March 2015
CBA10333 v1

Wates Construction Ltd

ARBORICULTURAL DEVELOPMENT STATEMENT

Site:
Hampstead School,
Westbere Road,
London,
NW2 3RT

Russell House, Unit 20, Chalcroft Business Park,
Burnetts Lane, West End, Southampton, SO30 2PA
Tel: 023 8098 6229 www: info@cbatrees.co.uk
The Complete Arboricultural Consultancy

CBA10333

ARBORICULTURAL DEVELOPMENT STATEMENT

Arboricultural Implications Assessment and Method Statement

guided by recommendations within BS5837:2012

Client:	Wates Construction Ltd
Site:	Hampstead School, Westbere Road, London, NW2 3RT
Arboricultural Consultant:	James Fuller *FdSc.Arb, BTEC Nat.Dip.Arb, TechArbor.A*
Date:	March 2015

SUMMARY

The proposal is for the phased re-development of the existing Hampstead School site on Westbere Road. The re-development includes the construction of 2 (two) new buildings, a new all weather sports surface the demolition of 3 (three) existing buildings, the removal of existing porta cabins and a new landscaping scheme for the site.

This Arboricultural Development Statement (ADS) demonstrates the protection measures for the trees and should be read in association with the Tree Protection Plan CBA10333.02, which identifies tree retention measures. It follows the initial tree survey, implications assessment and on-going discussions to minimise the impact upon the existing tree stock.

The emphasis of the report is predominantly that of preservation and tree protection. It identifies methodologies to provide protection for retained trees, to ensure their healthy and safe retention during and post development, as guided by BS5837:2012 and current best practice.

A total of 31 (thirty-one) individual trees and 7 (seven) groups of trees can be retained within the development as detailed within this report.

There are 22 (twenty-two) individual trees and 1 (one) group of trees that will be removed to facilitate the proposed development, and provide space for better quality trees.

CBA Trees believes that the trees highlighted for retention within this report can be retained without undue stress on their long-term health.

PART 1
ARBORICULTURAL IMPLICATIONS ASSESSMENT

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Construction Exclusion Zone Site Notice
Common Causes of Damage During Construction Works
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PART 1
ARBORICULTURAL IMPLICATIONS ASSESSMENT

1.0 INTRODUCTION

1.1 There is a development proposal for the site of Hampstead School, Westbere Road, London, NW2 3RT. The site is located on the eastern side of Westbere Road, to the South of Horton Avenue and to the North of Menelik Road.

1.2 The proposal is for the phased re-development of the existing school. The proposed works include the demolition of 3 (three) existing school buildings and the removal of 4 (four) temporary buildings. Further proposed works include the construction of 2 (two) new buildings (new Teaching Block/Pupil Main Entrance and a new Sports Block); new Hard Play areas; All Weather play areas and new landscaped outside areas.

1.3 Document disclosure provided:

- Topographical Site Survey by Gleeds (Ref GASA0165_T01)
- Proposed site layout by Wates (Ref 4.1A-PLL0220-005)

1.4 The client provided the original site plans and locations of the trees, and these have been the basis for the production of subsequent plans. Whilst CBA Trees has had a limited input in defining the contents of the development plan, it broadly conforms to the requirements of BS5837:2012 *"Trees in Relation to Design, Demolition and Construction – Recommendations"* and current best practice advice.

1.5 Our advice has been sought on the principles of the development in relation to the potential impact on the existing tree stock, to inform and to facilitate the development layout that is acceptable in arboricultural terms.

2.0 CLIENT'S BRIEF

2.1 In line with our written quotation and verbal instructions, information has been compiled in accordance with BS5837:2012 and current best practice advice.

- To undertake a Tree Survey, appended at CB1.
- To produce an AutoCAD compliant Tree Survey Plan that relies on the accuracy of the topographical survey provided by the client. (Plan CBA10333.01 appended with the Tree Survey Schedule at CB1).
- To produce a schedule of Root Protection Areas in accordance with BS5837:2012 Annex D, appended at CB2.
- To provide an Arboricultural Development Statement detailing the methodologies for the retention of the tree stock where feasible, in relation to the proposed development layout including a Tree Protection Plan CBA10333.02 appended at CB3.

2.2 Once the site has been given planning consent and works are due to commence on site, amendments to this Method Statement may be required for construction/Demolition purposes. All amendments will be assessed by the retained arboricultural consultant and approved in writing by London Borough of Camden Council.

3.0 DESCRIPTION OF THE SITE

3.1 The site is occupied with existing school buildings and associated areas of hard and soft surfaces used for parking, playing and outside teaching. The site is relatively flat in terms of the topography of the site, but there is a rise in level from the East to the western side of the site of approximately 2 metres. The site has a number of existing trees which are mainly located around the edge of the site. The existing trees have been planted to complement the existing buildings.

3.2 **Photograph 1:** A view of the front of the School from Westbere Road

4.0 THE TREE STOCK

4.1 A tree survey was undertaken by CBA Trees on 4th March 2015 that identified 53 (fifty three) individual trees and 8 (eight) groups of trees. The Tree Survey Schedule is appended with the Tree Survey Plan (CBA10333.01) appended at CB1.

4.2 ***Tree Categorisation Method***

Category U = Trees in such a condition that any value would be lost within 10 years, or should be removed for reasons of sound arboricultural management.

There were no 'U' grade trees on or adjacent to the site at the time of surveying.

Note: BS5837:2012 states -
"Category U trees are those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years."

Category A = Trees of high quality and value: in such a condition as to make a substantial contribution, (40 years or more is recommended). There was 1 (one) individual 'A' grade tree on the site at the time of surveying (Tree 12).

Category B = Trees of moderate quality and value, capable of making a significant contribution for in excess of 20 years. There were 19 (nineteen) individual 'B' grade trees on or adjacent to the site at the time of surveying (Trees 3, 4, 5, 11, 14, 20, 22, 26, 28, 34, 36, 37, 39, 40, 41, 43, 44, 46 and 51).

Category C = Trees of low quality and value which might remain for a minimum of 10 years or young trees with stems of less than 150mm diameter. There were 33 (thirty-three) individual 'C' grade trees on or adjacent to the site at the time of surveying (Trees 1, 2, 6-10, 13, 15-19, 21, 23-25, 27, 29-33, 35, 38, 42, 45, 47-50, 52 and 53).

Note:
Trees under these categories are trees that should be a material consideration in the development process; the subcategories are intended to reflect arboricultural, landscape and cultural values respectively.

4.3 The groups and hedges consist of mixed species. They have been categorised as either moderate 'B' grade groups (Groups 7 and 8) or low 'C' grade groups (Groups 1-6).

4.4 For a more details of the existing tree stock, refer to the Tree Survey Schedule (appended at CB1).

5.0 TREE PRESERVATION ORDER/CONSERVATION AREA

5.1 CBA Trees has not been instructed to investigate whether trees on or adjacent to the site are protected by a Tree Preservation Order or if the site is located within a Conservation Area. The client is advised to obtain written confirmation from London Borough of Camden Council to establish the legal status of these trees prior to any works being undertaken, outside the remit of an approved planning application.

6.0 PROPOSED TREE RETENTION AND TREE LOSS

6.1 In accordance with the recommendations contained within BS5837:2012, an experienced arboriculturist has assessed the requirements for tree protection and the Root Protection Area (RPA). The implications of the proposed development are detailed below, along with any mitigating measures to ensure the retention of these trees.

6.2 As part of the assessment, dimensions have been scaled from the proposed development drawing (Ref 4.1A-PLL0220-005), which has been prepared and modified, to include the relevant Tree Survey data and the information as shown on Plan CBA10333.02, appended at CB3.

6.3 There are 22 (twenty-two) individual trees and 1 (one) group of trees that will be removed to facilitate the proposed development, and provide space for better quality trees. The loss of the existing trees can be mitigated for through new planting, which shall be detailed within the proposed landscaping scheme.

6.4 **Table 1:** Showing Tree Removals

Tree Number	Tree Species	BS5837:2012 Category	Reason for removal
3	Tulip Tree	B1	• Located under proposed footpath and in close proximity to proposed building
4	Silver Birch	B1	• Located under proposed bin store
6 7 8 9	Common Elder Apple Flowering Cherry Common Elder	C1 C1 C1 C1	• Remove due to low quality and to provide extra space for new planting
10	Common Yew	C1	• Located on edge of proposed footpath and in close proximity to proposed building.
11	Common Ash	B1	• Proposed sports block located within RPA and on edge of canopy; tree would require significant root loss and canopy pruning.
14	Horse Chestnut	B1	• Proposed service route located directly under trunk of tree.

25	Apple	C1	• Poor quality tree; remove to provide extra space for new planting
26	Wild Cherry	B1	• Proposed building located directly next to the trunk of this tree.
27	Wild Cherry	C1	• Tree located directly next to existing building to be demolished.
28 29 30 31 32 33	Common Lime Common Lime Common Lime Common Lime Common Lime Common Lime	B1+2 C1+2 C1+2 C1+2 C1+2 C1+2	• Located under footprint of proposed new building
38 39	Silver Birch Common Ash	C1 B1	• Located under proposed hard standing
41 42	Crack Willow Horse Chestnut	B1 C1	• Located in the middle of building to be demolished and under proposed hard surface play area
Grp 5	Common Ash x 5	C2	• Self set trees located in close proximity to building to be demolished

7.0 SUMMARY OF ARBORICULTURAL IMPLICATIONS

7.1 **Table 2:** The following summary of implications relates to only those trees that will require mitigation measures to allow for construction operations.

Tree No.	*Species*	*BS 5837:2012 Cat*	*Potential cause of harm*	*Implication*	*Mitigation*
1 2	Hawthorn Hawthorn	C1+2 C1+2	• Trees unaffected by development. • Construction traffic access next to trees.	• Retained.	• None required as not directly implicated by development. • Trees grow in area to be left open for day to day use by the school.
5	Silver Birch	B1	• Demolition of existing building in close proximity to tree. • Construction of proposed building in close proximity to tree. • Site access road in close proximity to tree.	• Retained • Damage to roots, trunk and branches causing bark wounds, which could be susceptible to the ingress of pathogens • Compaction within RPA causing an anaerobic growing condition for the roots	• Construction and demolition sites shall be hoarded off and this will provide sufficient tree protection during the construction and demolition phases of the site. • Existing wall to be retained shall provide protection from site vehicles along the access road.

