

October 2014
CBA10039 v4

Wilson House Developments

ARBORICULTURAL DEVELOPMENT STATEMENT

Site:
The Homestead
Westergate



ARBORICULTURAL DEVELOPMENT STATEMENT
(incorporating Arboricultural Implications Assessment and
Method Statement in accordance with BS5837:2012)

Client: Wilson House Developments

Site: The Homestead, Westergate Street, Westergate

Arboricultural Consultant: Alex Monk *TechCert (Arbor.A), NCH.Arb*

Date: October 2014

SUMMARY

The proposal is for the construction of two semi-detached properties with refuge bin storage and parking facilities. Access will be from the existing roadway. This Arboricultural Development Statement (ADS) will demonstrate the protection measures for the retained trees in the new proposed layout.

This ADS should be read in association with the Tree Protection Plan CBA10039.02B. This plan identifies the individual trees and their protection 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 trees, to ensure their healthy and safe retention during and post development, as guided by BS5837:2012 "*Trees in Relation to Design, Demolition and Construction – Recommendations*" and current best practice.

A total of 10 (ten) individual trees and 2 (two) groups of trees can be retained within the development as detailed within this report. CBA Trees believes that the trees highlighted for retention within this report can be retained without undue stress on their long-term health.

Contents

<u>Section</u>	<u>Title</u>	<u>Page</u> <u>No.</u>
----------------	--------------	---------------------------

PART 1 **ARBORICULTURAL IMPLICATIONS ASSESSMENT**

1.0	INTRODUCTION.....	3
2.0	CLIENT'S BRIEF.....	3
3.0	DESCRIPTION OF THE SITE.....	4
4.0	THE TREE STOCK.....	4
5.0	PROPOSED TREE RETENTION AND TREE LOSS.....	6

PART 2 **ARBORICULTURAL/CONSTRUCTION METHOD STATEMENTS**

6.0	PRE-COMMENCEMENT SITE MEETING	8
7.0	PRE-DEVELOPMENT TREE WORKS.....	8
8.0	TREE PROTECTION MEASURES	9
9.0	GENERAL CONSIDERATIONS WITHIN AND OUTSIDE THE CONSTRUCTION EXCLUSION ZONE	13
10.0	CONSTRUCTION WORK TIMINGS.....	14
11.0	VEHICULAR MOVEMENTS.....	14
12.0	SITING OF TEMPORARY OFFICES, TOILETS AND MATERIAL STORAGE COMPOUNDS.....	14
13.0	UTILITY SERVICE CONNECTIONS.....	15
14.0	SITE MONITORING AND SUPERVISION	15
15.0	AVOIDING DAMAGE TO STEMS AND BRANCHES	16
16.0	REPORT DAMAGE TO TREES AND TREE PROTECTION FENCING	16
17.0	REMOVAL OF PROTECTIVE FENCING	16
18.0	COMPLETION MEETING	17
19.0	FUTURE MANAGEMENT AND POST DEVELOPMENT TREE MANAGEMENT	17
20.0	CONCLUSIONS.....	18
21.0	CONTACT LIST	18
22.0	BIBLIOGRAPHY	18

Supporting Information/Appendices

CB1	Tree Survey Schedule and Tree Survey Plan CBA10039.01B
CB2	Root Protection Area Schedule
CB3	Tree Protection Plan CBA10039.02B
CB4	Tree Works Schedule

Guiding Principles/Appendices

CB5	Tree Protection Guidance Leaflet Construction Exclusion Zone Site Notice Common Causes of Damage During Construction Works
CB6	Flow Diagram Summarising the Planning Process for Trees on Development Sites
CB7	Qualifications and Experience

PART 1 ARBORICULTURAL IMPLICATIONS ASSESSMENT

1.0 INTRODUCTION

- 1.1 There is a development proposal for the site of The Homestead, Westergate Street, Westergate, near Chichester. The site is located to the East side of Westergate Street.
- 1.2 The proposal is for the construction of 2 (two) semi-detached properties with associated parking spaces. Access will be from the existing roadway.
- 1.3 Document disclosure provided:
 - Topographical Site Survey by Shaw Colegate Land and Building Surveyors.
 - Proposed site layout information provided by ADP Architects Ltd.
- 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 recommendations of BS5837:2012 *"Trees in Relation to Design, Demolition and Construction – Recommendations"*.
- 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 the recommendations of British Standard 5837:2012 *"Trees in Relation to Design, Demolition and Construction – Recommendations"* and current best practice advice.
 - To undertake a Tree Survey, appended at CB1.
 - To produce an AutoCAD Tree Survey Plan that relies on the accuracy of the topographical survey provided by the client. (Plan CBA10039.01B 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 ADS detailing the methodologies for the retention of the tree stock where feasible, in relation to the approved development layout including a Tree Protection Plan CBA10039.02B appended at CB3.

3.0 DESCRIPTION OF THE SITE

- 3.1 The whole site was previously an area of wasteland between The Homestead and Sunnyside Cottage, and includes a piece of land to the East of Sunnyside Cottage. A block of flats/apartments has been constructed immediately to the East of the Homestead; the approved plots of 4 (four) dwellings to the East of this were not constructed at the time of the tree survey in April 2012.
- 3.2 The land subject to this application is situated to the South of the access road, North and East of Sunnyside Cottage. The trees are located in an area to the South of The Homestead and North of Sunnyside Cottages and to the North eastern boundary.
- 3.3 The site is close to the edge of a village and has residential properties to the North and South, and the A29 road is to the West with an agricultural field to the East of the site.
- 3.4 Photograph 1: View of site from Pine Close entrance



4.0 THE TREE STOCK

- 4.1 A tree survey was undertaken by CBA Trees on 17th September 2014. The tree survey exercise identified a total of 12 (twelve) individual trees and 2 (two) groups of trees in this area of the site. A tree survey schedule and plan CBA10039.01B are appended at CB1.

- 4.2 CBA Trees is aware that some of the trees subject to the planning application are protected by a Tree Preservation Order TPO 3/91/AL by Arun District Council. The trees covered by this TPO are trees 1-9, 12 and Groups 1-2. CBA Trees has been advised by the client that the site is not within a Conservation Area.
- 4.3 As some trees are covered by a TPO, the client is advised to obtain written permission from Arun District Council, prior to any works being carried out to these trees outside the remit of an approved planning application.
- 4.4 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. Tree 10 was graded as a 'U' grade tree on the site at the time of surveying.

Note:

"Category U trees are those which would be lost in the short term for reasons connected with their physiological or structural condition. For this reason, they should not be a consideration in the planning process."

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

Category B = Trees of moderate quality and value, capable of making a significant contribution for in excess of 20 years. There were 3 (three) individual 'B' grade trees on or adjacent to the site at the time of surveying - Trees 8, 9 and 12.

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 8 (eight) individual 'C' grade trees and 4 (four) groups of trees in total on or adjacent to the site at the time of surveying - Trees 1, 2, 3, 4, 5, 6, 7 and 11 plus Groups 1 and 2.

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."

