

2nd October 2020
LLD2098 / LB



LIZARD

Landscape Design and Ecology

Mr Adam King
Director
ECE Architecture
Brooklyn Chambers
11 Goring Road
Worthing
West Sussex
BN12 4AP

Dear Mr King

**Lizard Landscape Design and Ecology - Ecological Consultancy Services
Croft Works, 52 Mill Lane, Rustington
ARB Consultation Response**

Thank you for sending through the consultation response provided by the Local Planning Authority (LPA) with regards the proposed development ref: R/117/20/OUT at Croft Works, 52 Mill Lane, Rustington, please find our response to offsite trees in close proximity to the site.

The LPA feedback relating to trees

In the absence of any arboricultural information having been submitted, the application fails to demonstrate that trees would be adequately protected from the proposed development, as required by policy ENV DM4 of the Arun Local Plan.

Lizard Response

On inspection of the proposed site and proximity of nearby trees within the adjacent Public House gardens of the Windmill Inn, it is in our professional opinion that the trees can be sufficiently protected during the demolition of the closest existing structure and during the construction of the proposed semi-detached properties. The positioning of the new structures will be further away from the tree root protection area and crown than the already pre-existing building with pre-existing concrete foundations. Supporting advice to follow during the works to assure the protection of the tree for the proposed development are detailed on the following page.

Landscape Architecture

Ecology

Landscape Planning

Lizard Landscape Design Limited,
The Old Bank,
34 South Street, Tarring,
West Worthing, West Sussex, BN14 7LH

Value Added Tax Registration
No. 780 8071 19
Company Registration
No. 5213718

Methodology for Demolition of Existing Building and During Construction

- 1.1 The above works are considered feasible providing protection measures are put in place to protect trees. Protection measures required to protect these trees would include: Manual demolition and excavation which should take place on the building adjacent to the tree in question and throughout the removal of concrete foundations closest to the tree. Foundations close to the tree will be left in-situ where their removal is not necessary; any hollows left by removal of foundations shall be filled with material which will allow future root growth.
- 1.2 The demolition should be undertaken inwards within the footprint of the existing building (often referred to as “top down, pull back”).
- 1.3 The Contractor Site Compound shall be located outside of any prescribed tree Root Protection Area. All vehicular and construction access shall be from new or existing hard surfaces or outside of the RPA of trees.
- 1.4 The Contractor shall exercise due care when performing operations beneath the canopy of existing mature trees designated for protection and avoid at all times damage to the roots, trunk and branches.
- 1.5 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.

Landscape Architecture

Lizard Landscape Design Limited,
The Old Bank,
34 South Street, Tarring,
West Worthing, West Sussex, BN14 7LH

Ecology

Landscape Planning

Value Added Tax Registration
No. 780 8071 19
Company Registration
No. 5213718

Ground Protection Measures

- 1.6 Where construction operations require activity within the exposed unmade ground of any existing tree Root Protection Area, a temporary ground protection measures should be implemented allowing for access, limited traffic and operations during the construction period. Any soft ground between the building for demolition and the tree shall be protected using ground protection measures to prevent excavation into these areas.
- 1.7 A temporary '*Ground Protection Zone*' shall allow for the passage of construction vehicles to the site and should be implemented without intrusion or change of existing ground levels within the defined tree Root Protection Areas of existing trees. The ground protection measures should be implemented prior to the main construction works.
- 1.8 The temporary ground protection measures should remain in place for the duration of the construction period.
- 1.9 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.

Landscape Architecture

Lizard Landscape Design Limited,
The Old Bank,
34 South Street, Tarring,
West Worthing, West Sussex, BN14 7LH

Ecology

Landscape Planning

Value Added Tax Registration
No. 780 8071 19
Company Registration
No. 5213718

1.10 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.

Manual Excavation

1.11 Where the development proposals necessitate the re-grading of existing and proposed levels for the new garden area; a '*Manual Excavation Method*' must be assumed using hand held tools to minimise the impact on existing trees. The excavation should be executed with due care and attention not to disturb exposed unmade ground and any existing tree roots present within it.

