



ALLARBORICULTURE

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ARBORICULTURAL IMPACT ASSESSMENT AND METHOD STATEMENT

BS5837:2012

On behalf of:

Ms. Dhaliwal
Land to rear of 198
Park Crescent,
Lesney Park, Erith,
DA8 3ED

Prepared by:

Kristian Chesterman
BSc (Hons)

Report Reference:

AAAIA198P

Report Date:

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1.0 Instruction

All Arboriculture has been instructed by Ms. Dhaliwal to undertake a tree survey in accordance with BS5837:2012 *Trees In relation to design, demolition and construction – Recommendations*, and to produce an Arboricultural Impact Assessment, Arboricultural Method Statement and Tree Protection Plan. The instruction was received on the 20th February 2024. The tree survey was carried out on the 22nd February 2024.

2.0 Statement of purpose

The purpose of this report is to provide local planning authorities with sufficient arboricultural information to consider the effect of the proposed development on nearby trees, and to demonstrate that trees have been carefully considered throughout the development process.

The report includes an arboricultural method statement that describes how work will be undertaken to provide adequate protection of retained trees.

3.0 Associated documents and drawings

This report should be read in conjunction with the following documents and drawings:

1. 01 Existing and Proposed Block Plans
2. British Standards Institute - BS5837:2012 *Trees in relation to design, demolition and construction – Recommendations*
3. Tree Protection Plan – AATPP198P

4.0 Site Description

The site is in the urban area of Erith and is currently land. The site is relatively flat with no abrupt level changes. The proposal is the erection of a residential dwelling. The site falls under the jurisdiction of London Borough of Bexley Council.

5.0 Vegetation Description

The vegetation consists of 4 off site Category C council owned trees. Some basic tree protection measures and working methodology (in accordance with BS 5837:2012) will ensure they are not detrimentally affected during construction.

6.0 Arboricultural impact assessment

Table 1: Summary of impacts	
Tree removal	None
Facilitation pruning	None
Demolition within RPA	None
New surfacing within RPA	None
New structures within RPA	None

Building construction in relation to tree roots: No tree removal is required to facilitate the development. No facilitation pruning is required for the implementation of the proposed. The RPA's of T1 - T4 have been modified to take into account likely restrictions to root growth posed by existing structures including the road. There is a significant boundary wall beyond the public path which has likely restricted root growth to the site. Traditional foundations may be used for the proposed and will not impact on any of the off-site trees.

Building construction in relation to tree crowns: It is important that sufficient growing space is allowed between the mature crown extent of each tree and the roof edge of the proposed structures. This is to reduce conflicts of interest in the future and to reduce the pressure to prune trees to keep them clear of roofs: A clearance of two metres from the mature tree crown is generally considered acceptable which is the case with this proposal.

Tree root and canopy protection: The RPA (Root protection area) of the retained tree should be protected during the development phase with ground protection to ensure heavy machinery is not operated, or materials stored within the rooting area. This can be detrimental to the tree, causing soil compaction and root die back.

Special surfacing: I do not consider special surfacing to be warranted.

Materials delivery, storage and handling: Materials should not be handled or stored within the RPAs of retained trees; the load exerted can result in soil compaction and leachate from spills can be toxic to trees.

Surface drains, soakaways and services: It is important that services, surface drains and soakaways avoid the RPAs of retained trees as roots can be damaged during trench excavations. The location of services should therefore be agreed with the local planning authority prior to the development phase commencing.

Shading: The shading effects of trees should be taken into consideration when locating fenestration. Where structures are located too close to trees and to the north of them, the shade cast by the trees may prompt requests to fell or prune in the future and is therefore not encouraged by local planning authorities.

7.0 Arboricultural Method Statement

Implementation and phasing of the proposed development: Prior to any building work commencing on site, a meeting will be held with the tree consultant and site manager present. During the meeting details regarding the location of ground protection and trunk protection will be discussed and a time to reconvene in order to assess the ground protection will be agreed. The schedule of events during the development phase will be as follows:

During the development phase, the arboricultural consultant will be notified and asked to supervise any excavating within the RPA of retained trees.

Tree protection barriers: Protective fencing will not be required.

Ground protection: Temporary ground protection to be installed within RPA of T1 should be capable of supporting pedestrian movements only, 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 (e.g. 100 mm depth of wood chip), laid onto a geotextile membrane.

Protective barrier hoarding: Protective hoarding should be appropriate for the intensity and proximity of the development to protect trees where development activity is in close proximity. To comprise of 2.4m high wooden site hoarding constructed upon a timber frame work situated around the outside of the planting pit. Where the timber frame is constructed around the tree trunk a minimum of four layers of clean dry Hessian is to be wrapped around the trunk to protect the bark. P

Storage and handling of materials: This site has sufficient space for materials to be stored and handled.