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

5.0 PROPOSED TREE RETENTION AND TREE LOSS

- 5.1 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) (appended at CB2). The implications of the proposed development are detailed below, along with any mitigating measures to ensure the retention of these trees.
- 5.2 Details of service location proposals have not been forwarded to CBA Trees at the time of compiling this assessment. It is however assumed, given the location of the trees, that services will be installed outside the Root Protection Areas of retained trees, and connected to the existing where practicable.
- 5.3 As part of the assessment, dimensions have been scaled from the proposed development drawing 1388.100.B prepared and modified, to include the relevant tree survey data and the information as shown on Plan CBA10039.02B, appended at CB3.
- 5.4 Summary of the implications for the trees and groups:

Tree No.	Species	BS 5837 2005 Cat	Potential cause of harm	Implication	Mitigation
1	Common Sycamore	C2	• Unaffected by the development	• Retained	• Tree protective fencing as specified in BS:5837 and Section 8 of this report, and positioned as shown on Tree Protection Plan (TPP) CBA10039.02B
2	Common Sycamore	C2	• Unaffected by the development	• Retained	• Tree protective fencing as specified in BS:5837 and Section 8 of this report, and positioned as shown on TPP CBA10039.02B
3	Common Sycamore	C2	• Unaffected by the development	• Retained	• Tree protective fencing as specified in BS:5837 and Section 8 of this report, and positioned as shown on TPP CBA10039.02B
4	Common Sycamore	C1	• Unaffected by the development	• Retained	• Tree protective fencing as specified in BS:5837 and Section 8 of this report, and positioned as shown on TPP CBA10039.02B
5	Common Sycamore	C2	• Unaffected by the development	• Retained	• Tree protective fencing as specified in BS:5837 and Section 8 of this report, and positioned as shown on TPP CBA10039.02B
6	Common Sycamore	C2	• Unaffected by the development	• Retained	• Tree protective fencing as specified in BS:5837 and Section 8 of this report, and positioned as shown on TPP CBA10039.02B

Tree No.	Species	BS 5837 2005 Cat	Potential cause of harm	Implication	Mitigation
7	Common Sycamore	C2	Car parking spaces encroaches into RPA with potential for root damage	Retained	- Tree protective fencing as specified in BS:5837 and Section 8 of this report, and positioned as shown on TPP CBA10039.02B. - Car parking to be constructed on a NO DIG basis with the use of cellular confinement system and porous surface finish in accordance with Section 8 of this report.
8	Scots Pine	B1	Unaffected by the development	Retained	Tree protective fencing as specified in BS:5837 and Section 8 of this report, and positioned as shown on TPP CBA10039.02B
9	Scots Pine	B1	Car parking spaces encroaches into RPA with potential for root damage	Retained	- Tree protective fencing as specified in BS:5837 and Section 8 of this report, and positioned as shown on TPP CBA10039.02B - Car parking to be constructed on a NO DIG basis with the use of cellular confinement system and porous surface finish in accordance with Section 8 of this report.
10	Common Walnut	U	Stump only remaining, will be removed as part of the development proposals	Removed	Replacement planting within the landscaping scheme
11	Common Ash	C1	- Damage to and loss of roots caused by construction of diverted footpath and turning head - Damage to roots by removal of existing footpath surface	Removed	- Replacement planting within the landscaping scheme - Species such as Rowan or Whitebeam are suggested
12	Common Ash	B1+2	- Construction of garage on edge of RPA - Cycle shed within RPA	Retained	Tree protective fencing as specified in BS:5837 and Section 8 of this report, and positioned as shown on TPP CBA10039.02B Tree to be reduced in canopy size as per previously approved planning application
Grp 1	Common Sycamore	C2	Unaffected by the development	Retained	Tree protective fencing as specified in BS:5837 and Section 8 of this report, and positioned as shown on TPP CBA10039.02B
Grp 2	Common Sycamore	C2	Refuse bin store inside canopy area of group	Retained	- Tree protective fencing as specified in BS:5837 and Section 8 of this report, and positioned as shown on TPP CBA10039.02B - Crown to be lifted as required to give 2m clearance above ground level

PART 2

ARBORICULTURAL/CONSTRUCTION METHOD STATEMENTS

6.0 PRE-COMMENCEMENT SITE MEETING

6.1 Pre-commencement Site Meeting

A pre-commencement site meeting shall be held prior to any works commencing on site, to agree all approved processes with the arboricultural consultant, the construction personnel and Arun District Council. This meeting could be used to formally agree the tree protection measures prior to commencement of the development and the associated clearance work.

7.0 PRE-DEVELOPMENT TREE WORKS

- 7.1 All tree works will be undertaken prior to the commencement of site preparation and construction works.
- 7.2 **All permitted or approved tree work** should be carried out in accordance with the British Standard “*Tree Work Recommendations*” 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 fencing.
- 7.3 With regard to the trees to be retained, where protected by a Tree Preservation Order, prior approval from Arun District Council will be required, if any works to these trees are proposed prior to full planning permission being granted detailing the approved tree works.
- 7.4 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. Consideration should also be given to nesting birds, and tree works should not normally be undertaken between March and May; however, care should be taken to inspect trees during the summer months for evidence of nesting birds. Although not apparent at the time of the site visit, consideration should also be given to the presence of bats, and a full visual assessment should be undertaken before any works are carried out on the trees. Where bats are identified as a serious concern, a bat survey should be undertaken by qualified and trained personnel to identify the needs of the bats (roosts, resting place etc) and no tree works can be carried out until the ‘all clear’ is given, or a programme of recommendations is received in writing.

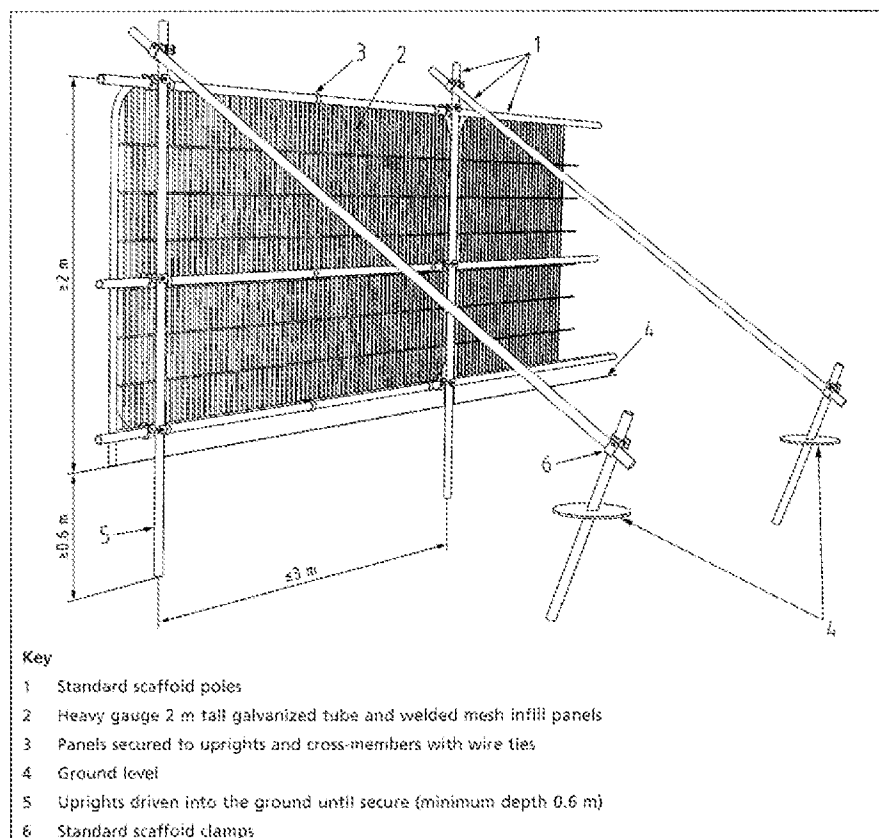
- 7.5 Should additional tree works become apparent during the construction process; written consent will be required from Arun District Council prior to these additional works being undertaken.

