



32 Lawn Road, Camden

Planning Application by Fairview Estates (Housing) Ltd

Arboricultural Development Statement

October 2014






Fairview NEW HOMES Ltd.







October 2014
CBA10226 v3

Fairview Estates (Housing) Ltd

ARBORICULTURAL DEVELOPMENT STATEMENT

Site:
Lawn Road
Camden

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

CBA10226

ARBORICULTURAL STATEMENT

Client:	Fairview New Homes
Site:	Lawn Road, Camden
Arboricultural Consultant:	Stefan Rose BSc (Hons), Tech Cert (Arbor.A), TechArborA
Date:	October 2014

CONTENTS

SECTION	TITLE	PAGE NO.
1.0	*INTRODUCTION*	2
2.0	*DETAILS*	3
3.0	*ARBORICULTURAL IMPACT ASSESSMENT*	3
4.0	*PRE-DEVELOPMENT TREE WORKS*	4
5.0	*TREE PROTECTION MEASURES*	5
6.0	*REMOVAL OF BUILT FORM AND HARD SURFACES IN CLOSE PROXIMITY TO RETAINED TREES*	8
7.0	*AVOIDING DAMAGE TO STEMS AND BRANCHES*	8
8.0	*UTILITY SERVICE CONNECTIONS*	9
9.0	*CONCLUSION*	9
10.0	*CONTACT LIST*	10

APPENDICES

CB1	Tree Survey Schedule and Tree Survey Plan CBA10226.01
CB2	Root Protection Area Schedule
CB3	Tree Protection Plan CBA10226.02
CB4	Tree Works Schedule
CB5	Tree Protection Guidance Leaflet Construction Exclusion Zone Site Notice Common Causes of Damage During Construction Works
CB6	Qualifications and Experience

1.0 INTRODUCTION

1.1 This Arboricultural Statement has been prepared on behalf of Fairview Estates (Housing) Ltd ('Fairview'). It accompanies an application for full planning permission for a residential development at 32 Lawn Road, Camden, NW3.

The proposed development comprises a building of 5-7 storeys containing 73 apartments of mixed size and set within landscaped grounds. This includes a central landscaped courtyard fronting Upper Park Road and gardens along the Lawn Road frontage, with new trees lining the perimeter of the site.

The site is located within the Belsize Park/Gospel Oak area of NW3, between Lawn Road to the West and Upper Park Road to the East, South of the junction with Fleet Road. The site covers approximately 0.25ha and currently contains two existing buildings. These comprise a former car park building, now utilised as seven (part vacant) commercial units with under croft car parking, and a former launderette, most recently used as a community centre.

Until earlier this year, the London Borough of Camden was the freehold owner of the site. In 2012, the Council decided to sell the site as part of its Community Investment Programme, intended to raise funds for investment in Camden's schools, homes and community facilities through the sale of underutilised Council assets. In March 2014, the Council agreed the sale of the site to Fairview for redevelopment for housing.

The development that is subject to the planning application has been subject to considerable pre-application discussion with Council officers, key stakeholders, local representatives and the community.

1.2 There are 9 (nine) individual trees and 3 (three) groups of trees on or adjacent to the site that may be implicated within any development proposals. These have been surveyed in line with the recommendations of BS5837: 2012 *"Trees in Relation to Design, Demolition and Construction – Recommendations"* to provide information on how best to protect the trees during the demolition and construction work as appropriate.

1.3 This Arboricultural Statement should be read in association with the Tree Survey Schedule appended at CB1 and Tree Protection Plan appended at CB3.

1.4 In line with our written quotation and 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 a Tree Survey Plan that relies on the accuracy of the survey provided by the client. (Plan CBA10226.01 appended with the Tree Survey Schedule at CB1).
- To produce a schedule of Root Protection Areas as recommended in BS5837: 2012 Annex D (appended at CB2).
- To provide arboricultural implications advice

- Based on the above and further on-going discussions, to provide an Arboricultural Statement detailing the methodologies for the retention of the tree stock where feasible, in relation to the approved development layout including a Tree Protection Plan CBA10226.02 (appended at CB3).

