Landmark Trees

ARBORICULTURAL METHOD STATEMENT

11 Prince Albert Road

London

NW1 7SR

REPORT PREPARED FOR:

Harrison Varma Limited

Bishops View House

98 Great North Rd

East Finchley

London N2 0NL

REPORT PREPARED BY:

Adam Hollis

MSc ARB MICFor FArbor A MRICS C Env

Ref: HVL/11PAR/AMS/01a

Date: 16th February 2016

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1.0 Introduction

1.1 Purpose & Use of the Method Statement

1.1.1 This outline method statement has been prepared for Harrison Varma Limited, for assistance with the discharge of planning conditions at 11 Prince Albert Road, London NW1 7HR: London Borough of Camden planning permission no.: 2015/4670/P. The document will address the following condition:

> *5 Prior to the commencement of any works on site, details demonstrating how trees to be retained shall be protected during construction work shall be submitted to and approved by the Council in writing. Such details shall follow guidelines and standards set out in BS5837:2012 "Trees in Relation to Construction". All trees on the site, or parts of trees growing from adjoining sites, unless shown on the permitted drawings as being removed, shall be retained and protected from damage in accordance with the approved protection details.*
>
> *Reason: To ensure that the development will not have an adverse effect on existing trees and in order to maintain the character and amenity of the area in accordance with the requirements of policy CS15 of the London Borough of Camden Local Development Framework Core Strategy.*

1.1.2 This document lays down the methodology for any proposed works that may have an effect upon the trees on and adjacent to the site. It is essential within the scope of any contracts related to the development proposals that this method statement is observed and adhered to. It is recommended that this document form part of the work schedule and specification issued to the building contractors and can be used to form part of the contract.

1.1.3 Copies of this document will be available for inspection on site. The developer will inform the local planning authority within twenty-four hours if the arboricultural consultant is replaced.

1.2 Terms of Reference

1.2.1 We (LT) are instructed by the client, Harrison Varma Limited to prepare a method statement for proposed development based on the above planning application with reference to BS 5837:2012 Trees in Relation to Design, Demolition and Construction.

1.2.2 For this purpose, the client has supplied us with a site lay-out plan (11PAR_HV_EH_GF_SK_B50) and the current proposals plan (1604-PL-200s-WORKING_proposed). We are also reliant upon our own impact assessment report HVL/11PAR/AIA/01 and plan overlays of tree constraints contained therein.

1.3 Development Proposals & Potential Impacts

1.3.1 The revised proposals are for a single storey side extension at the lower ground level, a single storey basement excavation and internal alterations of the existing residential property. The application follows various previously submitted applications. The proposals have been amended to take into account the advice received from the officers as well as Primrose Hill Conservation Area Advisory Committee. Previously proposed upper ground floor level has been omitted, and the proposed side extension buried under the existing side garden and obscured from external views. The proposed lower ground floor will allow the reinstatement of existing gardens and provide an opportunity for landscape enhancements.

1.3.2 The principal impacts of the proposal comprise the felling of mainly young category C trees T6, T7, T8 and T9. The loss of these trees is rated as a low impact, with no significant effect on the visual character of the local conservation area. The replanting scheme will offer considerable enhancement and replaces the three young/one semi-mature trees with species specifically selected for the proposed site, healthy and fit-for-purpose. There will also be some very minor canopy encroachment during construction only to T5 (3m ground clearance). It is recommended that the canopy is either tied back or minor pruning works used to facilitate the construction of the LGF extension beneath the canopy. Thus, the impacts of design are relatively low. However, the purpose of this method statement is to ensure that no further impacts occur as a result of contractor activity on site.

1.3.3 No construction works are scheduled within Root Protection Areas and substantial ground protection measures are detailed within this AMS to safeguard the rooting zones of trees on site.

1.4 Sequence of Works

1.4.1 The sequence of works will be as follows:

- initial tree works – felling, stump grinding and pruning for working clearances
- installation of Tree Protection Barrier (TPB) & ground protection
- installation of underground services
- main construction
- removal of TPB
- soft landscaping

These works and their arboricultural implications are outlined in sequence below

1.5 Site Supervision

1.5.1 An individual (e.g. the Site Agent) must be nominated to be responsible for all arboricultural matters on site. If the demolition and construction contracts are to be awarded separately, an agent must be nominated from the successful contractor for each phase of work. The agent(s) must:

- be present on site for the majority of the time
- be aware of the arboricultural responsibilities - to this end, a site briefing / meeting between the agent and arboricultural consultant must be held before the commencement of each phase of works.
- have the authority to stop any work that is causing, or has the potential to cause harm to any tree
- be responsible for ensuring that all site operatives are aware of their responsibilities toward trees on site and the consequences of the failure to observe these responsibilities.
- Make immediate contact with the local authority and/or a retained arboriculturalist in the event of any tree related problems occurring, whether actual or potential.

1.5.2 At this stage, the nominated Key Personnel are as follows:

Adam Hollis Tel: 0207 851 4544
Arboricultural Consultant
Landmark Trees
info@landmarktrees.co.uk

Barbara Milne Tel: 0207 641 2922
Planning Arb Officer
London Borough of Camden
gerry.oxford@camden.gov.uk

Cliff Willis Tel: 0208 815 1402
Architect
Harrison Varma Limited Architects
www.harrisonvarma.co.uk

1.6 Site Monitoring

1.6.1 Landmark Trees are to be retained as Arboricultural Consultants responsible for site monitoring for the duration of the development. As noted above Adam Hollis MSc (Arb) is the key contact, with monitoring occasionally undertaken by James Bell Tech Cert. (subject to any new staff intake). Site monitoring will be undertaken by a qualified and experienced arboriculturalist at pre-determined and agreed time intervals as indicated in Table 1 below.