8.0 TREE PROTECTION MEASURES

8.1 Tree Protective Fencing and Tree Protection Plan

- 8.1.1 The protective fencing shall be erected in accordance with the location set out on the Tree Protection Plan CBA10039.02A, which is appended at CB3, and will be erected prior to any site works. A copy of the Tree Protection Plan shall be made available for all site staff to see.
- 8.1.2 The 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 will be fixed securely with wire or scaffold clamps (Section 6.2.2.4 BS5837:2012). Weldmesh panels on rubber or concrete feet are not resistant to impact and should not be used in close proximity to the development

Figure 1: Tree Protective fencing



8.1.3 Once the fencing is in place it must remain *in-situ* throughout the following phases of the development/construction:

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

8.1.4 The area within the Construction Exclusion Zone (CEZ) will be regarded as **sacrosanct**, and the tree protective fencing shall not be taken down or relocated at any time without the written approval of Arun District Council.

8.2 Additional Arboricultural Advice for Site Personnel

8.2.1 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.

8.2.2 In order to inform site personnel of the purpose of the fencing, information notices shall be fixed to the fencing 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 shall be replaced as and when necessary.

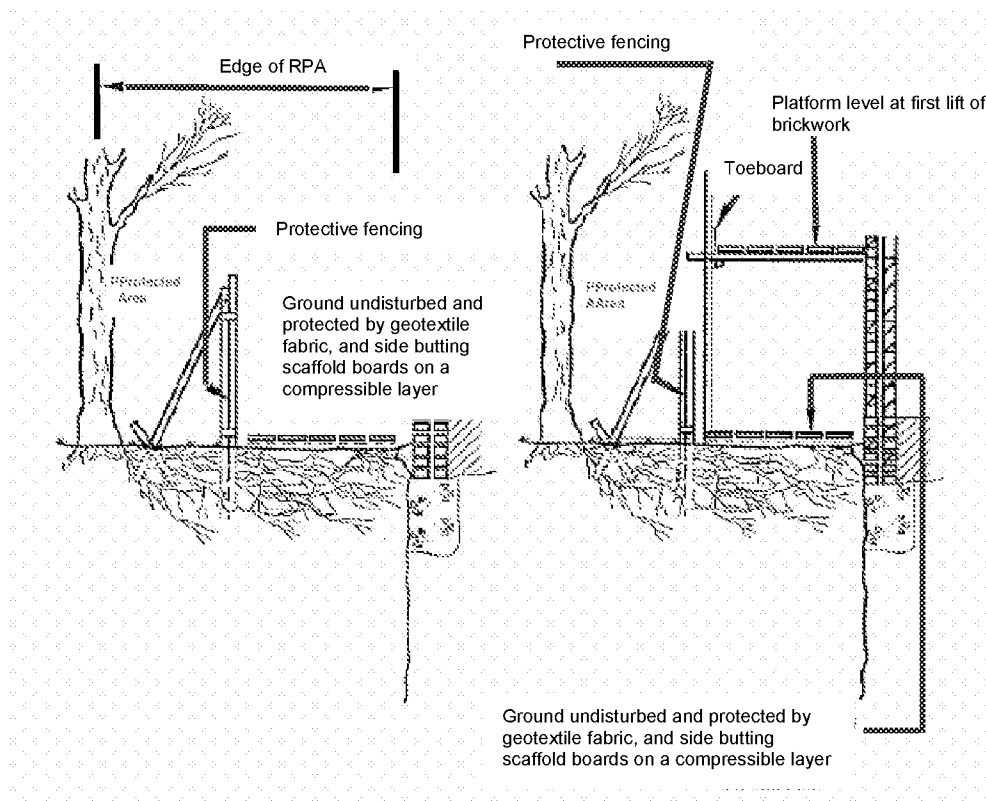
8.3 Ground Protection and Scaffolding Specification

8.3.1 In addition, ground protection will be implemented, similar to that shown in Figure 3 of BS5837:2012, and illustrated as Figure 2 below, for the area within the Root Protection Area, to allow for construction and working space. This is necessary to provide working space for construction activities, which may include implementation of foundations, and for the erection of scaffolding to aid in building. This will also be required when footpaths are installed within the root protection zone.

8.3.2 Additional heavy-duty ground protection may, in some circumstances, be required. This is feasible through the use of concrete slabs or heavy duty boarding (e.g. Eve Trakway), to enable a higher level of ground protection of the tree's rooting area, and to reduce the potential for damage and compaction.

8.4 Pedestrian Movements

8.4.1 Section 9.3.2 *"For pedestrian movements within the RPA, the installation of ground protection in the form of a single thickness of scaffold boards, on top of a compressible layer laid onto a geotextile, or supported by scaffold may be acceptable".*

Figure 2: BS5837:2012 Ground Protection and Scaffolding

8.5 INSTALLATION OF HARD SURFACING IN CLOSE PROXIMITY TO RETAINED TREES

8.5.1 Plan CBA10039.02B indicates where no-dig hard surfaces are to be installed within the RPA of retained Trees 7 and 9. These surfaces must comply with the following requirements:

- The proposed hard surface will consider site-specific factors and will be designed in accordance with advice from a structural engineer drainage engineer and arboricultural consultant. This will result in a design which is fit for purpose, adequate for the task and sympathetic to the biological requirements of the trees.
- If ground levels are to be raised, this should be achieved with a granular material which does not inhibit gaseous exchange (such as no-fines gravel, washed aggregate or cobbles).
- Sub-base will consist of a non-binding, no fines granular material which does not inhibit water percolation or gaseous exchange.
- If a substantial area of fill is to be installed, provision will be made for the installation of irrigation and aeration system within the RPA of retained trees. Distance between pipes will not exceed 400mm, irrigation pipes will be

connected to the surface water drainage system. Aeration pipes will be installed in between and will be protected by paving mounted grills.

- Depending on the load-bearing capacity of the soil determined through engineering testing, and the expected loads to be exerted on the soil, it may be necessary to incorporate a load suspension layer such as a 3 dimensional cellular confinement system. This layer must allow gaseous exchange both vertically and horizontally. Any load suspension system should only be used in accordance with the manufacturer's guidelines, and its installation should comply with any relevant health and safety guidance. CBA Trees can provide further information relating to appropriate systems on request.
- If the proposed area of no-dig hard surfacing is greater than 3 metres wide on one side of the tree, or it covers more than 20% of the RPA, it will be finished with a surface treatment which is permeable to gaseous and water movements.
- If water logging is likely to be a concern on a site, any proposed no-dig hard surfacing should be designed to direct water away from the base of the tree or provision made for the inclusion of surface water drainage.
- Any proposed no-dig hard surfacing will be designed to allow future growth of the roots and the base of the trunk, and as such should be no closer than 500mm from the trunk base. This will avoid future damage, both to the tree and engineered surface.