Contractors Parking: There is sufficient space on the Lesney Park for parking.

Welfare Facilities: Toilets and hand washing facilities shall be made available within the property and there is sufficient space on site for temporary facilities.

Surface drains, soakaways and services: RPAs will be avoided in the drainage design however, in the unlikely event that existing cables need to be unearthed within an RPA, the method for doing so will accord with the recommendations in the NJUG Publication: Volume 4: Issue 2: 16/11/2007: Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees. Trenches will be dug by hand and any roots over 2.5cm in diameter will be retained undamaged. Smaller roots may be cut back to the proximal face with a clean, sharp pair of secateurs. The trench backfill around the roots shall be a granular material that can be compacted to the point where it can bear the new surfacing without subsiding but without abrasion of tree roots and without raising the soil bulk density to the point where root growth cannot take place. Should it be necessary, this operation will be overseen by the project arboriculturist.

Supervision: The project arborist will attend the site to inspect the protection and ensure that it has been laid out as prescribed in the method statement and meets the requirements of BS5837:12. Any excavations within the RPA of retained trees will be overseen by the project arborist. It is the responsibility of the site manager to inform the arboricultural consultant when inspections are required for example, when heras fencing is ready to be inspected.

Tree works: At the time of writing this report, no pruning works are required .

Tree planting: It is respectfully suggested that if additional tree planting is required then this should be secured through an appropriately worded planning condition.

Sequencing of Works

Site clearance of a light nature
Main construction phase
Removal of all non-essential equipment
Landscaping hard and soft (if required)
Completion

Contacts

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APPENDIX 1 - Tree Schedule Schedule

Tree No	Species	Height (m)	Trunk Diameter (cm)	Crown spread (m)		Crown height above ground (m)	Life stage	General observations	BS 5837 cat	Root protection area (m)
1	Lime <i>Tilia x europaea</i>	6	44	2	2	3	Early Mature	Cyclically pollarded off site council tree.	C	5.2
				2	2					
2	Lime <i>Tilia x europaea</i>	6	41	2	2	3	Early Mature	Cyclically pollarded off site council tree.	C	4.9
				2	2					
3	Lime <i>Tilia x europaea</i>	6	42	2	2	3	Early Mature	Cyclically pollarded off site council tree.	C	5.0
				2	2					
4	Lime <i>Tilia x europaea</i>	6	45	2	2	3	Early Mature	Cyclically pollarded off site council tree.	C	5.4
				2	2					

APPENDIX 1 - Tree Schedule Schedule

Survey Key

Diameter (mm)

Stem diameter in millimetres measured at 1.5m above ground level. Where the stem is divided below 1.5m, measurement is taken as directed by BS:5837 Annex C.

RPA - Root Protection Area

RPA circle radius is determined from Annex D of BS:5837. R- Radius

A – Area

Branch Spread (m)

Radial crown spread in metres, measured for each of the four cardinal points of the compass from the centre of the trunk.

N	E
W	S

Low branches

Height above ground in metres of the lowest branch and use of the 4 cardinal points of the compass.

Age class

(NP) Newly planted – a tree within 3 years after planting

(Y) Young – a tree within its first one third of life expectancy

(EM) Early Mature – a tree within its second third of life expectancy

(M) Mature – a tree in its final one third of life expectancy

(OM) Over Mature – a tree having reached its maximum life span and is declining in health and size due to old age

(V) Veteran – a tree in the second or mature stage of its life and has important wildlife and habitat features including; hollowing or associated decay fungi, holes, wounds and large dead branches.

(A) Ancient – a tree in the ancient or third and final stage of their life that is of interest biologically, aesthetically or culturally because of its age, size and condition

Physiological Condition

GOOD – a tree in a healthy condition with no significant problems

FAIR – a tree generally in good health with some problems that can be remediated POOR – a tree in poor health with significant problems that can't be remediated DEAD – a tree without sufficient live material to sustain life

Structural Condition

An assessment of the structural/safe condition of the tree categorised into:

GOOD – a tree in a safe condition with no significant defects

FAIR – a tree in a safe condition at present but with defects or with significant defects that can be remediated POOR – a tree with significant defects that can't be remediated.

