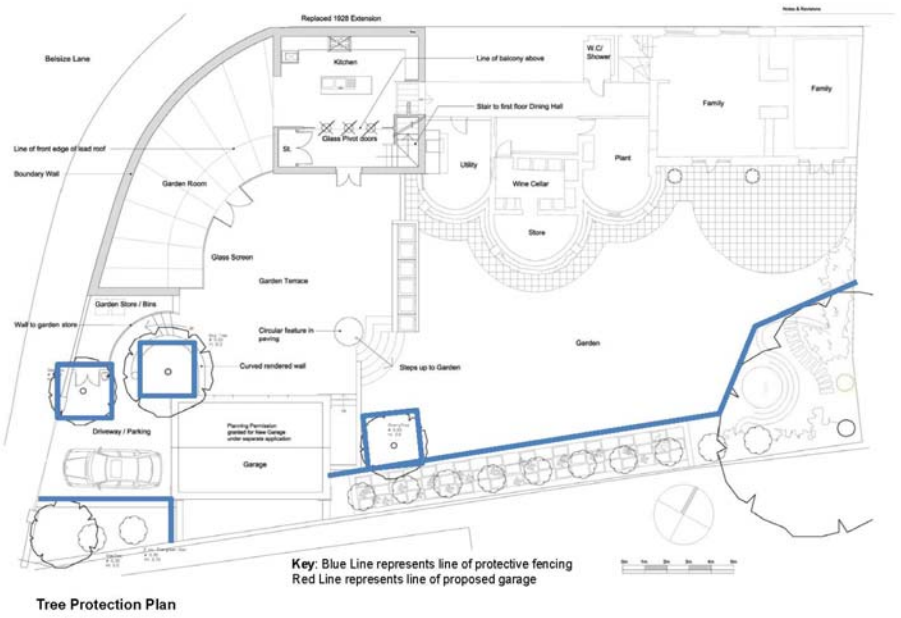
A1/1007/110921

Impact Assessment, Method Statement for Protection of Trees and Tree Protection Plan

Hunter's Lodge, 5 Belsize Lane, London, NW3 5AD

(To be read in conjunction with drawing submitted to Camden Development Control Planning Services)



Tree Protection Plan

Key: Blue Line represents line of protective fencing

1.0 Date of Report

1.1 21 September 2011

2.0 Proposals

2.1 Measures to protect the existing trees on the site of Hunter's Lodge, 5 Belsize Lane, London, NW3 5AD.

3.0 Instructions

This report includes:

- An arboricultural impact assessment
- A method statement to mitigate impact
- A Tree Protection Plan (See above).

4.0 Assessment of Impact

4.1 Demolition of existing structures and construction of new buildings and infrastructure will potentially have impact on retained trees if appropriate protective measures are not taken during both demolition and construction phases.

4.2 The rooting systems of the retained trees may be damaged physically by the passage of plant and machinery, or by inappropriate storage of construction materials, spoil etc. In addition the ground may be compacted to such an extent that the ground will become impermeable to water and oxygen.

4.3 Changes in ground levels surrounding retained trees will inhibit root function and is detrimental to the rooting system. Consequently the overall long term health of the trees is affected.

4.4 Trees are stressed by ground compaction and root damage. Older, more mature trees are unlikely to be able to recover from these stresses and may die prematurely as a result.

4.5 Significant root damage may affect the stability of larger trees within the ground and may ultimately result in their premature failure.

4.6 Installation of services or drainage may cause considerable damage to the rooting systems if traditional trench installation is employed inappropriately within the vicinity of retained trees.

4.7 Stems and lower branches of the retained trees are easily physically damaged by large machinery working in the vicinity or by vehicles and plant passing by, or working beneath, the crowns.

4.8 Inappropriate storage, mixing or application of cement-based products or other phytotoxic materials is likely to have a detrimental effect upon the retained trees.

