



LIZARD

Landscape Design and Ecology

ARBORICULTURAL IMPACT ASSESSMENT AND METHOD STATEMENT

LAND AT WREN COTTAGE

**HORSEMERE GREEN LANE, CLIMPING, WEST
SUSSEX**

Spruce Town Planning

Rev. 00

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Prepared by	WM
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1.0 INTRODUCTION

1.1 Lizard Landscape Design and Ecology has been commissioned to undertake a dendrological survey and produce arboricultural documentation for the proposed development at Land at Wren Cottage, Horsemere Green Lane, Climping, West Sussex.

1.2 The Arboricultural Impact Assessment and Method Statement report provides assessment of the direct and indirect effects of the proposed design and where necessary recommends mitigation.

1.3 The Arboricultural Impact Assessment and Method Statement report for the development at Wren Cottage has been prepared by Will Mills (*MSci (Hons); Assistant Ecologist; Lizard Landscape Design and Ecology*) and reviewed by George Sayer (*MCIEEM, MArborA; Senior Ecologist; Lizard Landscape Design and Ecology*).

1.4 This written Arboricultural Impact Assessment and Method Statement should be read in conjunction with the associated tree survey documentation, including *LLD2505-ARB-DWG-001 – Tree Constraints Plan*, *LLD2505-ARB-SCH-001 – Existing Tree Schedule* and *LLD2505-ARB-DWG-002 – Tree Retention and Protection Plan*.

Existing Site Information

1.5 The site consists of part of the residential gardens of Wren Cottage, located off Horsemere Green Lane, Climping (Grid Reference: SU 99708 02127 – hereafter referred to as ‘the site’).

Existing Site Vegetation

1.6 Vegetation on site consists of amenity grassland with scattered trees and is bound by hedgerows. The trees on site are predominantly of a moderate to low value, with the majority being young/semi-mature fruit trees. The Hedgerows which bound the site range in quality and species composition, the largest being a high value mixed-species native hedgerow along the eastern boundary.

Development Proposal

1.7 The proposed development includes the construction of 3 no. residential dwellings with associated access, parking and gardens. To facilitate the proposed plans the removal of 9 no. trees of mixed value and species and the hedgerows along the eastern and western boundaries would be required.

1.8 The proposals aim to retain the high value cherry tree in the south-western corner of the site along with the protection and retention of all trees and hedgerow adjacent to the north of the proposed site area.

1.9 Within the proposals the loss of the high value hedgerow is to be compensated for with the replacement of the low quality hedge along the western boundary with a species-rich native hedgerow which shall also be extended along the southern boundary of the site. The loss of trees on site will also be compensated for with the planting of 9 no. trees of several native species chosen for their ability to support the largest amount of biodiversity possible within the limitations of the design proposals such as Hawthorn, Crab-apple and Rowan species.

2.0 ARBORICULTURAL IMPACT ASSESSMENT

Impacts of Development Proposals on Existing Vegetation

2.1 The proposed development can have an adverse impact on the existing trees by removing them to facilitate the development, or in the future, by adversely affecting their potential for retention through disturbance in Root Protection Areas (RPAs) or through post development pressures to prune or remove.

2.2 The development proposals would involve the following site operations that could impact upon the existing trees:

- Contractor movements; site access and operations;
- Storage and compound;
- Plant, vehicle and material cleaning;
- Installation of construction elements; ground work / general site operations;
- Construction in proximity to trees;
- Demolition/ removal of existing structures;
- Installation of services and underground apparatus;
- Future maintenance;
- Removal of existing vegetation not for retention;
- Removal of protective measures.

2.3 Potential impacts for existing trees and hedgerows to be retained within the proposals include the compaction of soils and disturbance/damage to the roots within RPA's from inadequate protection measures or improper construction methods. Such impacts would be of a high magnitude and could lead to the deterioration of tree/hedge health possibly resulting in their failure.

Tree Retention and Protection

2.4 A single tree within the site boundary is to be retained within the proposals, see below;

T10 – *Prunus sp.*; RPA min 3.3 m – Category B.

T 01 - *Quercus robur*; RPA min. 7.5 m – Category A;

T 02 - *Prunus sp.*; RPA min. 5.1 m – Category C;

T 03 - *Fraxinus excelsior*; RPA min. 3.3 m – Category C;

H 13 - *Prunus laurocerasus*; RPA min. 1.8 m – Category C;

H 14 - *Ligustrum ovalifolium*; RPA min. 1.5 m – Category C.