EC - Estimated remaining contribution in years (based on the species and its current condition)

<10 Up to 10 years

10+ 10 years or more

20+ 20 years or more

40+ 40 years or more

Category (Tree quality assessment)

Category U – Tree in poor condition that cannot realistically be retained for longer than 10 years Category

A – Trees of high quality

Category B – Trees of moderate quality Category

C – Trees of low quality

Protective trunk wrapping:

Protective trunk wrapping is to comprise of a minimum of three wrappings of clean dry hessian around the trunk from ground level up to 2.4m high and held in place with sisal. Onto the hessian there is to be a minimum of three wraps of chestnut paling around the trunk; the chestnut paling is to be held in place by 2.50mm galvanized mild steel wire at the top, middle and bottom of each wrap of chestnut paling. The wire is to be secured to the chestnut paling by fencing staples; Or

Protective barrier hoarding:

Protective barrier hoarding should be appropriate for the intensity and proximity of the development to protect trees where development activity is in close proximity. To comprise of 2.4m high wooden site hoarding constructed upon a timber frame work situated around the outside of the planting pit. Where the timber frame is constructed around the tree trunk a minimum of four layers of clean dry hessian is to be wrapped around the trunk to protect the bark.

Trunk protection is to be removed ONLY with the written permission of the arboricultural consultant and approval of the local planning authority (LPA).

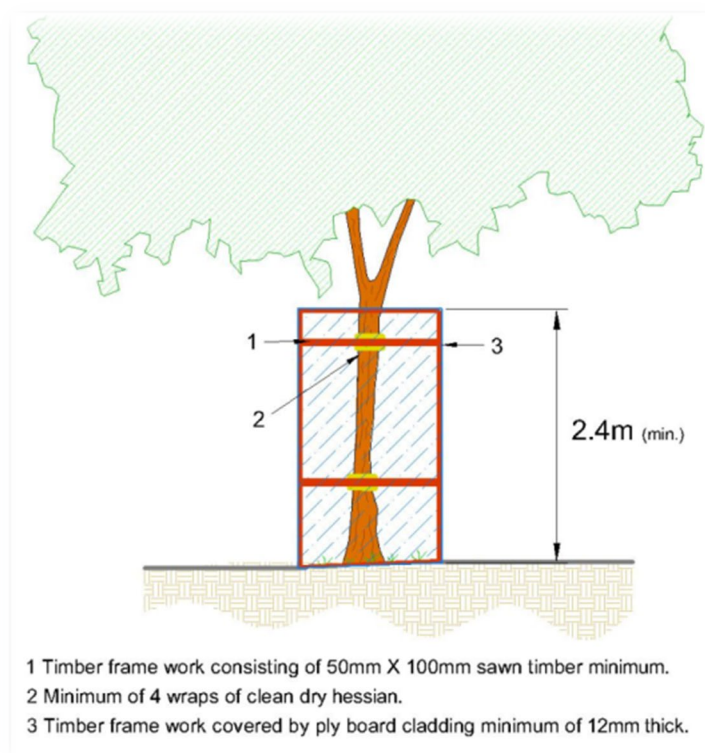
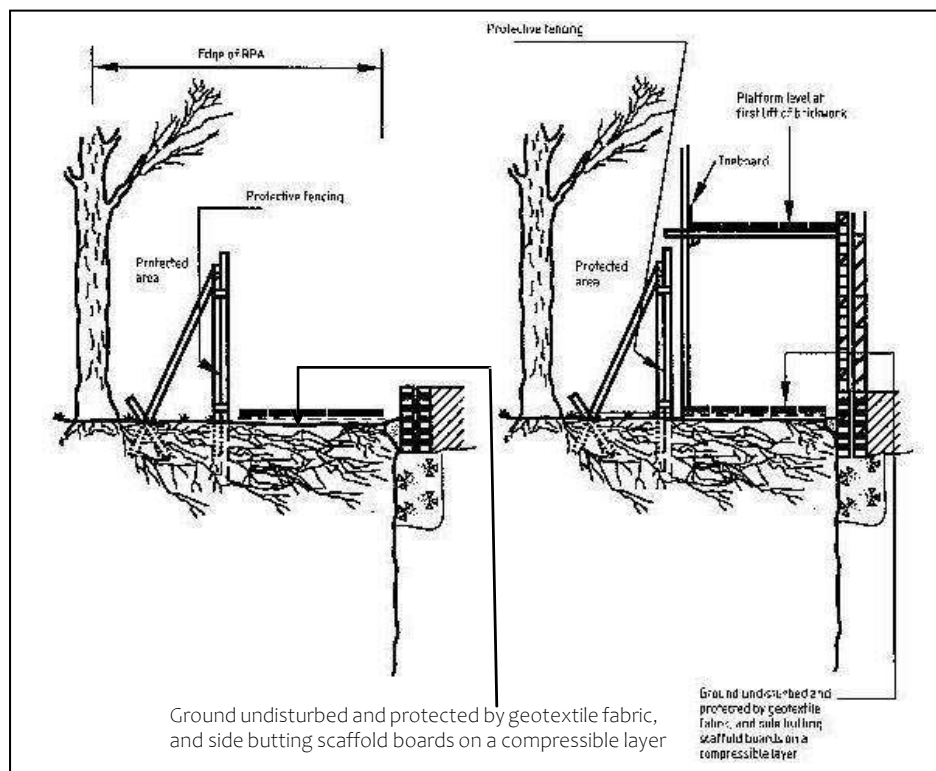


