Arboricultural Impact Assessment and Method Statement

10-12 Nelson Road, Bognor Regis

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Version 1 – 5th March 2025

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1.0 Introduction

1.1 A tree survey and tree protection package have been commissioned for the proposals for 10-12 Nelson Road, Bognor Regis.

1.2 A detailed tree survey was carried out on 10th February 2025 by George Sayer (*BScHons PgDip MArborA; LANTRA Professional Tree Inspection 2019*); from which a schedule and constraints plan of existing trees on and surrounding the site was produced in accordance with *BS 5837:2012 – 'Trees in Relation to Design, Demolition and Construction – Recommendations'*. From this information an arboricultural impact assessment was undertaken and a plan of tree protection devised to ensure the long-term retention of the trees on-site.

Proposals

1.3 The proposals are for removal of an existing shed, garage, lean-to conservatory and link extension, new extension of the main dwelling to the rear and an additional dwelling in the west of the site.

Site Description

1.4 The site consists of the garden of No. 10 Nelson Road. To the centre lies the dwelling, to the east lies the gardens and to the west lies a largely-vacant area with garage and shed.

Surrounding Landscape

1.5 The site lies within the centre of Bognor Regis, and is surrounded by residential properties to all aspects.

Existing Site Vegetation

1.6 The site contains a small number of low value garden trees, such as holly, apple, sycamore. A large but poor-quality ash is present to the west. To the north-east is a particularly large and mature bay laurel, which by dint of its size and relatively good form for the species is considered of moderate value.

1.7 The site is covered by Arun District Council, Bognor Regis Tree Preservation Order 02(G2). This order is from 1958 and protects a group of birch trees which no longer appear to be present on the site. The order appears defunct.

2.0 Arboricultural Impact Assessment

Removal of Trees

2.1 Of the existing trees, five low value trees (T01-T05) would be removed. The removal would be unavoidable to enable the proposals, and their removal would have no material impact on site amenity, ecological value or screening. The trees could easily be replaced by better specimens as part of the proposals.

Disturbance to Roots and Rooting Environment

2.2 The proposed extension encroaches into the RPA of the moderate value bay tree T09. The encroachment is within an area currently occupied by a large patio, which appears installed above the original soil level. It is unknown whether roots would have extended this far under the patio. If roots were present, incautious removal of the patio and construction of new footings might cut roots and harm the tree.

2.3 To minimise this risk, the area of patio shall be lifted carefully and the underside inspected for evidence of roots. Should no significant roots be present, a standard foundation design can be used – the bay is so mature that it is unlikely to increase in size any further. Should significant roots be found, the foundation must be designed around the roots, using a micro-pile or small pad foundation, or by bridging over the roots in question. Space must be allowed for the roots to expand and an air space should be allowed such that air can reach the soil surrounding the roots.

Construction in Proximity to Trees and Hedges

2.4 The construction works would bring the built form closer to T09, but doesn't significantly alter the relationship between the tree and dwelling. The evergreen bay will not result in significant shading or leaf fall.

2.5 To protect trees from vehicular collision and damage to RPAs outside of the operation zones, Tree Protection Barriers will be installed surrounding the existing hard surfaces in proximity to trees. In the absence of mitigation, vehicular trafficking over unmade ground would compact the root environment and potentially cause root death. To mitigate this, construction access will all come from the west and work off existing hard or bare ground outside of RPAs.

Further Protection Measures

2.6 If any new surface water drainage is required, such as soakaways or French drains, these should be designed to avoid all RPAs. There is ample room in the west of the site for such drainage.

2.7 Any other new services required should be routed outside of RPAs and using existing runs where possible.

Replacement Planting

2.8 Five low-value trees require removal. The trees could be replaced with several new trees of a more suitable species to the location, and better form. The site is considered exempt from Mandatory Biodiversity Net Gain, but new native tree planting, and infill planting with suitable shrubs from the RHS 'Plants for Pollinators' lists shall result in an Arboricultural and ecological gain.

