

## ARBORICULTURAL METHOD STATEMENT

Trinity College
Broad Street
Oxford
Oxfordshire
OX1 3BH

Instructed by Trinity College

Ref: 20164/AMS

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#### INTRODUCTION

- 1.1 Instructions have been received to compile an Arboricultural Method Statement (AMS) to assist with supporting a planning application on land at Trinity College, Oxford (Appendix 1).
- 1.2 During October 2020 select tree survey data from Sylva Consultancy's 2018
  Arboricultural Report was revised and updated. This review was carried out in accordance with British Standard 5837:2012 'Trees in relation to Design, Demolition and Construction-Recommendations' and good arboricultural practice. This is a basic data collection exercise and a record of the trees condition at the time of surveying.
- 1.3 This Arboricultural Method Statement is to provide details on the range of issues that are related to the planning application and is aimed at providing site specific details regarding the implementation.

#### 2. SITE DESCRIPTION

2.1 The area surveyed is land within the south east corner of Trinity College. Located adjacent to the northern boundary is the formal lawn with St Johns College located beyond the northern boundary wall. To the west of the site is Parks Road with the Western Library located to the south. In the south eastern corner of the site are existing buildings known within the College as the Presidents Garage.

#### 3. TREE LEGISLATION

- 3.1 A desk top study of information posted on Oxford City Councils' website (OCC) website details that the site is located within Central Conservation Area. In addition, the website reveals that no Tree Preservation Orders (TPO's) are present on trees within or adjacent to the site.
- Trees in a Conservation Area that are not protected by a TPO are protected by the provisions in section 211 of the Town and Country Planning Act 1990. Anyone who *cuts down, uproots, tops, lops, willfully destroys or willfully damages a tree* in a Conservation Area (if that tree is not already protected by a Tree Preservation Order), or causes or permits such work, without giving a section 211 notice (or otherwise contravenes section 211 of the Town and Country Planning Act 1990 is guilty of an offence, unless an exception applies.

#### 4. PLANNING PERMISSION

4.1 Planning permission is sought for the construction of new garden facilities, to undertake improvement works to the 'President's Garage' and a re-design of the 'Small Quod'.

#### 5. TREE PROTECTION MEASURES

#### 5.1 Pre-commencement site meeting

- 5.1.1 It is recommended that a pre-commencement of work site meeting with the Project Manager and Project Arboriculturalist is held prior to the instigation of works to review the tree protection measures. In addition, this meeting will provide the opportunity to consider whether additional tree protection measures are necessary.
- 5.2 Construction Exclusion Zone (CEZ)
- 5.2.1 This is the area based on the root protection area (RPA) of a tree as identified by the Arboriculturalist to be protected during the development. Protection will be using barriers and/or ground protection which is fit for purpose to ensure the successful long-term retention of trees within or adjacent to the development site. The area within the Construction Exclusion Zone is to be regarded as sacrosanct, and the tree protective fencing should not be taken down or relocated at any time without the written approval of the LA.
- 5.2.2 Within the Construction Exclusion Zone (CEZ) the following prohibitions will apply:
  - NO mechanical digging or scraping.
  - NO hand digging (unless agreed in writing by the LA).
  - NO storage of plant, equipment or materials.
  - NO vehicular or plant access.
  - NO fire lighting. NO earthworks.
  - NO washing down of vehicles or machinery.
  - NO handling, discharging or spillage of any chemical substance including cement washings.
  - NO action likely to cause localised waterlogging.
  - NO changing of ground levels (unless agreed in writing by the LPA).
  - NO construction of a hard surface (unless agreed in writing by the LPA).
- 5.2.3 In addition to the above, further precautions are necessary adjacent to trees outside the CEZ:
  - Materials that will contaminate the soil such as concrete mixing, diesel spillage and vehicle washings, must not be discharged within 10m of a tree stem/s. This must consider the topography of the site and the slopes to avoid toxic materials running towards a tree/s.
  - Fires must not be lit in a position where their flames can extend to within 5 metres of the foliage, branches or trunk. This will depend on the size of the fire and the wind direction.
  - Notice boards, telephone cables or other services should not be attached to any part of a tree/s.