1.6.2 The arboriculturalist will arrive at the site, check in at the site office and be safely escorted around the site by the site agent, checking the maintenance of tree protection measures. Routine visits will generally be unannounced. However, the arboriculturalist will also visit subject to advance notification and agreement to supervise any agreed works within the RPA.

1.6.3 Site monitoring will include those detailed in the table overleaf:

Table 1: Site Monitoring Visits

Supervision Visit No:	Details	Action
Visit 1: Pre-Development Site Inspection (S.2.3 of AMS)	• To included construction Site Agent briefing (S.1.5). • To confirm position of protective fencing and that it has been erected in accordance with AMS (S.2.2 and Tree Protection Plan in Appendix 5); • To check any pre-demolition/construction ground protection is in place. • To check any tree works have been undertaken in accordance with this AMS (S.2.1. and Appendix 1). • Determine if further tree work is required and seek required permission if necessary. • To check site facilities/access are in accordance with the AMS (S.3.3).	Issue a brief report with findings to Architect and Main Contractor within 5 days of site supervision visit. (see Appendix 3).
Visit 2: Installation of any new services within RPA (S3.4)	• Attend any excavation within RPA's where arboricultural supervision is prescribed by the AMS to ensure work is undertaken in accordance with NJUG provisions or other specification. • Date to be confirmed following formal project planning. • 2 weeks prior notice required.	
Visit 3: Demolition of hard surfaces/structures within RPA (S3.6) and Arboricultural supervision of construction within RPA	• Confirm position of any additional temporary ground protection and that temporary ground protection is in accordance with AMS. • Attend any excavation within RPAs where arboricultural supervision is prescribed by the AMS and any other unplanned incursions into the protection areas (subject to Local Authority agreement as noted above). • 2 weeks prior notice required.	Issue a brief report with findings to Architect and Main Contractor within 5 days of site supervision visit.
Ongoing Monitoring Visits	• Periodically during 12 months (or longer) of entire project. • Visits will be based intensity of site operations; once a month is considered reasonable. • To be carried out before, between and after detailed visits 2 and 3 above. • Attend site to confirm protective measures are still in place. Ensure attendance is timed for any other key elements of proposed (and any other unplanned) incursions into the protection areas.	Issue a brief report with findings to Architect and Main Contractor within 5 days of site supervision visit.
Final Site Visit - Completion of construction phase supervision visit (S.5)	After it has been confirmed that the construction phase is complete, allow removal of temporary ground protection and protective fencing. Specify any remedial work if necessary.	Issue a brief report with findings to Architect and Main Contractor within 5 days of site supervision visit.

1.6.4 The LPA's Arboricultural Officer will have free access to the site, subject to health and safety requirements, and report on any problem areas directly to the developer's Project Arboriculturalist. The Arboriculturalist will then visit the site and make recommendations to the developer on how best to rectify the situation and ensure implementation. A final sign-off visit will be carried out at the end of the development and a formal letter sent to both the client and LPA indicating an end to the monitoring period. It is the client's duty to notify LT that the project has been completed, in order to facilitate such an inspection.

1.6.5 N.B. Landmark Trees will only be responsible for providing monitoring in so far as they are fully instructed to do so and regularly paid for such services by the client. In the absence of routine payment (as per our business terms), routine monitoring will cease (temporarily or permanently) and the LPA will be informed of the cessation of monitoring. The client will also reserve the right to dismiss Landmark Trees and replace with another arborist, but must inform the LPA.

1.7 Statement Adoption

1.7.1 It is recommended that, in due course, acceptance of the recommendations in this report is demonstrated by, for example, the architect specifying in writing to the building contractor that tree care conditions apply in execution of the contract, and by an estimate or written undertaking from the contractor to the architect demonstrating that the practical aspects of tree protection recommendations have been priced in to the job. If conflicts between any part of a tree and the building arise in the course of development these can often be resolved quickly and at little cost if a qualified arboriculturist is consulted promptly. Lack of such care is often apparent quickly and decline and death of such trees can spoil design aims and can of course affect saleability, and reflects lack of best practice. Trees that have been the recipients of careful handling during construction add considerably to the appeal and value of the finished development.

2.0 Pre- Development Site Preparation

2.1 Arboricultural Works

2.1.1 All works must be carried out by a competent arborist in accordance with BS 3998: 2010 and any other prevailing good professional practice.

2.1.2 Specific works recommended to facilitate development are the removal of trees T6, 7, 8 & 9 and the minor crown reduction to T5. It is also recommended that further investigation into the condition of the base of T10 be carried out. These specific works to facilitate development and any other husbandry works are listed in Appendix 1.