Disturbance to Root Protection Areas

2.6 No encroachment within the RPA's of trees and hedges to be retained is required within the proposed development. All RPA's shall be fully protected from disturbance.

Construction in Proximity to Existing Trees

2.7 The proposed development does not include any construction within close proximity to any trees or hedges which are to be retained. The proximity and extent of the proposed development is not sufficient to cause significant issues. Leaf litter and shading from the comparatively small trees will not cause issues for the dwellings and there are no major real or perceived safety issues related to trees which might increase pressure to prune or remove trees.

Tree Pruning, Canopy Reduction or Lifting

2.8 The proposed development does not require any pruning, canopy reduction/lifting or any other surgery works of trees which are to be retained.

Removal of Trees and Vegetation

2.9 The proposals require the removal of 9 no. trees and 2 no. hedgerows to facilitate the development, these trees and hedges are detailed below;

T 04 - *Malus sp.*; RPA min. 1.5 m – **Category B**;

H 05 - Mixed Species Native Hedgerow; RPA min. 1.5 m – **Category B**;

T 06 - *Malus sp.*; RPA min. 1.2 m – **Category C**;

T 07 - *Betula pendula*; RPA min. 3.3 m – **Category B**;

T 08 - *Prunus sp.*; RPA min. 1.2 m – **Category C**;

T 09 - *Pyrus sp.*; RPA min. 1.2 m – **Category B**;

TG 12 - *Corylus avellana*; RPA min. 6.3 m – **Category B**.

Tree Loss Mitigation Measures

2.10 The 9 no. trees to be removed within the proposed development are to be replaced with 9 no. native trees species chosen to support a high degree of biodiversity including Hawthorn such as *Crataegus laevigata* or *Crataegus monogyna*, Rowan (*Sorbus aucuparia*) and Crab-apple such as *Malus sylvestris*, *Malus* 'John Downie' or *Malus* 'Evereste'.

2.11 The loss of the mixed species native hedgerow along the eastern boundary and the Cypress hedgerow along the western boundary are to be mitigated for with the laying of species-rich native hedgerow along the western and southern boundaries of the site. The species rich native hedgerow shall consist of a minimum of 5 of the following species; hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*), hazel (*Corylus avellana*), dogwood (*Cornus sanguinea*), beech (*Fagus sylvatica*), hornbeam (*Carpinus betulus*), yew (*Taxus baccata*), field maple (*Acer campestre*), holly (*Ilex aquifolium*), spindle (*Euonymus europaeus*), wild privet (*Ligustrum vulgare*) and Bird cherry (*Prunus padus*).

3.0 ARBORICULTURAL METHOD STATEMENT

Protection and Retention of Existing Trees and Habitats

3.1 The Contractor shall exercise due care when performing operations beneath the canopy of existing mature trees and vegetation designated for protection and avoid at all times damage to the roots, trunk and branches.

3.2 The Contractor shall train all members of the construction workforce operating within the proximity of valued habitats and make such persons aware that there shall not be, without having sought prior notification, the following operations undertaken within the protected areas:

- Dumping of spoil or rubbish, excavation or disturbance of topsoil, parking of vehicles or plant, storing of materials or placing of temporary accommodation within an area which is the larger of the branch spread of the tree or an area with a radius of half the tree's height, measured from the trunk, and within the specified Root Protection Areas;
- Severance of roots exceeding 25 mm in diameter. If unintentionally severed; notice shall be given and specialist arboricultural advice sought;
- Changes to the level of the ground within the specified Root Protection Areas;
- Vegetation clearance to site boundaries during the bird nesting season (nesting season: March-September inclusive). Any clearance must be undertaken outside nesting season or alternatively under a watching brief from a suitability qualified ecologist.

Tree Protection Barriers

3.3 The Contractor shall exercise due care when performing operations beneath the canopy of existing mature trees and vegetation and within the specified Root Protection Areas designated for protection and avoid at all times damage to the roots, trunk and branches of existing trees proposed to be retained.

