

Tree Protection Zone - 'No-dig' Construction

A 'no-dig' Construction method shall be employed during the construction of the highway access and parking area within tree RPAs, 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 geo-textile filter membrane (TDP 115 Non-woven Geotextile Fabric or equal and approved.) and 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 for the highway access shall be incorporated within a 3 dimensional GeoCell (Terram Geocell 25/15 or equal and approved) and shall ensure a minimum supportive construction depth of 150 mm for light vehicle traffic.

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 50 mm. A permeable top layer, which could consist of (for example) gravel within a retention grid (Bodpave 85 or equal and approved); resin-bound gravel; permeable block paving or permeable asphalt shall then be installed above the bedding layer to create the terrace areas.

Any kerbs or edge restraints shall also be of 'no-dig' construction within RPAs; these shall be formed of pinned timber sleepers; or a standard kerb construction installed on top of the cellular layer.

Ground Protection Measures - Operation Zone During Construction

While construction work is commencing on the proposed highway access and pedestrian footpath within retained tree RPAs, the existing ground levels within the RPAs of trees to be retained are to be protected.

- For pedestrian access only, protection should consist of a single thickness of scaffold boards placed either on top of a driven scaffold frame, so as to form a suspended walkway, or on top of a compression-resistant layer (100 mm depth of woodchip), laid onto a geotextile membrane;
- For pedestrian-operated plant up to a gross weight of 2 t, proprietary, inter-linked ground protection boards placed on top of a compression-resistant layer (150 mm depth of woodchip), laid onto a geotextile membrane should be used;
- For wheeled or tracked construction traffic exceeding 2 t gross weight, an alternative system (e.g. proprietary systems 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.

The ground protection should be in place for the duration of the construction period in accordance with BS 5837:2012 - 'Trees in Relation to Design, Demolition and Construction - Recommendations'. When construction work is completed the ground protection can be removed.

Tree Protection Zone - 'Pile and Beam' Construction

The construction of foundations within the RPA of retained trees shall be carried out using small diameter piles, with a concrete beam installed upon the piles to minimise disturbance to root zone of mature trees. The beam and weight of the building shall rest upon the piles rather than the ground, avoiding compaction. Where possible an air space shall be allowed beneath the building, with rainwater directed to tree RPAs from the roof.

Location and density of piles shall be subject to site / ground investigation; however, the intention shall be to avoid piles nearer to trees. The construction details shall be to the engineer's specification. All piling shall be carried out from an appropriate piling mat or hard surface.

Tree Protective Barrier

All Tree Protection and Tree Protective Fencing 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.

Legend

- Development Site Boundary.
- Property Ownership Boundary.
- 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 B Trees
Trees of Moderate Quality and Value.
- Category C Trees
Trees of Low Quality and Value.
- Category U Trees
Trees unsuitable for retention.
- Category C Shrubs
Shrubs of Low Quality and Value.
- Category U Shrubs
Shrubs unsuitable for retention.
- Trees Proposed to be Removed
- Shrubs; Treelines and Hedges Proposed to be Removed
- Tree Surgery Works Proposed
- Tree Protective Barrier
- Ground Protection Zone - Operation Zone During Construction
- Tree Protection Zone - 'No Dig' Construction
- Tree Protection Zone - 'Pile and Beam' Construction

- Notes:
- Drawing to be read in colour.
 - For details of existing trees and vegetation refer to: LLD2330-ARB-SCH-001 - Existing Tree Schedule;
 - For assessment of effects of the proposed development on existing trees refer to LLD2330-ARB-REP-001- Arboricultural Impact Assessment and Method Statement;

PLANNING ISSUE

Rev	Description	Date	Initials
00	Planning Issue	05.05.21	GS



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Client
Martlet Developments Ltd
Project Title and Location
Land to Rear of 276 Aldwick Road
Bognor Regis

Drawing Title
Tree Retention and Protection Plan

Scale
1:200@A1

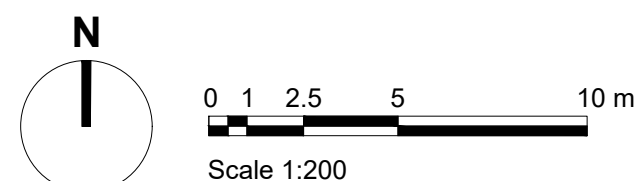
Drawn
GS

Approved
JJ

Date
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LLD2330-ARB-DWG-002

Revision
00



Tree Retention and Protection Plan
Land to Rear of 276 Aldwick Road, Bognor Regis