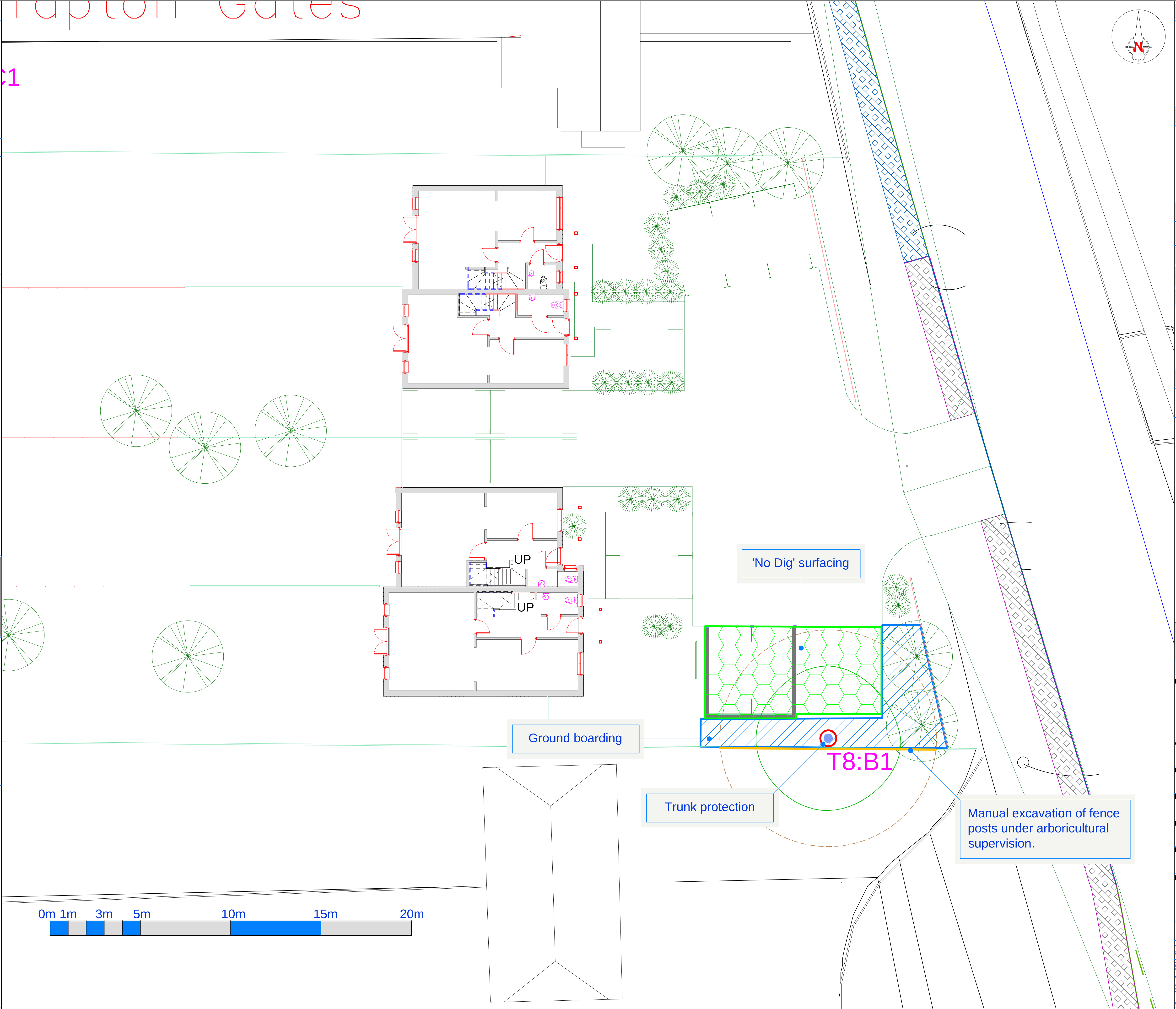
e. Piles should be lined and ground covered to prevent contamination of the rooting environment by concrete effluent run off.

Cross section of a typical road deck.