1.5 The advice provided is in support of the current planning application and has been formulated without discussion with the main contractors who at this stage have not been appointed. Once the contractors are appointed, amendments to the methodologies within this report may be required for demolition or construction purposes. All amendments will be assessed by the retained arboricultural consultant and approved in writing by London Borough of Camden prior to any changes been made on site.

2.0 DETAILS

2.1 This report relates solely to the demolition of the existing built form and the associated ground, construction and landscaping works of the proposed residential dwellings. It looks only to protect those trees that may be affected during these works.

2.2 CBA Trees has been made aware that 3 (three) trees (T2, T3 and T4) have been issued with a provisional (objection pending) Tree Preservation Order, C1125 2014. If it is intended to carry out works to trees on site prior to the granting of Full Planning Consent and Discharge of Planning Conditions or, in excess of those shown within this development statement, it will be necessary to obtain written consent from London Borough of Camden.

2.4 A tree survey was carried out on the 10th February 2014; the Survey Schedule and Tree Survey Plan are appended at CB1, and the resultant Root Protection Area Schedule is appended at CB2.

3.0 ARBORICULTURAL IMPACT ASSESSMENT

3.1 The arboricultural statement is based on the following information:

- Drawing number 1406-210 – 30.09.14

3.2 Trees 1 and 3 have been assessed as ‘U’ Grade trees. These are trees that are in such a condition that they might realistically be retained as living trees in the context of the current land use for up to 10 years and are advised for removal for reasons of sound arboricultural management, regardless of any approved development.

3.3 Tree 4 plus Groups 1 and 2 are low grade ‘C’ category trees that will be removed as part of the development proposal:

- Tree 4 will suffer significant root loss and require crown lifting to provide sufficient space for the proposed footpath.

- Group 1 is under the relocated parking bays for Garnett House.
- Group 2 is under the widen access to Garnett House and adjacent to the new proposal therefore requiring extensive pruning to the crown and significant root loss.

3.4 Trees 2, 6, 7, 8, 9 plus Group 3 are all moderate 'B' grade trees that will be removed as part of the proposal:

- Tree 2 grows between the car parking area of Garnett house and the existing built form. Given the proximity of the existing and the proposed it is considered unlikely that this tree can be retained without damage occurring to the roots, trunk or crown. Also the proximity to new built form that is a change in use would present greater pressure in the future to have the tree removed.
- Trees 6, 7, 8, 9 and Group 2 are all under the footprint of the proposed development

3.4 Tree 5 is a moderate 'B' grade Ash tree that stands offsite. This tree can be retained and protected and will have an improved rooting environment once the existing hard standing car park area is removed and replaced with top soil and seeded over for a grass surface area. The existing car park hard surfacing will be retained to act as ground protection during the demolition, ground and construction works and will only be removed during the landscaping phase of works to minimise the potential impact upon the rooting environment of this tree.

3.5 The canopy of this tree is distorted with a larger crown spread on the southern and western sectors of the crown. This tree will require pruning of the crown so that there is separation from the proposed building. This pruning works should not extend beyond pruning 3.0m of the southern lateral branches and no more than 2.0m on the eastern and western lateral sectors to reshape and balance the crown. The final crown shape should provide a lateral spread of approximately 7.0m in all cardinal directions.

3.6 Tree protective barriers/site boundary hoarding will provide a physical, vertical barrier to prevent demolition, ground and construction works from damaging the trunk and the soft ground adjacent to this tree.

4.0 PRE-DEVELOPMENT TREE WORKS

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

4.2 All permitted or approved tree work should be carried out in accordance with the guidance contained within BS3998:2010 *"Recommendations for Tree Work"*, 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 fencing.

4.3 Consideration should be given to the timing of the proposed tree pruning 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. Consideration should also be given to nesting birds, and tree works should not normally be undertaken between March and June; however, care should be taken to inspect trees during the summer months for evidence of nesting birds.

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

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

5.0 TREE PROTECTION MEASURES

5.1 TREE PROTECTION BARRIER

5.1.1 The tree protection barrier will be installed in accordance with Tree Protection Plan CBA10226.02 prior to the commencement of any site preparation works. A copy of the Arboricultural Statement and Tree Protection Plan will be available on site at all times. For this site, the tree protective barrier can be formed from site boundary hoarding or as described in section 5.1.3 and figure 1 within this report.