4.9 We understand that no trees within the ownership boundary of the applicant are subject to Tree Preservation Orders.

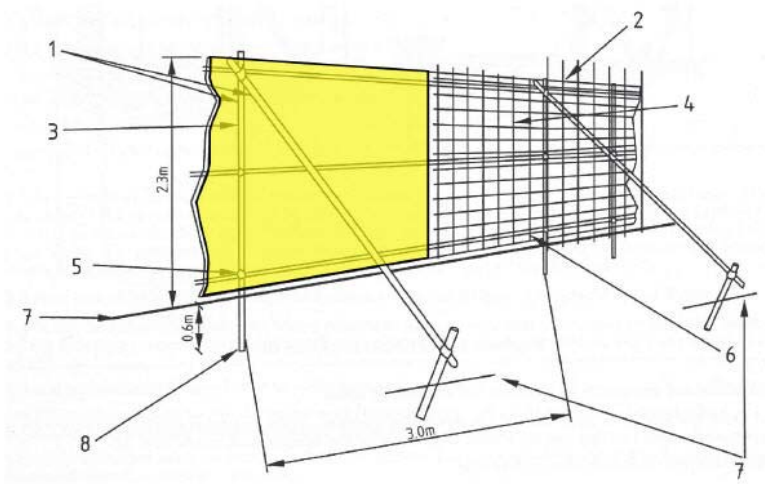
5.0 Method Statement to Mitigate Impact

5.1 All tree works and tree removals will be undertaken by a suitably qualified and experienced contractor and in accordance with BS3998:1989 *Recommendations for Tree Works.* Stumps left following tree removals will be ground out using a stump grinder.

5.2 All of the retained trees will be protected (if required) with a combination of protective fencing to be erected in accordance with BS5837:2005 *Trees in Relation to Construction – Recommendations*, and present boundary fences and walls.

5.3 The protective fencing will be constructed using metal sheet panels wired or clamped to a rigid scaffold frame. The purpose of the scaffold frame is to ensure the fencing remains in position. The fencing is intended to protect all parts of the retained trees, both above and below ground.

PROTECTIVE BARRIER TO RETAINED TREES
(adapted from Fig 2, BS 5837:2005)



1 Scaffold pole framework
2 Uprights driven into the ground
3 Ply or corrugated sheet metal panels secured to uprights with standard clamps or wires, ***or***
4 Weldmesh panels wired to uprights & horizontals
5 Standard clamps
6 Wire twisted and secured on inside of fencing to avoid easy dismantling
7 Existing ground levels maintained
8 Pole depth approximately 0.6m driven into the ground

5.4 The protective fencing will be clearly marked indicating its purpose to all persons on site. The protected area inside the fencing will be considered sacrosanct and no entry into these areas will be permitted for any reason except to maintain, or undertake works to, the protective fencing.

5.5 No vehicles or plant will track across the protected areas at any time, unless explicitly specified, and no storage of any materials within these areas

will be permitted. The fencing will remain in situ until all demolition and construction works are completed and will only be removed following consultation with the project Arboriculturist.
5.6 Should any hard surfacing be proposed beneath the crown of the Bay tree the construction will be undertaken with care and will employ a 'no dig' policy in line with APN12 'Through the trees to Development' published by the Arboricultural Advisory and Information Service.

5.7 The hard surfacing will be constructed upon existing ground using a cellular confinement system laid upon a permeable membrane and filled with washed no fines gravel such as 20-40mm washed angular stone. The final surface, to be laid upon this grid, will be permeable to both air and water. Examples of acceptable surfaces are brick paviours, concrete slabs or clean gravel.

5.8 Ground vegetation beneath the proposed area should ideally be killed using a translocated herbicide such as glyphosate. All organic material should then be removed to prevent any build up of anaerobic conditions beneath the construction.

5.9 Rocks and other obstacles should be removed. Any stumps in this area will be ground out rather than excavated.

5.10 Major hollows may be filled with sharp sand. A suitable permeable membrane will be laid directly onto the ground/sand and a cellular confinement system eg 'Cellweb' will be laid directly upon the membrane.

5.11 All surfacing within the rooting area of the Bay tree will be at the same level to avoid the need for kerbing.

5.12 Aggregate, to fill the cellular confinement system, will be placed at one end and then pushed onto the grid so that machinery moves on the spread sub-base, not directly on the unfilled cellular confinement system and not on the ground either side of it.

5.13 The final surface, which must also remain permeable, can then be installed.

5.14 For the roots of the trees to remain undamaged there must be no excavation, soil stripping or site grading within the protected area – in other words, NO DIGGING. This means that construction of hard surfacing will be above existing ground level.

5.15 Ground levels in adjacent areas will be made up to marry.

5.16 No services will be routed through the rooting area of any retained tree.

5.17 Oil, bitumen, cement or other material likely to be injurious to a tree will

not be stacked or discharged within 10 metres of a trunk. Materials generally will not be stacked or discharged within 5 metres of a trunk.

5.18 Concrete mixing will not be carried out within 10 metres of a trunk. Fires will not be lit in close proximity to the canopy of a tree. Allowance should be made for any slope of the ground so that damaging materials such as concrete washings, mortar or diesel cannot run towards trees.

6.0 Conclusion

6.1 2 no. trees exist within the vicinity of the proposed works; however provided adequate protective fencing is employed along with other recommendations, the impact on the health and condition of the retained tree will be negligible during the construction period. The impact on its health and condition following development will be negligible.