Supervised Excavation

Excavation adjacent to RPAs are to be undertaken under direct on-site arboricultural supervision. Excavation will consist of a mixture of mechanical and manual excavation.

Initial excavation will be undertaken by hand under to a minimum of 200mm deep of any excavation, the soil is to be loosened with the use of a fork or pick and then cleared with the aid of an air-spade, air-vac or shovel. There after excavation can be undertaken using an excavator with a suitably sized toothless grading bucket using a grading motion rather than digging and taking no more than 10 - 20mm deep swipes at any time, if any roots are discovered mechanical excavation will be stopped immediately and manual excavation will resume to expose the root. All roots to be cut will be cleanly severed with the use of a hand saw or secateurs. The edge of the excavation closest to the retained trees will be covered over with damp hessian to prevent drying out, and where necessary be shuttered to prevent soil collapse or contamination by concrete. If appropriate soil beneath the depth 750mm may be sheet piled, regular piled or individual piles. Any deeper excavations may be undertaken by a machine provided it works form outside of the RPA or has appropriate ground protection in place to move and work upon.



Tree Categories

Trees are categorised in accordance with the cascade chart in Table 1 of the British Standard BS 5837:2005 'Trees in relation to construction - Recommendations'

Category 'U' - Trees in such condition that they cannot realistically be retained as living trees in context of the current land use for longer than 10 years.

Category 'A' - Trees of high quality with an estimated remaining life expectancy of at least 40 years.

Category 'B' - Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.

Category 'C' - Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.

Root Protection Area

In order to avoid damage to the roots or rooting environment of retained trees, the Root Protection Areas (RPAs) should be plotted around each of the category A, B and C trees. This is a minimum area in m² which should be left undisturbed around each retained tree.

The RPA is calculated using the British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations.

The calculated RPA is capped to 707m², which is the equivalent to a circle with a radius of 15m. Where there appears to be restrictions to root growth the root protection area is reshaped to more accurately reflect the likely distribution of the roots.

Arboricultural Impacts Addressed

No. Species Proposed structure Incursion

T8 Sycamore Garage, hard surfacing & fencing RPA & Canopy

Arboricultural Impacts

No. Species RPA Incursion

8 Sycamore 113.1m² 34.2m² 30.2%

Arboricultural Supervision

The arboricultural consultant will be required to attend site to directly supervise all demolition and construction works that have to be undertaken within the root protection areas. This will include:

1. Pre start meeting.

2. Location of protective measures.

3. Manual excavation for fence posts within RPAs of tree nos. T8.

4. Installation of 'No Dig' hard surfacing.

5. Any excavations within or adjacent to RPAs, including foundations, hard surfacing or underground services.

6. Removal of protective measures.

Arboricultural Method Statement

Please refer to Arbtch Consulting Ltd. Tree Schedule and Arboricultural Method Statement, for full details on all surveyed trees and how all aspects of the development may be implemented without detriment to retained trees.

ARBTECH

Consulting Limited

Project:

The Old Coal Yard,
North End Road,
Yapton,
West Sussex,
BN18 0DN

Client:

Mary Huband

Drawing:

Tree Protection Plan

Based on:

Planning 2

Drawing No:

Arbtch TPP 01

Rev:

Date:

Nov 2014

Scale:

1:100 @ A1

Drawn:

AST

Key:

Tree Nos.: T8

Tree Canopies:

Trunks:

RPA's:

Category 'B' trees:

Trunk protection:

Ground boarding:

Supervised excavation:

'No Dig' hard surfacing:

Replacement planting:

All dimensions should be checked on site. No dimensions are to be scaled from this drawing. Please notify us of any discrepancies found. Arbtch Consulting Ltd. cannot be held responsible for inaccuracies in the base drawing in which this plan is based.

This drawing is designed to reflect the principles of the layout or design only, and relates only to the protection of retained trees.

This drawing is not to be read as a definitive part of the engineering or construction design or method statement. An architect or structural engineer should be consulted over any matters of construction, detailing or specification prior to any standards or regulatory requirements relating to proposed structures, hard surfacing or underground services.

This drawing was produced in colour - a monochrome copy should not be relied upon.

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