Tree No.	*Species*	*BS 5837:2012 Cat*	*Potential cause of harm*	*Implication*	*Mitigation*
12	Pedunculate Oak	A1	• Existing hard surface play area to be removed. • Area around tree to be used as site compound. • Construction of proposed sports block located on edge of canopy and crown. • Proposed footpath around edge of sports block located within RPA.	• Retained • Damage to roots, trunk and branches causing bark wounds, which could be susceptible to the ingress of pathogens • Compaction within RPA causing an anaerobic growing condition for the roots	• Tree to be protected with tree protection barriers as detailed in Section 11 of this report. • Existing hard surface play area to be removed by hand where it is located within the RPA of this tree. • Facilitation pruning required to canopy on West side as detailed within the Tree Works Schedule (TWS) appended at CB4. • Excavations for proposed footpath to be carried out by hand where they are located within the RPA of this tree.
13 15 16 17 18	Oak Oak Oak Elder Ash	C1 C1 C1 C1+2 C1+2 Interim	• N/A	• Retained • Trees unaffected by development	• Tree protection barriers to be erected around trees. As these trees are unaffected by the proposals for the site simple chestnut pale fencing shall be erected around these trees.

Tree No.	*Species*	*BS 5837:2012 Cat*	*Potential cause of harm*	*Implication*	*Mitigation*
19 20 21 22	Wild Cherry Common Ash Poplar Common Ash	C1 B1 C1+2 B1 Interim	• Demolition of existing building in close proximity to trees and within the RPA of Tree 21. • Construction works for the proposed all weather sports pitches located in close proximity to trees.	• Retained • Damage to roots, trunk and branches causing bark wounds, which could be susceptible to the ingress of pathogens • Compaction within RPA causing an anaerobic growing condition for the roots	• Trees to be protected with tree protection barriers as detailed in Section 11 of this report for the duration of the demolition works and construction of the all weather sports pitch. • Demolition of the existing building to be carried out as detailed in Section 12 of this report.
23 24	Pear Bay	C1 C1	• Unaffected by development	• Off site trees to be retained.	• Existing boundary wall provides sufficient protection to trees.
34 35 36 37	Common Lime Common Lime Common Lime Common Lime	B1+2 B1+2 C1+2 B1+2	• Construction site access in close proximity to trees. • Site offices and welfares units located in close proximity to trees • Removal of existing tennis courts from within RPA's • Installation of new hard standing around trees.	• Retained • Damage to roots, trunk and branches causing bark wounds, which could be susceptible to the ingress of pathogens • Compaction within RPA causing an anaerobic growing condition for the roots	• Trees to be protected with tree protection barriers as detailed in Section 11 of this report. • Existing hard standing to be removed by hand where it is located within the RPA's of retained trees as detailed in Section 13 of this report. • New hard standing to be laid on top of level left from the removal of the existing hard standing.

Tree No.	*Species*	*BS 5837:2012 Cat*	*Potential cause of harm*	*Implication*	*Mitigation*
40	Indian Bean Tree	B1	• Located within construction site confines. • Removal and re-instatement of existing hard standing within RPA.	• Retained • Damage to roots, trunk and branches causing bark wounds, which could be susceptible to the ingress of pathogens • Compaction within RPA causing an anaerobic growing condition for the roots	• Tree to be protected with tree protection barriers as detailed in Section 11 of this report. • Existing hard standing to be removed by hand where it is located within the RPA's of retained trees as detailed in Section 13 of this report. • New hard standing to be laid on top of level left from the removal of the existing hard standing.
43 44 Grp 7	Common Ash London Plane London Plane	B1+2 B1+2	• Located on edge of site. • Proposed footprint of building located on edge of RPA for Tree 44. • Removal and re-instatement of existing hard standing within RPA. • Scaffolding erected around building.	• Retained • Damage to roots, trunk and branches causing bark wounds, which could be susceptible to the ingress of pathogens • Compaction within RPA causing an anaerobic growing condition for the roots	• Construction sites shall be hoarded off and this will provide sufficient tree protection during the construction phase of the site. • Existing hard standing to be removed by hand where it is located within the RPA's of retained trees as detailed in Section 13 of this report. • New hard standing to be laid on top of level left from the removal of the existing hard standing. • Facilitation crown pruning to Group 7 (Tree G7.7) required as detailed within the Tree Works Schedule (TWS) appended at CB4.

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Tree No.	*Species*	*BS 5837:2012 Cat*	*Potential cause of harm*	*Implication*	*Mitigation*
46 47 48 49 50 Grp 8	London Plane Cherry Cherry Cherry Cherry London Plane	B1+2 C1+2 C1+2 C1+2 C1+2 B2	• Scaffolding to be erected around existing building.	• Retained • Damage to roots, trunk and branches causing bark wounds, which could be susceptible to the ingress of pathogens • Compaction within RPA causing an anaerobic growing condition for the roots	• Chestnut pale barriers shall be used in the location specified on the Tree Protection Plan CBA10333.02. • Ground protection for the scaffolding and contractor access shall be installed as detailed in Section 11 of this report. • Facilitation pruning required to Tree 47 and Group 8 as detailed within the TWS appended at CB4.
51 52 53	Manna Ash Manna Ash Elder	B1 C1 C1	• N/A	• Unaffected by proposals.	• N/A

8.0 PRE-COMMENCEMENT SITE MEETING

8.1 It is recommended that a pre-commencement site meeting should be held prior to any works commencing on site, to agree all approved processes with the arboricultural consultant, the construction personnel and London Borough of Camden Council. This meeting could be used to formally agree the methods of work, position of site offices, material storage, compounds, parking and tree protection measures prior to commencement of the development and the associated clearance work.

9.0 ADDITIONAL ARBORICULTURAL ADVICE FOR SITE PERSONNEL

9.1 To provide site personnel with additional information regarding the requirements of Tree Protection, a leaflet (appended at CB5) shall be issued to all staff at the time of their site induction. Spare copies of this leaflet shall be available in the site office as replacements.

9.2 In order to inform site personnel of the purpose of the barriers, information notices shall be fixed to the barriers at 5m intervals. These notices shall be of all-weather construction and shall be substantially in the form of the specimen provided at appendix CB5 and replaced as and when necessary.

10.0 PRE-DEVELOPMENT TREE WORKS

10.1 All tree works will be undertaken prior to the commencement of site preparation and construction works.

10.2 **All permitted or approved tree work** should be carried out in accordance with the British Standard *"Recommendations for Tree Work"* BS3998:2010, by suitably qualified and experienced professional arborists. Under no circumstances shall site personnel undertake any tree pruning operations. All tree surgery works should be carried out prior to the development of the site, and erection of protective barriers.

10.3 Consideration should be given to the timing of the proposed tree works to avoid the active growing period of trees. Therefore, all tree work should ideally be carried out during the dormant period from November through to February and then again from June to August.

10.4 Due to the bird-nesting season, considered to be from 1st March through to the 31st July (Natural England) depending on weather conditions, consideration must also be given to the potential for nesting birds. Therefore, where tree work is to be carried out within June, July or August the project ecologist must be consulted to:

- Complete or advise on a pre-works survey that needs to be carried out by a suitably competent person. As a general rule, it should be assumed that birds will be nesting in trees, and it is down to contactors to assess, record and confirm that any works carried out in the management of trees and other vegetation has not disturbed actively nesting birds.*

10.5 Should additional tree works become apparent during the construction process; written consent will be required from London Borough of Camden Council prior to these additional works being undertaken.

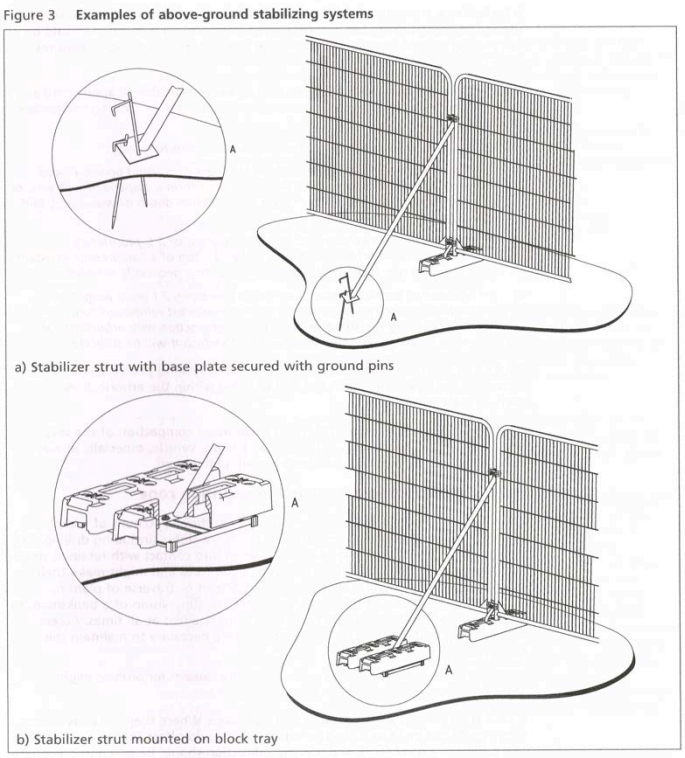
10.6 All tree works that are required to facilitate the development are detailed within the Tree Works Schedule appended at CB4.

11.0 TREE PROTECTION MEASURES

11.1 Standard Protective Barrier

The retained trees (Trees 12, 19, 20, 21, 22, 34-37 and 40) are adjacent to areas of significant construction activity. It will be reasonable to use 2m tall welded mesh panels on rubber or concrete feet, joined together using a minimum of two anti-tamper couplers, installed so that they can only be removed from inside the barrier. The distance between the couplers should be at least 1m and be uniform throughout the barrier. The panels should be supported on the inner side by stabilising struts, which should be attached to a base plate and secured with ground pins.

Figure 1:
Example of weld mesh panels and ground stabilising systems taken from BS5837:2012



Once the barriers are in place it must remain *in-situ* throughout the following list:

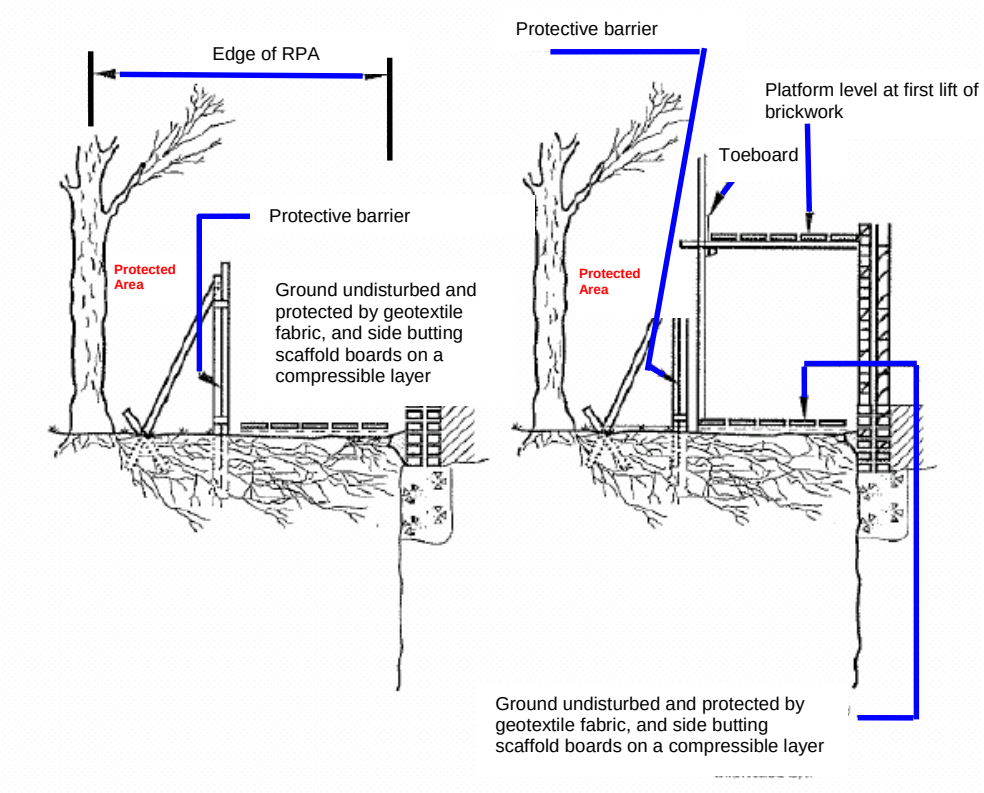
- Contractor occupancy
- Plant and Materials delivery
- Construction works
- Installation of porous surfacing
- Utility installation
- Completion of development
- Landscaping

The area within the tree protection barriers shall be known as the Construction Exclusion Zone (CEZ) and will be regarded as **sacrosanct**, the tree protective barriers shall not be taken down or relocated at any time without the written approval of London Borough of Camden Council. An example of a CEZ notice is appended at CB5.