2.2 Installation of Tree Protection Barrier

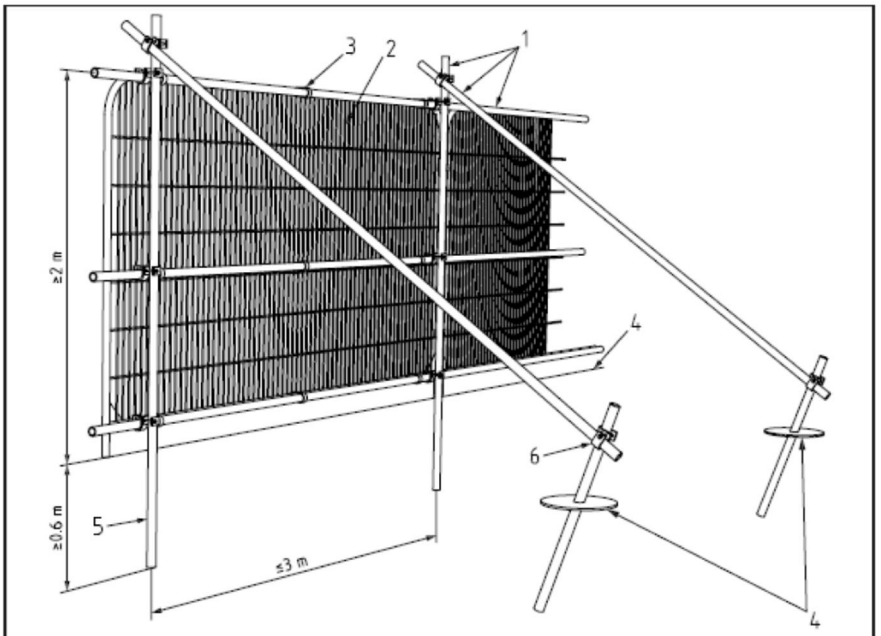
2.2.1 BS5837: (2012) Trees in Relation to Development stipulates the following:
6.2.2.1 Barriers should be fit for the purpose of excluding construction activity and appropriate to the degree and proximity of work taking place around the retained tree(s). Barriers should be maintained to ensure that they remain rigid and complete.

2.2.2 This will be achieved with a Tree Protection Barrier [TPB] comprising steel mesh panels of 2.4m in height ('Heras') should be erected to protect trees near buildings to be demolished on site. These panels will be mounted on a scaffolding frame as shown in Figure 1 below (this is also Figure 2 of BS5837: Trees in Relation to Design, Demolition and Construction in paragraph 6.2.2.2).

2.2.3 This TPB is to be erected before any work commences on site, is to remain *'in situ'* undamaged for the duration of all work or each phase, and only to be removed once all work is completed. If any work is deemed necessary prior to the erection of fencing a Landmark Trees representative should be informed to enable their presence to oversee the work being carried out.

2.2.4 The only other exception is the completion of soft landscaping but if any excavations, however minor, are to be carried out as part of soft landscaping within RPAs, an arboricultural assessment must be carried out beforehand and any arboricultural protection measures incorporated. The TPB should carry waterproof warning notices denying access within the RPA.

2.2.5 The Tree Protection Plan in Appendix 5 illustrates where the protective fencing will be located to form the boundary of the Construction Exclusion Zone (CEZ). The CEZ is an exclusion zone and suitable steps will be taken to prevent access by pedestrians and vehicles and the storage of any works materials and equipment will be located outside of the CEZ. Where areas of the RPA lie outside the CEZ, ground protection measures will be required.



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

Fig. 1 Tree Protection Barrier Specification
(Source: Figure 2 from BS5837 - Default specification for protective barrier)

2.3 Pre-Development Site Inspection

2.3.1 Upon completion of any tree works (if prescribed above) and installation of the protection measures, the standard of work can be checked by the retained arboricultural consultant who can then liaise with the local authority. If there are any amendments to either tree works or additional protection measures, they will be agreed at this meeting and confirmed in writing.

3.0 Development Phase

3.1 The following general precautions will apply:

- No fires shall be made on any part of the site, or within 20m of any tree to be retained.
- No spilling or pouring of fuels, oils, solvents, tar shall be made on any part of the site.
- No materials that are likely to have an adverse effect on tree health such as oil, bitumen or cement will be stored or discharged within 10 metres of the trunk of a tree that is to be retained.
- No spillage or discharge of wet mortar or concrete shall be made on any part of the site.
- No storage of materials shall be made within the protective fences.
- No breaching or moving of the protective fences without the approval of an arboriculturist.
- Alterations in levels within the tree protection fence areas shall be avoided.

3.2 Root Protection Areas (RPA)

3.2.1 The Root Protection Area (RPA) is a desirable zone of protection around the trees' rooting system and these have been marked on the plan in Appendix 5. As much as possible, the RPA's will lie within the CEZ and therefore, be fully fenced off. However, this degree of protection is not entirely possible on the site: whilst it is not necessary to perform construction works within the RPA of any retained tree, the constraints of the site dictate that it will be necessary to locate site accommodations and for movement of operatives and plant to take place within RPAs.

3.2.2 All involved parties will need to be made aware of the deficiencies. In these instances, careful and supervised working, as described in sections, S. 3.4 (routing of services) and S. 3.6 (demolition of surfaces) and S. 3.7 (construction) will be required.

3.2.3 Ground outside the CEZ must be protected from site traffic and not left exposed during construction. As far as practical, existing hard surfaces should be retained as initial ground protection (where fit for purpose for anticipated loading) until the landscaping phase and substituted / supplemented with appropriate materials (e.g. Infraweb, Ground Guards etc.), capable of withstanding anticipated loads. This measure applies particularly to the driveway of the property which will require the installation of ground protection on the existing gravel hardstanding to provide a more robust protective measure. **NB the provision of ground protection on plan does not prohibit the consented laying of services and related works in those areas. It means that those operations should proceed under caution and protect adjacent ground to that immediately requisitioned for the work in hand.**

3.2.4 The extant (unfenced part of the) RPA of T10 in the rear garden will be protected with a raised platform on scaffold boards on a scaffold framework raised above ground level, to allow material storage and the passage of operatives in this area.