Summary of Impacts

2.9 Overall, the proposals require removal of 5no. low-value trees. The proposals present a moderate risk of harm to one moderate value tree, and a low risk of harm to other low-value trees; these risks can be avoided through protection measures, limited specialist construction measures to foundations and supervision of works to small discrete areas. The proposals are therefore supportable.

3.0 Arboricultural Method Statement

Site Movements, Storage and Compound

3.1 No vehicular or pedestrian movements shall be permitted during construction over unmade ground within RPAs. The site storage, waste and compound areas must be located either within existing hard surfaces or outside of tree RPAs. Fuel and chemicals shall be stored in appropriate containers to prevent spillage into unmade ground. All site movements, storage and compound shall seek to protect trees during construction in accordance with *BS 5837:2012 – Trees in Relation to Design, Demolition and Construction – Recommendations*.

Tree Protective Fencing

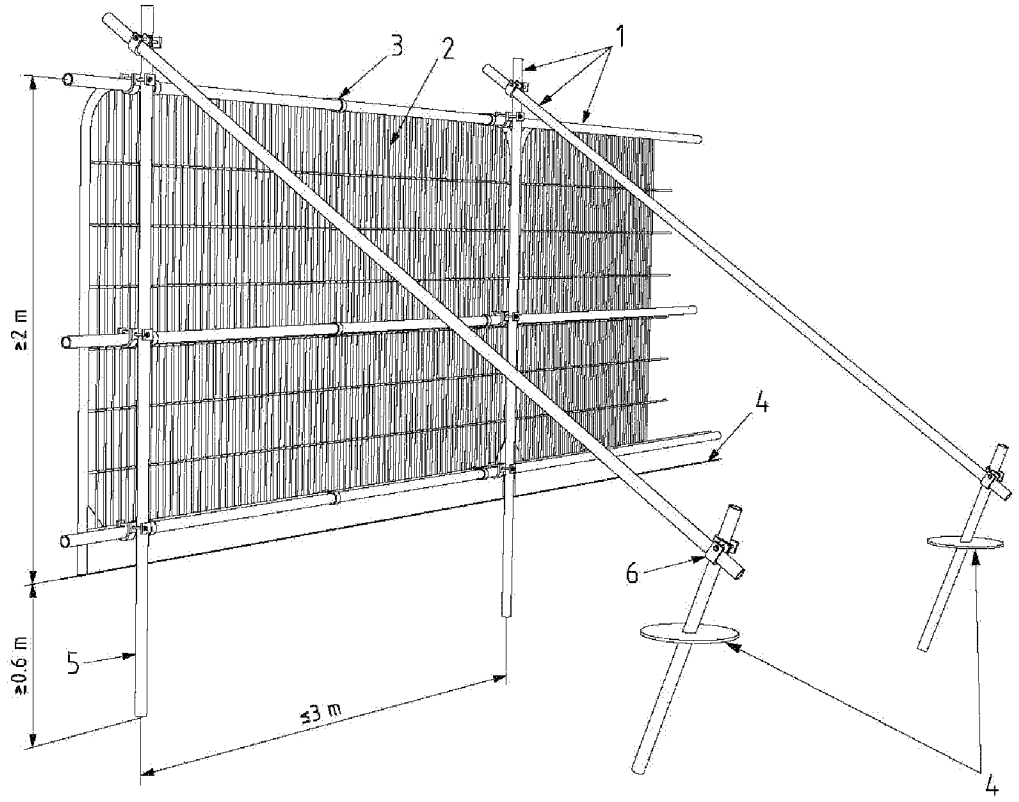
3.2 The RPAs of trees to be retained shall be protected through the installation of tree protective fencing to the outside of the root protection area. The installed protective barriers shall be 2.0 metres minimum height 'Heras' Welded Wire Mesh Fencing secured to a scaffolding framework, set into the 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 fencing 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 figures 2and 3 below.

3.3 In locations where no construction is being undertaken, but there is a risk of inappropriate storage or vehicle parking, exclusion zones shall be created through the use of barrier tape, traffic bollards or low level traffic barriers. Such measures shall be pinned down to prevent easy removal.