5.1.2 The existing hard surfaced car parking area within the theoretical Root Protection Area will form the ground protection for T5. This surface will provide adequate protection to the rooting environment beneath and allow for the traverse of vehicles without the need for additional protection measures.

5.1.3 At all times the barrier and ground protection will be fit for purpose, i.e. it will exclude construction activity from the protected area and provide sufficient protection to avoid excessive compaction of the ground beneath. If the hard surface begins to break up, then immediately additional ground protection will be set out such as steel road plates. It is imperative that the contractors are made aware that the barrier and ground protection is located to restrict their movements, protect the tree and the environment around the tree and that the area protected by such is sacrosanct.

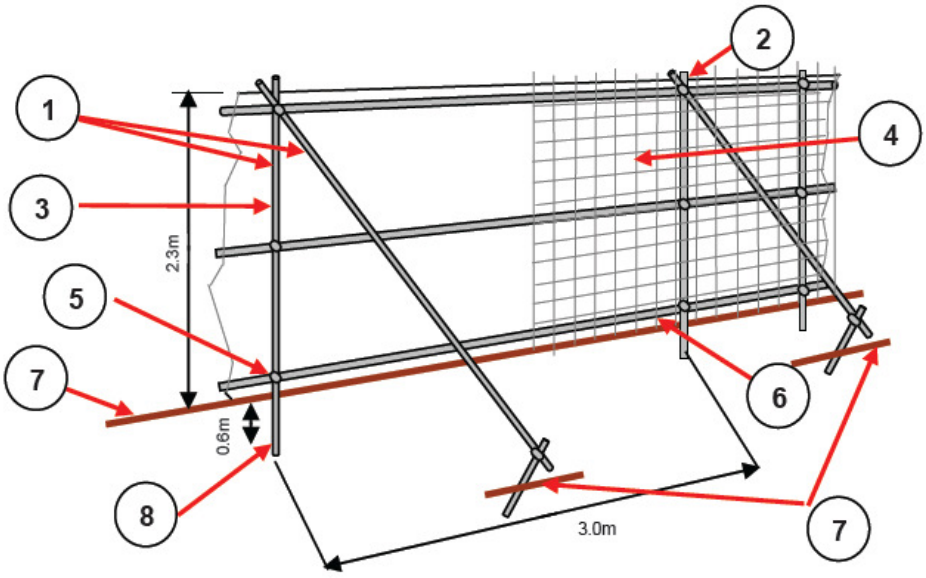
5.1.4 If site hoarding is not utilised then the tree protective barrier is to comprise of a vertical and horizontal framework, well braced to resist impacts, with vertical tubes spaced at a maximum interval of 3m. Onto this, weldmesh panels should be securely fixed with wire or scaffold clamps.

5.1.5 In accordance with Section 6.2.2.4 of BS5837:2012, weldmesh panels on rubber or concrete feet are not resistant to impact, and will not be used for tree protection purposes.

Once the barrier is in place it must remain *in-situ* throughout the following list:

- Contractor occupancy
- Plant and Materials delivery
- Demolition/Site Clearance works
- Ground works
- Utility installation
- Construction works
- Completion of development
- Landscaping

Figure 1: Protective Fencing



1. Standard scaffold poles
2. Uprights to be driven into the ground
3. Panels secured to uprights with wire ties and where necessary standard scaffold clamps
4. Weldmesh wired to the uprights and horizontals
5. Standard clamps
6. Wire twisted and secured on inside face of fencing to avoid easy dismantling
7. Ground level
8. Approximately 0.6m driven into the ground

Example of protective fencing:

5.1.6 The area within the CEZ will be regarded as **sacrosanct**, and the tree protective barrier 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.

5.2 *Ground Protection*

5.2.1 Working access and machine operation is required adjacent to the Root Protection Area of the T5 and therefore ground protection measures are required as indicated on the Tree Protection Plan CBA10226.02.

5.2.2 The ground protection will remain *in-situ* for the duration of the demolition, ground and construction phases and only removed as part of the landscaping phase of the project.

5.3 Material Delivery, Storage and Mixing

5.3.1 Materials shall be delivered and stored outside of the Construction Exclusion Zone formed by the tree protective barrier and away from the area of hard surfacing shown as ground protection on the Tree Protection Plan CBA10226.02. The mixing of materials to produce concrete or mortar will also take place away from these areas too and transported to the site of use with care. There shall be no mixing of materials where it will be on soft ground and in locations where run off of potentially toxic substances to trees will not endanger their health and their roots.

