

Tree Protective Measures - No-Dig Construction

A 'no-dig' Construction method shall be employed during the construction of the new development in order to avoid damage to existing tree roots and localised compaction of subsoil within the tree root protection areas of trees proposed for retention.

Existing surfacing materials shall be left undisturbed and retained during the construction period for as long as possible in order to protect the tree root protection area of the existing trees to be retained; existing soft ground layers shall be removed carefully by hand within the existing tree root protection areas. A ground stabilising geo-mesh (TDP SN20 GeoGrid or equal and approved), shall be rolled out over the existing ground level and evenly covered with a No Fines - Open Graded Aggregate (in accordance with Highways Agency Specification; Clause 805 (Type 3) or equal and approved.) The granular fill shall be incorporated within a 3 dimensional GeoCell (Terram Geocell 25/10 or equal and approved) and shall ensure a minimum supportive construction depth of 150 mm. A geo-textile filter membrane is to be laid over the granular fill construction (Geotextile filter membrane to be TDP 115 Non-woven Geotextile Fabric or equal and approved.) A permeable system and construction method shall be installed over the prepared sub-base layers. A bedding layer of crushed aggregate (to BS EN13242; range size: 4 - 14 mm) is to be laid level and compacted above the Geotextile filter membrane to a depth of 25 mm. A permeable top layer, which could consist of (for example) resin-bound gravel, tarmac or permeable block-paving shall then be installed above the bedding layer to create the terrace areas.

Ground Protection Zone - Manual Excavation and Minimal-Dig Construction Zone

Where the proposed dwelling foundations increases the depth of construction within the tree RPA, a manual excavation and 'minimal-dig' construction method shall be employed in order to avoid damage to existing tree roots and localised compaction of subsoil within the tree root protection areas of existing trees.

Ground protection must be fit for the purpose of supporting the level of traffic entering or using the site within RPAs without being distorted or causing compaction of underlying soil. The appropriate solutions include:

- For pedestrian movements or the erection of scaffolding within the RPA - single layer of scaffold boards either on top of a driven scaffold frame, to form a suspended walkway, or on top of a compression-resistant layer, e.g. 100 mm depth of woodchip laid onto a geotextile;
- For pedestrian-operated plant (up to a gross weight of 2 t) - proprietary, inter-linked ground protection boards or panels laid on top of a compression-resistant layer, e.g. 150 mm depth of woodchip laid onto a geotextile membrane;
- For vehicular access (exceeding a gross weight of 2 t) - an alternative system subject to engineer's specification appropriate for expected loads, designed in consultation with the project Landscape/ Arboricultural Architect.

The surface material should be contained with edging type requiring no excavation. Where proposed levels of any new access routes do not ascertain minimum required depth for installation of traditional kerbs, other solutions should be sought:

- Timber edging boards and spikes would be considered appropriate for pathways;
- Timber sleepers should be used as a kerb edge restraint for vehicular areas and anchored with non-intrusive pinning (such as road pins) in order to maintain the existing levels within the specified Root Protection Areas.

Tree Protective Barrier

All Tree Protection and Tree Protective Barrier to be in accordance with BS 5837:2012 - 'Trees in Relation to Design, Demolition and Construction - Recommendations'. Tree Protective Fencing - to be 2.0 metres height 'Heras' Welded Wire Mesh Fencing secured to a scaffolding framework, set into the existing ground, and positioned to the outside edge of the existing Tree Root Protection Area, or as specified.

Existing Trees to be Removed

Trees and Shrubs Recommended for Removal from Site Prior to Tree Protection Works / Measures.

Tree Protective Measures - No Dig Construction

Ground Protection Zone - Operation Zone during Construction.

Operation Zone during construction of proposed building and laying of surfacing. Ground within RPA of existing trees to be protected from compaction subject to level of traffic and loads expected.

Legend

- T02** **Tree and Shrub Numbers.**
- Tree Root Protection Areas**
Tree Root Protection Areas calculated and specified in accordance with BS 5837:2012 - 'Trees in Relation to Design, Demolition and Construction - Recommendations'.
- Category A Trees**
Trees of High Quality and Value.
- Category B Trees**
Trees of Moderate Quality and Value.
- Category C Trees**
Trees of Low Quality and Value.
- Category U Trees**
Trees unsuitable for retention.
- Existing Trees to be Removed**
Tree Surgery operations to be in accordance with BS3998:2010 - 'Tree Works - Recommendations'.
- Tree Protection Zone - Operation Zone during Construction & 'No Dig' Construction**
A 'No Dig' Construction shall allow for construction to be implemented without intrusion or change of existing ground levels, in accordance with BS 5837:2012 - 'Trees in Relation to Design, Demolition and Construction'.
- Tree Protection Zone - Manual Excavation / Demolition**
Limited Manual Excavation / Demolition Zone shall be implemented, in accordance with BS 5837:2012 - 'Trees in Relation to Design, Demolition and Construction'. The excavation of bank to widen the vehicular access to demolition site shall be undertaken with due care with hand held tools under Arboricultural Supervision only.
- Tree Protection Barrier**
All Tree Protection and Tree Protection Barriers to be in accordance with BS 5837:2012 - 'Trees in Relation to Design, Demolition and Construction - Recommendations'. Tree Protective Barrier to be 2.0 metres height 'Heras' Welded Wire Mesh Fencing secured to a scaffolding framework, set into the existing ground, and positioned to the outside edge of the existing Tree Root Protection Area, or as specified.

Notes:

- Drawing to be read in colour.
- For details of existing trees and vegetation refer to: LLD1688-ARB-SCH-001 - Existing Tree Schedule;
- For assessment of effects of the proposed development on existing trees refer to LLD1688-ARB-REP-001- Arboricultural Impact Assessment and Method Statement;

PLANNING ISSUE

Rev	Description	Date	Initials
00	Planning Issue	01.05.19	LB



The Old Bank, 34 South Street, Tarring, Worthing, West Sussex, BN14 7LH

MR ESPEZEL			
Project Title and Location			
OLD BLACKSMITHS YARD			
WATER LANE, ANGMERING, WEST SUSSEX			
Drawing Title			
TREE RETENTION PROTECTION PLAN			
Scale	Drawn	Approved	Date
1:100@A1	LB	GS	01.05.19
Drawing No	Revision		
LLD1688-ARB-DWG-002-TRPP	00		

Tree Retention Protection Plan

Old Blacksmiths Yard, Water Lane, Angmering