3.4 Signs shall be affixed to the barriers stating '*Tree Protection Zone – No Access*' in addition to day-glo tapes to the top of the fencing, in accordance with *BS 5837:2012 – 'Trees in Relation to Design, Demolition and Construction – Recommendations'*. Within the protected area, no construction activities shall be permitted, to include:

- *Lighting of fires*
- *Storage of chemicals or building materials*
- *Dumping of spoil or rubbish*
- *Driving of vehicles*
- *Alteration of soil levels.*

Figure 2 **Default specification for protective barrier**



Key

1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

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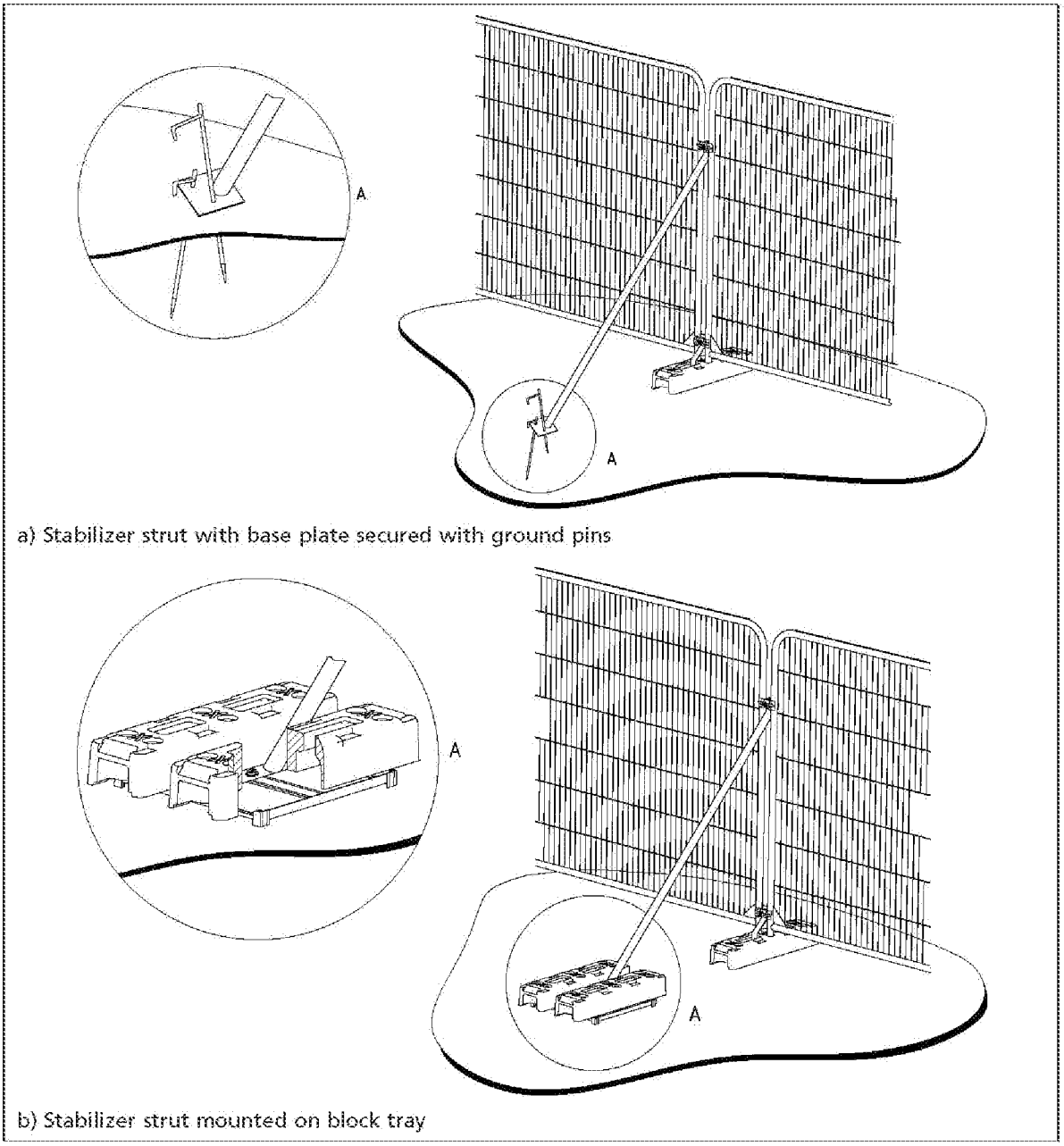
Figure 3 **Examples of above-ground stabilizing systems**