8.5.2 Wearing courses which could be installed over the granular material include:

- Washed Gravel – This is particularly useful as it retains its porosity (unless excessively consolidated), and can accommodate irregular shapes and changes in level. It is rarely suitable where vehicle or heavy pedestrian access is expected. Any gravel should have a low fines content to avoid low permeability resulting from consolidation.
- Paving Slabs and Pavers – These can be installed with infiltration spaces between the slabs, and should be installed dry-jointed and on a sharp sand-foundation.
- In-situ Concrete – This is an impermeable surface, so would require holes of at least 50mm diameter at 300-600mm spacings, (under advice from a structural engineer), which when filled with a no-fines gravel would allow for the movement of both water and gases to the rooting zone.
- Bitumen Paving – If implemented, this must be of a porous construction however, such surfaces will eventually become clogged with silt, and provision must be made for regular vacuum sweeping within the future maintenance of the surface or be installed in a similar way to the in-situ concrete, or be limited to less than 20% of the RPA.

- Other surfaces may be used but the final design of any no-dig hard surface should always be in agreement with a structural engineer and the retained arboriculturist.

If edge supports are required, they will be designed so as not to require any excavation of the existing soil surface, and should be in the form of either wooden or other edging materials, approved by a structural engineer and the retained arboriculturist. These edgings should be pinned in place, and the location of the pins should seek to avoid exposed surface or structural roots exceeding 25mm diameter.

Construction of the surface will be considered at the design stage. All work will need to be completed, either from existing hard surface, or as a rolling construction working from the finished hard surface to avoid the need for additional ground protection. This will prevent damage to the roots and rooting environment of retained trees.

9.0 GENERAL CONSIDERATIONS WITHIN AND OUTSIDE THE CONSTRUCTION EXCLUSION ZONE

9.1 Construction Exclusion Zone (CEZ)

9.1.1 Inside the CEZ formed by the protective fencing 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 Arun District Council prior to the specific activity taking place.**

9.1.2 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. This should take into consideration the topography of the site and slopes, to avoid materials such as concrete washings running towards trees.
- Fires shall not be lit in a position where their flames can extend to within 5 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).

10.0 CONSTRUCTION WORK TIMINGS

- 10.1 This is for determination by Arun District Council.

11.0 VEHICULAR MOVEMENTS

- 11.1 There should be minimal vehicular movement in the rooting zone outside the Root Protection zone.
- 11.2 It is not anticipated that there will be a need for excess vehicular movement near the retained trees, given that there are established access areas.

12.0 SITING OF TEMPORARY OFFICES, TOILETS AND MATERIAL STORAGE COMPOUNDS

- 12.1 It is anticipated that all deliveries shall make use of the existing access to the site, in order to avoid unnecessary damage to tree roots.
- 12.2 The locations shall be agreed in writing with Arun District Council prior to the actual undertaking, 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 Arun District 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 Root Protection Areas and avoid areas where 'run off' of chemicals may flow into root protection areas.

12.3 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 fencing line. Site huts can be used as part of the protective fencing boundary and in some cases can be beneficial.

12.4 Material Storage

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

13.0 UTILITY SERVICE CONNECTIONS

- 13.1 The following services will avoid the Root Protection Areas of trees and their roots where feasible, given site constraints:

<i>Foul and surface water drains</i>	<i>Electricity</i>
<i>Land drains</i>	<i>Telephone</i>
<i>Soakaways</i>	<i>Lighting</i>
<i>Gas</i>	<i>Signage</i>
<i>Oil</i>	<i>Water</i>

- 13.2 The location of all new service routes will be outside of the Root Protection Areas of the trees to be retained on site, to avoid disturbance of tree roots and ensure their healthy retention.
- 13.3 If services must unavoidably be installed within the RPA of retained trees, works will be carried out using trenchless techniques such as moling, laser guided boring and/or in accordance with advice appended at CB6.

14.0 SITE MONITORING AND SUPERVISION

- 14.1 On-going arboricultural site monitoring for the duration of the proposed development will be carried out by the retained arboricultural consultant approved by Arun District Council.
- 14.2 This work will be undertaken by a qualified and experienced arboriculturist at pre-determined and agreed time intervals. It will 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), on-going liaison with all personnel involved in the site development, Arun District Council and its tree officer.

Examples of when an Arboriculturist would be required on site:

- ❖ *Inspection of the tree protective fencing*
- ❖ *Any works within the root protection areas of retained trees*

- 14.3 Any defects requiring rectification shall be notified to the contractor/site manager and the client.
- 14.4 In addition, it is proposed that a site logbook is kept to record all stages of the development from the erection of the protective fencing, right through to the completion of the project. This will be made available to Arun District Council if required, to show evidence of site monitoring.

Example pro-forma

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

- 14.5 Arun District Council's tree officer (or appropriate representative) will have free 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 and ensure the implementation.

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 should be conducted under the supervision of a banksman, in order to ensure adequate clearance from trees is maintained at all times.

16.0 REPORT DAMAGE TO TREES AND TREE PROTECTION FENCING

- 16.1 Should any damage be caused to retained trees, 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 Arun District Council.
- 16.2 Should protective fencing become damaged 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.

17.0 REMOVAL OF PROTECTIVE FENCING

- 17.1 When all drainage and service runs are in place, construction work is complete, all site machinery has been removed and any landscaping for the principal area of the site has been implemented, the protective fencing will be dismantled.

- 17.2 This fence 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 fencing materials will need to be removed from site immediately.

18.0 COMPLETION MEETING

- 18.1 Upon completion of all the works specified above, and in line with procedures also specified, the retained arboricultural consultant will invite Arun District Council's tree officer to meet on site, to discuss the project and to agree on any remedial works required.

19.0 FUTURE MANAGEMENT AND POST DEVELOPMENT TREE MANAGEMENT

- 19.1 The site owner will be under an obligation to maintain and manage the tree stock on site, and should seek to address this obligation through having regular tree inspections by a suitably qualified arboricultural consultant.
- 19.2 At Section 8.8 of BS5837:2012 emphasis is placed on the aftercare of trees following completion of development works. Whilst we support these recommendations, this is a matter for our clients to consider and for Arun District Council to determine whether they wish to apply a Condition relating to this aspect of work.

Post development management of BS5837:2012:

8.8.3 Post-development management: existing trees

A programme of inspections to advise on any necessary work to retained trees should be drawn up in conjunction with an arboriculturist. This programme might include recommendations for frequency of inspection and/or proposals for tree work [see Note to 5.3.4c)], and should take the form of a management plan. A copy of this plan should be supplied to all parties with an interest in future site management.

NOTE 1 Trees growing on a site before development takes place can, if adversely affected, be in decline over a period of several years before they die.

NOTE 2 Where the trees in question are subject to legal, planning or other regulatory controls, the appropriate authority needs to be informed and any necessary agreements obtained prior to work being undertaken.