5.3.2 Given the site constraints it is considered likely that deliveries will utilise the access from Upper Park Road, but this will need to be confirmed by the client and approved by London Borough of Camden Council.

5.4 General Considerations Within and Outside the Construction Exclusion Zone

5.4.1 Inside the Construction Exclusion Zone (CEZ) formed by the protective fencing, ground protection measures and the existing driveway, 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 prior to the specific activity taking place.
- In addition to the above, further precautions are necessary outside the CEZ of retained trees:

- Fires shall not be lit in a position where their flames can extend to within 5 metres of foliage, branches or trunks. 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 tree parts. (See appendix CB5 Common Causes of Damage during Construction Works).

5.5 ADDITIONAL ARBORICULTURAL ADVICE FOR SITE PERSONNEL

5.5.1 To provide site personnel with additional information regarding the requirements of Tree Protection, a leaflet, appended at CB5 shall be issued to all the building staff at the time of their project commencement. Spare copies of this leaflet shall be available at all times.

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

6.1 Removal of the built form in close proximity to the retained tree must be done with due care and attention; in order to adequately respect its crown, roots and rooting environment. 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, the tree, which is to be retained and protected, will be highlighted to the demolition personnel and they will be physically shown where the tree is 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.
- Removal of hard surfacing will be undertaken by working only from the existing hard surface in an overhand fashion, pulling the hard surfacing up and back on itself. The required work should then be completed with hand operated tools or appropriate machinery, but under the supervision of an arboriculturist.
- Any machinery used for this purpose is to stand and operate over existing hard surfaces wherever possible, but always outside the construction exclusion zone as defined by the protective barriers.
- 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.

7.0 AVOIDING DAMAGE TO STEMS AND BRANCHES

7.1 Care shall be taken when planning site operations, to ensure that wide or tall loads or plant with booms 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.

7.2 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.

7.2 DAMAGE TO TREES AND/OR TREE PROTECTION BARRIER

7.2.1 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 and as agreed with London Borough of Camden Council.

7.2.2 Should protective fencing or ground protection measures become damaged or dislodged so as to impair its function in protecting trees, all work shall cease in the vicinity of the damage, until the fence has been returned to standard.

8.0 UTILITY SERVICE CONNECTIONS

8.1 Details of service connections to the new dwellings have not been provided to CBA Trees at the time of compiling this assessment. It is however assumed, that, as there are existing services to the existing site, that these will be utilised and connected to where possible. At no time shall any new service or drainage be located within the protected area of T5.

8.2 Any existing services or drainage runs that are located within the protected area of T5 shall be made redundant and left in-situ so that ground conditions are not affected which may damage the tree's roots or the rooting environment.

9.0 CONCLUSION

9.1 The proposals have been assessed broadly in accordance with BS5837:2012 *"Trees in Relation to Design, Demolition and Construction – Recommendations"*.

9.2 It is our opinion that all the trees identified within the survey to be retained can be afforded due respect and provided with adequate protection by erecting protective barriers and temporarily retaining hard surfacing as ground protection, ensuring their safe and healthy retention during the onsite construction process.

9.3 A detailed and high quality landscaping scheme will provide the opportunity to, in time replace tree cover on this site that is both chosen for its aesthetics but also the locations where they are to be planted to ensure that the trees can mature and not adversely affect local residents or require continued regular pruning.

9.4 CBA Trees believes the tree highlighted for retention within this report can be retained without undue stress on their long-term health if the protection measures as detailed within this statement and on the Tree Protection Plan CBA10226.02 are adhered to.

10.0 CONTACT LIST

Client: Fairview New Homes Matthew Parsons	020 8366 1271
Project Arboricultural Consultants: Stefan Rose and Colin Bashford	02380 986229 07773 802386
London Borough of Camden Council	020 7974 4444


CB1

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

Client:	Fairview New Homes	**Site:**	Land at Lawn Road, Camden, NW3
Date:	10 February 2014	**Consultant:**	Stefan Rose BSc (Hons), TechCert (Arbor.A)
Tagged:	No	**Weather:**	Overcast

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.