Photograph 1: Example of ground protection using a raised platform on scaffold boards on a scaffold framework

3.3 Site Access, Accommodation & Storage

3.3.1 Site access and accommodation will be as per the layout within our Tree Protection Plan (Appendix 5). The site accommodation will be supported above ground level by scaffolding poles driven into the ground and once installed serve as the TPB to trees T2 – T5.

3.3.2 Pedestrian access will run parallel, but separate to vehicular access.

3.3.3 Delivery lorries will be excluded from RPA's by the site accommodations and ground protection. Heavy lorries required to enter the site will only be permitted to reverse in in a straight line where their passage will be protected by the additional ground protection installed. Adequate allowance must be made for vehicle heights and ground clearance, where tree canopies overhang access routes. Any further pruning for working clearances must be discussed first with the arboriculturalist; once agreed in principle these works should be approved by the appropriate tree officer and approved in writing by the LPA. Materials can be unloaded onto protected ground within RPA's and stored throughout the interior of the site(s) away from protected trees

3.3.4 Many site activities are potentially damaging to trees e.g. material storage, parking, soil compaction and the use of plant machinery. In this latter example particular care is required to ensure that the operational arcs of excavation and lifting machinery, including their loads, do not physically damage trees in use.

3.4 Routing & Installation of Services

3.4.1 Every effort should be made to ensure that the routing and instillation of services avoid the RPA at the design stage; however if unavoidable then it may be possible, with written permission from the LPA, to implement the provisions of BS5837 and NJUG VOLUME 4 (e.g. radial trenching and /or mole trenching) under arboricultural supervision.

3.5 Changes in Grade

3.5.1 The upper layer of top soil contains the majority of a tree's roots and if this is disturbed by a reduction in ground level, serious damage can be caused. If such soil is to be disturbed within the CEZ / RPA, it will be done only with hand tools and the supervising arborist will be informed if roots are exposed.

3.5.2 If the ground level requires raising, this will be achieved using coarse, granular material such as pebbles.

3.5.3 If ground levels need to be marginally altered within the RPA of any tree, prior agreement must be sought from the Tree Preservation Officer and given in writing by the LPA.

3.6 Demolition Measures.

3.6.1 Any existing hard standing within the tree's RPA's will be first broken up with manual power tools and then carefully removed with light plant by a skilled machine operator, either operating outside the RPA, or working from within the existing built structure and hard standing, near trees. Soil exposed beneath the structure will not be scraped away, but preserved in situ and protected immediately (not tracked over) with replacement ground protection (as per para 3.2.1) before the continuance of operations.

3.7 Construction Measures

Detailed method statements and risk assessments will be obtained from all specialist subcontractors involved in the new build and these will be scrutinised by the site agent to ensure the AMS requirements have been considered therein.

3.7.1 During the construction phase and throughout dry periods on site regular hosing down will be carried out to control dust pollution. In the event of dust build up on trees occurring arboricultural advice will be sort and if necessary remedial measures such as hosing down the trees will be taken.

3.7.2 Where scaffolding needs to be installed within the RPA (e.g. to the north of the property adjacent to T10, 12 & 13) the following ground protection should be followed / adapted to site needs:

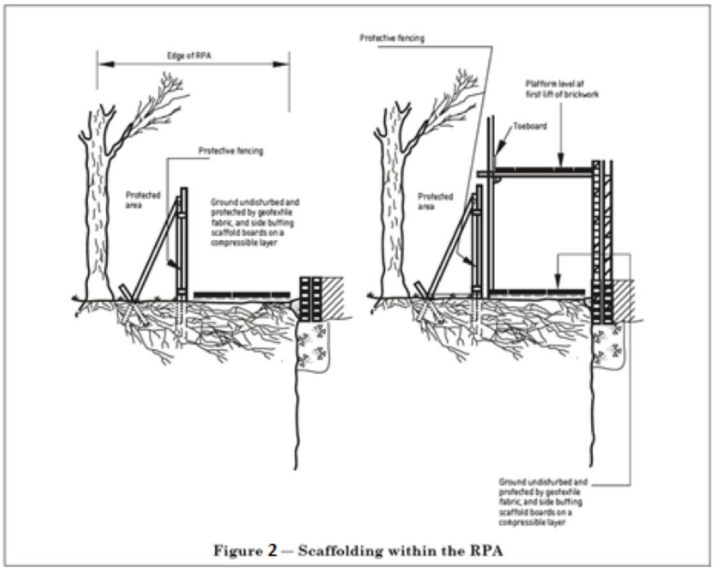


Figure 2 — Scaffolding within the RPA

3.7.3 In order to weatherproof it, the scaffolding is to be enclosed with a PVC sheeting envelope. This sheeting will reduce the amount of light received by T12 and T13 but both trees are species well capable of tolerating these reduced light levels for the duration of the works.

3.7.4 The replacement paving/hard landscaping will require a no-dig construction technique, either using a cellular confinement system with no fines aggregate for the sub-base or simply building upon the existing sub-base without disturbing the ground below. Choice of construction method will initially depend upon root penetration within the existing sub-grade. The key principle is not to excavate in the presence of roots and to provide a porous surface to promote healthy soil water relations for future root growth. A further consideration in the use of a more expensive cellular confinement system or similar, may be the claimed reduction in risk of possible future slab / surface displacement by roots of trees growing in paved areas.

