Landmark Trees

ARBORICULTURAL METHOD STATEMENT ADDENDUM

92 Fitzjohns Avenue

London

NW3 6NP

REPORT PREPARED FOR:

Ms Rachel Lord and Mr John Weston

92 Fitzjohn's Avenue

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REPORT PREPARED BY:

Adam Hollis

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Ref: TSS/92FJA/AMS/02e

Date: 28th April 2016

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1.0 Introduction

1.1 Purpose & Use of the Method Statement

1.1.1 Permission to demolish the existing house (Conservation Area Consent 2013/1448/C) and rebuild a new house (Planning Permission 2015/1856/P) have been granted. The protection of trees during these works was dealt with by the Arboricultural Method Statement approved as part of the Planning Permission (TSS/92FJA/AMS/01a).

1.1.2 Subsequent to this permission for the construction access been granted (Planning Permission 2015/7116/P). This required the additional felling of off-site T28 and T29.

1.1.3 This Arboricultural Method Statement Addendum (AMS Addendum) has been produced in order to take account of issues that have arisen as the detailed design of the scheme and its construction have evolved, specifically with regard to Trees T34 and T37. It has also borne in mind how the boundary treatments have changed (Non Material Amendment 2016/0637/P) which have required additional work to Tree T30 and felling of offsite Tree T11.

1.1.4 However, in order to avoid confusion this AMS Addendum covers all the trees on site and adjacent to the site so that all works on the site that are likely to affect the trees are covered by one document.

1.1.5 AMS Addendum has been informed by discussions that were held on site with the Tree Officer Nick Bell on 22/04/16. It is consistent with the information which has been submitted to the Council in order to discharge Condition 6 of Planning Permission 2015/1856/P (i.e., details of the design of building foundations and the layout, with dimensions and levels, of service trenches and other excavations on site in so far as these items may affect trees on or adjoining the site).

1.1.6 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, Ms Rachel Lord and Mr John Weston 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 the drawings and Construction Management Plan approved as part of Planning Permission 2015/1856/P as well as the information submitted in order to discharge Condition 6. We are also reliant upon the impact assessment report and arboricultural method statement approved as part of Planning Permission 2015/1856/P (TSS/92FJA/AMS/02a) and the subsequent letter detailing the amended access off Prince Arthur Road along the existing service road for Henderson Court approved as part of Planning Permission 2015/7116/P (TSS/92FJA/AIA/ACC/lttr) with the plan overlays of tree constraints contained within both documents.

1.3 Development Proposals, Construction & Potential Impacts

1.3.1 The development permitted under 2015/1856/P is for the construction of new detached family dwelling with integral garage and a robust landscaping strategy. The replacement dwelling will provide a contemporary, low rise and sustainable family dwelling in a Modernist architectural style.

1.3.2 The encroachments of the proposed building within the theoretical RPA's of category B trees T34 and T37 were rated as low within the previous AMS (TSS/92FJA/AMS/02a). However the further details provided in to discharge Condition 6 have additional arboricultural impacts. The following mitigation is now proposed for T34 and T37, as agreed with the Tree Officer:

- T34 - Crown reduce by 1.5m to provide a safe place of work as well reduce water demand for the 2-3 years, while the tree adapts. It was also noted that the area within the existing tree protection barrier (TPB) should receive soil amelioration to improve the current rooting environment. This area within the TPB is noted as a 'no excavation' area on Plan Ref: DE004 and should be retained to ensure the future survival of this tree; therefore the proposed services in this area should be relocated outside the TPB. If this is not possible, any relocation of the trench away from the stem would be beneficial.

  The impact of replacing boundary fence with a wall has been mitigated by confining the wall to the edge of the RPA and 6m from either site of the stem, with a slab foundation only on these margins (see Plan 120-DE004). Any excavations within the RPA should be undertaken manually under arboricultural supervision, with pre-emptive pruning where required. The proposed lower terrace and associated slab is to be pulled back to provide additional rooting area. The health of the tree should be monitored post construction..
- T37 - crown reduce by 3m, with a suitable fork identified at circa 10m; the current tree form lends itself to this reduction. Soil amelioration is also proposed within the no-excavation area within the existing TBP; particularly to provide a suitable future rooting area that was previously covered by built development (specifically the garage). The potential to expand the rooting area by reducing/replacing the proposed battering is to be considered by the Engineers.

  It is recommended that all excavations are supervised by an arboriculturalist, with a recommendation to monitor the health of this tree in the future.

1.3.4 The construction plans and excavations for the boundary wall will require the felling of an additional off-site tree (T11), in addition to the crown reduction of T30 by 20%. All excavations within the RPA of T30 must be undertaken by hand under arboricultural supervision. The excavations for the boundary wall foundations will have a minor impact on the RPA of the off-site T12, although the most significant new impact is the service trench on the North-eastern side of the wall (see Utilities & Services Plan prepared by Projektplus Ref: 120-DE006). This trench should be relocated as far away from the stem as possible, to avoid significant harm to this off-site tree. Table 1 below summarises the current impacts and mitigation.

5.0

Table 1: Arboricultural Impact Assessment

(Impacts assessed prior to mitigation and rated with reference to Matheny & Clark (1998))

Hide irrelevant | Show All Trees

Ref: TSS/92FJA/AMS

B.S. Cat.	Tree No.	Species	Impact	Tree / RPA Affected	Age	Growth Vitality	Species Tolerance	Impact on Tree Rating	Impact on Site Rating	Mitigation
C/u	11	Cherry, Wild (Gean)	Felled to Facilitate Development Access	m^2 N/A %	Semi-mature	Moderate	Moderate	N/A	Low	New planting / landscaping
B	12	Sycamore	Drive Construction within RPA (16.5m2/10.5%) Turntable and resurfacing (36m2/22.9%) Service Trench	52.5 m^2 33.33 %	Mature	Normal	Moderate	Medium	N/A	No-dig construction Crown-lift for access Low impact turntable Relocate outside RPA if possible - hand excavation
C	13	Holly	Felled to Facilitate Landscaping Scheme	m^2 N/A %	Early Mature	Normal	N/A	N/A	Low	New planting accordance with a landscape strategy
C	14	Cherry, Wild (Gean)	Felled to Facilitate Landscaping Scheme	m^2 N/A %	Young	Normal	N/A	N/A	Low	New planting accordance with a landscape strategy
C	15	Rowan, variety	Felled to Facilitate Landscaping Scheme	m^2 N/A %	Young	Normal	N/A	N/A	Low	New planting accordance with a landscape strategy