TREE PRESERVATION ORDER/CONSERVATION AREA:

CBA Trees has been instructed to investigate via the LPA website whether trees on or adjacent to the site are protected by a Tree Preservation Order or located within a Conservation Area.

The website search indicated that none of the trees are protected by a Tree Preservation Order and that the site is not 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	Silver Birch *Betula pendula*	16	S	Est 340	3.0	4.0	4.5	3.0	7.0	7.0	7.0	7.0	EM	Good	Poor Building 1m to North Large wound at base on East side, tree occluding wound Epicormics on trunk Old pruning wounds on trunk and in crown Ground level raised by 0.5m to South, 1.5m from tree Previously crown reduced Minor deadwood in crown Limited access	None required at time of survey	<10	U

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	Silver Birch *Betula pendula*	18	S	Est 320	4.5	6.0	5.5	3.0	6.0	6.0	6.0	6.0	EM	Good	Fair Building 1.5m to North Ground floor raised by 0.5m to South, 1.5m from tree Epicormics on trunk Old pruning wounds on trunk Bifurcated at 11m above ground level	None required at time of survey	10+	B1+2
3	Silver Birch *Betula pendula*	10	S	320	3.5	3.5	3.5	3.0	4.0	4.0	4.0	5.0	EM	Fair	Poor Road 0.5m to East and South Large decaying wound at base on West side Previously crown reduced Old pruning wounds on trunk and in crown Tree attempting to occlude wound and put adaptive growth on	None required at time of survey	<10	U
4	Common Elder *Sambucus nigra*	8	MS >5	210	2.0	3.0	3.5	3.0	2.0	1.0	3.0	3.0	EM	Good	Fair Multi-stemmed at ground level Some stems previously removed Storm damage with snapped out limbs Low hanging branches	None required at time of survey	10+	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
5	Common Ash *Fraxinus excelsior*	17	S	550	7.0	7.0	10.0	9.0	5.0	5.0	3.0	5.0	EM	Good	Fair Car park approximately 4m to West Path 2m to North-west Trifurcated at 3.5m above ground level Old pruning wounds in crown Storm damage in crown Crown weighted South Extension growth appears low Minor deadwood in crown	None required at time of survey	20+	B1+2
6	Common Ash *Fraxinus excelsior*	10	S	260	4.0	4.0	5.0	5.0	4.0	4.0	4.0	4.0	SM	Good	Fair Growing in raised planted area Developing tree Old pruning wounds on trunk Minor deadwood in crown	None required at time of survey	20+	B1+2
7	Tree of Heaven *Ailanthus altissima*	12	S	510	6.0	6.0	6.0	5.0	2.0	5.0	5.0	4.0	EM	Good	Fair Growing on bank Path 2m to West Old pruning wounds on trunk and in crown Storm damage in crown Small wound at base 0.4m above ground level on South-west side	None required at time of survey	20+	B1+2
8	Tree of Heaven *Ailanthus altissima*	13	S	420	4.0	6.0	7.0	5.0	4.0	6.0	5.0	4.0	EM	Good	Fair Growing on bank Path 2m to West Ramp 3m to South Bifurcated at 3m above ground level Old pruning wounds on trunk Minor deadwood in crown	None required at time of survey	20+	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
9	Silver Birch *Betula pendula*	12	S	330	4.5	4.0	4.0	5.5	1.0	1.0	1.0	1.0	EM	Good	Fair Growing on bank Old pruning wounds on trunk Minor deadwood in crown	None required at time of survey	20+	B1
Grp 1	Leyland Cypress x 4 Silver Birch x 1	12	S	Est 300	-	-	-	-	-	-	-	-	SM	Good	Fair Building 1m to North Ground raised by 0.4m to South, 2m from tree Low hanging branches Minor deadwood in crown Birch still staked damaging trunk Limited access	None required at time of survey	10+	C2
Grp 2	Ceanothus x 2	6	S	200	-	-	-	-	-	-	-	-	EM	Good	Fair Two shrubs growing as a group Low hanging branches Old pruning wounds on trunks Storm damage in crowns Crown shape distorted due to building at base of Northern tree Ground level raised by 0.25m to South, 1m from trees	None required at time of survey	10+	C2
Grp 3	Sycamore x 1 Ash x 2	6	MS <6	140	-	-	-	-	-	-	-	-	Y	Good	Fair Self-set regeneration growing on path edge Growing on bank Of limited value	None required at time of survey	20+	B1+2