3.7.5 Method Statement - Sample specifications for no dig drive construction by trees T1 – T5:

i. The Construction should ideally be undertaken between May and October when the ground is sufficiently dry to prevent compaction occurring. Any surface vegetation should be removed by hand or with suitable herbicide.
ii. Fill any hollows in the exposed ground with sharp sand or 4/20mm or 40/20mm clean angular stone.
iii. Place Permatex 300 Geotextile over the area to be protected ensuring laps are a minimum of 300mm. The geotextile should not be trafficked across at any time.

iv. The Infraweb system is available in 5 depths for varying traffic loadings but each site should have a specific design detailed to ensure the correct depth of product is used. However, unless the existing ground conditions are very soft and have a low CBR then the following can apply:

- 50mm deep InfraWeb for Pedestrians and Cycleways, non-vehicular traffic;
- 75mm deep InfraWeb for Pedestrians, Cycleways and vehicles up to 1.5 tons;
- 100mm deep InfraWeb for Cars, 4 Wheel Drives, Vans etc up to 6 tons;
- 150mm deep InfraWeb for Fire Tenders, Removal Vehicles and Dust Carts up to 20 to 20 tons;
- 200mm deep InfraWeb for construction vehicles, cranes etc 40 tons and above.

v. The system components are as follows:

- InfraWeb 3 Dimensional Cellular Confinement System
- Permatex 300 Separation Geotextile
- Permatex 200 Separation Geotextile (depending on surface finish)
- InfraWeb Staking Pins
- InfraWeb Stapler and Staples
- 4/20mm or 40/20mm Clean angular stone to Bs EN 13242 and 12620.

vi. Place the collapsed panel on the geotextile and pin through 3 cells across the 2.42m orientation using InfraWeb staking pins. Expand the panel to its full length of 8.7m and pin across the opposite panel end using InfraWeb staking pins. Pin along the length of the panel with 2 pins on each side using InfraWeb staking pins. If full panels are not being used then ensure the cells have been expanded to their full dimension. Staple any adjacent panels together using the Infraweb stapler and staples. The InfraWeb panels can be cut to shape if required with a heavy duty Stanley Knife.

vii. The correct specification of the granular infill is vital to the long term performance of the system. Use only 4/20mm or 40/20mm clean angular stone to Bs EN 13242 and 12620 (depending on cell depth being used). Fill the pockets of the InfraWeb with a 4/20mm or 40/20mm clean angular stone. Allow for any settlement of the stone in the cells and top up if necessary. **If the system requires trafficking immediately after installation for construction purposes then a 50mm sacrificial surcharge of the 4/20mm or 40/20mm granular material shall be placed on top of the InfraWeb.**

viii. The Infraweb TRP system can be surfaced with the materials listed below. Porous systems will be of greater benefit for the trees, however it is understood that this is not always possible.

Block Paving:

- Place Permatex 200 separation fabric over the filled InfraWeb.
- Lay sand / gravel bedding material as per manufacturer's recommendations.
- Place porous / standard blocks as per manufacturer's instructions.

Porous and Standard Ashalt:

- Slightly surcharge the InfraWeb with 25mm of 4/20mm or 40/20mm clean angular stone.
- Place hot Asphalt as per manufacturer's instructions.

Resin Bound Gravels:

- Place Permatex 200 separation fabric over the filled InfraWeb.
- Lay Asphalt carpet and resin bound gravel to the required thickness and as per manufacturer's instructions.

Loose Gravels:

- Option 1 is to slightly overfill the InfraWeb with the clean angular stone.
- Option 2 is to place a 25mm thick decorative stone above the filled InfraWeb.

Slimblock Gravel Retention System

- Place Permatex 200 separation geotextile over the filled InfraWeb.
- Place 20mm bedding layer of 5mm single sized stone and lightly tamp.
- Lay Slimblock units and fill with a 10 to 14mm decorative gravel.

Slimblock Grass Protection System.

- Place Permatex 200 separation geotextile over the filled InfraWeb.
- Place 50mm of Rootzone (60% sand/40% soil) bedding layer and lightly tamp.
- Lay Slimblock units and fill with Rootzone mix and seed accordingly. (Please allow for 4 to 6 weeks for seed germination)

Tree Mulch

- Place Permatex 200 separation geotextile over the filled InfraWeb.
- Lay mulch to desired depth.

Concrete

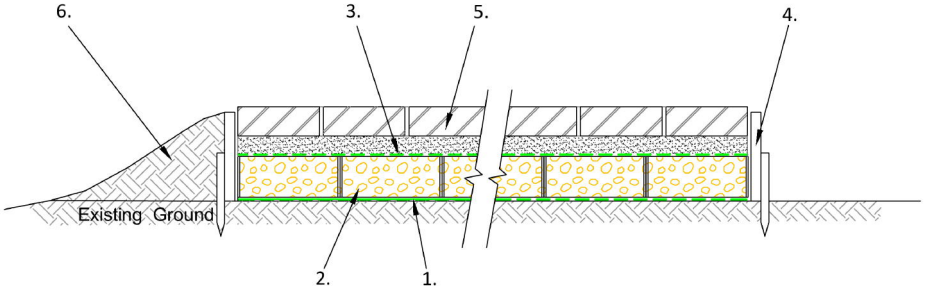
- Place Permatex 200 separation geotextile over the filled InfraWeb.
- Cast the concrete slab over the geotextile.