1.12 Roots over 25mm diameter or those occurring in clumps must not be severed without Arboricultural advice. Tree roots below such size should be cut cleanly using specialised hand tools only and to the minimum extent to allow provision. All exposed roots should be immediately wrapped in dry Hessian to avoid drying. On completion of the excavation and at the earliest opportunity the wrapping should be removed, and the roots surrounded and protected with a loose granular fill (clean washed sharp sand or topsoil free of contaminants or matter injurious to rooting systems) prior to backfilling the excavation to the desired levels.

1.13 Foundations close to trees will be left in-situ where their removal is not necessary; any hollows left by removal of foundations shall be filled with material which will allow future root growth— open-graded aggregate up to 600mm below surface level, with topsoil laid on top of a geotextile membrane above this. The demolition should be undertaken inwards within the footprint of the existing building (often referred to as “top down, pull back”). Tree Protection Barriers

1.14 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.

Landscape Architecture

Ecology

Landscape Planning

Lizard Landscape Design Limited,
The Old Bank,
34 South Street, Tarring,
West Worthing, West Sussex, BN14 7LH

Value Added Tax Registration
No. 780 8071 19
Company Registration
No. 5213718

- 1.15 All trees to be retained with RPAs 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.
- 1.16 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'*.
- 1.17 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*'.
- 1.18 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.

Landscape Architecture**Ecology****Landscape Planning**

Lizard Landscape Design Limited,
The Old Bank,
34 South Street, Tarring,
West Worthing, West Sussex, BN14 7LH

Value Added Tax Registration
No. 780 8071 19
Company Registration
No. 5213718

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

- 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;
- Only manual excavation or increase in the soil level with handheld tools shall occur;
- No fires shall be lit on site.

The above measures will allow works to progress whilst ensuring the continued favourable conservation status of nearby off-site trees within the local area.