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B.S. Cat.	Tree No.	Species	Impact	Tree / RPA Affected	Age	Growth Vitality	Species Tolerance	Impact on Tree Rating	Impact on Site Rating	Mitigation
C	16	Amelanchier spp	Felled to Facilitate Landscaping Scheme	m^2 N/A %	Young	Normal	N/A	N/A	Low	New planting accordance with a landscape strategy
C	17	Ceanothus	Felled to Facilitate Landscaping Scheme	m^2 N/A %	Mature	Moderate	N/A	N/A	Low	New planting accordance with a landscape strategy
C	18	Loquat	Felled to Facilitate Landscaping Scheme	m^2 N/A %	Semi-mature	Normal	N/A	N/A	Low	New planting accordance with a landscape strategy
C	21	Cotoneaster	Felled to Facilitate Landscaping Scheme	m^2 N/A %	Early Mature	Normal	N/A	N/A	Low	New planting accordance with a landscape strategy
C	22	Magnolia (M. grandiflora)	Felled to Facilitate Landscaping Scheme	m^2 N/A %	Semi-mature	Normal	N/A	N/A	Low	New planting accordance with a landscape strategy

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B.S. Cat.	Tree No.	Species	Impact	Tree / RPA Affected	Age	Growth Vitality	Species Tolerance	Impact on Tree Rating	Impact on Site Rating	Mitigation
C	23	Olive	Felled to Facilitate Landscaping Scheme	m^2 N/A %	Semi-mature	Normal	N/A	N/A	Low	New planting accordance with a landscape strategy
C	23a	Cherry	Felled to Facilitate Development	m^2 N/A %	Mature	Normal	N/A	N/A	Low	New planting accordance with a landscape strategy
C	26	Cherry, Autumn Flowering	Felled to Facilitate Development	m^2 N/A %	Young	Normal	N/A	N/A	Low	New planting accordance with a landscape strategy
C	G27	Hazel & Elder	Felled to facilitate Construction Access	m^2 N/A %	Early Mature	Normal	N/A	N/A	Low	New planting / landscaping
C/b	28	Holly	Felled to facilitate Construction Access	m^2 N/A %	Mature	Normal	N/A	N/A	Low	New planting / landscaping

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B.S. Cat.	Tree No.	Species	Impact	Tree / RPA Affected	Age	Growth Vitality	Species Tolerance	Impact on Tree Rating	Impact on Site Rating	Mitigation
B	29	Sycamore	Felled to facilitate Construction Access	29.9 m^2 15.64 %	Mature	Normal	Moderate	N/A	Medium	New planting / landscaping
C	30	Holly, variegated	Excavation for boundary wall foundations	m^2 N/A %	Mature	Normal	Moderate	Low	N/A	Hand dig / prune top 750mm of path thru. RPA Remedial tree surgery (see Rec. Works)
B	34	Sycamore	Construction of new dwelling within RPA; Lower Terrace Foundations moved back away from CEZ Service trench in no excavation area	50 m^2 24.62 %	Mature	Normal	Moderate	Low	N/A	Hand dig / prune top 750mm of path thru. RPA; remedial tree surgery agreed with TO on 22/04/16 Relocate service trench
C	35	Cypress, Lawson variety	Felled to Facilitate Development	m^2 N/A %	Early Mature	Normal	N/A	N/A	Low	New planting accordance with a landscape strategy
C	36	Cypress, Lawson variety	Felled to Facilitate Development	m^2 N/A %	Early Mature	Normal	N/A	N/A	Low	New planting accordance with a landscape strategy

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Hide irrelevant | Show All Trees

Ref: TSS/92FJA/AMS

B.S. Cat.	Tree No.	Species	Impact	Tree / RPA Affected	Age	Growth Vitality	Species Tolerance	Impact on Tree Rating	Impact on Site Rating	Mitigation
B	37	Sycamore	Site visit confirmed garage has been demolished - remedial soil amelioration proposed LGF within RPA - CEZ likely to increase subject to engineers confirmation on ground works	m^2 N/A %	Early Mature	Normal	Moderate	Medium/ high	N/A	Remedial soil / root treatment within CEZ (already fenced). Tree works agreed with TO (22/04/16) Pre-emptive root pruning of limits of LGF thru RPA to 750m.
C/u	40	Elder	Felled to Facilitate Development	m^2 N/A %	Mature	Poor	N/A	N/A	Low	New planting accordance with a landscape strategy
U	41	Cherry	Felled for good arboricultural practice	m^2 N/A %	Semi-mature	Dead	N/A	N/A	N/A	New planting accordance with a landscape strategy
C	42	Cedar (C. deodara)	Felled to Facilitate Development	m^2 N/A %	Young	Normal	N/A	N/A	Low	New planting accordance with a landscape strategy
C/u	43	Elder	Felled to Facilitate Development	m^2 N/A %	Mature	Moderate	N/A	N/A	Low	New planting accordance with a landscape strategy

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Ref: TSS/92FJA/AMS

B.S. Cat.	Tree No.	Species	Impact	Tree / RPA Affected	Age	Growth Vitality	Species Tolerance	Impact on Tree Rating	Impact on Site Rating	Mitigation
C/u	44	Cherry, Wild (Gean)	Felled to Facilitate Development Remedial works could be carried out to cut-back from construction works - preferable to fell due to canker	m^2 N/A %	Semi-mature	Moderate	N/A	N/A	Low	New planting accordance with a landscape strategy
U	45	Cherry, Wild (Gean)		m^2 N/A %	Early Mature	Normal				
C/u	46	Cherry, Wild (Gean)		m^2 N/A %	Early Mature	Moderate				
C	19 & 20	Privet	Felled to Facilitate Landscaping Scheme	m^2 N/A %	Early Mature	Normal	N/A	N/A	Low	New planting accordance with a landscape strategy

1.4 Sequence of Works

1.4.1 Demolition work has already occurred on site. The sequence of works will therefore be as follows:

- Any remaining tree works – felling, stump grinding and pruning (see Appendix 1)
- Remedial soil treatment for T34 and T37
- installation of supplementary 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 On this site, an individual (e.g. Nazy Sargood) has been nominated to be responsible for all arboricultural matters on site. A site briefing/meeting was held between the nominated agent, the Tree Officer Nick Bell and Adam Hollis of Landmark Trees was held on the 22nd April 2016 (see Table 2 below). A further meeting will be held to ensure all the tree protection methods below will be studied and familiarization with requirements of this AMS. The agent will:

- be aware of the arboricultural responsibilities;
- be present on site for the majority of the time;
- 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

Nick Bell — Tel: 020 7974 5939
Tree and Landscape Officer
London Borough of Camden Council
Nick.bell@camden.gov.uk

Rob Shrimplin Tel: 01483 745 414
Planning and Development
ShrimplinBrown
robert.shrimplin@shrimplinbrown.com

Nazy Sargood Tel: 01932 589123
Project Manager for Projektplus Ltd
nazy.sargood@projektplus.co.uk
www.projektplus.co.uk

1.6 Site Monitoring

1.6.1 Following the recent site meeting (22/04/16), a tree protection protocol should been devised and integrated into the site induction process for all contractors. In addition to the Tree Protection Plan and Arboricultural Method Statement, the protocol should contain a current contact list of the key personnel noted above (subject to any changes and confirmation of key personnel made since the writing of this AMS) and contingency plans covering actions to be taken in the event of accidents or unforeseen incidents involving or affecting retained trees.