3.7.6 For technical data on the Geotextile membrane and the Infraweb cellular confinement system always refer to the manufactures guidelines for design and implementation. Further technical advice can be gained from the manufacturer:

Infra Green Limited
Warrington Business Park
Long Lane
Warrington
WA2 8TX
Tel. 01455 617139
www.infragreen-solutions.com

KEY

1. Permatex 300 geotextile
2. 100mm deep InfraWeb tree root protection System infilled with 4/20 Clean angular Stone to BS EN 13242 / EN 12620
3. Permatex 200 separation geotextile
4. Treated Timber Edging (Or other Edging Detail Acceptable)
5. Block Paving with sand bed to Engineers Specification
6. Soil graded to edging (if required)



InfraGreen solutions
Warrington Business Park
Longfield Road
WA2 8TX
T: 01925 630576
E: info@infragreen-solutions.com

TITLE: InfraWeb Section - Tree Root Protection c/w Block Paving Surface

DRAWN BY	SCALE	DATE	CHECKED BY
PP	1:10	01/14	RP
DRAWING NO		REVISION	APPROVED
IG-SD-IW-BP-100		A	

3.8 Removal of Ground Protection & Post Construction Landscaping & Treatment

3.8.1 The tree protection may be removed upon completion of the construction phase and when all drainage and service runs have been installed and any site machinery has been removed from the RPA.

3.8.2 Following the developing phase, impacted trees within the site boundary, identified for such treatment, will receive remedial soil remediation treatment: deep root fertiliser / mycorrhizal injection and surface mulching

3.8.2 Any further landscaping works should avoid the changing of ground levels or deep digging. Mechanised cultivation such as tractor-mounted rotovation must not be used within the RPA's of existing trees.

3.8.3 Heavy machinery should not be used in the vicinity of any retained trees.

3.8.4 If herbicides are to be used they should be appropriate to their purpose and not in such a way as to damage any retained trees or vegetation; they must be applied by a suitably qualified person i.e. a holder of a recognised 'certificate of competence'.

3.8.5 Ideally, retained trees should be within a shrub area as this reduces the chances of compaction and disturbance of root systems.

3.8.6 Any new planting schemes adopted should consider aspects of the site such as current design, layout and future use. Consideration should also be given to the soil type, climate and overall character of the landscape.

4.0 Summary of Proposed Methods

4.1 Table of Impacts and Mitigation

4.1.1 The table below summarises the main areas where trees could become damaged by the proposed development and the methods that need to be adopted in order to prevent such damage:

Table 2: Summary of Proposed Methods

Impact	Mitigation	Reference	Trees Affected
General site access, material storage etc.	Ground protection to acceptable standards.	Paras 2.2.1 & 3.3.3 Tree Protection Plan in Appendix 5	All retained trees
Demolition & construction within existing canopy	Tree surgery	Section 2.1	T5
Damage to roots from new driveway	No-dig construction methodology	Section 3.6	T1 – T5

5.0 Completion

5.1 Completion Meeting

5.1.1 Following completion of the works listed above, a Landmark Trees consultant will meet with a local authority representative and agree upon any remedial works deemed necessary. It is the client's duty to notify LT that the project has been completed, in order to facilitate such an inspection.

5.1.2 A separate LT post-development tree inspection (with specific reference to trees identified in the Appendix 1 schedules) is recommended to facilitate a constructive meeting and to monitor the health of some of the more senescent trees on site.

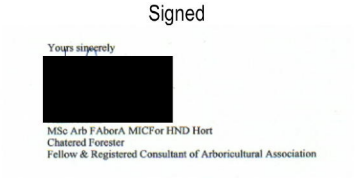
5.1.3 Any works agreed in the above meeting will be confirmed in writing and will be performed to BS 3998: 2010 Tree Works.

5.1.4 Landmark Trees recommend that any work proposed post development is checked to avoid penalty for performing illegal work on a protected tree.

5.1.5 As noted at 1.7 above, it is recommended that, in due course, acceptance of the recommendations in this report is demonstrated by, for example, the architect specifying in writing to the building contractor that tree care conditions apply in execution of the contract, and by an estimate or written undertaking from the contractor to the architect demonstrating that the practical aspects of tree protection recommendations have been priced in to the job.

5.1.6 If conflicts between any part of a tree and the building arise in the course of development these can often be resolved quickly and at little cost if a qualified arboriculturist is consulted promptly. Lack of such care is often apparent quickly and decline and death of such trees can spoil design aims and can of course affect saleability, and reflects lack of best practice. Trees that have been the recipients of careful handling during construction add considerably to the appeal and value of the finished development.

Signed



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Adam Hollis MSc ARB MICFor FArbor A

16th February 2016

For and on behalf of ***Landmark Trees***

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London Office: 20 Broadwick Street, London, W1F 8HT
Registered Office: Grange Cottage, All Cannings, Devizes, Wiltshire, SN10 3NR
Landmark Trees is the trading name of Landmark trees Ltd. Registered in Wales. Reg No. 3882076

Appendix 1: Arboricultural Works

Notes for Guidance:

1, 2, 3 - Urgent (ASAP), Standard (within 6 months), Non-urgent (2-3 years)

RP - Pre-emptive root pruning of foundation encroachments under arboricultural supervision.
CB - Cut Back to boundary/clear from structure.
CL# - Crown Lift to given height in meters.
CT#% - Crown Thinning by identified %.
CCL - Crown Clean (remove deadwood/crossing and hazardous branches and stubs).
CR#% - Crown Reduce by given maximum % (of outermost branch & twig length)
DWD - Remove deadwood.
Fell - Fell to ground level.
FInv - Further Investigation (generally with decay detection equipment).
Pol - Pollard or re-pollard.
Mon - Check / monitor progress of defect(s) at next consultant inspection which should be <18 months in frequented areas and <3 years in areas of more occasional use. Where clients retain their own ground staff, we recommend an annual in- house inspection and where practical, in the aftermath of extreme weather events.
Svr Ivy / Clr Bs - Sever ivy / clear base and re-inspect base / stem for concealed defects.