- 5.3 Tree protective fencing and tree protection plan
- 5.3.1 Tree protective fencing will be installed in accordance with the detail set out on tree protection plans (Appendix 2). Fencing will be erected *prior* to any site works and must remain in situ and be fit for purpose for the duration of the development. The fencing must not be prematurely removed without prior consent of the project Arboriculturalist or the Local Planning Authority (LPA).
- 5.3.2 Scaled copies of the tree protection plans must be made available for site personnel and must be displayed in the temporary contractor's compound area on site for all site personnel to see.
- 5.3.3 The fence protection is to comprise of Heras fencing and will be based on Figure 2 'Default Specification for Protective Barrier' as recommended within the British Standard 5837:2012 (Appendix 3). Where appropriate this will be braced to withstand impacts.
- 5.3.4 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 design and examples of the notices are at Appendix 4.
- 5.3.5 Where necessary and with the written approval of the LPA, the line of fencing may be temporarily taken down to facilitate an approved action such as the removal of an area of existing hard surface. The Project Arboriculturalist must be on site to oversee any additional and appropriately approved processes.
- 5.4 Ground Protection for Trees
- 5.4.1 Where existing hard standing is present this will act as ground protection where this falls with the RPAs of trees.
- 5.5 <u>Pre-development Tree Works</u>
- 5.5.1 In accordance with British Standard 5837:2012 Section 8.8 recommends a tree works schedule is provided for works required to implement the development. The following tree works are required:

TREE NO.	SPECIES	PROPOSED WORKS		
S33 Lilac Remove to facilitate the development		Remove to facilitate the development		
T34	Foxglove Tree	Remove regardless of development (cat 'U' tree)		
T35 – T39 Yew		Tip back foliage by 1m to accommodate the pathway widening works		

- 5.5.3 All consented tree works as part of the planning permission must be carried out in accordance with British Standard 3998:2010 'Recommendations for Tree Works' and in compliance with good practice as promoted by the Arboricultural and Forestry Advisory Group. All pruning works must be carried out by a suitably qualified and experienced Arboriculturalist.
- 5.5.4 Under NO circumstances must site personnel undertake any tree pruning operations. All tree works must be carried out prior to any works in connection with the planning permission being implemented.

5.5.5 Tree works must take into consideration the timing of operations so that the avoidance of the bird nesting season (1st March – 31st August) and the main active growing period of trees can be prevented. Penalties contrary to the Wildlife and Countryside Act 1981 is an unlimited fine, up to six months imprisonment or both.

All tree numbers referred to in this document relate to the tree numbers annotated on the Tree Protection Plans (Appendix 2).

### 6. PHASING OF DEVELOPMENT

- 6.1 The consented development works will be carried out in 3 phases:
  - Pre-commencement of Works 1: Tree Works.
  - Pre-commencement of Works 2: Erection of the tree protection
  - Phase 1: Construction of the Glasshouse & Workshop
  - Phase 2: Improvement Works to the Presidents Garage
  - Phase 3: Re-design of the Small Quod
- 6.2 Pre-commencement Works 1 Tree Works
- 6.2.1 All consented tree works to be carried out by a suitably qualified Arboriculturalist.
- 6.3 Pre-commencement Works 2 Tree Protective Fencing
- 6.3.1 Tree protection measures to be installed in accordance with the Tree Protection Plans (Appendix 2). Under no circumstances must the fence protection be altered without prior consent from the LA.
- 6.4 Phase 1: Construction of the Glasshouse & Workshop
- 6.6.1 It is recommended that construction personnel undergo an induction session prior to being allowed to work on site. At this time the Arboricultural Method Statement can be explained to all personnel and where appropriate a copy provided for their reference. In addition, a copy of the Tree Protection Plan will be placed in a readily accessible place and will be pointed out to the construction personnel before the commencement of any works in connection with this phase of the proposal.
- 6.6.2 Large machinery used for the construction phase must be supervised whilst in operation to avoid contact with branches and tree canopies that are within close proximity to the works.
- 6.6.3 Materials will be delivered on an as and when basis. However, if temporary storage of materials is required this shall be in area highlighted on the Tree Protection Plans.
- 6.7 Phases 2 & 3: Improvement Works to the Presidents Garage/Redesign of Small Quod
- 6.7.1 It is recommended that construction personnel undergo an induction session prior to being allowed to work on site. At this time the Arboricultural Method Statement can be explained to all personnel and where appropriate a copy provided for their reference. In addition, a copy of the Tree Protection Plan will be placed in a readily accessible place and will be pointed out to the construction personnel before the commencement of any works in connection with this phase of the proposal.