1.6.2 The protocol will be that in the event of any unplanned incursion / accident / spillage within the RPA, the site agent should notify (by telephone) the retained arboricultural consultant immediately. The consultant will provide advice and attend site as soon as possible. This may require the stoppage of all or part of the works in the vicinity of the tree. The consultant will notify the LPA Tree Officer of the nature and extent of damage, the mitigation strategy and likely prognosis. The consultant and officer will further liaise as necessary (perhaps meeting on site) until the officer is satisfied that protection measures are again satisfactory.

1.6.3 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 tasks as indicated in Table 2 below and the Checklist in Appendix 3.

Table 2: Site Monitoring Visits

Supervision Visit No:	Details	Action
Visit 1: Site meeting with Tree Officer, Site Manager and Arboricultural Consultant	• Held on 22/04/16 • 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.	AMS updated.
Visit 2: Pre-Development Site Inspection (S.2.3 of AMS)	• 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. • Check soil amelioration works	Issue a brief report with findings to Architect, Tree Officer and Main Contractor (Site Monitoring Sheet in Appendix 3).
Visit 3: 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.	Issue a brief report with findings to Architect, Tree Officer and Main Contractor (Site Monitoring Sheet in Appendix 3).
Visit 4: Arboricultural supervision of construction within RPA	• 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, Tree Officer and Main Contractor (Site Monitoring Sheet in Appendix 3).
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. • 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 (e.g. underpinning the boundary walls).	Issue a brief report with findings to Architect, Tree Officer and Main Contractor (Site Monitoring Sheet in Appendix 3).
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, Tree Officer and Main Contractor (Site Monitoring Sheet in Appendix 3). Provide signed arboricultural checklist (see Appendix 3)

1.6.4 The arboriculturalist will arrive at the site, check in at the site office and be safely escorted around the site by the site manager, 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.

1.6.5 Supervision will not require the arboriculturalist to be present throughout all operations to ensure tasks are carried out as per the approved methodology, but certainly, during the key elements of proposed (and any other unplanned) incursions into the protection areas (subject to LPA agreement and for whatever reasons). Such supervision would require the arboriculturalist to attend site, if not the whole task, to ensure the arboricultural objectives were met. However, where tasks are ongoing, provided the arboriculturalist is satisfied, and after an appropriate briefing, the supervision may be reduced to telephone and email contact between the site manager and arboriculturalist.

1.6.6 The checklist in Appendix 3 will be kept by the site manager and copies will be made available to the project arboriculturalist/tree officer to show evidence of site monitoring. Landmark Trees will provide a separate site monitoring sheet where remedial action is required, to be circulated to the client, site manager and the Council's tree officer (see Appendix 3).

1.6.7 The LPA's Arboricultural Officer will have free access to the site and report on any problem areas directly to the developer's Project Arboriculturalist, who 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.

1.6.8 N.B. Landmark Trees will only be responsible for providing monitoring in so far as they 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 accord 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/shrubs T13-23, 26, 35, 36, 40, 42, 43, 44 (and hedge elements in G27 for access). The felling of T11, T28 and T29 is required to facilitate access. During the site meeting with the Tree Officer, the proposed works to T34 and T37 were discussed and agreed. T34 is to be crown reduced to 3m, with a suitable fork noted at 10m (the form of this tree will lend itself to the proposed reduction). It was agreed that T37 should be crown reduced to a lesser extent (1.5m), which will also reduce the stress on the weak fork. These tree works will provide a safe place of work as well reduce water demand for the 2-3 years, while the trees adapt (Note: the health of these trees should be monitored, as felling may be the safer and more sustainable long-term option). The off-site tree T30 will also require a 20% crown reduction, in light of the excavations for the new boundary across the construction access. These specific works to facilitate development and any other husbandry works are listed in Appendix 1.