Landmark Trees

Site: 11 Prince Albert Road, London NW1 7SR

Date: 02 07 2015

Surveyor(s): Adam Hollis

Ref: HVL/11PAR/AIA

Recommended Tree Works To Facilitate Development

Show All Trees
Hide irrelevant

Tree No.	English Name	Height	Stem Diameter	Crown Spread	Recommended Works	Comments/ Reasons
5	Honey Locust	8	100.0	3	CB Cut back/tie back minor branches to facilitate construction	A tree with insignificant defects To Facilitate Development
6	Beech, Common	8	120.0	3342	Fell	Leaning (slightly) Co-dominant stems To Facilitate Development
7	Cypress, Lawson variety	8	100.0	1.5	Fell	To Facilitate Development
8	Cypress, Lawson variety	8	100.0	1.5	Fell	To Facilitate Development
9	Cherry, Ornamental	8	150.0	3524	Fell	Entry wounds on trunk To Facilitate Development
10	Lime, Common	15	510.0	6685	FInv	Basal cavity Entry wounds on trunk Ivy clad; minor deadwood Recommended Husbandry 2

Appendix 2: General Guidelines

2.1 All work must be to BS 3998:2010 - *'Recommendations for tree work'*.

2.2 Staff carrying out the work must be qualified, experienced and ideally be Arboricultural Association approved contractors, and will be covered by adequate public liability insurance.

2.3 Any defects seen by a contractor or the client that were not apparent to the consultant must be brought to the consultant's attention immediately.

2.4 No liability can be accepted by the consultant in respect of the trees unless the recommendations of this method statement are carried out under the supervision of a Landmark Trees consultant.

2.5 It is advisable to have trees inspected by a consultant regularly. On this site it is recommended that these inspections are made every year.

Appendix 3: Sample Site Monitoring Sheet

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Site Monitoring Report Sheet

Client:		**Planning Ref:**	
Local Authority:		**Date:**	
Site Address:			
Proposal:			

Visit Checklist	**Y/N**		**Y/N**
Tree protection barrier (TPB) in place		TPB as per approved	
Ground protection (GP) in place		GP as per approved	
TPB / GP breached		Trees damaged	
Site Agent briefed by LT			
LT briefed by Site Agent			
LPA informed			
Remedial action required			