Kind Regards

Louise Barker

Project Ecologist, Lizard Landscape Design and Ecology

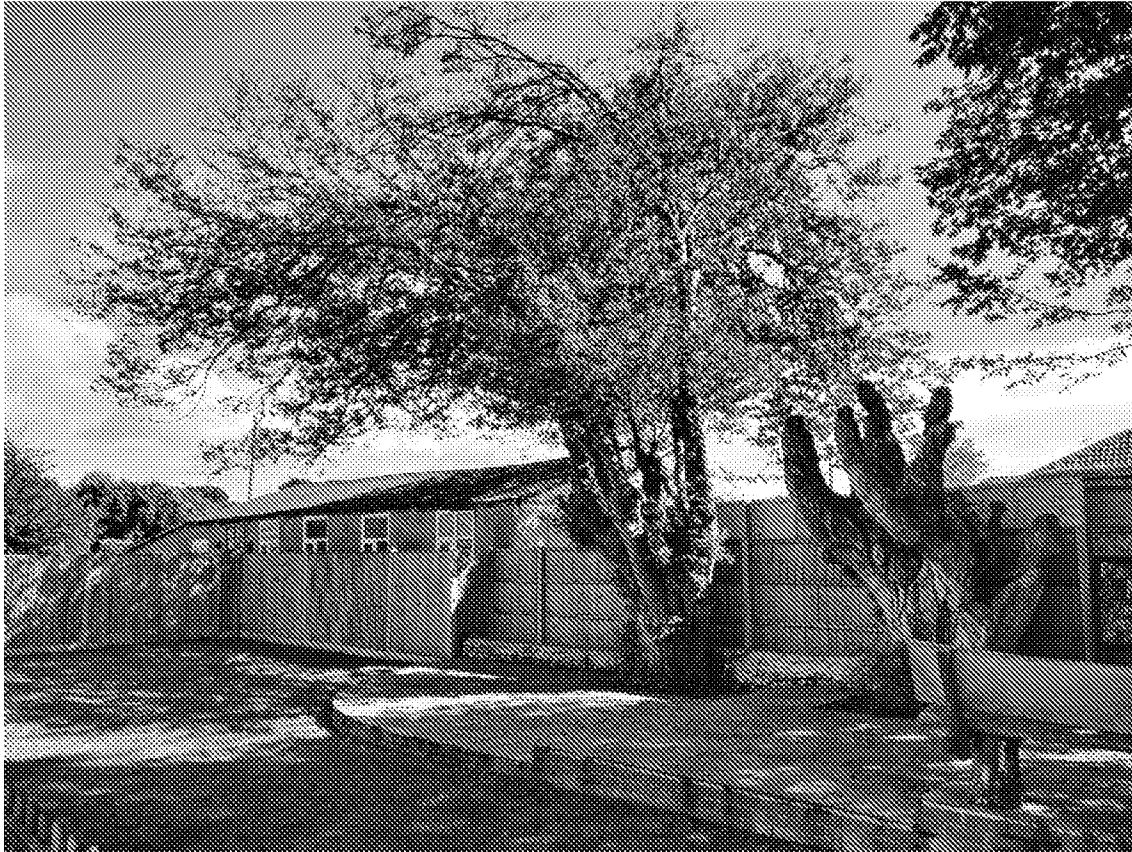
Landscape Architecture

Lizard Landscape Design Limited,
The Old Bank,
34 South Street, Tarring,
West Worthing, West Sussex, BN14 7LH

Ecology

Landscape Planning

Value Added Tax Registration
No. 780 8071 19
Company Registration
No. 5213718

Site Photographs

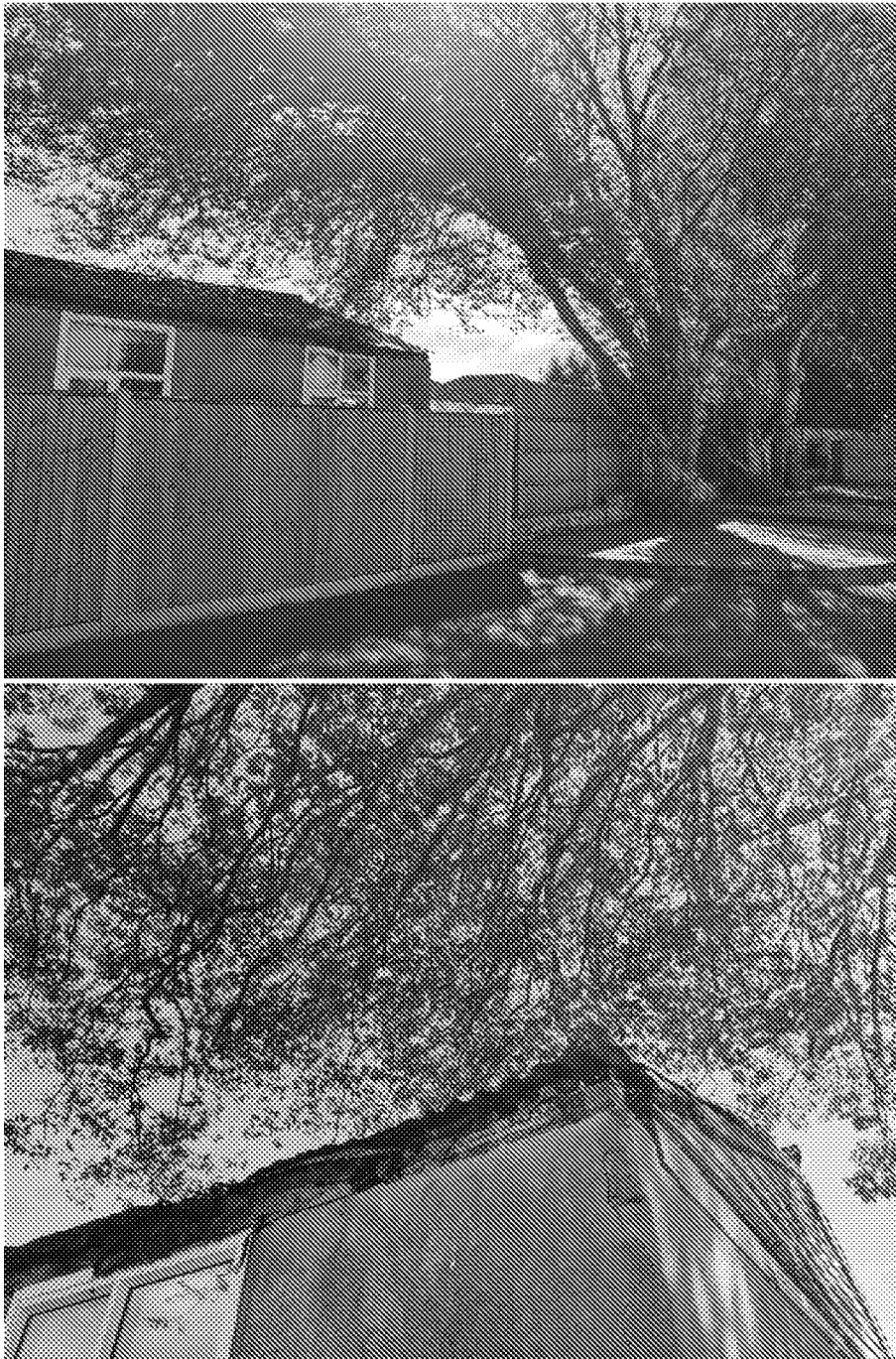
View of adjacent Hornbeam tree, taken from PH garden. Single story workshop building behind proposed for demolition.