11.2 *Ground Protection*

This method will consist of a single thickness of butt jointed scaffold boards supported on a 150mm thick layer of composted woodchip that is prevented from mixing with the underlying soil by geotextile separation layer.

Figure 2: Ground Protection Specification



Site and Machinery Access within Construction Exclusion Zone

12.0 DEMOLITION

12.1 Demolition of existing surface structures will be carried out to prevent damage to existing retained trees.

12.2 Demolition of the structures in close proximity to the retained trees must be done with due care and attention, in order to adequately respect overhanging canopies of all retained trees. To this end, the following rules will apply:

- Site personnel are to undergo an induction session prior to being allowed to work on site. The induction will introduce the contractors to the requirements of the Protection Method Statement. A copy of the Method Statement will be made available as a point of reference in respect of tree protection requirements. In addition, a copy of the Tree Protection Plan will be provided or pinned up in the site hut. During the induction, trees that are to be retained and protected will be highlighted to the demolition personnel and they will be physically shown which trees are to be protected on site. In this way, it is hoped that unnecessary damage, by root disturbance and collision of machinery booms and operating arms with tree crowns can be avoided.

- All walls, foundations and basements are to be pulled in on themselves towards the centre of the site and away from retained trees. This will be done in a direction away from the tree protective barriers and all large machinery to be operated at least 2.5-3.0 metres outside the tree protective fence line from where it is erected for the site preparation works.

- Any machinery used for this purpose is to stand and operate over existing hard surfaces wherever possible, but always outside the CEZ as defined by the protective barriers.

- Lightweight structures will be demolished and removed by hand. Work will be carried out from existing hard surface. If the structure is not served by existing hard surface ground protection will be laid in accordance with Plan CBA10333.02

- Where dust is created and deposited on adjacent retained trees, provision will be made to wash down the crowns of retained trees weekly to prevent excessive dust affecting the photosynthetic capacity of retained trees.

13.0 REMOVAL OF BUILT FORM AND HARD SURFACES IN CLOSE PROXIMITY TO RETAINED TREES

13.1 Removal of existing surfacing, built forms or other excavations within the CEZ of retained trees, must be undertaken by hand (where feasible and in line with Health and Safety polices) to avoid any surface root damage, and shall be supervised on-site by the retained arboricultural consultant.

13.2 Any removal of hard surfacing, built form or other excavations in close proximity to trees will be undertaken by working only from the existing hard surface or protected ground area. The required work should then be completed with hand operated tools

or appropriate machinery, but under the supervision of an arboriculturist. Any machinery or equipment to be used will need to be lightweight and run on additional ground protection, or working from the existing hard standing only.

13.3 If the area of the zone of protection around the retained trees is to be left following the removal of the existing hard surface, and before a new hard surface is laid, or the area receives soft landscaping treatment, then ground/tree protection MUST be correctly re-established immediately the hard surface removal work has been completed.

13.4 If there is a delay, for whatever reason, and the area that was previously protected by hard surfacing is left exposed awaiting a new surface, a temporary surface must be implemented, and/or Hessian sacking must be placed over any exposed roots.

14.0 EXISTING SERVICES

14.1 No information has been provided on the location and size of existing services. However, existing services within the RPA and CEZ of retained trees will not be chased out, but cut at the edge of any structure and left *in- situ.*

15.0 AVOIDING DAMAGE TO STEMS AND BRANCHES

15.1 Care shall be taken when planning site operations, to ensure that wide or tall loads or plant with booms, jibs and counterweights can operate without coming into contact with retained trees. Such contact could result in serious damage to them, and might make their safe retention impossible. Consequently, any transit or traverse of plant in close proximity to trees, will be conducted under the supervision of a banksman, in order to ensure adequate clearance from trees is maintained at all times.

16.0 SITING OF TEMPORARY OFFICES, TOILETS AND MATERIAL STORAGE COMPOUNDS

16.1 It is anticipated that all storage materials and deliveries shall make use of the existing access and hard surfaces within the site confines, in order to avoid unnecessary damage to tree roots.

16.2 The locations shall be agreed in writing with London Borough of Camden Council prior to the commencement of works on site, and will remain in only those agreed locations throughout the construction phases. If an alternative location is required, this must be agreed in writing with London Borough of Camden Council. This will also include the delivery; storage and movement of all essential facilities, as well as aspects such as temporary contractor vehicle parking and site location of chemical mixing (e.g. concrete). All such locations will be outside of the RPAs, and avoid areas where ‘run off’ of chemicals may flow down hill into the RPAs of retained trees.

16.3 ***Site Huts***

All site huts (if required) that are to be situated on ground that is not existing hard surfacing, shall have appropriate footings or be situated on a temporary surface, which will aid in reducing the potential for compaction of the ground, where they are in close proximity to the existing tree protective barrier line. Site huts can be used as part of the protective barrier boundary, and in some cases, can be beneficial where installation does not conflict with the aerial parts of the tree.

16.4 ***Material Storage***

This shall be accommodated outside of the CEZ, particularly to avoid harmful spillages of fuel, or phytotoxic substances that may damage the health of retained trees.

17.0 GENERAL CONSIDERATIONS WITHIN AND OUTSIDE THE CONSTRUCTION EXCLUSION ZONE

17.1 Inside the CEZ formed by the protective barrier and ground protection measures, the following prohibitions shall apply:

- No construction activity will occur within the CEZ unless otherwise stated in this report, or agreed in writing with London Borough of Camden Council prior to the specific activity taking place.

17.2 In addition to the above, further precautions are necessary adjacent to trees outside the CEZ:

- Materials, which will contaminate the soil e.g. concrete mixing, diesel oil and vehicle washings, shall not be discharged within 10 metres of the tree stem, branches or foliage. This should take into consideration the topography of the site, to avoid liquids such as concrete washings running down hill towards retained trees.

- Fires shall not be lit in a position where their flames can extend to within 10 metres of foliage, branches or trunk. This will depend on the size of the fire and the wind direction.

- Notice boards, telephone cables or other services shall not be attached to any part of the tree. (See appendix CB5 Common Causes of Damage During Construction Works)

18.0 SITE MONITORING AND SUPERVISION

18.1 It is recommended that on-going arboricultural site monitoring takes place for the duration of the proposed development, to be carried out by a qualified and experienced arboriculturist at pre-determined and agreed time intervals, and

governed by the type, timing, location and intensity of site works. London Borough of Camden Council to Condition site monitoring if required.

18.2 If Conditioned, it should take the form of regular inspections (to be agreed, but at least one visit per month during the construction phase of the development is advised, together with additional visits to supervise works with the CEZ of retained trees). The aim of the visits is to maintain on-going liaison with all personnel involved in the site development, London Borough of Camden Council and its Tree Officer.

18.3 Any defects requiring rectification shall be notified to the Contractor/Site Manager and the client.

18.4 In addition, it is also recommended that a site logbook for tree protection measures is kept to record all stages of the development from the erection of the protective barriers, right through to the completion of the project. This could then be made available to the arboricultural consultant and London Borough of Camden Council if required, to show evidence of continuous site monitoring.

Example pro-forma:

Date	Activity	Checked	Comments/ damage noted	By whom	Signed	Action taken
	Erection of protective barriers					
	Inspection of protective barriers					

18.5 The London Borough of Camden Council Tree Officer (or appropriate representative) will have agreed access to the site, and will report on any problem areas directly to the developer's retained arboriculturist, who will then visit the site and make recommendations to the developer on how best to rectify the situation.

19.0 REPORT DAMAGE TO TREES AND TREE PROTECTION BARRIERS

19.1 Should any damage be caused to trees noted for retention, either by the above works or as the result of any other action, the damage should be reported to the site supervisor immediately. The site supervisor shall report up the chain of responsibility to the retained consultant arboriculturist, or in the absence of such an appointment, to an appropriately qualified arboriculturist, to enable remedial measures to be implemented as necessary.

19.2 Should damage occur to a protective barrier to impair its function in protecting trees, all work will cease near the damage, until the barrier has been returned to standard.

20.0 REMOVAL OF PROTECTIVE BARRIERS

20.1 When the development phase is complete, all drainage and service runs are in place, all site machinery has been removed and any landscaping for the principal area of the site has been implemented, the protective barriers will be dismantled.

20.2 This barrier dismantling must be undertaken with great care, and will need to be supervised to avoid heavy machinery being used within the Root Protection Areas. Hoarding, scaffolding and other barrier materials will need to be removed from site immediately.

21.0 CONCLUSIONS

21.1 The proposals for the phased re-development of the existing Hampstead School site on Westbere Road which includes the construction of 2 (two) new buildings, a new all weather sports surface, the demolition of 3 (three) existing buildings, the removal of existing porta cabins and a new landscaping scheme for the site have been assessed broadly in accordance with BS5837:2012 *"Trees in Relation to Design, Demolition and Construction – Recommendations"*.

21.2 It is our opinion that the trees identified for retention can be afforded due respect and provided adequate protection, ensuring their safe and healthy retention during the development process.

21.3 A total of 31 (thirty-one) individual trees and 7 (seven) groups of trees can be retained within the development as detailed within this report. There are 22 (twenty-two) individual trees and 1 (one) group of trees that will be removed to facilitate the proposed development, and provide space for better quality trees.