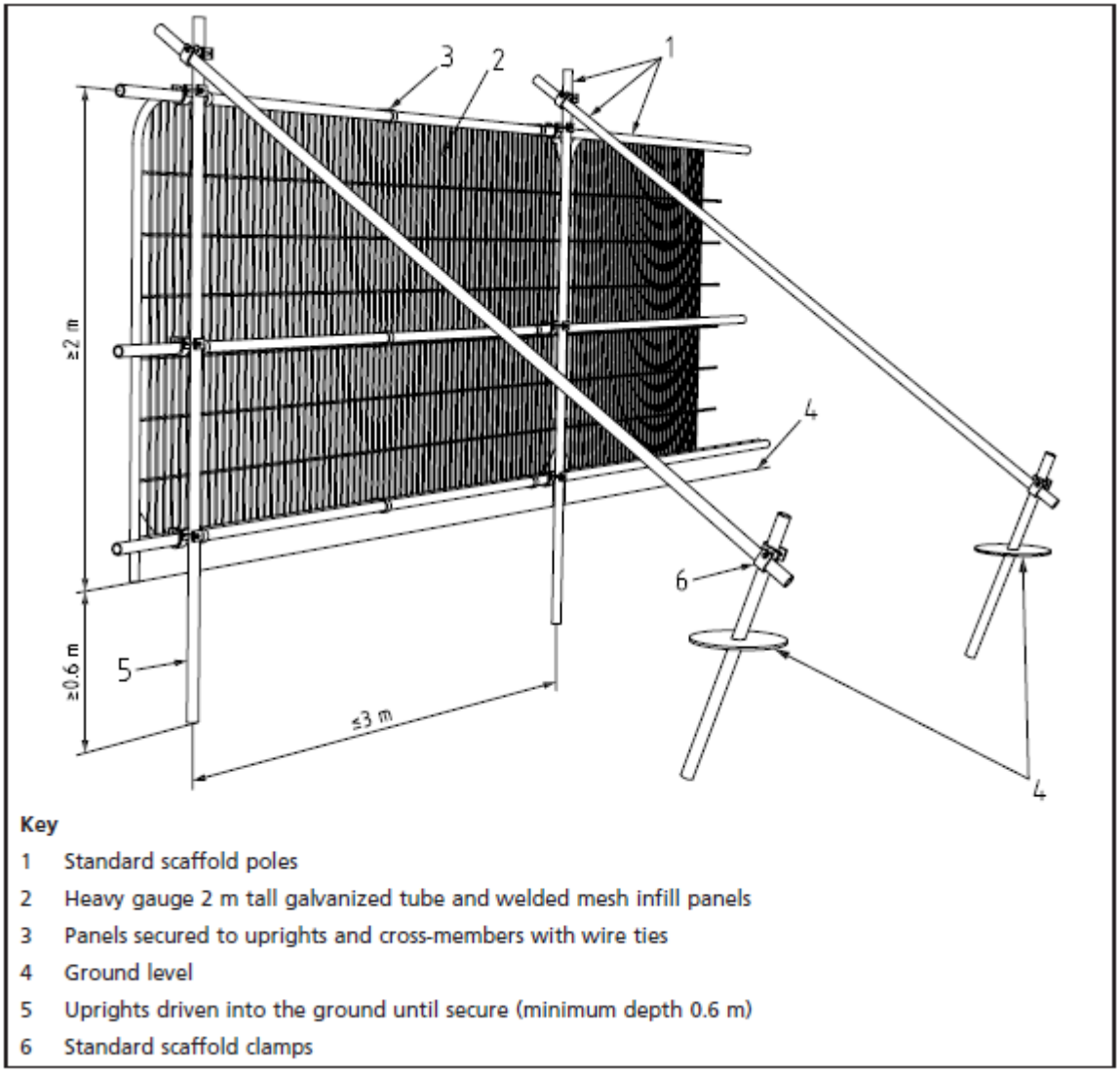
2.2 Installation of Tree Protection Barrier

2.2.1 A Tree Protection Barrier [TPB] comprising steel mesh panels of 2.4m in height ('Heras') or construction hoarding has been erected to protect trees near buildings to be demolished on site, as shown on the Tree Protection Plan in Appendix 5 (see also DE004 Excavation Phase 1). 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).

2.2.2 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.

2.2.3 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.

2.2.4 The Tree Protection Plan in Appendix 5 illustrates where the protective fencing is already 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.



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 As noted within Table 2 above, upon completion of the tree works and installation of the protection measures, the standard of work will be checked by the retained arboricultural consultant who can then liaise with the local authority. If there are any amendments to either the tree works or additional protection measures, they will be agreed at this meeting and confirmed in writing.

3.0 Development Phase

3.1.1 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 hoarding without the approval of an arboriculturist.

3.1.2 The procedures for dealing with variations and incidents are detailed in S1.6, with the routine inspections, unannounced visits and supervisory visits highlighted in Table 2. It is also noted that the arboriculturist shall attend site as required by architect, or site agent, or the LPA; any breaches of tree protection measures will be the subject of a site monitoring report, which will be copied to architect, client and LPA. The site monitoring sheet in Appendix 3 will be used to provide photographic evidence (if required), indicate the remedial action required and timescales for remediation completion. The action in response to incidents will be commensurate with and appropriate to the nature of any such incident. Any breach of the stipulated timescale for remediation will trigger a further monitoring report.

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 lie within the CEZ (Construction Exclusion Zone) and fenced off. A site meeting on the 22/04/16 confirmed that the TPB's are in place, including those around T34 and T37. It was agreed that the soil within the CEZ of both these trees should receive soil amelioration. This involves soil fertiliser injection / root inoculation and decompaction: a suitable low nitrate, low phosphorous fertilizer and mycorrhizal spores are introduced to the soil profile through compressed air injection (see Figure 1 below). The spores are mixed with a stimulant, which helps them colonise the roots. A combination of these treatments can relieve the immediate effects of construction damage / disturbance and compaction, though long term environmental deficiencies should be addressed culturally.

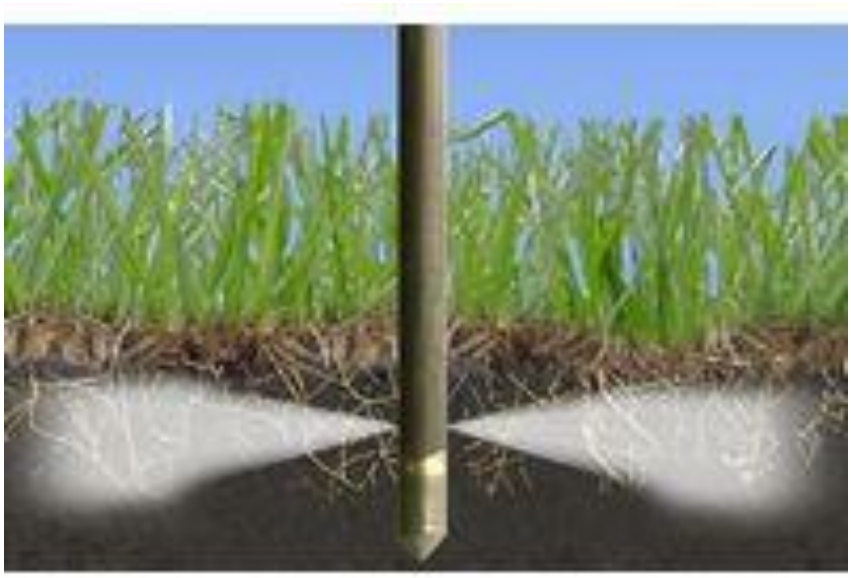


Figure 1: Soil fertiliser Injection

3.2.2 The works within the RPA's of T34 and T37 were also discussed during the meeting. As shown on the TPP, it may be possible to extend the CEZ for T37, subject to engineer's confirmation. It was also noted that the lower terrace within the RPA of T34 will be drawn back therefore reducing the impact on T37. Other works within the RPAs on site include new boundary walls, installation of services, the construction of the new building, the car turntable, landscaping and terraces. All involved parties have been made aware of the tree constraints on site. Where proposed works encroach a theoretical RPA, 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 will be protected from site traffic and not left exposed during construction. As far as practical, existing hard surfaces have been retained as initial ground protection (where fit for purpose for anticipated loading) until the landscaping phase and will be substituted / supplemented with appropriate materials (e.g. Infraweb, Ground Guards etc.), capable of withstanding anticipated loads.