Landscape Architecture

Lizard Landscape Design Limited,
The Old Bank,
34 South Street, Tarring,
West Worthing, West Sussex, BN14 7LH

Ecology**Landscape Planning**

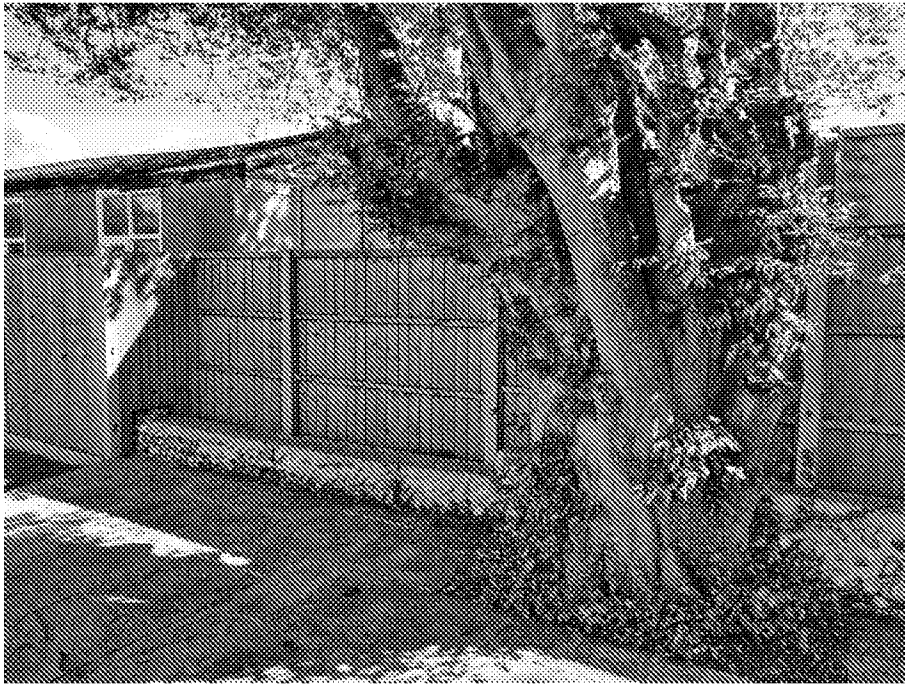
Value Added Tax Registration
No. 780 8071 19
Company Registration
No. 5213718

**Landscape Architecture**

Lizard Landscape Design Limited,
The Old Bank,
34 South Street, Tarring,
West Worthing, West Sussex, BN14 7LH

Ecology**Landscape Planning**

Value Added Tax Registration
No. 780 8071 19
Company Registration
No. 5213718

**Landscape Architecture**

Lizard Landscape Design Limited,
The Old Bank,
34 South Street, Tarring,
West Worthing, West Sussex, BN14 7LH

Ecology**Landscape Planning**

Value Added Tax Registration
No. 780 8071 19
Company Registration
No. 5213718