21.4 It is our opinion that the loss of the 22 (twenty-two) trees and 1 (one) group of trees will not have a detrimental effect on the local visual amenity or significantly alter the visual treed character of the local area, once a landscaping scheme that includes quality trees, selected to suit the site conditions and the space available, is implemented.

21.5 Provided the recommendations included within this report are strictly adhered to, CBA Trees believes the trees highlighted for retention within this report can be retained without undue stress on their long-term health.

22.0 CONTACT LIST

22.1 It is suggested that points of contact and lines of communication are established prior to commencement of the works on site including:

- Arboricultural Consultant
- Project Architect
- Highways Engineer
- Structural Engineer

- Drainage Engineer
- Landscape Architects
- London Borough of Camden Council's Tree Officer
- London Borough of Camden Council's Planning Case Officer
- Site Supervisor and Foreman

22.2 It is advised that the site supervisor establishes their own listing of contact details at the pre-start site meeting, and displays this in their office for general use as necessary.

23.0 BIBLIOGRAPHY

- British Standard 5837:2012 –
  "Trees in Relation to Design, Demolition and Construction - Recommendations"
- British Standard 3998:2010 –
  "Recommendations for Tree Work"
- National Joint Utilities Group Publication Volume 4 –
  "Guidelines for the planning, installation and maintenance of utility services in proximity to trees"
- Wildlife and Countryside Act 1981
- Conservation of Habitats and Species Regulations 2010 (as amended)
- Town and Country Planning Acts

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CB1

The Professional Arboricultural Consultancy

TREE SURVEY NOTES

This Tree Survey has been undertaken within the recommendations of British Standards 5837:2012 and current arboricultural best practice.

- Each tree has been numbered and, where instructed, for future identification on site, has been tagged using small durable metal or plastic tags.
- Due to variations of existing ground levels through the site, height dimensions are estimated and are given in metres. Accurate heights, measured with the aid of optical instruments can be provided where instructed.
- Trunk/stem diameters are measured in mm at 1.5 metres above ground level, using a standard measuring tape as defined by British Standards, unless otherwise stated.
- Estimated branch spread is taken in metres from the centre of the trunk, at the four cardinal points of a compass, to achieve an accurate representation of the crown shape which will be recorded on the tree survey plan.
- An assessment of a tree's age classification is made in terms of its maturity within the site's landscape and defined as:

  Y = young trees
  SM = semi-mature trees
  EM = early mature trees
  M = mature trees
  OM = over-mature trees

- An assessment of a tree's physiological condition is defined as:

  Good = fully functioning biological system showing average vitality i.e. normal bud growth, leaf size, crown density and wound closure
  Fair = fully functioning biological system showing below average vitality i.e. reduced bud growth, smaller leaf size, lower crown density and reduced wound closure
  Poor = a biological system with limited functionality showing significantly below average vitality i.e. limited bud growth, small and chlorotic leaves, low crown density and limited wound closure
  Dead = dead

- An assessment of a tree's structural condition is defined as:

  Good = no significant structural defects
  Fair = structural defects which could be alleviated through remedial tree surgery or management practices
  Poor = structural defects which cannot be alleviated through tree surgery or management practices
  Dead = dead

- An assessment of a tree's future life expectancy is defined as: **<10, 10+, 20+ or 40+ years.**

Categorisation of Trees

The category for each tree is assessed using the recommendations of BS5837:2012. The assessment has not considered any site-specific development proposals, but will have considered any changes on or off-site which may have an effect on the conditions surrounding the surveyed trees.

The trees have been classified into one of the following categories (and one or more sub-categories [this will however not increase the value of the tree]) and are indicated on the associated drawings by colours as indicated.

Category U				Identification colour on plan
Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline • Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality			**DARK RED**
Category A	1 – Mainly arboricultural values	2 – Mainly landscape values	3 – Mainly cultural values	Identification colour on plan
Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands, of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	**LIGHT GREEN**
Category B	1 – Mainly arboricultural values	2 – Mainly landscape values	3 – Mainly cultural values	Identification colour on plan
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are down-graded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation value or other cultural value	**MID BLUE**
Category C	1 – Mainly arboricultural values	2 – Mainly landscape values	3 – Mainly cultural values	Identification colour on plan
Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	**GREY**

Clients are advised that Tree Surveys are a basic data collection exercise and record of tree condition at the time of survey. This will identify any visible signs of ill-health or major defects, advising a further detailed investigation where appropriate. This will most often take the form of a request for either "*full ground level inspection"* or "*climbing inspection required".* There may also be a further reference to the need for "*decay detection equipment"* to aid diagnosis. A tree survey does not include a comprehensive schedule or specification of remedial tree works, but may contain a guide to the work which might be undertaken by a prudent tree owner, purely for reasons of health and safety.

A Tree Survey should not be confused with a Tree Inspection or Arboricultural Implication Assessment, which are totally separate exercises.

TREE SURVEY REPORT (BS5837:2012)	
Client:	Wates Construction Limited
Site	Hampstead School, Westbere Road, London NW2 3RT
Date:	4 March 2015
Consultant:	James Fuller FdSc.Arb, BTEC Nat.Dip.Arb, TechArbor.A
Tagged:	**No**

Notes:-

1. It may be advised that some trees should have the ivy removed to enable a re-survey to be carried out. This would also alleviate the tree from becoming suppressed; carrying additional weight that increases the chance of windthrow due to a larger dense crown area; and only receiving restricted light. Unless otherwise stated, in order to prevent regrowth, it is only necessary to remove a 300mm section of ivy and clear around the base.
2. It may be advised that it was only possible to estimate the diameter of some trees because of ivy smothering, dense vegetation, or trees located off-site with no access.
3. The estimated remaining contribution in years, and the tree grading category have been calculated for the current situation and may alter where further investigation works are advised.
4. Some trees or groups may have been given an interim grade. The reason for the interim grading is addressed in the timescales given as this may have a bearing on health and safety and/or any development proposals.
5. Tree Groups have been assessed with estimated and representative data.
6. This is not a Tree Works Schedule. Any preliminary management recommendations are listed in the interests of health and safety and should be carried out by a prudent tree owner.
7. Any management recommendations are suggested for reasons of health and safety only, regardless of development proposals at this stage. However, the defects requiring remedial tree surgery are by their very nature potential wildlife habitats, including protected species which needs consideration prior to any tree surgery works commencing.

* Trees marked with an asterisk are indicatively plotted on Tree Survey Plan CBA10333.01

TREE PRESERVATION ORDER/CONSERVATION AREA:
CBA Trees has not been instructed to investigate whether trees on or adjacent to the site are protected by a Tree Preservation Order or located within a Conservation Area.

Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
1	Common Hawthorn *Crataegus monogyna*	5	S	210	3.0	4.0	3.0	1.5	2.0	2.0	2.0	2.0	SM	Good	Fair Grows in paved area Metal grill at base Multi-stemmed at 2m above ground level Minor deadwood in crown Trunk and crown shape distorted Bark wounds on trunk Leans to South-east side	None required at time of survey	10+	C1+2

Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
2	Common Hawthorn *Crataegus monogyna*	6	S	230	1.5	4.0	3.0	3.0	2.0	3.0	3.0	3.0	SM	Good	Fair Grows in paved area Metal grill at base Multi-stemmed at 2m above ground level Minor deadwood in crown Trunk and crown shape distorted Bark wounds on trunk Leans to South-east side	None required at time of survey	10+	C1+2
3	Tulip Tree *Liriodendron tulipifera*	13	S	340	4.0	5.0	5.0	6.0	2.0	3.0	2.0	2.0	SM	Good	Good Wall to South and West sides Bark wound on trunk to North side at 0.5m above ground level occluding Old pruning wounds on trunk occluding Bifurcated at 3m above ground level with tension fork Good shape and form	None required at time of survey	40+	B1
4	Silver Birch *Betula pendula*	12	S	290	4.0	4.0	4.0	5.0	2.0	2.0	2.0	2.0	SM	Good	Good Bark wounds on trunk Epicormics on trunk Old pruning wounds in crown Minor deadwood in crown	None required at time of survey	20+	B1
5	Silver Birch *Betula pendula*	15	S	390	4.0	5.0	6.0	5.0	3.0	3.0	3.0	3.0	EM	Good	Fair Wall to West Old pruning wounds on trunk occluding Bifurcated at 6m above ground level	None required at time of survey	20+	B1
6	Common Elder *Sambucus nigra*	4	MS 4x stems	220	1.0	3.0	2.0	3.0	2.0	1.5	1.5	2.0	SM	Fair	Fair Boundary edge tree Multi-stemmed at ground level Crown shape distorted Minor deadwood in crown Poor quality tree	None required at time of survey	10+	C1

Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
7	Apple *Malus spp*	6	S	270	2.0	5.0	5.0	2.0	3.0	2.0	2.0	2.0	SM	Good	Fair Boundary edge tree Bark wounds on trunk Bifurcated at 2m above ground level Minor deadwood in crown Crown shape distorted	None required at time of survey	20+	C1
8	Flowering Cherry *Prunus spp*	3	S	120	2.0	1.0	1.0	1.0	2.0	2.0	2.0	2.0	Y	Fair	Fair Trunk and crown shape distorted Bark wounds on trunk occluding Multi-stemmed at 2m above ground level Minor deadwood in crown Minor dieback in crown	None required at time of survey	10+	C1
9	Common Elder *Sambucus nigra*	4	MS 6x stems	220	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	SM	Fair	Fair Multi-stemmed at ground level Smothered in ivy Minor deadwood in crown Poor quality tree	None required at time of survey	10+	C1
10	Common Yew *Taxus baccata*	5	S	200	1.0	3.0	3.0	3.0	2.0	2.0	0.0	0.0	Y	Good	Good Developing tree Grows under canopy of T11 Low hanging branches Crown shape distorted Multi-stemmed at 2m above ground level	None required at time of survey	40+	C1
11	Common Ash *Fraxinus excelsior*	14	MS 2x stems	920	6.0	6.0	6.0	6.0	6.0	5.0	6.0	5.0	EM	Fair	Fair Bifurcated at ground level Exposed surface roots Ivy on stems Old pruning wounds on stems Old retaining structure on North-east side previously removed	None required at time of survey	20+	B1

Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
12	Pedunculate Oak *Quercus robur*	14	S	750	6.0	9.0	9.0	9.0	4.0	3.0	3.0	3.0	EM	Good	Good Boundary edge tree Grows between chainlink fence and boundary wall Ivy on trunk Multi-stemmed at 2m above ground level Old pruning wounds in crown occluding Minor deadwood in crown Unable to fully inspect around base of tree due to chainlink fence	Re-inspect once chainlink fence is removed	40+	A1 Interim
13	Pedunculate Oak *Quercus robur*	4	S	80	1.0	-	1.0	-	2.0	2.0	2.0	-	Y	Fair	Fair Newly planted Bark wounds on trunk Developing tree	None required at time of survey	10+	C1
14*	Horse Chestnut *Aesculus hippocastanum*	14	S	630	6.5	6.5	6.0	5.0	2.0	2.0	2.0	2.0	EM	Good	Fair Bleeding canker on trunk Bifurcated at 2m above ground level with compression fork Old pruning wounds on trunk to West side at 2m above ground level with decay present Minor deadwood in crown	None required at time of survey	20+	B1
15	Pedunculate Oak *Quercus robur*	5	S	100	1.5	1.5	1.5	1.5	2.0	2.0	2.0	2.0	Y	Good	Good Developing tree Good shape and form	None required at time of survey	40+	C1
16	Pedunculate Oak *Quercus robur*	4	S	80	1.0	1.0	1.0	1.0	2.0	2.0	2.0	2.0	Y	Good	Good Newly planted tree Good shape and form Developing tree	None required at time of survey	40+	C1

Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
17	Common Elder *Sambucus nigra*	6	MS 4x stems	200	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	SM	Fair	Fair Multi-stemmed at ground level Boundary edge tree Ivy on stems and in crown Crown shape distorted Epicormics in crown	None required at time of survey	20+	C1+2
18*	Common Ash *Fraxinus excelsior*	11	MS 2x stems	290	4.0	4.0	4.0	4.0	3.0	3.0	2.0	3.0	SM	Good	Fair Offsite tree Unable to verify health and safety due to no access Bifurcated at ground level Boundary edge tree	Gain access and re-survey within 1 month	20+	C1+2 Interim
19	Wild Cherry *Prunus avium*	10	S	530	6.0	5.0	5.0	7.0	2.0	3.0	2.0	2.0	M	Good	Fair Exposed surface roots Bifurcated union at 3m above ground level with tight compression fork Bark wounds on long slender branch to West side Old pruning wounds in crown Previously crown reduced	Reduce branch with bark wounds by 2m-3m	10+	C1
20	Common Ash *Fraxinus excelsior*	17	S	860	7.0	7.0	7.0	7.0	6.0	6.0	6.0	6.0	M	Fair	Good Boundary edge tree Exposed surface roots Epicormics on trunk and in crown Bifurcated at 4m above ground level Old pruning wounds in crown Continually pollarded at 16m above ground level Boundary wall to South side	None required at time of survey	20+	B1

Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
21	Lombardy Poplar *Populus nigra 'Italica'*	18	S	840	2.0	3.0	3.0	2.0	6.0	6.0	6.0	6.0	M	Fair	Fair Large buttress roots Boundary edge tree Small cavity on North side at base Major deadwood in crown Previously topped at 16m above ground level Boundary wall to South side	None required at time of survey	10+	C1+2
22*	Common Ash *Fraxinus excelsior*	14	S	450	4.0	4.0	6.0	7.0	2.0	2.0	3.0	2.0	EM	Good	Good Offsite tree Boundary edge tree Unable to verify health and safety due to no access Trunk and crown shape distorted due to group pressure Trunk and crown biased to South-west side Boundary wall between site and tree	Gain access and re-survey within 1 month	20+	B1 Interim
23*	Pear *Pyrus spp*	6	S	400	4.0	2.0	3.0	4.0	2.0	3.0	2.0	2.0	M	Fair	Fair Offsite boundary edge group Canopy overhangs site Unable to verify health and safety due to no access Previously topped at 6m above ground level Crown shape distorted Minor deadwood in crown Estimated data	Gain access and re-survey within 1 month	10+	C1 Interim
24*	Bay Laurel *Laurus nobilis*	5	S	200	3.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0	SM	Good	Good Offsite boundary edge tree Unable to verify health and safety due to no access Estimated data	Gain access and re-survey within 1 month	20+	C1 Interim

Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
25	Apple *Malus spp*	3	MS 2x stems	140	4.0	0.5	0.5	3.0	1.0	1.0	1.0	1.0	SM	Fair	Fair Bark wounds on trunk Trunk and crown shape distorted Bifurcated at 1.2m above ground level Poor quality tree Of limited value	None required at time of survey	10+	C1
26	Wild Cherry *Prunus avium*	12	S	400	5.5	6.0	6.5	6.5	2.0	2.0	2.0	2.0	EM	Good	Fair Large buttress roots Exposed surface roots Bifurcated at 2m above ground level Minor deadwood in crown Old pruning wounds in crown	None required at time of survey	20+	B1
27	Wild Cherry *Prunus avium*	6	MS 2x stems	250	2.0	4.0	5.0	3.0	3.0	2.0	2.0	2.0	SM	Good	Fair Bifurcated at ground level Grows next to existing building Old pruning wounds in crown Previously crown reduced	None required at time of survey	20+	C1
28	Common Lime *Tilia x europaea*	15	S	470	6.0	7.0	7.0	7.0	4.0	4.0	4.0	4.0	EM	Good	Fair Part of linear group Bifurcated at 3m above ground level Minor deadwood in crown Old pruning wounds in crown	None required at time of survey	40+	B1+2
29	Common Lime *Tilia x europaea*	8	S	180	2.0	1.0	4.0	3.0	3.0	3.0	3.0	2.0	SM	Good	Fair Part of linear group Trunk and crown shape distorted due to group pressure Suppressed by T28 Old pruning wounds on trunk	None required at time of survey	20+	C1+2

Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
30	Common Lime *Tilia x europaea*	8	S	230	4.0	4.0	3.0	4.0	2.0	3.0	2.0	2.0	SM	Good	Good Part of linear group Old pruning wounds on trunk Crown shape distorted Minor deadwood in crown	None required at time of survey	20+	C1+2
31	Common Lime *Tilia x europaea*	12	S	330	5.0	5.0	4.0	6.0	4.0	4.0	4.0	3.0	SM	Good	Fair Part of linear group Trifurcated at 2m above ground level Old pruning wounds on trunk and in crown Minor deadwood in crown	None required at time of survey	20+	C1+2
32	Common Lime *Tilia x europaea*	12	S	270	3.0	4.0	3.0	3.0	4.0	4.0	4.0	4.0	SM	Good	Fair Part of linear group Epicormics on trunk and in crown Bifurcated at 3m above ground level with compression fork Old pruning wounds in crown Previously crown reduced	None required at time of survey	20+	C1+2
33	Common Lime *Tilia x europaea*	13	S	330	4.0	4.0	3.0	3.0	4.0	4.0	4.0	4.0	SM	Good	Fair Part of linear group Epicormics on trunk and in crown Tight forks with included bark in crown Old pruning wounds in crown Previously crown reduced	None required at time of survey	20+	C1+2
34	Common Lime *Tilia x europaea*	15	S	410	6.0	6.0	5.0	6.0	5.0	5.0	5.0	5.0	EM	Good	Good Part of linear group Old pruning wounds on trunk and in crown occluded and occluding	None required at time of survey	40+	B1+2

Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
35	Common Lime *Tilia x europaea*	12	S	320	4.0	5.0	2.0	1.0	3.0	4.0	4.0	4.0	SM	Good	Fair Part of linear group Trunk and crown shape distorted due to group pressure Epicormics on trunk Old pruning wounds on trunk and in crown occluding Suppressed by T34 and T36	None required at time of survey	20+	C1+2
36	Common Lime *Tilia x europaea*	15	S	430	5.0	6.0	5.0	5.0	4.0	5.0	4.0	5.0	EM	Good	Good Part of linear group Old pruning wounds in crown occluding Epicormics in crown	None required at time of survey	40+	B1+2
37	Common Lime *Tilia x europaea*	14	S	410	6.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	EM	Good	Good Part of linear group Basal suckers Epicormics on trunk and in crown Old pruning wounds in crown occluding Previously crown reduced away from building	None required at time of survey	40+	B1+2
38	Silver Birch *Betula pendula*	3	S	100	2.0	1.0	1.5	2.0	2.0	2.0	2.0	1.5	Y	Fair	Fair Trunk and crown shape distorted Broken hanging branch on East side of tree Trunk kinks at 2m above ground level	None required at time of survey	10+	C1

Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
39	Common Ash *Fraxinus excelsior*	12	S	490	4.0	5.0	5.0	4.0	6.0	5.0	6.0	6.0	EM	Fair	Fair Bark wounds on exposed surface roots and at base of tree Epicormics on trunk and in crown Bifurcated at 3m above ground level Old pruning wounds in crown Previously pollarded at 10m above ground level	None required at time of survey	20+	B1
40	Indian Bean Tree *Catalpa bignonioides*	12	S	620	8.0	8.0	4.0	6.0	3.0	2.0	6.0	3.0	EM	Good	Fair Trunk and crown shape distorted Trunk and crown biased to North-east Old pruning wounds in crown occluding Previously crown reduced on South-west side	None required at time of survey	20+	B1
41	Crack Willow *Salix fragilis*	16	S	880	5.0	6.0	5.0	4.0	4.0	4.0	6.0	6.0	M	Good	Good Grows in paved area Old pruning wounds in crown Previously pollarded at 14m above ground level New regrowth makes up crown	None required at time of survey	20+	B1
42	Horse Chestnut *Aesculus hippocastanum*	9	S	220	4.0	4.0	3.0	4.0	3.0	2.0	3.0	3.0	SM	Fair	Fair Trunk and crown shape distorted Bifurcated at 2m above ground level Old pruning wounds in crown Suppressed by T41 Sparse buds in crown	None required at time of survey	10+	C1

Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
43	Common Ash x2	15	S	See below	6.0	6.0	3.0	4.0	6.0	4.0	5.0	5.0	EM	Good	Good Boundary edge trees Unable to verify health and safety due to trees growing between chainlink fence and retaining wall Ivy on trunk Two trees growing together Previously crown reduced Old pruning wounds in crown Epicormics in crown Part of linear group	Gain access and re-survey within 1 month	20+	B1+2 Interim
A				450														B
B				400														B
44	London Plane *Platanus x hispanica*	14	S	Est 800	5.0	6.0	5.0	5.0	6.0	6.0	6.0	6.0	EM	Good	Good Boundary edge tree Part of linear group Grows between chainlink fence and retaining wall Ivy on trunk Bifurcated at 2m above ground level Previously pollarded at 12m above ground level	None required at time of survey	40+	B1+2
45*	Common Ash *Fraxinus excelsior*	12	MS 2x stems	370	3.0	5.0	6.0	5.0	3.0	3.0	3.0	2.0	SM	Good	Fair Offsite boundary edge tree Bark wound to North-west side Bifurcated at ground level Crown shape distorted due to group pressure	None required at time of survey	20+	C1+2