3.3 Site Access, Accommodation & Storage

3.3.1 Site access and accommodation is as per the layout within our Tree Protection Plan (Appendix 5), making use of existing service road for Henderson Court off Prince Arthur Road. Site accommodation and storage will be located in the garden area, away from the CEZ's.

3.3.2 Delivery lorries will be excluded from RPA's by tree protection fencing and ground protection. Adequate allowance has been made for vehicle heights and ground clearance, with proposed crown lifts where tree canopies overhang access routes. Construction clearance will be provided by crown reducing T30, T34 and T37 and crown lifting T12 (as per Appendix 1). Any further pruning for working clearances must be discussed first with the arboriculturalist. Materials can be unloaded onto

protected ground within RPA's, then stored in the designated area and throughout the interior of the site away from protected trees.

3.3.3 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 The re-routing of the proposed service trenches within the RPA's of T12 and T34 has been recommended. Where any underground service routes should enter an RPA, then the provisions of BS5837 and NJUG VOLUME 4 will be employed (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 Plan DE004 Excavation Phase 1 provides for 'no-excavation areas' for T34 and T37, which should be respected. The proposed soil amelioration will occur within these fenced off areas.

3.6 Demolition Measures.

3.6.1 The demolition works have already been undertaken on site.

3.6.2 Where replacement or supplementary ground protection is required following the removal of hard standing, it will be installed prior to 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 The outline of the proposed slab foundation and any battering should be marked out where it enters a RPA, then a trench to 750mm (or required depth if less) and hand excavated under arboricultural supervision. Any roots encountered within the trenches will be cleanly pruned back to an appropriate junction with a sharp pruning saw or secateurs back to a junction. Roots larger than 25mm diameter may only be cut in consultation with an arboriculturalist. (Note: the area proposed for battering around T37 may be reduced with additional areas added to the existing CEZ, although this is subject to confirmation from an engineer).

3.7.2 JCB to excavate to required depth. All spoil to be loaded into trucks outside the RPA's until ground protection is replaced and reinforced. Construction materials will generally be delivered on lorries with mechanical off load and unloaded outside RPA's.

3.7.3 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.

3.7.4 Where scaffolding needs to be installed within the RPA the following ground protection should be followed / adapted to site needs:

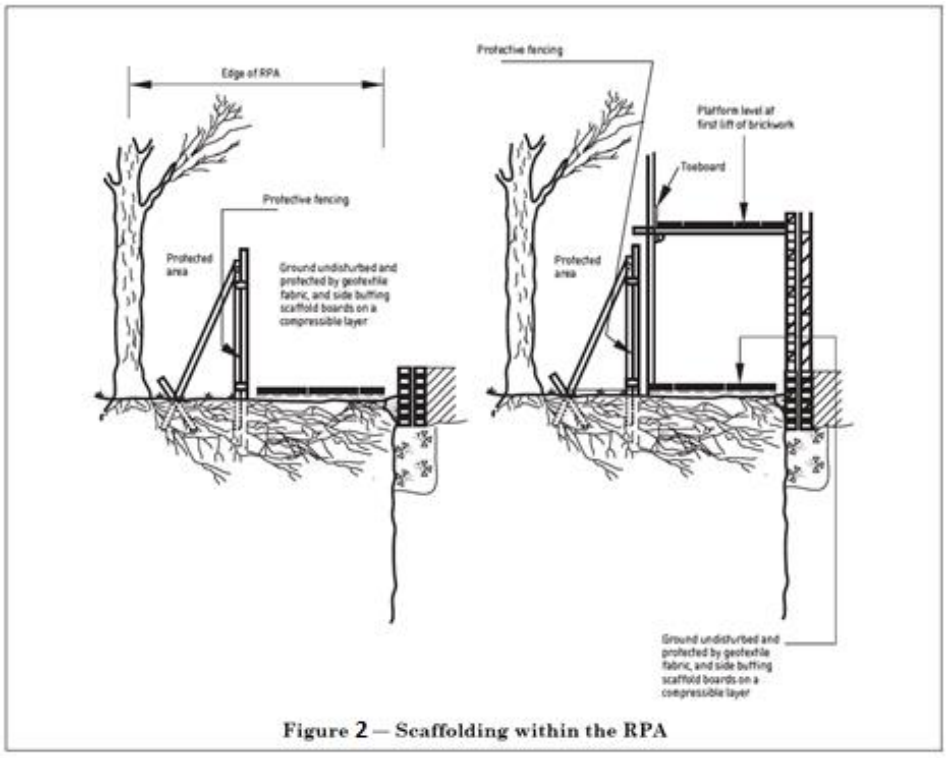


Figure 2 — Scaffolding within the RPA

3.7.5 The following is a sample specification for no dig drive construction by tree T12:

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 Asphalt:

- 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

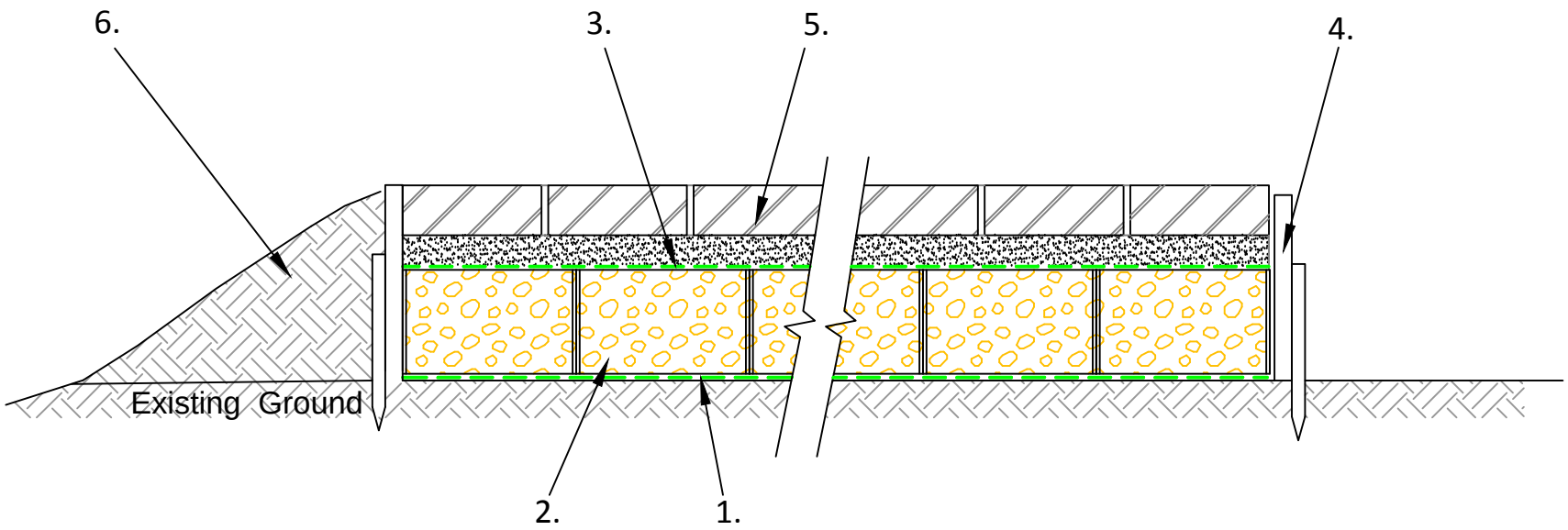
- Place Permatex 200 separation geotextile over the filled InfraWeb.
- Place 20mm bedding layer of 5mm single sized stone and lightly tamp.
- Lay Slimblock units and fill with a 10 to 14mm decorative gravel.