KEY

CROWN SPREAD
CATEGORY
TREE NUMBER
SPECIES
CATEGORY

13
Birch
B2

CATEGORY A TREES
CATEGORY B TREES
CATEGORY C TREES
CATEGORY U TREES

JOB TITLE
Lawn Road, Camden

DRAWING TITLE
Tree Survey Plan

CBA DRAWING No.
10226.01 TSP

BASE PLAN DRAWING No.
10226 Topo 4348 F

SCALE 1-250@A2

DRAWN AM

DATE April 2014

CBA Trees.
Russell House, Unit 20 Chalcroft Business Park, Burnetts Lane, West End, Southampton, SO30 3PA
Tel: 02380 986229


CB2

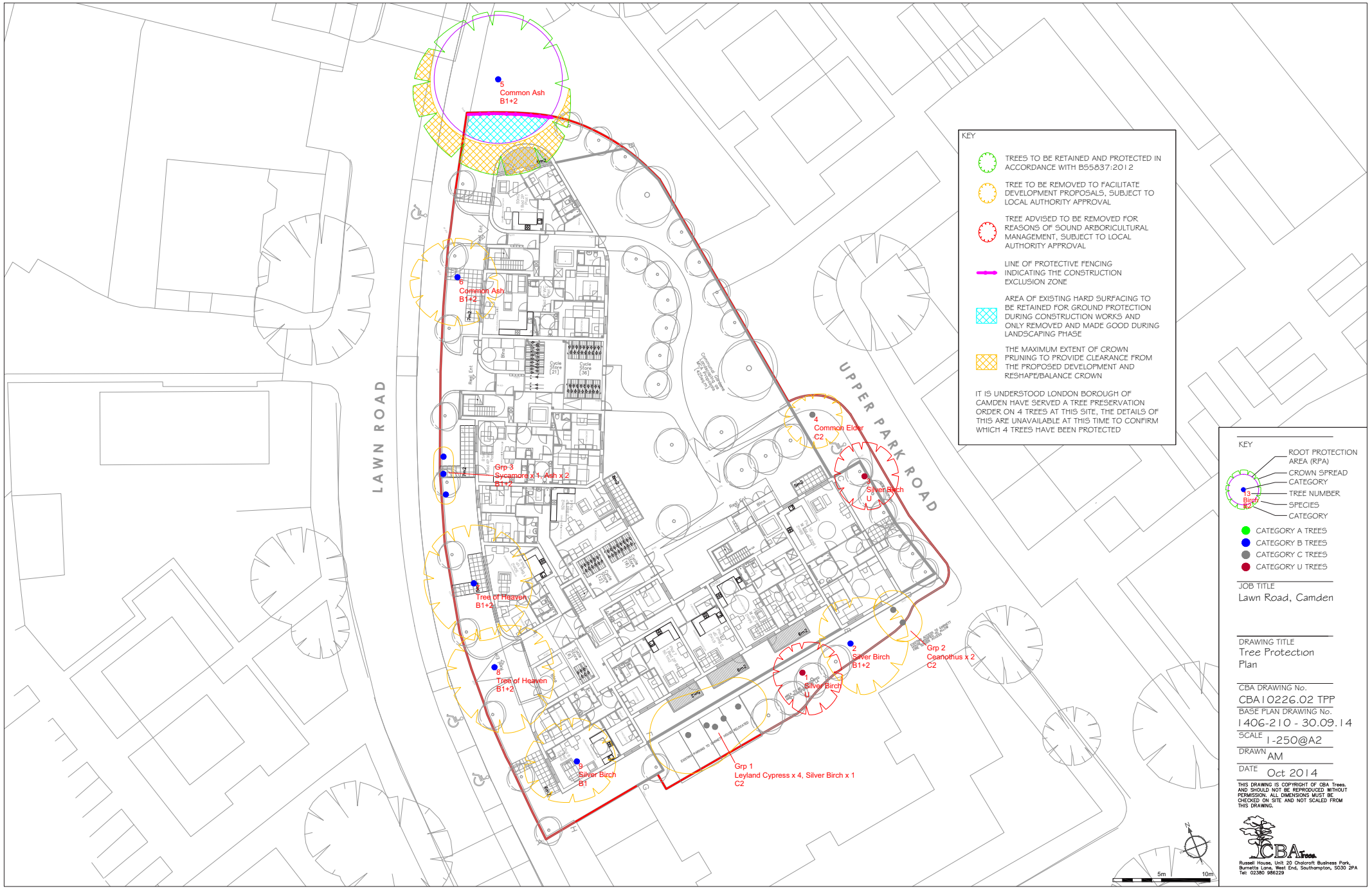
	BS5837:2012 TREE ROOT PROTECTION AREA SCHEDULE			
	Client:	Fairview New Homes	**Site:**	Land at Lawn Road, Camden, NW3
	Date:	10 February 2014	**Consultant:**	Stefan Rose BSc (Hons), TechCert (Arbor.A)