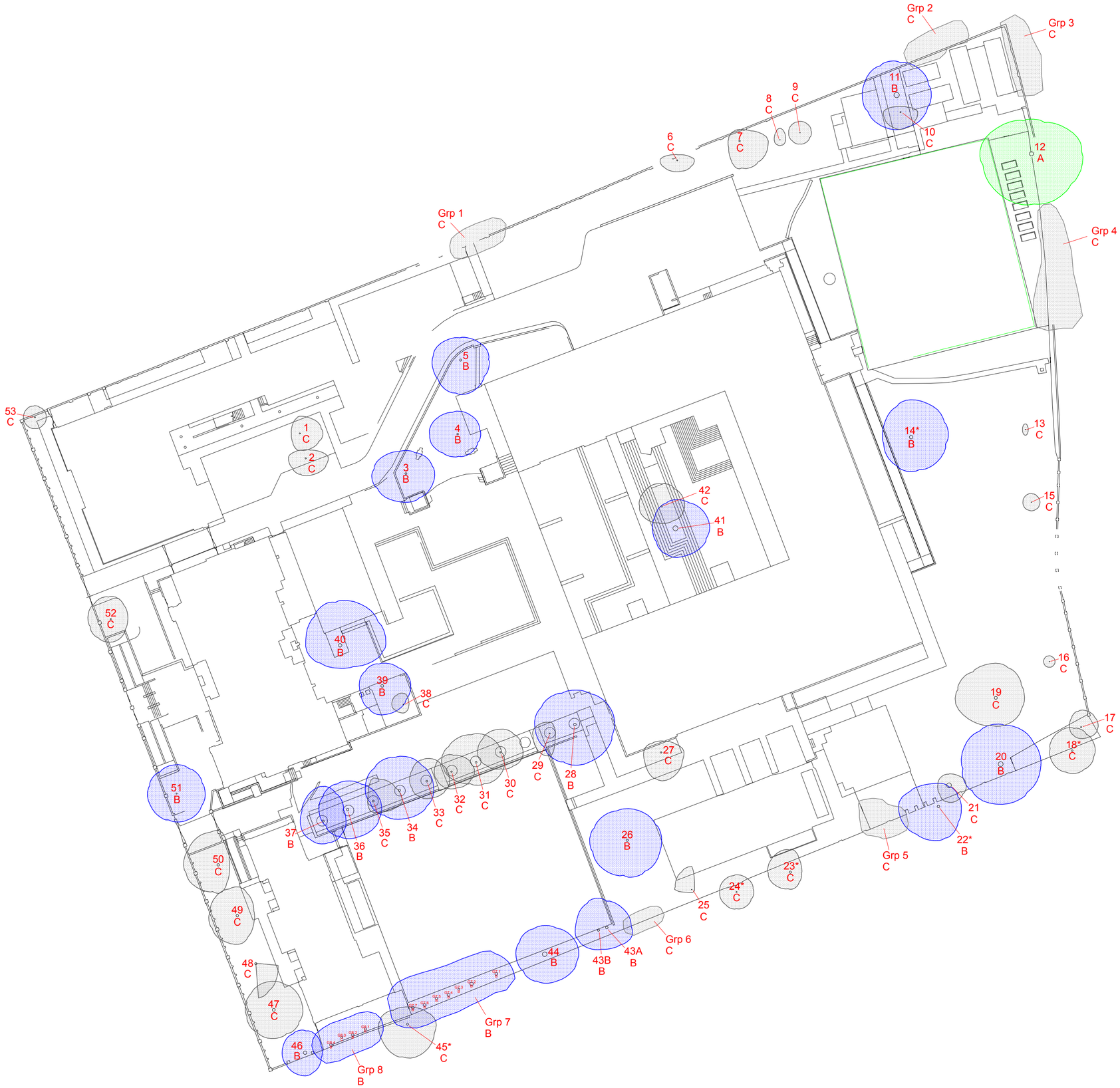
Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
46	London Plane *Platanus x hispanica*	14	S	620	4.0	3.0	4.0	4.0	6.0	6.0	4.0	4.0	EM	Good	Good Boundary edge tree Bifurcated at 2m above ground level Previously pollarded at 12m above ground level Old pruning wounds in crown Epicormics make up crown	None required at time of survey	40+	B1+2
47	Flowering Cherry *Prunus spp*	6	S	500	5.0	5.0	5.0	5.0	2.0	2.0	2.0	2.0	M	Good	Fair Part of linear group Mechanical damage to exposed surface roots Multi-stemmed at 2m above ground level Minor deadwood in crown Old pruning wounds in crown Previously crown reduced on North-east side	None required at time of survey	10+	C1+2
48	Flowering Cherry *Prunus spp*	5	S	400	0.0	4.0	6.0	0.0	-	4.0	2.0	-	EM	Fair	Fair Part of linear group Bifurcated at 1.8m above ground level Two stems previously removed Long heavily weighted limb to South side Poor quality tree Previously crown reduced on North-east side	None required at time of survey	10+	C1+2

Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
49	Flowering Cherry *Prunus spp*	6	S	440	5.0	3.0	5.0	5.0	3.0	3.0	2.0	2.0	EM	Good	Fair Part of linear group Exposed surface roots Mechanical damage to exposed surface roots Multi-stemmed at 1.8m above ground level Minor deadwood in crown Previously crown reduced on North-east side Old pruning wounds in crown	None required at time of survey	10+	C1+2
50	Flowering Cherry *Prunus spp*	7	S	440	6.0	2.0	5.0	6.0	3.0	3.0	2.0	2.0	EM	Good	Fair Part of linear group Exposed surface roots Mechanical damage to exposed surface roots Multi-stemmed at 1.8m above ground level Minor deadwood in crown Old pruning wounds in crown occluding Previously crown reduced on North-east side	None required at time of survey	10+	C1+2
51	Manna Ash *Fraxinus ornus*	12	S	240	5.0	5.0	5.0	5.0	2.0	3.0	3.0	2.0	SM	Good	Good Minor deadwood in crown Multi-stemmed at 5m above ground level	None required at time of survey	20+	B1
52	Manna Ash *Fraxinus ornus*	11	S	200	4.0	3.0	4.0	4.0	4.0	4.0	3.0	4.0	SM	Fair	Fair Large bark wound on trunk occluding Main stem previously snapped out at 5m above ground level Minor deadwood in crown Poor quality tree	None required at time of survey	10+	C1

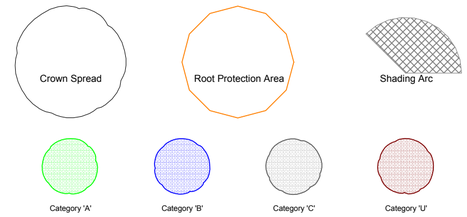
Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
53	Common Elder *Sambucus nigra*	5	MS 5x stems	210	2.0	2.0	2.0	2.0	1.5	1.5	1.5	1.5	SM	Good	Fair Boundary edge tree Multi-stemmed at ground level Recent pruning wounds at base Low hanging branches	None required at time of survey	10+	C1
Grp 1	Lawson Cypress x4 Ash x1	12	S	Est 400	-	-	-	-	-	-	-	-	SM	Fair	Fair Offsite boundary edge group One dead tree in group Survey limited due to no access Wall between site and trees Estimated data	None required at time of survey	20+	C1+2
Grp 2	Common Sycamore	7	S	200	-	-	-	-	-	-	-	-	SM	Fair	Fair Offside boundary edge group Self-set trees Tree to North-east end previously pollarded at 4m above ground level Wall between site and group	None required at time of survey	20+	C2
Grp 3	Ash Common Sycamore	8	S	200	-	-	-	-	-	-	-	-	SM	Fair	Fair Offsite boundary edge group Self-set trees Crown shapes distorted due to group pressure Minor deadwood in crowns Wall between group and site	None required at time of survey	20+	C2
Grp 4	Ash Common Sycamore	7	S	100	-	-	-	-	-	-	-	-	Y	Fair	Fair Offsite boundary edge group Self-set trees Crown shapes distorted due to group pressure	None required at time of survey	20+	C2

Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
Grp 5	Ash x5	10	S	200	-	-	-	-	-	-	-	-	SM	Good	Good Boundary edge group Trunk and crown shape distorted due to group pressure Some trees multi-stemmed at various heights Self-set group Previously reduced on South side	None required at time of survey	20+	C2
Grp 6	Lawson Cypress	4	S	200	-	-	-	-	-	-	-	-	SM	Fair	Fair Offsite boundary edge group Unable to verify health and safety due to no access Minor deadwood in crown Crown shape distorted due to group pressure	Gain access and re-survey within 1 month	10+	C2 Interim
Grp 7	London Plane x7	14	S	See below	-	-	-	-	-	-	-	-	EM	Good	Good Boundary edge group Multi-stemmed at various heights Previously pollarded at 12m above ground level Provides screening into and out of site	None required at time of survey	40+	B2
G7.1				500														B
G7.2				600														B
G7.3				350														B
G7.4				500														B
G7.5				450														B
G7.6				500														B
G7.7				500														B

Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
Grp 8	London Plane x4	14	S	See below	-	-	-	-	-	-	-	-	EM	Good	Good Boundary edge group Bark wound to South-east side Two trees bifurcated at 2m above ground level G8.3 has large bark wound at base of East side stem Previously pollarded at 12m above ground level Provides screening into and out of site	Remove stem on East side of G8.3 within 6 months	40+	B2
G8.1				410														B
G8.2				450														B
G8.3				370														C
G8.4				450														B



NOTE:
Root Protection Areas and Shading Arcs not shown on this plan
Groups are indicatively plotted
Trees marked with * are indicatively plotted



0 60m

CBA Trees
Russell House,
Unit 20 Chalcroft Business Park
Burnetts Lane, West End
Southampton, SO30 2PA
Tel: 02380 986229

10333
Hampstead School, Westbere Road, London
Tree Survey Plan

SCALE :	DATE :
1 : 500 @ A2	10/03/2015

MAP FILENAME :
CBA10333.01 TSP

N


CB2

BS5837:2012 TREE ROOT PROTECTION AREA SCHEDULE	
Client:	Wates Construction Limited
Site:	Hampstead School, Westbere Road, London, NW2 3RT
Date:	4 March 2015
Consultant:	James Fuller FdSc.Arb, BTEC Nat.Dip.Arb, TechArbor.A

Notes:
1. This is an assessment of the Root Protection Area (RPA) required, based on the individual tree data collected and Section 4.6.1 of BS5837:2012.
2. At this juncture this document is for your sole guidance and ongoing discussions purposes only and is not intended for general circulation, as it assumes that all but the 'U' trees will be retained, which clearly may not be the case.
3. For all single stem trees with a stem diameter greater than 1250mm, and multi-stem trees with a stem diameter greater than 1500mm, the calculated RPA has been capped at 707m2 in accordance with Section 4.6.1 of BS5837.2012.