8.8.4 Post-development management: new plantings

8.8.4.1 Regular maintenance of newly planted trees is of particular importance for at least three years during the critical post-planting period and might, where required by site conditions, planning requirements or legal agreement, be for 5 years or more. A detailed maintenance schedule covering this period should be prepared in conjunction with the landscape design proposals, and appropriate arrangements made for its implementation.

NOTE Maintenance operations would normally include weed control and watering as necessary, inspection and adjustment of support systems and monitoring of growth. Formative pruning might also be required to achieve desired effects or to provide for access or clearance.

8.8.4.2 Defects that become apparent during the maintenance period should be addressed by appropriate remedial works (including replacement planting where necessary) as advised by a competent person.

20.0 CONCLUSION

- 20.1 The proposal is for the construction of two semi-detached properties with associated refuse bin storage area and parking facilities. Access will be from the existing driveway road. These proposals have been assessed broadly in accordance with British Standard 5837:2012 *"Trees in Relation to Design, Demolition and Construction – Recommendations"*.
- 20.2 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.
- 20.3 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.

21.0 CONTACT LIST

- 21.1 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
 - Landscape Architects
 - Arun District Council's Tree Officer
 - Arun District Council's Planning Case Officer
 - Site Supervisor and Foreman
- 21.2 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.

22.0 BIBLIOGRAPHY

- British Standard 5837:2012 – *"Trees in Relation to Design, Demolition and Construction – Recommendations"*
- British Standard 3998:2010 – *"Tree Work Recommendations"*
- 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
- Town and Country Planning Acts







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:	Wilson House Developments	Site:	The Homestead, Westergate
	Date:	17th September 2014	Consultant:	Alex Monk <i>TechCert (Arbor.A), NCH.Arb</i>
	Tagged:	No	Weather:	Warm and sunny

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 3/91/AL BY ARUN DISTRICT COUNCIL PROTECTS BY LAW TREES ON SITE (ANNOTATED IN RED BELOW)

Tree No	Species	Ht (m)	Single/Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m)				Ht of Crown AGL (m)				Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
					N	E	S	W	N	E	S	W						
1 TPO GS	Common Sycamore <i>Acer pseudoplatanus</i>	14	MS <6	400	6.0	2.5	1.0	0.0	3.0	3.0	5.0	-	SM	Fair	Fair Crown shape distorted due to group pressure Multi-stemmed at ground level Ivy on trunk One stem dead Apical dieback in crown Minor deadwood in crown Part of group at front of site	Sever and remove ivy and remove dead stem within 6 months	10+	C1+2

Tree No	Species	Ht (m)	Single/Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m)				Ht of Crown AGL (m)				Life Stage	Physiological Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
					N	E	S	W	N	E	S	W						
2 TPO G3	Common Sycamore <i>Acer pseudoplatanus</i>	14	S	260	1.0	2.0	3.5	3.0	-	1.0	2.0	2.0	SM	Good	Fair Crown shape distorted due to group pressure - weighted South Ivy on trunk Part of group at front of site Minor deadwood in crown	Sever ivy within 12 months	20+	C1+2
3 TPO G3	Common Sycamore <i>Acer pseudoplatanus</i>	14	MS <6	410	6.0	5.0	3.0	3.0	4.0	3.0	4.0	6.0	SM	Good	Fair Bifurcated at ground level Ivy on trunk Crown shape distorted due to group pressure Weighted North	Sever ivy within 12 months	20+	C1+2
4 TPO G2	Common Sycamore <i>Acer pseudoplatanus</i>	10	S	230	4.0	1.0	0.0	1.0	2.0	2.0	-	2.0	SM	Fair	Fair Suppressed and stunted by larger trees Ivy on trunk Trunk and crown shape distorted due to group pressure Poor quality tree	None required at time of survey	10+	C1+2
5 TPO G2	Common Sycamore <i>Acer pseudoplatanus</i>	13	MS <6	330	1.0	1.0	4.0	4.0	-	-	1.5	1.5	SM	Poor	Fair Crown shape distorted due to group pressure Ivy on trunk Bifurcated at 1m above ground level Tight forks with included bark Minor deadwood in crown Low crown density Poor quality tree	None required at time of survey	10+	C1+2
6 TPO G2	Common Sycamore <i>Acer pseudoplatanus</i>	14	MS <6	520	1.0	1.5	6.0	4.0	-	-	2.0	-	SM	Fair	Fair Crown shape distorted due to group pressure - weighted South Ivy on trunk Multi-stemmed at ground level	Sever ivy within 12 months	20+	C1+2

Tree No	Species	Ht (m)	Single/Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m)				Ht of Crown AGL (m)				Life Stage	Physiological Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
					N	E	S	W	N	E	S	W						
7 TPO G2	Common Sycamore <i>Acer pseudoplatanus</i>	14	MS <6	650	4.0	6.0	5.0	3.0	3.0	2.0	2.0	4.0	EM	Good	Fair Bifurcated at ground level Ivy on trunk Minor deadwood in crown Epicormics on trunk and in crown Crown shape distorted due to group pressure - weighted East	Sever ivy within 12 months	20+	C1+2
8 TPO TS	Scots Pine <i>Pinus sylvestris</i>	16	S	410	5.0	3.0	3.0	4.0	4.0	13.0	4.0	3.0	SM	Good	Fair Crown shape distorted due to group pressure Deadwood in crown Hanging branches Old pruning wound	Remove hanging branches and deadwood within 3 months	20+	B1+2
9 TPO TS	Scots Pine <i>Pinus sylvestris</i>	16	S	510	3.0	4.0	4.0	3.0	7.0	9.0	5.0	5.0	EM	Fair	Fair Crown shape distorted due to group pressure Major deadwood in crown Bifurcated at 7m above ground level Low crown density	Remove major deadwood within 6 months	20+	B1+2
10	Common Walnut <i>Juglans regia</i>	2	-	-	-	-	-	-	-	-	-	-	M	-	Stump with epicormic growth	Cut to ground level and grind out stump	-	U
11	Common Ash <i>Fraxinus Excelsior</i>	11	MS <6	510	6.0	5.0	6.0	4.0	2.0	2.0	2.0	3.0	EM	Good	Fair Off-site tree Trifurcated at 0.5m above ground level Ivy on trunk Old pruning wound and stub Major deadwood in crown East stem snapped out	Remove major deadwood and tidy storm damage and sever and remove ivy within 3 months	10+	C1+2

Tree No	Species	Ht (m)	Single/Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m)				Ht of Crown AGL (m)				Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
					N	E	S	W	N	E	S	W						
12 TPO G1	Common Ash <i>Fraxinus Excelsior</i>	23	MS <6	670	2.0	8.0	8.0	8.0	7.0	7.0	7.0	5.0	M	Good	Fair Trifurcated at 1m above ground level Dead ivy on trunk Previously pollarded at various heights Minor deadwood in crown Lapsed pollard Old Pruning wound Part of linear group Distinct landscape feature	None required at time of survey	20+	B1+2
Grp 1 TPO G2	Common Sycamore	14	MS	240	-	-	-	-	-	-	-	-	SM	Good	Fair Group of trees forming one crown Some multi-stemmed Ivy on trunks Major deadwood in crowns	Remove major deadwood and sever ivy within 6 months	20+	C2
Grp 2 TPO G2	Common Sycamore	15	S	230	-	-	-	-	-	-	-	-	SM	Good	Fair Group of trees forming one crown Ivy on trunks Some multi-stemmed One tree suppressed and stunted Minor deadwood in crowns One tree kinked at base	Sever ivy at base within 12 months	20+	C2



- NOTES
1. Trees marked * are indicatively plotted only and should be verified by Land Surveyor.
 2. Tree survey data relates to CBA Trees Tree Report.
 3. This survey is surveyed in accordance with BS5837:2012.