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 been instructed to investigate via the LPA website whether trees on or adjacent to the site are protected by a Tree Preservation Order or located within a Conservation Area.
The website search indicated that none of the trees are protected by a Tree Preservation Order and that the site is not 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	Silver Birch	U	S	-	-	-
2	Silver Birch	B1+2	S	320	3.84	46.33
3	Silver Birch	U	S	-	-	-
4	Common Elder	C2	MS >5	210	2.52	19.95
5	Common Ash	B1+2	S	550	6.60	136.87
6	Common Ash	B1+2	S	260	3.12	30.59
7	Tree of Heaven	B1+2	S	510	6.12	117.68
8	Tree of Heaven	B1+2	S	420	5.04	79.81
9	Silver Birch	B1	S	330	3.96	49.27
Grp 1	Leyland Cypress x 4 Silver Birch x 1	C2	S	300	3.60	40.72
Grp 2	Ceanothus x 2	C2	S	200	2.40	18.10
Grp 3	Sycamore x 1 Ash x 2	B1+2	MS <6	140	1.68	8.87


CB3



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


CB4

	TREE WORKS SCHEDULE			
	Client:	Fairview New Homes	**Site:**	Lawn Road, Camden
	Date:	8th October 2014	**Consultant:**	Stefan Rose BSc (Hons), Tech Cert ArborA, TechArborA

Tree No.	Species	Recommended Works
1	Silver Birch *Betula pendula*	• Fell and remove stump
2	Silver Birch *Betula pendula*	• Fell and remove stump
3	Silver Birch *Betula pendula*	• Fell and remove stump
4	Common Elder *Sambucus nigra*	• Fell and remove stump
5	Common Ash *Fraxinus excelsior*	• Prune the southern sector of the canopy by 3.0m to provide separation from the building and prune the south-eastern and western sectors by no more than 2.0m to reshape and balance the crown
6	Common Ash *Fraxinus excelsior*	• Fell and remove stump
7	Tree of Heaven *Ailanthus altissima*	• Fell and remove stump
8	Tree of Heaven *Ailanthus altissima*	• Fell and remove stump
9	Silver Birch *Betula pendula*	• Fell and remove stump
Grp 1	Leyland Cypress x 4 Silver Birch x 1	• Fell and remove stump
Grp 2	Ceanothus x 2	• Fell and remove stump
Grp 3	Sycamore x 1 Ash x 2	• Fell and remove stump

- It is advised that all remedial tree works such as pruning is 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: 2010 – 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 fencing.

This fencing must be respected at all times and no attempts shall be made to damage, bypass or ignore it.

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: 023 8098 6229

REMEMBER:

ALL TREE DAMAGE IS AVOIDABLE –

SO AVOID IT!