Figure 4: Example image of Protective barrier hoarding

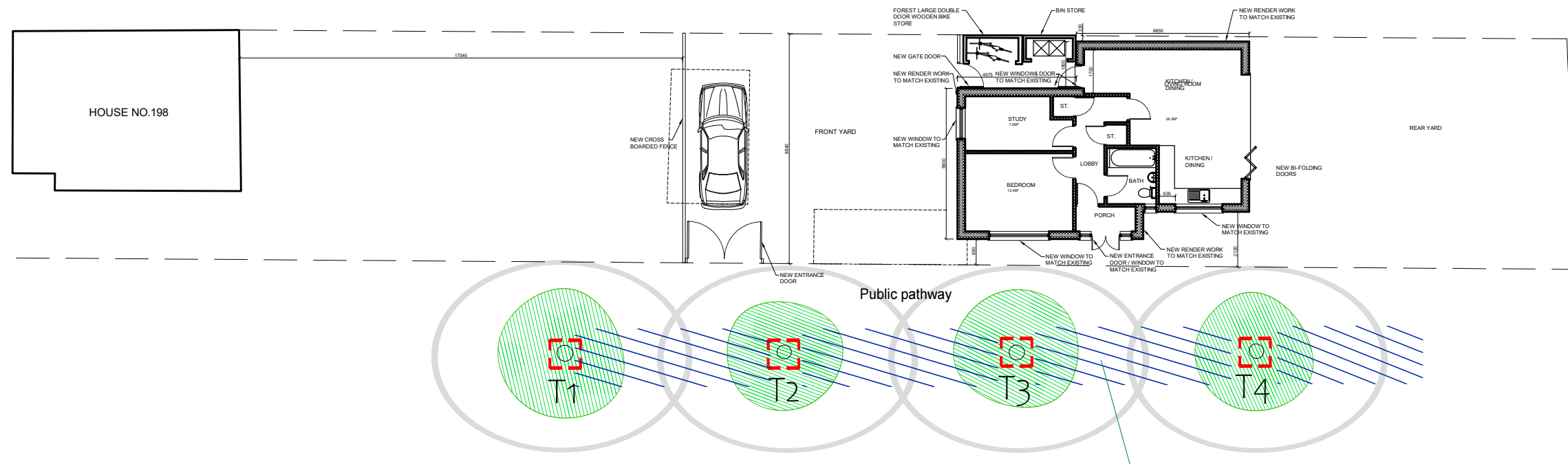
APPENDIX 2 – Ground Protection









Where ground protection measures are necessary, they can be provided by laying a geotextile mat onto the existing ground level and adding to this compressible materials, such as bark mulch or sharp sand to form a safe, level surface. Onto this surface is laid scaffold boards which become the working surface for the duration of the construction phase.

Where scaffolding is proposed above the area requiring protection the footway can be suspended above ground level using the upright scaffold poles onto which horizontal supports can be attached and then boards used to form the footway surface. A geotextile mat should be laid on the ground beneath to prevent contamination from materials dropped through the footway.




APPENDIX3 – Tree Protection Plan



-  RPA for Cat A* tree
-  RPA for Cat B* tree
-  RPA for Cat C* tree
-  RPA for Cat U* tree
-  Tree Canopy
-  Heras Fencing
-  Ground Protection
-  Trunk Protection

Trunk Protective Barrier Hoarding: 

Protective barrier hoarding should be appropriate for the intensity and proximity of the development to protect trees where development activity is in close proximity. To comprise of 2.4m high wooden site hoarding constructed upon a timber frame work situated around the outside of the planting pit. Where the timber frame is constructed around the tree trunk a minimum of four layers of clean dry Hessian is to be wrapped around the trunk to protect the bark. Trunk protection is to be removed ONLY with the written permission of the Arboricultural consultant and approval of the local planning authority (LPA).

Ground protection: 

- a) for pedestrian movements only, 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 (e.g. 100 mm depth of woodchip), laid onto a geotextile membrane;
- b) 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 (e.g. 150 mm depth of woodchip), laid onto a geotextile membrane;

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Client: Ms. Dhaliwal
 Consultant: Kristian Chesterman

Site: 198 Park Crescent, Lesney Park, Erith, DA8 3ED

Title: Tree Protection Plan

Scale at A3: 1:200	Date: 12/03/2024	Document Ref. AATPP198P
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