3.7.14 See cross-sectional diagram below for further explanation. 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. 150mm 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 630976
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-150		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 Any further landscaping works should avoid the changing of ground levels or deep digging. Mechanised cultivation such as 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:

Impact	Mitigation	Reference	Retained Trees Affected
General site access, material storage etc. Construction access & associated new boundary wall	Ground protection to acceptable standards. Remedial tree works (agreed with TO during site meeting on 22/04/16)	Paras 2.2.1 & 3.3.3 Tree Protection Plan in Appendix 5	All retained trees T30
Construction within existing canopy	Remedial tree works (agreed with TO during site meeting on 22/04/16)	Section 2.1	T34 & T37
Service Trench	Relocate outside RPA/No excavation area	Section 3.4	T12 & T34
Damage to roots caused by retaining wall foundation excavation within RPA.	Hand excavation	Section 3.7 & 8	T30 and T37

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.

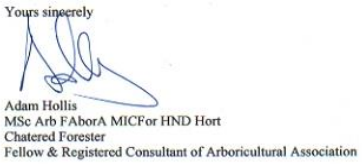
5.1.3 Any works agreed in the above meeting will be confirmed in writing and will be performed to BS 3998: 2010 Tree Works.

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

28th April 2016

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

Web: www.landmarktrees.co.uk
e-mail: info@landmarktrees.co.uk
Tel: 0207 851 4544

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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.

*Not generally specified following BS3998:2010

Landmark Trees

Site: 92 Fitzjohns Avenue, London NW3 6NP
Date: 25/04/15

Surveyor(s): James Bell
Ref: TSS/92FJA/AMS

Appendix 1

Recommended Tree Works To Facilitate Development

Hide irrelevant
Show All Trees

Tree No.	English Name	B.S. Cat	Height	Ground Clearance	Crown Spread	Recommended Works	Comments/ Reasons
11	Cherry, Wild (Gean)	C/u	11	4.0	4244	Fell	Poor form Offsite To facilitate development construction access
12	Sycamore	B	17	2.0	6866	CL4m	Forks at 1.5m;4/5m clearance over garden To facilitate development
13	Holly	C	4.5	1.8	1.5	Fell	Twin stem SD=100 & 130 To allow landscape enhancement
14	Cherry, Wild (Gean)	C	4.5	1.5	1.5/2.5/ 2.5/1	Fell	To allow landscape enhancement
15	Rowan, variety	C	4	2.0	1	Fell	To allow landscape enhancement
16	Amelanchier spp	C	4	1.0	1.5	Fell	To allow landscape enhancement
17	Ceanothus	C	3	1.3	2	Fell	Multi stem 3 SD=80,70 & 40; shrub To allow landscape enhancement

Landmark Trees

Site: 92 Fitzjohns Avenue, London NW3 6NP
Date: 25/04/15

Surveyor(s): James Bell
Ref: TSS/92FJA/AMS

Appendix 1

Recommended Tree Works To Facilitate Development

Hide irrelevant
Show All Trees

Tree No.	English Name	B.S. Cat	Height	Ground Clearance	Crown Spread	Recommended Works	Comments/ Reasons
18	Loquat	C	2.5	1.0	1.5	Fell	Garden ornamental To allow landscape enhancement
21	Cotoneaster	C	3	1.0	1	Fell	To allow landscape enhancement
22	Magnolia (M. grandiflora)	C	3	1.0	1	Fell	To allow landscape enhancement
23	Olive	C	3	1.0	1.5	Fell	Shaped To allow landscape enhancement
23a	Cherry	C	7	1.0	3	Fell	Remote survey only To allow landscape enhancement
26	Cherry, Autumn Flowering	C	4	1.0	2.5	Fell	Sapling To facilitate development
G27	Hazel & Elder	C	7	2.0	2.5	Fell Already felled by third party owners	Multi stem 20+ Av SD = 40 To facilitate development construction access

Landmark Trees

Site: 92 Fitzjohns Avenue, London NW3 6NP
Date: 25/04/15

Surveyor(s): James Bell
Ref: TSS/92FJA/AMS

Appendix 1

Recommended Tree Works To Facilitate Development

Hide irrelevant
Show All Trees

Tree No.	English Name	B.S. Cat	Height	Ground Clearance	Crown Spread	Recommended Works	Comments/ Reasons
28	Holly	C/b	12	2.0	4	Fell As agreed with Tree	To facilitate development construction access
29	Sycamore	B	18	7.0	7477	Fell As agreed with Tree	4 trunks from 3m Fork obscured 2m clearance off ridgeline; offsite To facilitate development construction access
30	Holly, variegated	C	12	2.0	3	CR20% To facilitate construction of boundary wall	Multi stem - 3 Ivy smothered SD= 300e,170e & 170e; dieback in upper crown To facilitate development
34	Sycamore	B	15	2.0	6	CR Crown reduce by 1.5m. Note. weak fork at 1.7m. (Pruning agreed with Tree Officer on 22/04/16)	Ivy smothered Forks at 1.7m Crown growing onto flank of building and over roof; base invisible so SD estimate is very notional To facilitate development
35	Cypress, Lawson variety	C	8	1.8	2.5	Fell	Garden ornamental To facilitate development
36	Cypress, Lawson variety	C	7	1.8	2.5	Fell	Garden ornamental To facilitate development
37	Sycamore	B	15	2.5	5546	CR Crown reduce by 3m - suitable fork present at circa 10m. Tree form lends itself to reduction. Agreed with	Twin stem SD=400 & 270 To facilitate development