Comments

Recommendations

Outcome		
1		
2		
3		
4		

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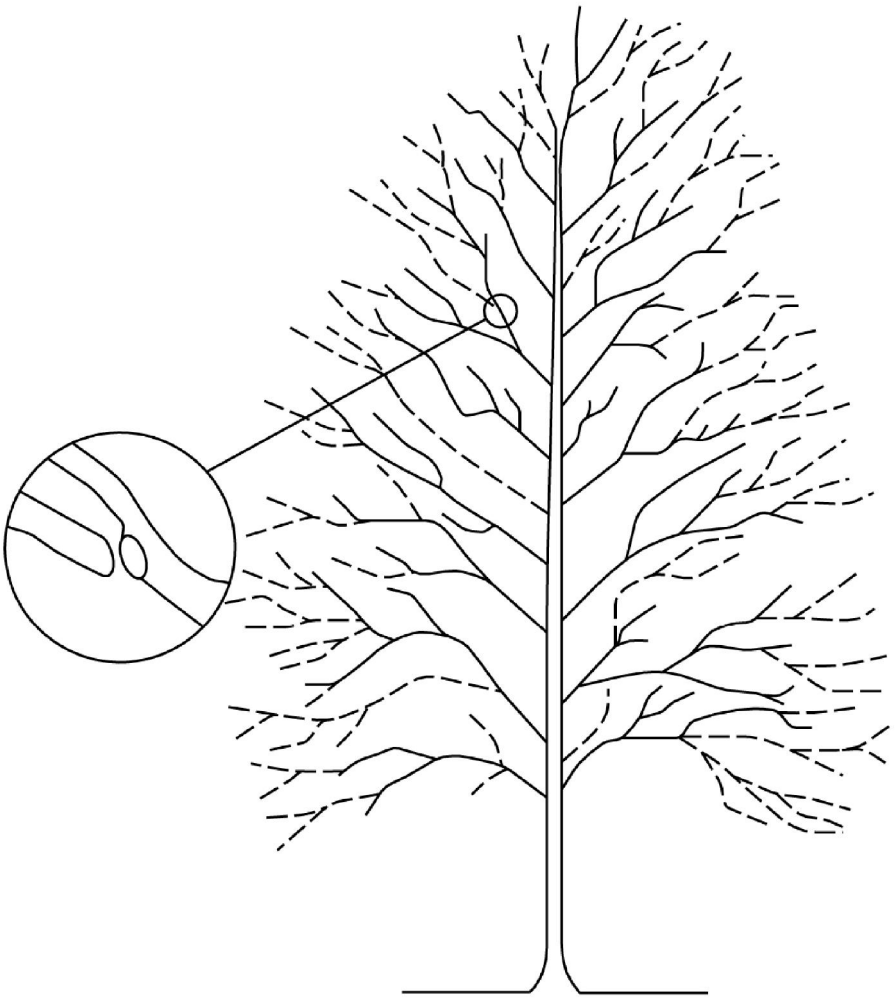
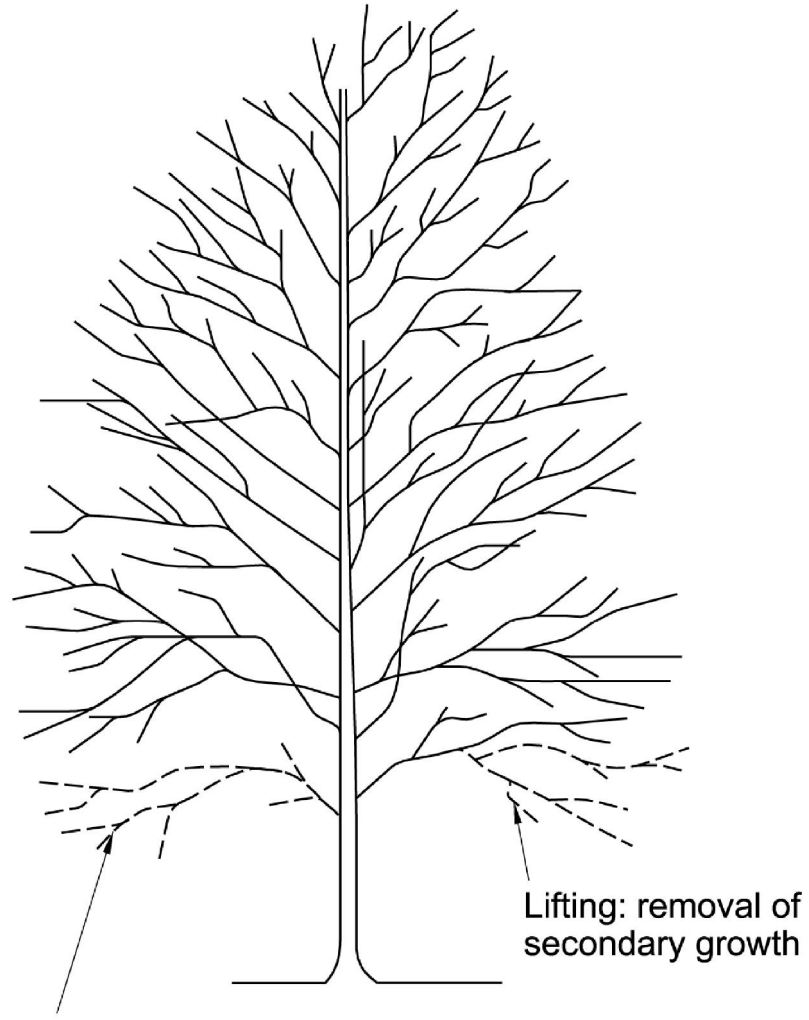
Appendix 4: Indicative Pruning Guidelines



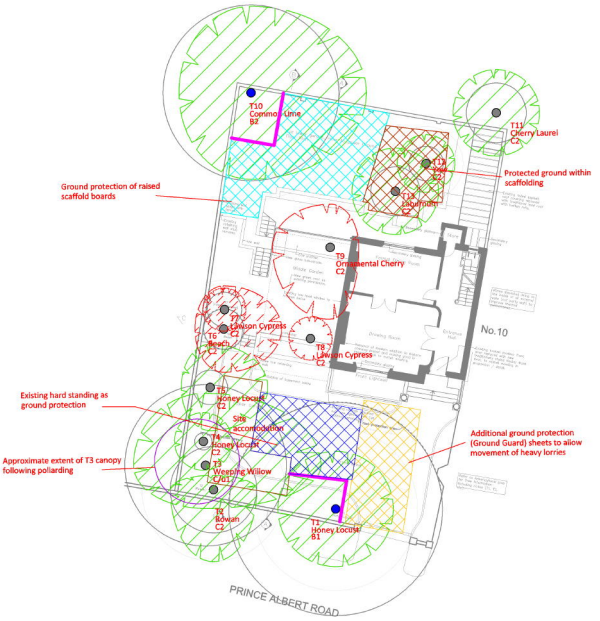
NOTE: Branches pruned back to suitable outward pointing bud or small branch.

REDUCING THE CROWN



CROWN LIFTING

Appendix 5: Tree Protection Plan



NOTE:

This survey is of a preliminary nature. The trees were inspected from the ground only on the basis of the Visual Tree Assessment method. No samples were taken for analysis. No decay detection equipment was employed. The survey does not cover the arrangements that may be required in connection with the laying or removal of underground services.

Branch spread in metres is taken at the four cardinal points to derive an accurate representation of the crown.

Root Protection Areas (RPA) are derived from stem diameter measured at 1.5 m above adjacent ground level (taken on sloping ground on the upslope side of the tree base).

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Site: 11 Prince Albert Road	1:200@ A3
Drawing Title: Tree Protection Plan	December 2016

Key:

- Category A High Quality
- Category B Moderate Quality
- Category C Low Quality
- Category U Trees Unsuitable for Retention

Category — Crown Spread — Tree Number — Species — Category — Root Protection Area

Tree To Be Removed

Tree Position Approximate (not shown on original survey)

Tree Protection Fencing