3.4 All trees to be retained on site shall be protected with barriers erected around the area of mature vegetation in accordance with *BS 5837; 2012; 'Trees in Relation to Design, Demolition and Construction - Recommendations'*. The barrier shall be installed, protected and maintained during the main works by the Contractor who shall be responsible for protecting any area beneath the canopy of the existing trees and within the specified Root Protection Areas.

3.5 The installed protective barrier shall be 2.0 metres minimum 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. Where existing ground conditions do not allow for the above method, the Welded Wire Mesh Fencing Panels may be mounted on concrete or rubber feet, supported on the inner side with stabilizer struts fixed on a block tray or secured with ground pins; and positioned as specified. The barrier should be strained, and fixed to fences, walls, knee rails where possible to provide a complete protected area (refer to Figure 2 and Figure 3 below; © British Standards Institute 2012). All tree protection to be in accordance with BS 5837: 2012; 'Trees in Relation to Design, Demolition and Construction - Recommendations' set out as specified within drawings LLD2505-ARB-DWG-002 – Tree Retention and Protection Plan.

Figure 2 Default specification for protective barrier

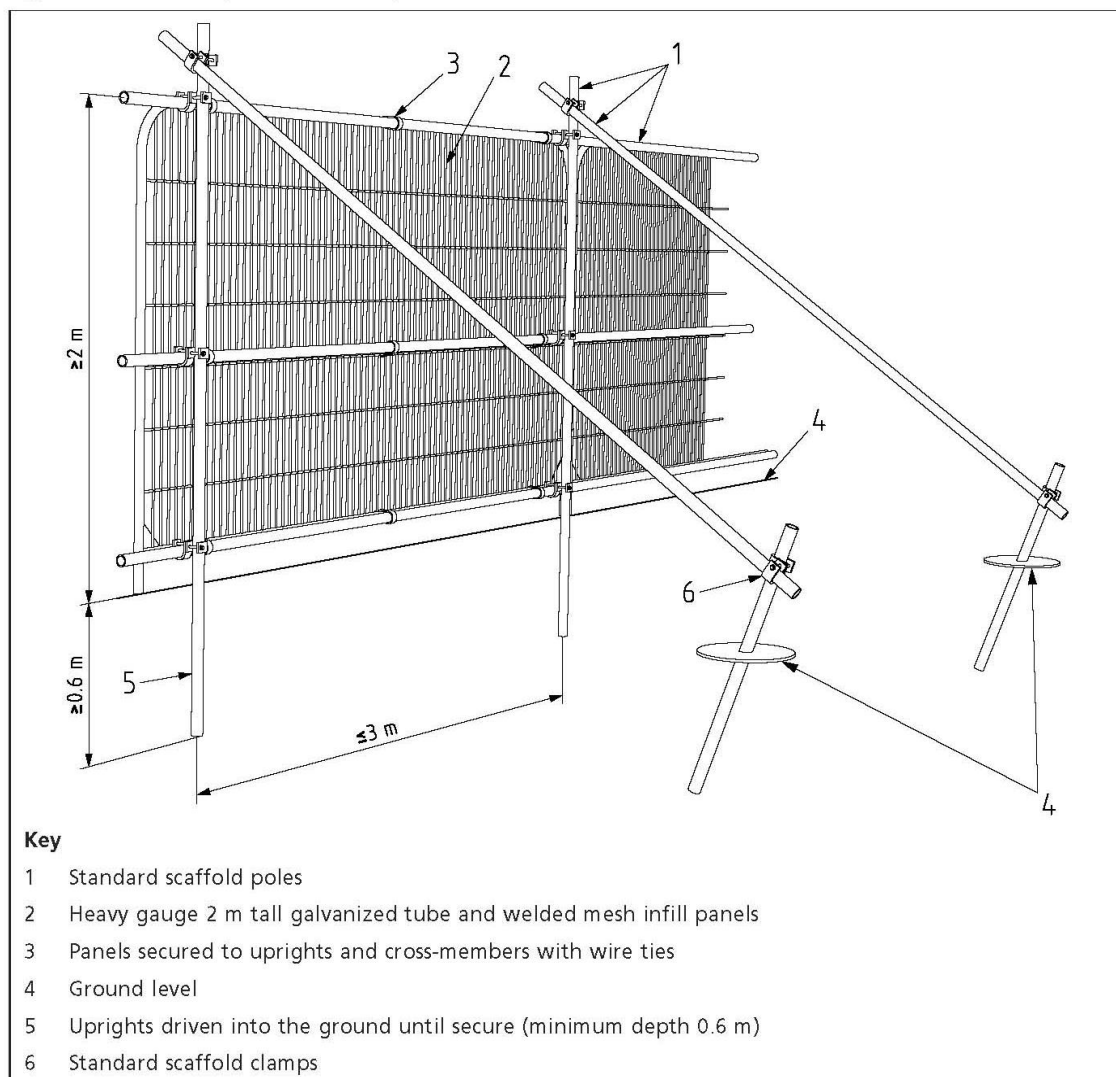
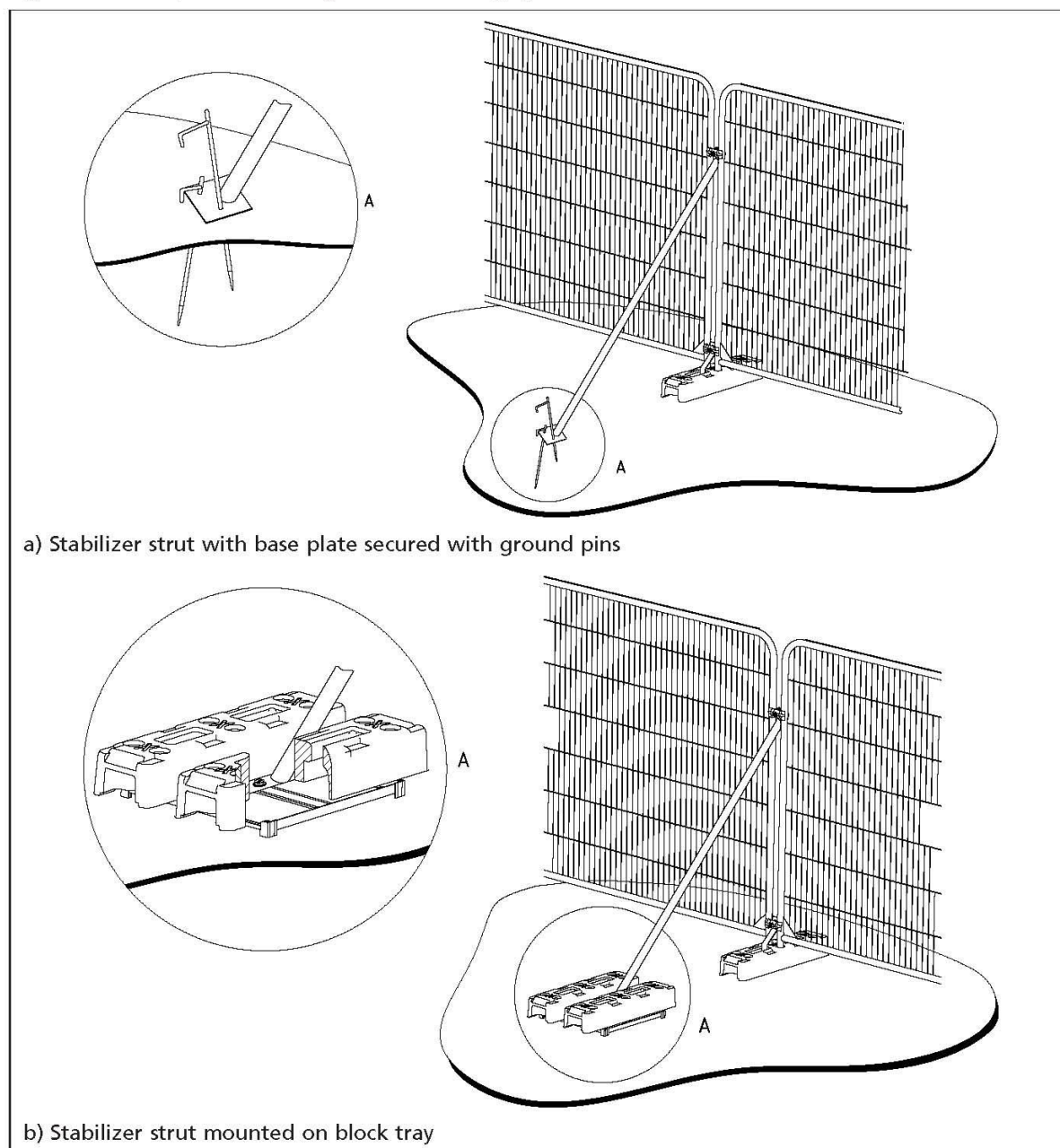


Figure 3 Examples of above-ground stabilizing systems



3.6 Day-glo ribbons shall be maintained during the main works by the Main Contractor attached to the top of the barrier to ensure that the fencing is clearly visible during the works. The tree protection barrier shall display all-weather notices starting '*Construction Exclusion Zone – NO ACCESS*'.