Landmark Trees

Site: 92 Fitzjohns Avenue, London NW3 6NP

Date: 25/04/15

Surveyor(s): James Bell

Ref: TSS/92FJA/AMS

Appendix 1

Recommended Tree Works To Facilitate Development

Hide irrelevant
Show All Trees

Tree No.	English Name	B.S. Cat	Height	Ground Clearance	Crown Spread	Recommended Works	Comments/ Reasons
40	Elder	C/u	7	2.0	2422	Fell	A sparser than normal canopy Twin stem SD=180 & 160 To facilitate development
41	Cherry	U	4	2.0	0322	Fell	Dead Advisable for good arboricultural practice
42	Cedar (C. deodara)	C	4.5	0.0	1.5	Fell	To facilitate development
43	Elder	C/u	4	1.5	2	Fell	Ivy smothered To facilitate development
44	Cherry, Wild (Gean)	C/u	4.5	2.0	2322	Fell Off-site tree	Ivy smothered Bacterial canker To facilitate development/good husbandry
45	Cherry, Wild (Gean)	U	9	2.5	?	FInv (or apply to fell)	Leans to SE Decay in exposed roots Advisable for good arboricultural practice
46	Cherry, Wild (Gean)	C/u	8	3.5	0321	Monitor	Leans to SE Ivy smothered Advisable for good arboricultural practice

Landmark Trees

Site: 92 Fitzjohns Avenue, London NW3 6NP

Date: 25/04/15

Surveyor(s): James Bell

Ref: TSS/92FJA/AMS

Appendix 1

Recommended Tree Works To Facilitate Development

Hide irrelevant

Show All Trees

Tree No.	English Name	B.S. Cat	Height	Ground Clearance	Crown Spread	Recommended Works	Comments/ Reasons
19 & 20	Privet	C	4	0.0	1.5	Fell	Multi stem - 5 SD av = 80; shaped To allow landscape enhancement

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 Landmark Trees consultant regularly. On this site it is recommended that these inspections are made every year.

APPENDIX 3: SAMPLE SITE MONITORING SHEET AND ARBORICULTURAL SUPERVISION SIGN OFF CHECKLIST

Landmark Trees

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 breached		Trees damaged since last visit	
Client briefed by LT			
LT briefed by Client			
LPA informed			
Remedial action required			

Comments

Recommendations

Outcome		
1		
2		
3		
4		

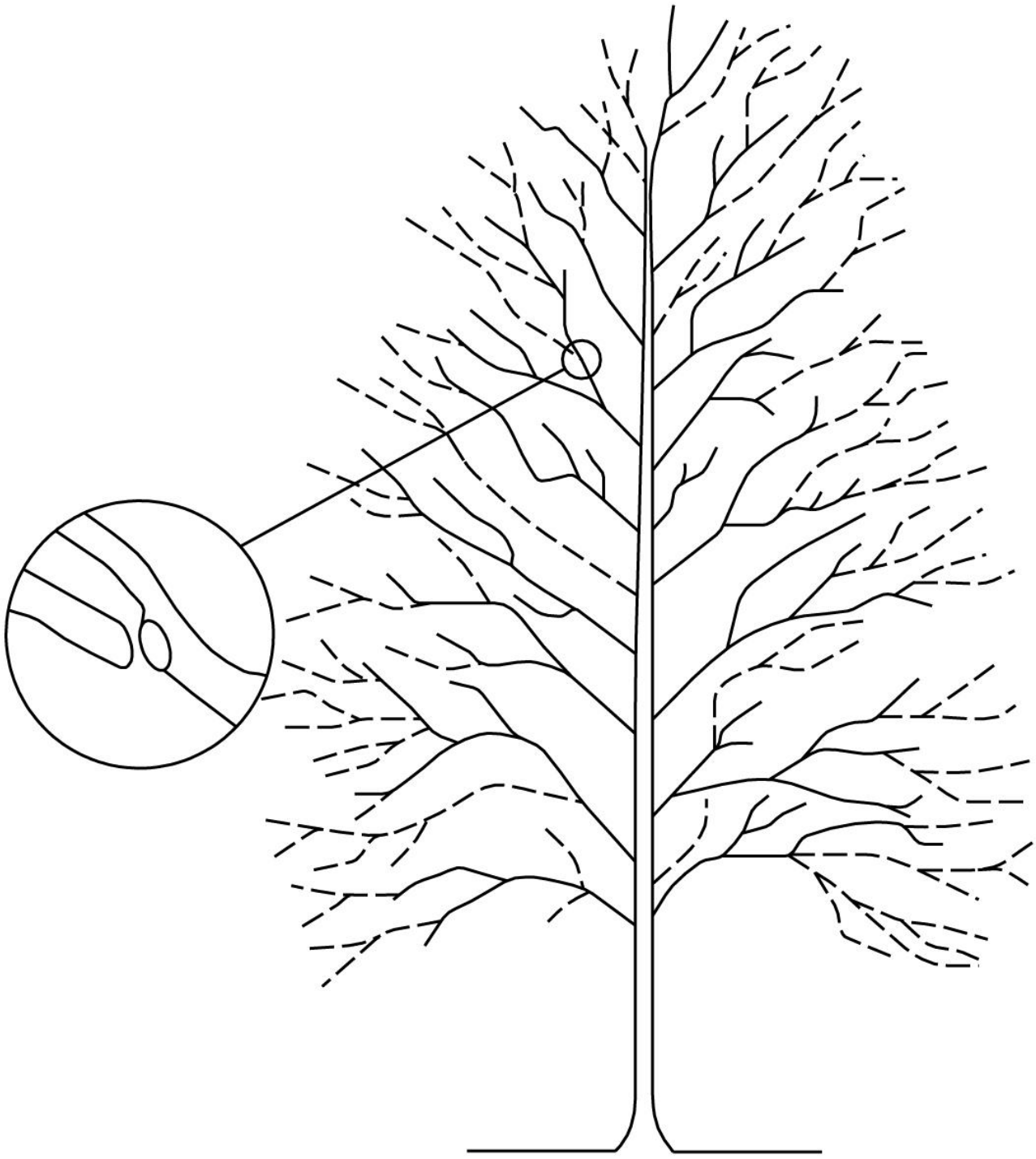
Web: www.landmarktrees.co.uk
e-mail: info@landmarktrees.co.uk
Tel: 0207 851 4544

London Office: Holden House, 4th Floor, 57 Rathbone Place London W1T 1JU
Registered Office: 15 Abbey Road, Oxford OX2 0AD