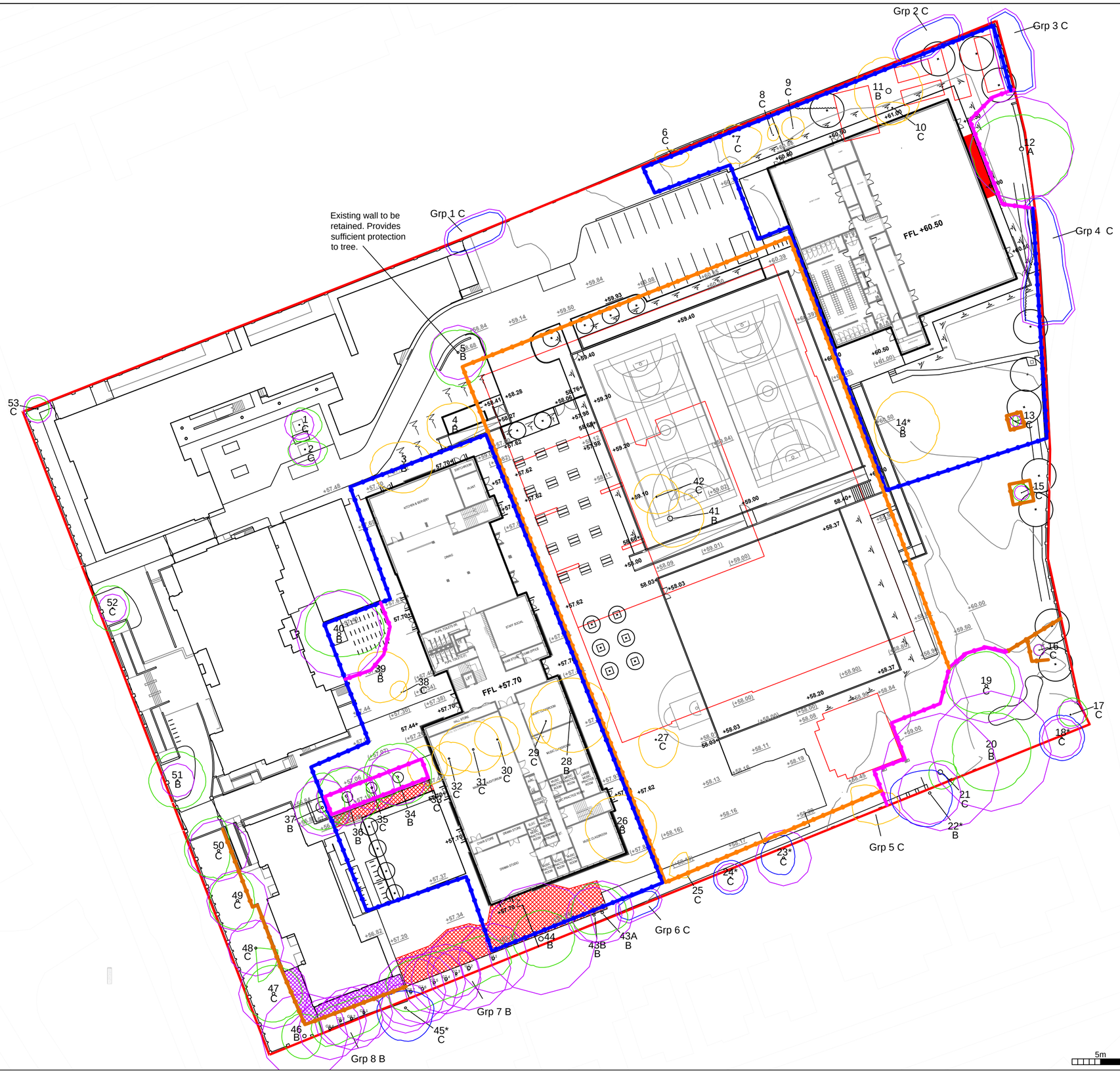
TREE PRESERVATION ORDER/CONSERVATION AREA:
CBA Trees has not been instructed to investigate whether trees on or adjacent to the site are protected by a Tree Preservation Order or located within a Conservation Area.

Tree No	Species	Category	Single/ Multi-Stemmed (S or MS)	Stem Diameter (mm)	Initial Linear Root Protection Distance (Radius m)	Root Protection Area (m2)
1	Common Hawthorn	C1+2	S	210	2.52	19.95
2	Common Hawthorn	C1+2	S	230	2.76	23.93
3	Tulip Tree	B1	S	340	4.08	52.30
4	Silver Birch	B1	S	290	3.48	38.05
5	Silver Birch	B1	S	390	4.68	68.82
6	Common Elder	C1	MS 4x stems	220	2.64	21.90
7	Apple	C1	S	270	3.24	32.98
8	Flowering Cherry	C1	S	120	1.44	6.52
9	Common Elder	C1	MS 6x stems	220	2.64	21.90
10	Common Yew	C1	S	200	2.40	18.10
11	Common Ash	B1	MS 2x stems	920	11.04	382.95
12	Pedunculate Oak	A1 Interim	S	750	9.00	254.50
13	Pedunculate Oak	C1	S	80	0.96	2.90
14*	Horse Chestnut	B1	S	630	7.56	179.58
15	Pedunculate Oak	C1	S	100	1.20	4.52
16	Pedunculate Oak	C1	S	80	0.96	2.90
17	Common Elder	C1+2	MS 4x stems	200	2.40	18.10
18*	Common Ash	C1+2 Interim	MS 2x stems	290	3.48	38.05
19	Wild Cherry	C1	S	530	6.36	127.09

Tree No	Species	Category	Single/ Multi-Stemmed (S or MS)	Stem Diameter (mm)	Initial Linear Root Protection Distance (Radius m)	Root Protection Area (m2)
20	Common Ash	B1	S	860	10.32	334.63
21	Lombardy Poplar	C1+2	S	840	10.08	319.25
22*	Common Ash	B1 Interim	S	450	5.40	91.62
23*	Pear	C1 Interim	S	400	4.80	72.39
24*	Bay Laurel	C1 Interim	S	200	2.40	18.10
25	Apple	C1	MS 2x stems	140	1.68	8.87
26	Wild Cherry	B1	S	400	4.80	72.39
27	Wild Cherry	C1	MS 2x stems	250	3.00	28.28
28	Common Lime	B1+2	S	470	5.64	99.95
29	Common Lime	C1+2	S	180	2.16	14.66
30	Common Lime	C1+2	S	230	2.76	23.93
31	Common Lime	C1+2	S	330	3.96	49.27
32	Common Lime	C1+2	S	270	3.24	32.98
33	Common Lime	C1+2	S	330	3.96	49.27
34	Common Lime	B1+2	S	410	4.92	76.06
35	Common Lime	C1+2	S	320	3.84	46.33
36	Common Lime	B1+2	S	430	5.16	83.66
37	Common Lime	B1+2	S	410	4.92	76.06
38	Silver Birch	C1	S	100	1.20	4.52
39	Common Ash	B1	S	490	5.88	108.63
40	Indian Bean Tree	B1	S	620	7.44	173.92
41	Crack Willow	B1	S	880	10.56	350.38
42	Horse Chestnut	C1	S	220	2.64	21.90
43	Common Ash x2	B1+2 Interim	S	See below	-	-
A			S	450	5.40	91.62
B			S	400	4.80	72.39
44	London Plane	B1+2	S	400	4.80	72.39
45*	Common Ash	C1+2	MS 2x stems	370	4.44	61.94
46	London Plane	B1+2	S	620	7.44	173.92
47	Flowering Cherry	C1+2	S	500	6.00	113.11
48	Flowering Cherry	C1+2	S	400	4.80	72.39
49	Flowering Cherry	C1+2	S	440	5.28	87.59
50	Flowering Cherry	C1+2	S	440	5.28	87.59
51	Manna Ash	B1	S	240	2.88	26.06
52	Manna Ash	C1	S	200	2.40	18.10
53	Common Elder	C1	MS 5x stems	210	2.52	19.95
Grp 1	Lawson Cypress x4 Ash x1	C1+2	S	400	4.80	72.39

Tree No	Species	Category	Single/ Multi-Stemmed (S or MS)	Stem Diameter (mm)	Initial Linear Root Protection Distance (Radius m)	Root Protection Area (m2)
Grp 2	Common Sycamore	C2	S	200	2.40	18.10
Grp 3	Ash Common Sycamore	C2	S	200	2.40	18.10
Grp 4	Ash Common Sycamore	C2	S	100	1.20	4.52
Grp 5	Ash x5	C2	S	200	2.40	18.10
Grp 6	Lawson Cypress	C2 Interim	S	200	2.40	18.10
Grp 7	London Plane x7	B2	S	See below	-	-
G7.1		B		500	6.00	113.11
G7.2		B		600	7.20	162.88
G7.3		B		350	4.20	55.42
G7.4		B		500	6.00	113.11
G7.5		B		450	5.40	91.62
G7.6		B		500	6.00	113.11
G7.7		B		500	6.00	113.11
Grp 8	London Plane x4	B2	S	See below	-	-
G8.1		B		410	4.92	76.06
G8.2		B		450	5.40	91.62
G8.3		C		370	4.44	61.94
G8.4		B		450	5.40	91.62


CB3



KEY

- TREES TO BE RETAINED AND PROTECTED IN ACCORDANCE WITH BS5837:2012
- OFF SITE TREES TO BE RETAINED AND PROTECTED IN ACCORDANCE WITH BS5837:2012
- TREES TO BE REMOVED TO FACILITATE PROPOSED LANDSCAPING SCHEME
- TREE PROTECTION BARRIER TO BE ERECTED AS DETAILED IN SECTION 11 OF CBA TREES MARCH 2015 ADS
- LINE OF CHESTNUT PALE FENCING
- APPROXIMATE LOCATION OF SITE HOARDING FOR CONSTRUCTION WORKS
- APPROXIMATE LOCATION OF SITE HOARDING FOR DEMOLITION OF BUILDING
- AREA OF EXISTING HARD STANDING TO BE REMOVED BY HAND & EXCAVATIONS FOR PROPOSED PATH TO BE CARRIED OUT BY HAND
- BUILDINGS TO BE DEMOLISHED
- AREA OF GROUND PROTECTION FOR CONTRACTOR ACCESS & SCAFFOLDING
- AREA OF EXISTING HARD STANDING TO BE REMOVED BY HAND

NOTE: Groups are indicatively plotted Trees marked with * are indicatively plotted

5m 10m 20m 30m 40m 50m

KEY

ROOT PROTECTION AREA (RPA)
CROWN SPREAD
TREE NUMBER
CATEGORY

JOB TITLE
Hampstead School

DRAWING TITLE
Tree Protection Plan

CBA DRAWING No.
CBA10333.02 TPP

BASE PLAN DRAWING No.
0220 WORKING

SCALE 1-500@A2

DRAWN AM

DATE March 2015

CBA Trees.
Russell House, Unit 20 Chalcroft Business Park, Burnetts Lane, West End, Southampton, SO30 2PA
Tel: 02380 986229


CB4

	TREE WORKS SCHEDULE			
	Client:	Wates Construction Ltd	**Site:**	Hampstead School, Westbere Road, London, NW2 3RT
	Date:	March 2015	**Consultant:**	James Fuller *FdSc.Arb, BTEC Nat.Dip.Arb, TechArbor.A*