NOTE
Tree Preservation Order (TPO) 3/91/AL by Arun District Council applies.

- KEY
- category A trees
 - category B trees
 - category C trees
 - category U trees

CLIENT
Wilson House Developments

JOB TITLE
The Homestead Westergate

DRAWING TITLE
Tree Survey Plan

DRAWING No.
CBA10039.01B TSP Phase 2

SCALE
1:250@A2

DRAWN
lg & AM

DATE
Sept 2014

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CBA
Trees

Russell House, Unit 20 Chalcraft Business Park, Burnetts Lane, West End, Southampton, SO30 2PA Tel: 02380 986229
checked SR 26 April 2012



	BS5837:2012 TREE ROOT PROTECTION AREA SCHEDULE			
	Client:	Wilson House Developments	Site:	The Homestead, Westergate
	Date:	17th September 2014	Consultant:	Alex Monk TechCert (Arbor.A), NCH. Arb

Notes:

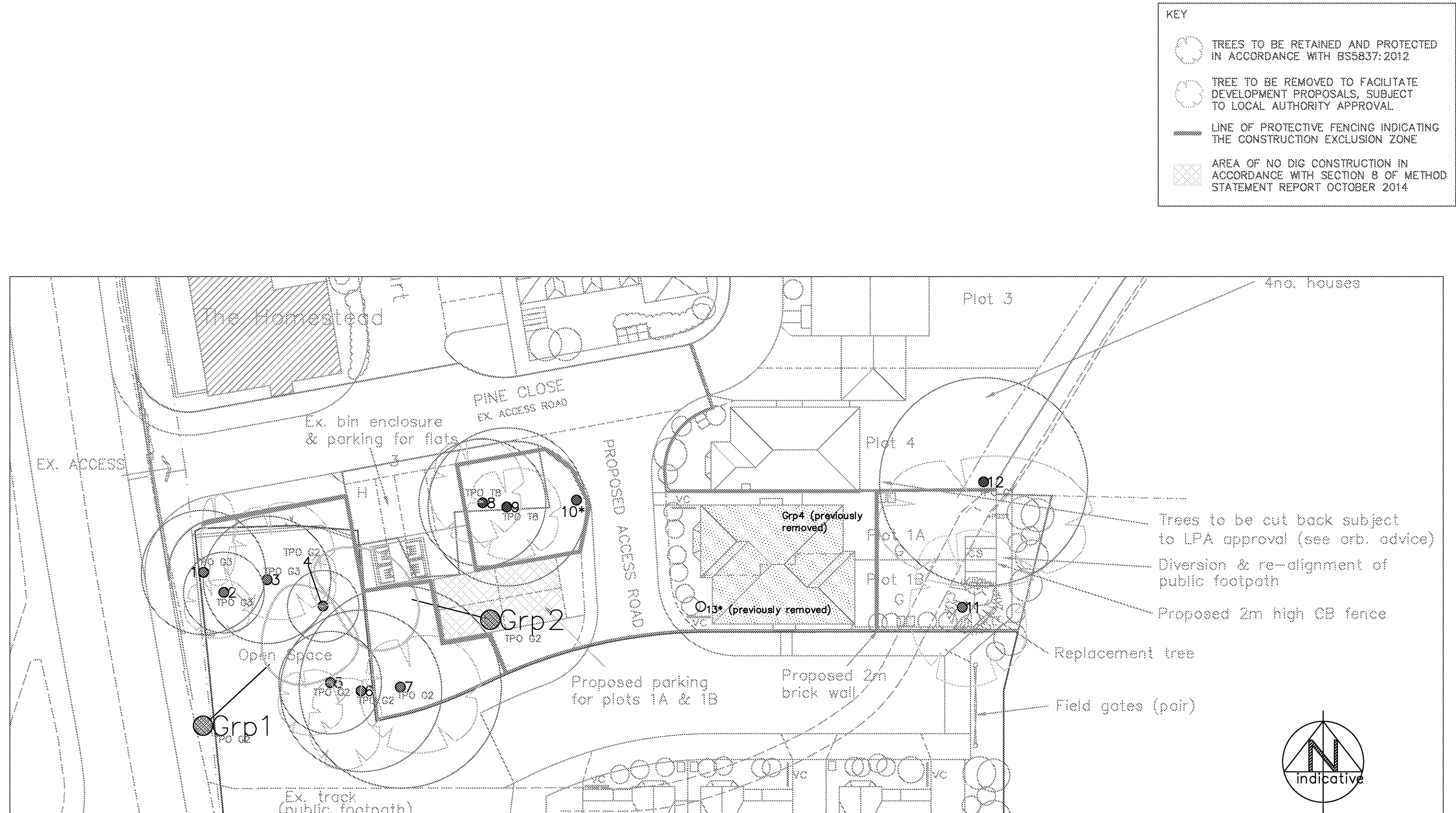
1. This is an assessment of the Root Protection Area (RPA) required, based on the individual tree data collected and Section 4.6.1 of BS5837:2012.
2. At this juncture this document is for your sole guidance and ongoing discussions purposes only and is not intended for general circulation, as it assumes 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 3/51/AL BY ARUN DISTRICT COUNCIL PROTECTS BY LAW TREES ON SITE

Tree No	Species	Category	Single/ Multi-Stemmed (S or MS)	Stem Diameter (mm)	Initial Linear Root Protection Distance (Radius m)	Root Protection Area (m ²)
1 TPO G3	Common Sycamore <i>Acer pseudoplatanus</i>	C1+2	MS <6	400	4.80	72.39
2 TPO G3	Common Sycamore <i>Acer pseudoplatanus</i>	C1+2	S	260	3.12	30.59
3 TPO G3	Common Sycamore <i>Acer pseudoplatanus</i>	C1+2	MS <6	410	4.92	76.06
4 TPO G2	Common Sycamore <i>Acer pseudoplatanus</i>	C1+2	S	230	2.76	23.93
5 TPO G2	Common Sycamore <i>Acer pseudoplatanus</i>	C1+2	MS <6	330	3.96	49.27
6 TPO G2	Common Sycamore <i>Acer pseudoplatanus</i>	C1+2	MS <6	520	6.24	122.34
7 TPO G2	Common Sycamore <i>Acer pseudoplatanus</i>	C1+2	MS <6	650	7.80	191.16
8 TPO T8	Scots Pine <i>Pinus sylvestris</i>	B1+2	S	410	4.92	76.06
9 TPO T8	Scots Pine <i>Pinus sylvestris</i>	B1+2	S	510	6.12	117.68
10	Common Walnut <i>Juglans regia</i>	U	-	-	-	-
11	Common Ash <i>Fraxinus excelsior</i>	C1+2	MS <6	510	6.12	117.68
12 TPO G1	Common Ash <i>Fraxinus excelsior</i>	B1+2	MS <6	670	8.04	203.10

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 1 TPO G2	Common Sycamore	C2	MS	240	2.88	26.06
Grp 2 TPO G2	Common Sycamore	C2	S	230	2.76	23.93





- NOTES
- Trees marked * are indicatively plotted only and should be verified by Land Surveyor.
 - Tree survey data relates to CBA Trees Tree Report.
 - This survey is surveyed in accordance with BS5837:2012.