Arboricultural Supervision Sign off Checklist

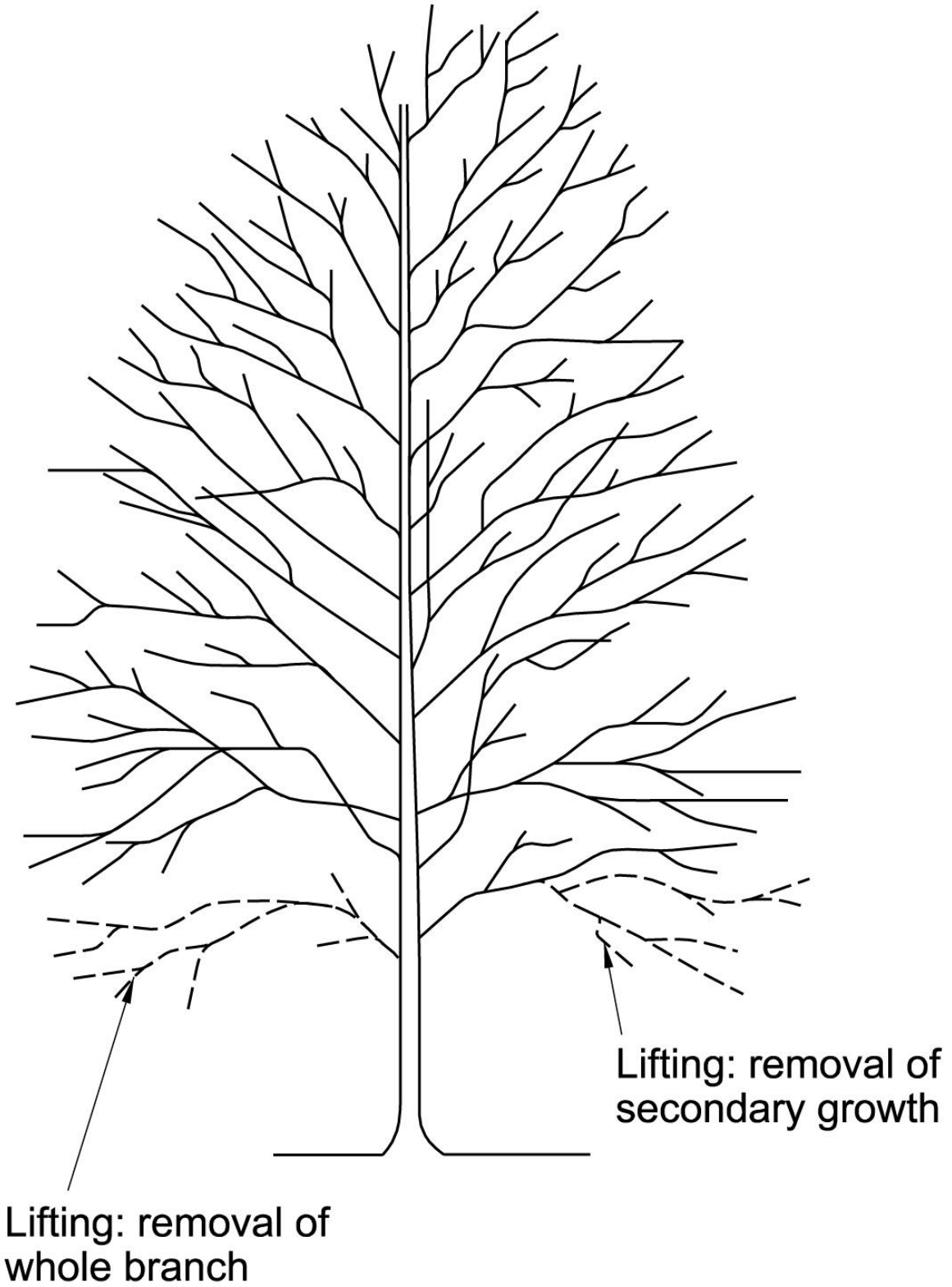
Tree No (s)	Project Phase	Task	Date Completed	Signed (Project arboriculturist)	Signed (Site Manager)
	Pre-commencement	Confirm any tree works have been undertaken in accordance with this AMS (S.2.1. and Appendix 1) and determine if further tree work is required			
	Pre-commencement	Seek required permission for further tree works if necessary.			
	Installation of any new services	Attend any excavation within RPA's where arboricultural supervision is prescribed by the AMS (S3.4) to ensure work is undertaken in accordance with NJUG provisions or other specification.			
	Construction	Supervised manual excavation of basement foundations			
	Construction	Installation of 'No Dig' hard surfacing			
	Construction	Completion of ground works			
	Completion of Construction	Completion of construction			
	Post Construction	Removal of machinery and materials from site			
	Post Construction	Dismantle & removal of protective measures			
	Landscaping	Completion of Landscaping			
	Project Completion	Sign off from project arboriculturist			

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

HENDERSON COURT

TEMPORARY ACCESS ROAD

GREENHILL GARAGES

NORTHBRIDGE HOUSE SCHOOL

ST ANTHONY PREPARATORY SCHOOL

FITZJOHNS PRIMARY SCHOOL

No 92

St Johns Avenue

Heras Tree Protective Fence

NEW 2M HIGH HOARDING PANELS

IMPACT OF CONSTRUCTION TRAFFIC ON FOUNDATIONS TO BE ASSESSED BY STRUCTURAL ENGINEER

EXISTING HERAS PEDESTRIAN BARRIER RETAINED

HERAS HOARDING PANELS WITH EQUIVALENT WELL PRIVACY INFILLS TO BE MOVED ONTO ST ANTHONY'S SCHOOL GROUND WHEN REQUIRED DURING CONSTRUCTION TIME

EXISTING HERAS PANELS RETAINED

ON SITE LAYOUT
Please see separate drawing

Proposed 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).

Landmark Trees

20 Broadwick Street, London, W1F 8HT
Tel: 0207 851 4544 Mobile: 07812 989928
e-mail: info@landmarktrees.co.uk Web: www.landmarktrees.co.uk

Site: 92 Fitzjohns Avenue	1:200 @ A1
Drawing Title:Tree Protection Plan	April 2016

Key:

- Category A High Quality
- Category B Moderate Quality
- Category C Low Quality
- Category U Trees Unsuitable for Retention
- Tree Proposed for Removal
- Soil Amelioration

Category / Root Protection Area — 12 Birch B2 — Crown Spread / Tree Number / Species / Category

- Tree Position Approximate (not shown on original survey)
- Ground Protection
- Potential for inclusion within CEZ (subject to confirmation from Engineers)

5m 10m

N