a) Stabilizer strut with base plate secured with ground pins

b) Stabilizer strut mounted on block tray

3.5 Tree protective barriers shall be installed and maintained throughout the construction phase by the main contractor, who shall be responsible for ensuring the fencing remains in place and is properly maintained. The fencing shall be installed in accordance with the *Tree Retention and Protection Plan*. Adjustment or relocation of the fencing during the construction phase shall be undertaken only following prior agreement by the arboriculturalist.

3.6 Wherever possible, tree protective fencing shall surround the entirety of the tree RPA. Where this is not possible, ground protection measures shall be utilised within designated operation zones to prevent damage to roots or compaction of soil. The locations of tree protective fencing and ground protection measures are detailed within the *Tree Retention and Protection Plan*.

New Structures within RPAs

3.7 Where new structures are proposed within RPAs, investigation must first be undertaken to ascertain if any major roots are to be impacted. Trial trenches or pits, or lifting of hard surfaces shall be manually excavated to a depth of at least 600mm looking for roots. Should no major roots be found works can continue with a standard foundation design. Should major roots be found (those over 25mm diameter) these shall be retained and incorporated into foundation design, using a micro-pile or small pad foundation, or by bridging over the roots in question. Space must be allowed for the roots to expand and an air space shall be allowed such that air can reach the soil surrounding the roots.

3.8 Use of specialist foundations such as pads or rafts shall be used where feasible to minimise the risk of changes to foundation design or harm to roots. Detailed foundation design shall be undertaken by the project engineer and be subject to approval by the arboriculturalist.

Demolition within RPAs

3.9 Where demolition is required within RPAs, this shall be supervised to look for any significant roots beneath the surfaces and structures; wherever possible, existing foundations shall be left in-situ and the building demolished using a 'top-down, pull-back' method to minimise harm. Solid surfaces can be broken up using a hand-operated breaker, taking care to stop as soon as the surface is broken. The arisings and any loose materials such as paving slabs beneath must be manually lifted and taken away. Any such areas must be covered with new surface or topsoil.

3.10 Any significant roots shall not be cut unless so directed by the arboriculturalist; any such roots shall be recorded, cut cleanly and the ends wrapped in dry hessian. Should roots likely to be significant to the vitality of any tree be found, these shall be wrapped, retained and incorporated into the surface wherever possible, with bridges formed over the root to allow it to remain and grow further.

Vegetation Removal

3.11 All remaining tree surgery works (i.e. stump removal) shall be undertaken in accordance with BS3998:2010 – Tree Works: Recommendations. Stumps shall either be stumpground or carefully pulled up and away from trees, taking care to check for larger entangled tree roots and cutting the stump away from these. Log piles shall be created in the site from the arisings to create new habitat.

Installation of Services

3.12 Wherever possible, the proposals utilise existing service routes. Any new drainage shall be sited outside of the RPAs of any trees. The new drainage shall be sited so as to be as far as possible from any tree stems.

3.13 Where the proposed routing of other new services such as electrical wiring impinges upon the tree RPA of any existing tree to be retained; the routing should be undertaken as a minimum standard in accordance with *NJUG Volume 4, issue 2: 'Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees'*. A 'Manual Excavation Method' to be followed to carefully hand dug and route the apparatus most directly to and from the exterior of the RPA radius. Services are to be sleeved to ensure protection of the services and surrounding roots.

Supervision of Works

3.14 The following approvals, checks and supervision would be required and should be documented in a report suitable for provision to the Local Authority as part of the construction process:

- Check of tree protection barrier locations and sturdiness
- Supervision of lifting of patio section
- Approval of final foundation design
- Supervision of further excavations for, and installation of specialist foundations if necessary
- Final sign-off prior to removal of tree and ground protection measures.