- 6.7.2 Large machinery used for the construction phase must be supervised whilst in operation to avoid contact with branches and tree canopies that are within close proximity to the works.
- 6.7.3 Materials will be delivered on an as and when basis. However, if temporary storage of materials is required this shall be in area highlighted on the Tree Protection Plans.

## 7. UTILITY SERVICE CONNECTIONS

- 7.1 The siting of new service runs has not yet been confirmed however it is anticipated all new services will connect to existing. In the unlikely event that this is not feasible the following guidelines will be followed.
- 7.2 All new service installations will be carried out in accordance with the recommendations at Section 7.7 of the British Standard 5837:2012:
  - 7.7 Underground and above-ground utility apparatus
  - 7.7.1 Mechanical trenching for the installation of underground apparatus and drainage severs any roots present and many change the local soil hydrology in a way that adversely affects the health of the tree. For this reason, particular care should be taken in the routeing and methods of installation of all underground services. Wherever possible apparatus should be routed outside RPA. Where this is not possible, it is preferable to keep apparatus together in common ducts. Inspection chambers should be sited outside the RPA.
  - 7.7.2 Where underground apparatus is to pass within the RPA, detailed plans showing the proposed routeing should be drawn up in conjunction with the project Arboriculturalist. In such cases, trenchless insertion methods should be used, with entry and retrieval pits being sited outside the RPA. Provided that roots can be retained and protected in accordance with 7.2.2, excavation using hand-held tools (see 7.7.1) might be acceptable for shallow service runs.
- 7.3 Great care should be taken to preserve and work around roots greater than 25mm in diameter, and clusters of smaller roots avoiding damage to bark. Where it is necessary to sever roots greater than 25mm in diameter, arboricultural advice must be sort. Where smaller roots must be severed, they should be cut back cleanly using secateurs or a sharp pruning saw.
- 7.4 Back filling of trenches should be carried out using the excavated soil, which should be worked in around roots and lightly 'tamped' not compacted and respecting the original soil profile. The backfill should be left proud of surrounding levels to allow for settlement.
- 7.5 Trenches must not be left open overnight. If the trench is to remain open for any period of time during the day and the weather is hot, to prevent the roots form dying out it is advised that moist Hessian sacking is wrapped around the exposed roots and/or trench to prevent such desiccation from occurring or temperature changes. The reason for this is to reduce the potential for root tip death through lack of moisture.

#### 8. VEHICULAR MOVEMENTS

8.1 No vehicle movements will occur within the RPAs of the retained trees. However, where hard standing is present and acting as ground protection these areas may be accessed by vehicles.

#### 9. TEMPORARY OFFICES/STORAGE COMPOUNDS

9.1 The locations of these to be finalised with the project manager prior to the commencement of works. These facilities will then remain in the agreed locations throughout the construction. If alternative locations are required, these must be agreed in writing by the LPA. This will also include the delivery, storage, and movement of all these essential facilities as well as aspects such as temporary contactor parking and sitting of concrete mixing.

#### 10. AVOIDING DAMAGETO STEMS & BRANCHES

10.1 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 the 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 carried out under the supervision of a banksman to ensure adequate clearance from tree is maintained at all times.

#### 11. REPORTING OF DAMAGE TO TREES/FENCE POTECTION

- 1.1 Should any damage occur to trees noted for retention either by the above works or as the result of any other action, the damage must be reported to the site supervisor immediately. The site agent shall report up the chain of responsibility to the Arboricultural Consultant, or in their absence an appointment with an appropriately qualified Arboriculturalist, to enable remedial measures to be implemented as necessary and without delay.
- 11.2 Should protective fencing become damaged so as to impair its function in protecting trees, all works shall cease in the vicinity of the damage until the fence has been returned to standard. It shall also be recorded on the daily monitoring sheets as likewise all other issues regarding tree related issues on the site.