NOTE
Tree Preservation Order (TPO) 3/91/AL by Arun District Council applies.

- KEY
- category A trees
 - category B trees
 - category C trees
 - category U trees

CLIENT
Wilson House Developments

JOB TITLE
The Homestead Westergate

DRAWING TITLE
Tree Protection Plan

DRAWING No.
CBA10039.02B TPP Phase 2

SCALE
1:250@A2

DRAWN
lg & AM

DATE
Oct 2014

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CBA TREES

Russell House, Unit 20 Chalcraft Business Park, Burnetts Lane, West End, Southampton, SO30 2PA Tel: 02380 986229
checked SR 26 April 2012



	TREE WORKS SCHEDULE			
	Client:	Wilson House Developments	Site:	The Homestead, Westergate
	Date:	October 2014	Consultant:	Alex Monk <i>TechCert (Arbor.A), NCH.Arb</i>

Tree No.	Species	Recommended Works
11	Common Ash	Remove and grind stump
Group 2	Common Sycamore	Crown lift over proposed parking area to give 2m clearance above ground level

- 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 BS3998:2010 – Tree Work Recommendations.
- 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.





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

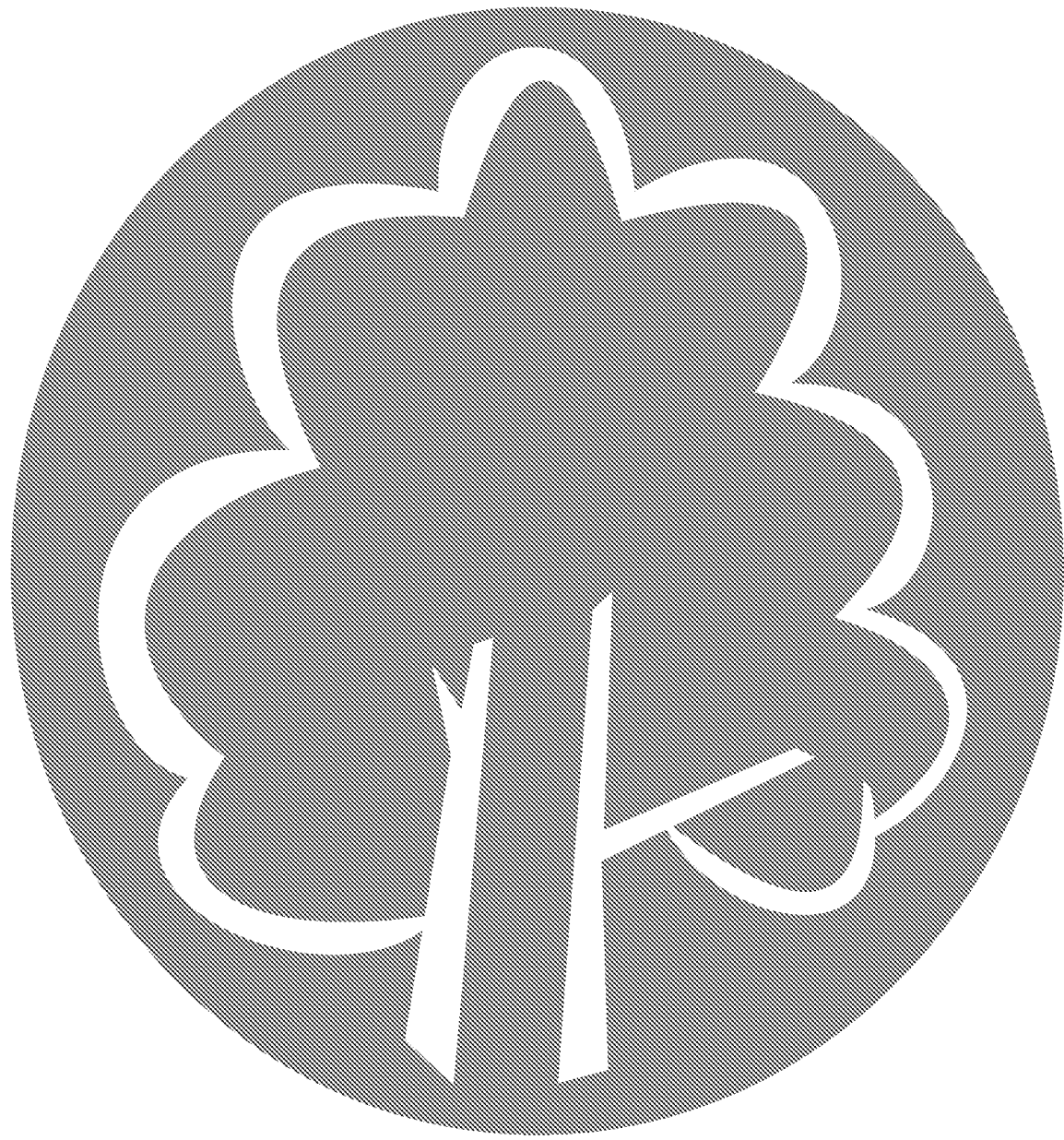
If you see any damage to a tree or its protective fencing, or if you need a tree pruning for plant clearance, contact **CBA Trees** as follows:

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.**

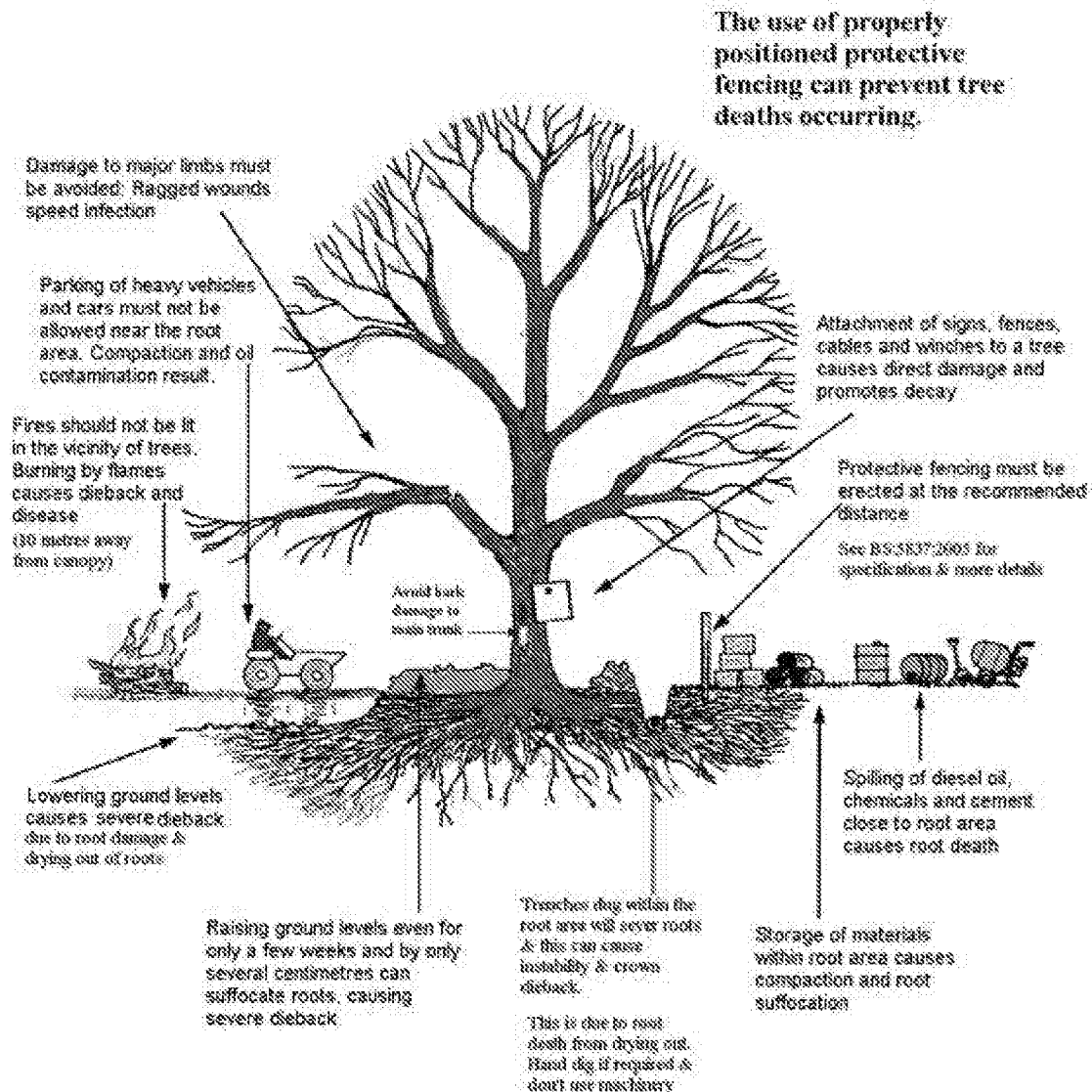


**TREE PROTECTION AREA
KEEP OUT !**

**(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



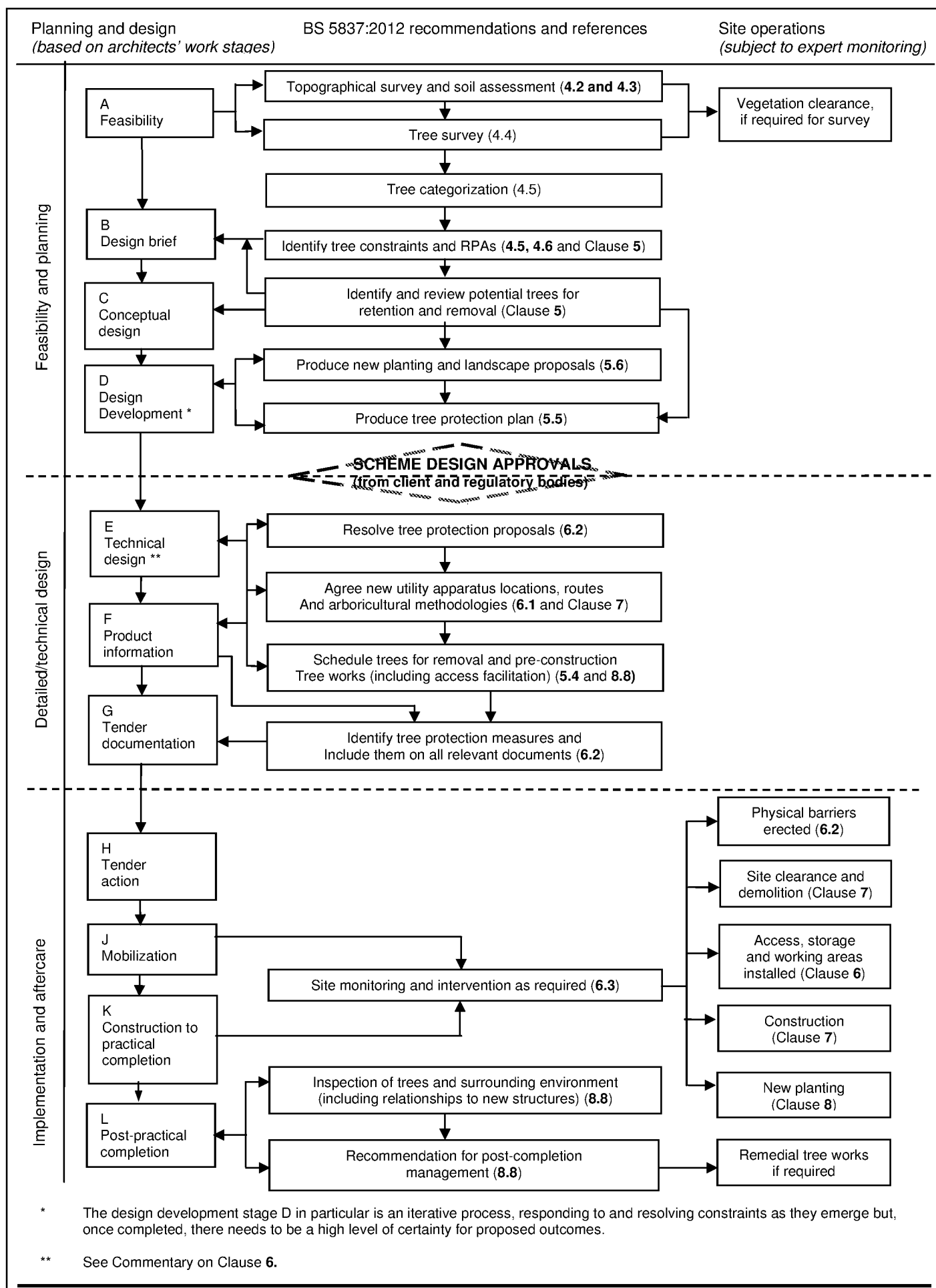
Please use copies of this as an on-site poster for personnel

(Source: Arboricultural Information Exchange website, 2005)





Figure 1 The design and construction process and tree care







The Professional Arboricultural Consultancy

Qualifications of Alex Monk Arboricultural Consultant

Alex Monk TechCert.Arbor.A, NCH.Arb has a background in tree surgery, running his own small business for many years. Joining CBA in 2004 he soon adapted to the rigour of surveying and consultancy and has progressed to providing his expertise to an extensive client base. Alex provides an excellent service to Local Authorities in the area, assessing extant and new Tree Preservation Orders as well as becoming an expert in the use of decay detection equipment on these and other projects. Alex's work also encompasses development projects with all the associated surveying and consultancy work that this part of the industry entails, guiding the arboricultural elements of the development project through the planning process.

Having studied for his arboricultural qualifications at Merrist Wood College in Surrey, Alex has attained the AA.Tech.Cert. He has also been successful in attaining his Bat Handling Licence (English Nature), which is an asset both to him personally and to the Company.