Tree No.	Species	Recommended Works
1	Common Hawthorn	• N/A
2	Common Hawthorn	• N/A
3	Tulip Tree	• Remove
4	Silver Birch	• Remove
5	Silver Birch	• N/A
6	Common Elder	• Remove
7	Apple	• Remove
8	Flowering Cherry	• Remove
9	Common Elder	• Remove
10	Common Yew	• Remove
11	Common Ash	• Remove
12	Pedunculate Oak	• Crown reduce on West side by 2m
13	Pedunculate Oak	• N/A
14	Horse Chestnut	• Remove
15	Pedunculate Oak	• N/A
16	Pedunculate Oak	• N/A
17	Common Elder	• N/A
18	Common Ash	• N/A
19	Wild Cherry	• Reduce damaged branch on West side by 2-3m
20	Common Ash	• N/A
21	Poplar	• N/A
22	Common Ash	• N/A
23	Pear	• N/A

Tree No.	Species	Recommended Works
24	Bay Laurel	• N/A
25	Apple	• Remove
26	Wild Cherry	• Remove
27	Wild Cherry	• Remove
28	Common Lime	• Remove
29	Common Lime	• Remove
30	Common Lime	• Remove
31	Common Lime	• Remove
32	Common Lime	• Remove
33	Common Lime	• Remove
34	Common Lime	• N/A
35	Common Lime	• Crown lift to 4m on northern side over access route
36	Common Lime	• N/A
37	Common Lime	• N/A
38	Silver Birch	• Remove
39	Common Ash	• Remove
40	Indian Bean Tree	• N/A
41	Crack Willow	• Remove
42	Horse Chestnut	• Remove
43	Common Ash	• N/A
44	London Plane	• N/A
45	Common Ash	• N/A
46	London Plane	• N/A
47	Flowering Cherry	• Reduce on East side by 1m
48	Flowering Cherry	• N/A
49	Flowering Cherry	• N/A
50	Flowering Cherry	• N/A
51	Manna Ash	• N/A
52	Manna Ash	• N/A
53	Common Elder	• N/A
Grp 1	Lawson Cypress x 4 Ash x 1	• N/A

Tree No.	Species	Recommended Works
Grp 2	Common Sycamore	• Prune back to boundary of site
Grp 3	Ash Common Sycamore	• Prune back to boundary of site
Grp 4	Ash Common Sycamore	• Prune back to boundary of site
Grp 5	Ash x 5	• Remove
Grp 6	Lawson Cypress	• N/A
Grp 7	London Plane x 7	• Prune tree G7.7 to provide 2m clearance from building on North-west side
Grp 8	London Plane x 4	• N/A

- All tree works are advised to be carried out between July and September or November and February. Tree works should also avoid the season for nesting birds.
- All tree works should be carried out in accordance with current best practice guidelines and BS3998 – Tree Works. Only natural target pruning method to be used.
- We recommend the use of an Arboricultural Association Approved Contractor or an ISA Certified Arborist/Tree Worker suitably insured and experienced to carry out the tree works.


CB5

TREES AT_____:

SUMMARY OF

TREE PROTECTION MEASURES

Introduction

This leaflet shall be issued to all site personnel as part of their induction briefing.

It describes in summary form the precautions that site personnel shall at all times follow, to ensure that the existing trees on the site come to no harm.

The precautions described are neither arbitrary nor reducible and must be adhered to in full.

These precautions are necessary because unprotected trees are very vulnerable to damage during demolition and construction works.

Furthermore, many of the trees on the site are under **LEGAL PROTECTION** and damaging them can result in heavy fines.

Two common misconceptions about trees:

MYTH: Trees have deep taproots and so shallow excavations will not harm the tree.
FACT: 90% of all tree's roots are found in the top 600mm of soil; all excavations near to trees are likely to cause root damage which can kill the tree.
MYTH: Trees will quickly heal over any bark wound, with no ill effect.
FACT: Bark wounds take years to heal and larger ones never do; missing bark can lead to disease and even the death of the tree.

Tree Protection

All trees adjacent to unsupervised work areas have been protected by tree protection barriers.

These barriers must be respected at all times and no attempts shall be made to damage, bypass or ignore them.

In areas designated for supervised working, no works shall be undertaken without the supervisor being present or without him/her issuing a "carry on" chit.

Prohibitions Adjacent to Trees

Inside the exclusion area of the tree protection, the following prohibitions shall apply.

- **No** digging or scraping
- **No** storage of plant or materials
- **No** vehicular access
- **No** fire lighting
- **No** handling, discharge or spillage or any chemical substance
- **No** water-logging

In addition to the above, further precautions shall be taken near to trees.

- A 10m separation distance shall be observed between trees and any substance injurious to their health, including fuels, oil, bitumen, cement (including washings) builders' sand, concrete mixing and other chemicals.

- No fire shall be lit such that flames come within 5m of any foliage; this shall be taken to mean a fire separation distance to the leaved of 20m.

Avoiding Damage to Stem and Branches

Care shall be taken when planning site operations to ensure that wide or tall loads or plant with booms, jibs and counterweights, can operate without coming into contact with trees.

Consequently, any transit or traverse of plant in proximity to trees shall be conducted under the supervision of a spotter to ensure that adequate clearance is at all times maintained.

In some circumstances, it may be impossible to achieve this, necessitating the pruning of the tree.

If this is necessary, a specialist team shall be called in following referral to the project Arboriculturist.

No tree pruning shall be undertaken by demolition or construction personnel.

Asking for Help

If you see any damage to a tree or its protective fencing, or if you need a tree pruning for plant clearance, contact **CBA Trees** as follows:

Office Telephone: 020 8098 6229

REMEMBER:

ALL TREE DAMAGE IS AVOIDABLE –

SO AVOID IT!

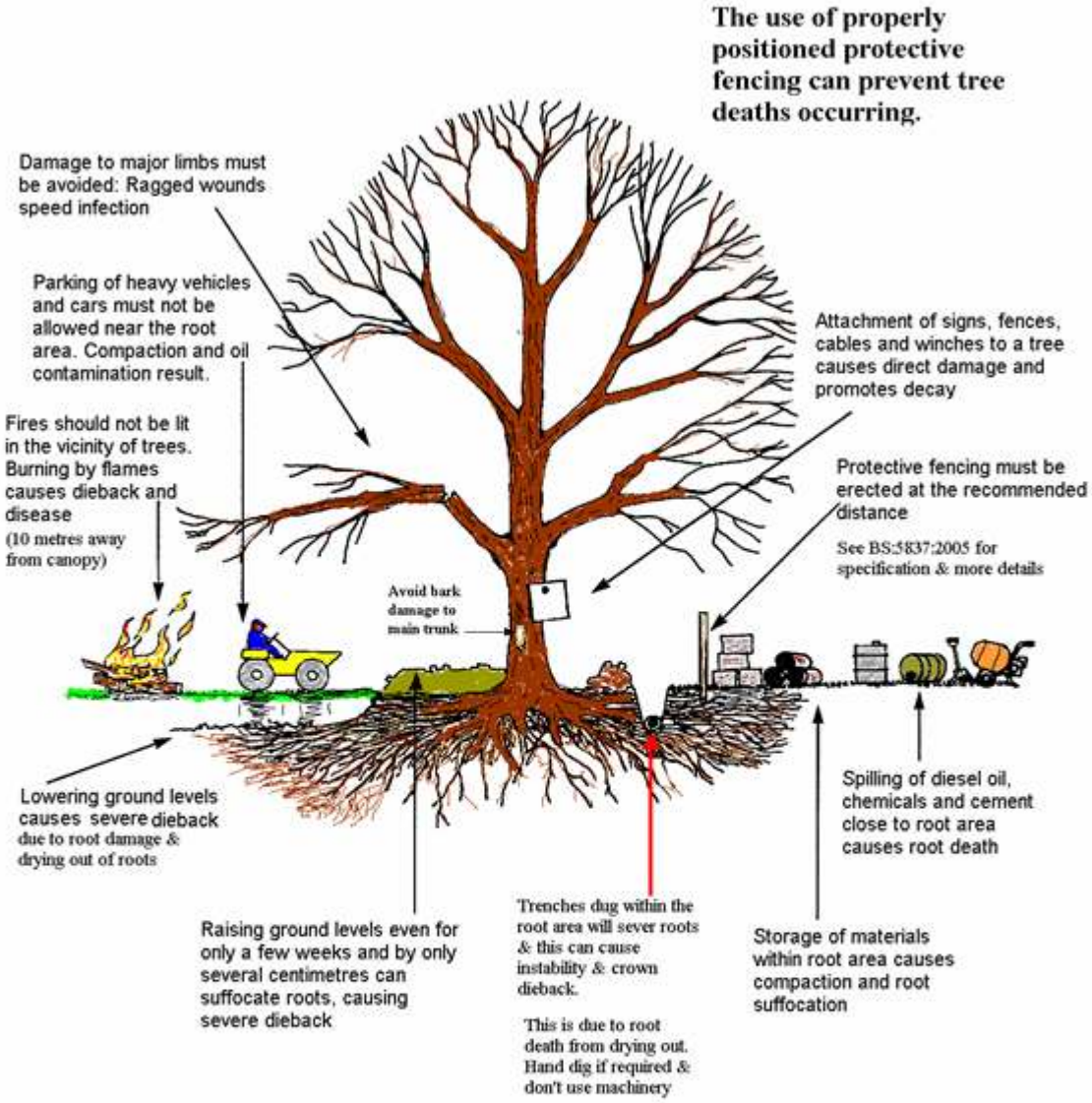
PROTECTIVE BARRIERS.
THESE BARRIERS MUST BE MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND DRAWINGS FOR THIS DEVELOPMENT.

TREE PROTECTION AREA
KEEP OUT !

(TOWN & COUNTRY PLANNING ACT 1990)
TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A TREE PRESERVATION ORDER.
CONTRAVENTION OF A TREE PRESERVATION ORDER MAY LEAD TO CRIMINAL PROSECUTION

ANY INCURSION INTO THE PROTECTED AREA MUST BE WITH THE WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY

Common causes of Tree Death



Please use copies of this as an on-site poster for personnel

(Source: Arboricultural Information Exchange website, 2005)


CB6

The Professional Arboricultural Consultancy

Qualifications of
James Fuller
Senior Consultant

James Fuller FdSc.Arb, BTEC Nat.Dip Arb, TechArbor.A joined CBA Trees in 2007 as a gap-year junior surveyor/arborist having attained the Foundation Degree in Arboriculture at Sparsholt College near Winchester and has more recently acquired the Professional Tree Inspector's Certificate.

Over the years James has gained experience in every field of our work, undertaking all elements of consultancy including large BS5837:2012 tree surveys using the latest data capture equipment to produce Implication Assessments and Method statements for planning applications.

Having broadened his knowledge and gained considerable experience, James is now a retained Senior Consultant, undertaking site assessments, site monitoring, and provision of advice to prominent development companies for large and complex projects.