#### 12. REPORTING OF DAMAGE TO TREES/FENCE POTECTION

- Ongoing Arboricultural site monitoring for the duration of the development is recommended. Site monitoring should be undertaken by a qualified and experienced Arboriculturalist at pre-determined and agreed time intervals. It should take the form of regular inspections (i.e. monthly and/or during key operations), ongoing liaison with all personnel involved in the site development and with the LPA. Any defects requiring rectifying must be notified to the Site Agent and the Client and copied to the LPA.
- 12.2 It is recommended that the Project Arboriculturalist be present on site during the main periods of construction. Records are to be made available to the LA if required to show evidence of site monitoring (Appendix 5):
  - Pre-commencement site meeting.
  - Inspection of fence protection
- 12.3 In addition it is proposed that a site logbook is kept recording all stages of the development from the installation of the fence protection, to daily checks of the fencing through to the completion of the project. This should be made available to the LA if required to show evidence of site monitoring.
- 12.4 The LA's Arboricultural Officer will have free access to the site and report on any problem areas directly to the developer's Project Arboriculturalist, who will then visit the site and make recommendations to the developer on how best to rectify the situation and ensure implementation.

#### 13. REMOVAL OF TREE PROTECTION

13.1 When the substantial completion of the development phase has occurred, all drainage and service runs are in place, and all site machinery has been removed, and any landscaping for the principal areas of the site have been undertaken, the fence protection may be removed.

#### 14. POST DEVELOPMENT TREE MANAGEMENT

14.1 Section 8.8.3 of the British Standard 5837:2012 recommends a programme of inspection is drawn up in conjunction with an Arboriculturalist to advise on any necessary work to retained trees on the completion of the development. This may include recommendations for frequency of inspections and should take the form of a management plan which can be forwarded to interested parties regarding the site's future management.