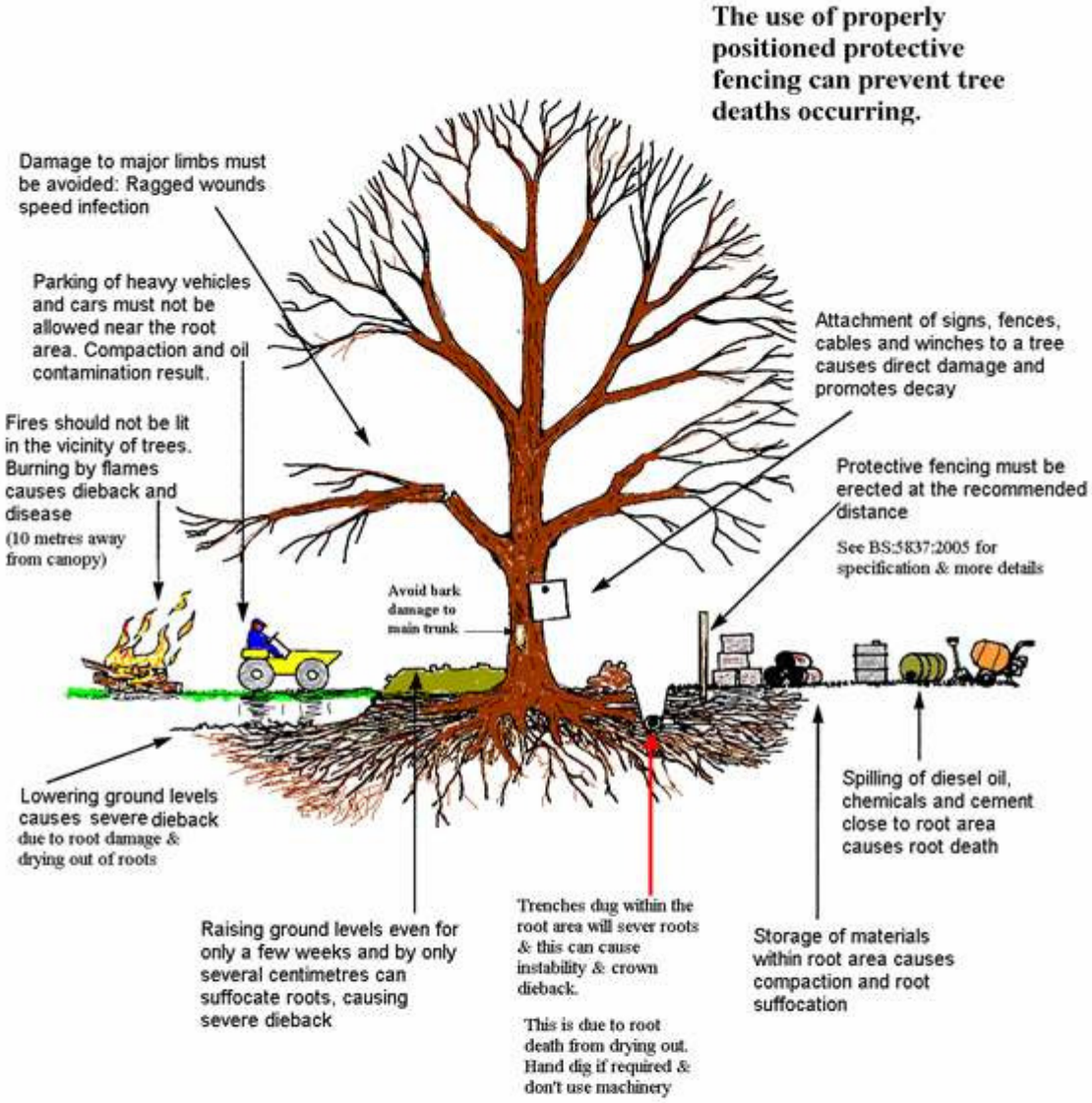
PROTECTIVE FENCING. THIS FENCING MUST BE MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND DRAWINGS FOR THIS DEVELOPMENT.

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
Stefan Rose
Senior Consultant

Stefan Rose BSc.Hons. AA Tech.Cert. joined CBA Trees in 1998 as a junior surveyor and having gained extensive knowledge has become a respected Senior Consultant. He has considerable experience in working as a locum for Local Authorities, assessing new and extant Tree Preservation Orders, and continues to work on a number of major development projects nationwide.

As a retained Senior Consultant, Stefan undertakes Health and Safety Audits and BS5837:2012 Tree Surveys using the latest data capture equipment, together with site assessments and site monitoring. He also provides advice to prominent development companies and produces Implications Assessments and Method Statements for the submission of planning applications.

Fairview
NEW HOMES Ltd.