3.7 All such barriers shall be maintained for the full contract period. All necessary excavations, earthworks and cultivation beneath the canopy spread of any existing tree; shrub or hedge shall be undertaken by hand. *No commencement of construction operations should occur prior to the inspection of the installed tree and ground protection by the Landscape / Arboricultural Consultant.* Repositioning of the protective barrier during the course of the contract as the contract works progress shall need prior consultation with the Landscape / Arboricultural Consultant.

3.8 Within the protected areas the following activities must not take place;

- No vehicles are to be used in the fenced off areas;
- No vehicles are to be used in the fenced off areas;
- No materials are to be stockpiled or stored;
- No chemicals are to be stored;
- No excavation or increase in the soil level shall occur;
- No fires shall be lit on site.

Contractor Movements. Site access and operations. Storage and Compound Areas

3.9 The Contractor Site Compound shall be located outside of any prescribed tree Root Protection Area and shall be permitted for the storage and securement of materials only within a temporary compound.

3.10 The compound area shall be located so as to not incur damage or injury to the root systems or canopy of any existing trees or vegetation within or adjacent to the site, in accordance with *BS 5837:2012 – 'Trees in Relation to Design, Demolition and Construction – Recommendations'*. All site operations associated with the usage of the compound area shall be undertaken with due care and attention so as to negate damage of the surrounding environment.

3.11 All site operations and construction procedures for the duration of the construction period shall seek to protect the existing site vegetation and root protection areas in accordance with *BS 5837:2012*.

Tree Surgery

3.12 Any significant defects found in the trees during the course of the scheduled work shall be reported to the Landscape Architect / Arboricultural Consultant. All scheduled and arising tree work shall be undertaken by an approved and qualified tree surgeon in accordance with *BS 3998: 2010 'Tree Work: Recommendations'*. Care should be taken to avoid damage to neighbouring trees to be retained. Branches in confined spaces shall be removed and taken down in sections. All arisings shall be transported and disposed of away from site to the Contractor's tip.

Removal of Existing Vegetation

3.13 All existing trees to be designated for removal are to be removed in accordance with the *LLD2505-ARB-DWG-001 – Tree Retention and Protection Plan*. All tree work and removal shall be carried out in accordance with *BS 5837:2012*. Trees designated for removal and felling shall be clearly marked on site with white paint. Prior to the removal and felling of trees, the required work and tree positions shall be agreed on site with the Landscape Architect / Arboricultural Consultant. Trees shall be felled prior to the erection of the Tree Protective Fencing. Care should be taken during the tree removal process to avoid any damage to any trees which are designated to be retained.

3.14 Stumps shall be removed and cut away so that the top of the stump shall be at least 450 mm below the final topsoil level in order that the site can be reinstated in accordance with the existing site levels. Stumps are to be treated with an approved herbicide to be agreed with the Landscape Architect. Where the depth is greater than 450 mm the areas shall be backfilled with topsoil to the required level.

3.15 The removal of shrub or scrub material within the Root Protection Area of any tree to be retained shall employ a Manual Removal method; the use of hand tools shall be used in order to maintain the ground surface of the Root Protection Area and reduce any damage to existing tree roots within the protected root zone. Adjacent trees shall not be utilised as anchors or levers to facilitate the removal of adjacent vegetation.

3.16 Vegetation clearance to site boundaries should take place outside the bird nesting season (*nesting season: March-September inclusive*) or alternatively under a watching brief from a suitability qualified ecologist.



LIZARD

Landscape Design and Ecology

The Old Bank, 34 South Street, Tarring, Worthing, West Sussex, BN14 7LH
T. 01903 216033 E. lizard.landscape@btconnect.com W. lizardlandscapeecology.com