#### BS5837:2012 Section 8.8.3 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.

#### BS5837:2012 Section 8.8.3NOTE 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.

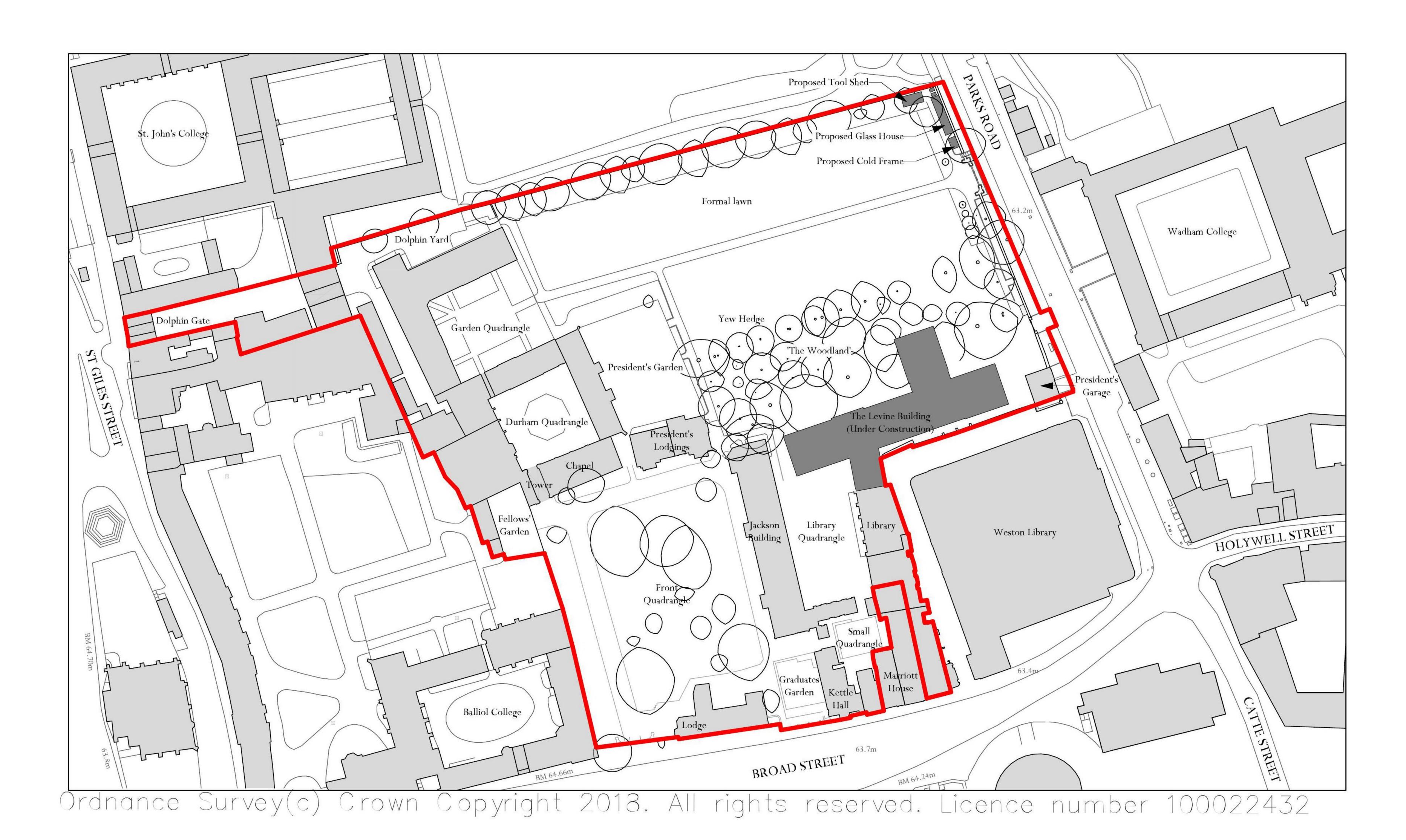
#### 15. CONCLUSIONS

- 15.1 The tree protection measures have been considered in accordance with British Standard 5837:2012 'Trees in relation to Demolition, Design & Construction Recommendations'.
- 15.2 Successful tree retention is achievable with the application of the tree protection measures set out in this document.
- 15.3 Sylva Consultancy has prepared this arboricultural method statement based on the information provided.

#### 16. BIBLIOGRAPHY

- British Standard 5837:2012 'Trees in relation to Construction Recommendations'.
- British Standard 3998:2010 'Recommendations for Tree Works.
- Barrell, J. D. (1993) Pre-planning Tree Surveys: SULE is the Natural Progression.
   Arboricultural Journal 17, 33-46.
- Barrell, J. D. (1995) Pre-development Tree Assessments. In: Trees on Building Sites:
   Proceedings of an International Conference on Trees and Building Sites (G. W. Watson & D. Neely, eds). International Society of Arboriculture, Illinois.
- Biddle, P. G. (1998) Tree Roots and Foundations. Arboriculture Research and Information Note 142/98/EXT. Arboricultural Advisory and Information Service.
- Dobson, M. (1995) Tree Root Systems. Arboriculture Research and Information Note 130/95/ARB. Arboricultural Advisory and Information Service.

## SITE LOCATION PLAN



0 10 20 30 40 50 60 70 80 90 100 110 120 130

Scale 1:1250

Adjacent Properties and Boundaries are shown for illustrative purposes only and have not been surveyed unless otherwise stated.

All areas shown are approximate and should be verified before forming the basis of a decision.

Do not scale other than for Planning Application purposes.

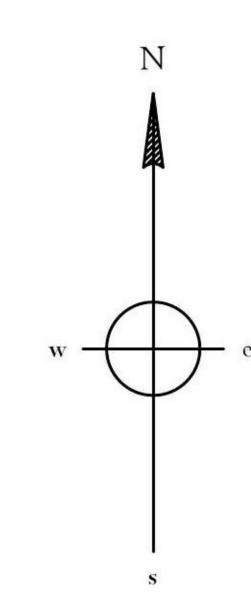
All dimensions must be checked by the contractor before commencing work on site.

No deviation from this drawing will be permitted without the prior written consent of the Architect.

The copyright of this drawing remains with the Architect and may not be reproduced in any form without prior written consent.

Ground Floor Slabs, Foundations, Sub-Structures, etc. All work below ground level is shown provisionally. Inspection of ground condition is essential prior to work commencing.

Reassessment is essential when the ground conditions are apparent, and redesign may be necessary in the light of soil conditions found. The responsibility for establishing the soil and sub-soil conditions rests with the contractor.



07.01.21	Planning Submission - Layout of Tool shed/Glass house/Cold	PHon
	$\Gamma$ /C $\Lambda$ 1.1	

Frame/Compost Area amended

A 27.11.20 Planning submission PHon
/ 24.11.20 Planning submission VM
Rev Date Description Initials

PROJECT Trinity College

Proposed Gardener's Store, Greenhouse, President's Garage, Small Quad

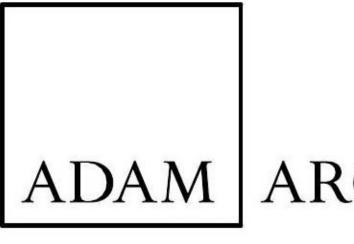
TITLE: Site Location Plan

SCALE: 1:1250 **(2)**A3

DATE: December 2018

DRAWING No:5446/70B

DRAWN BY: AMS



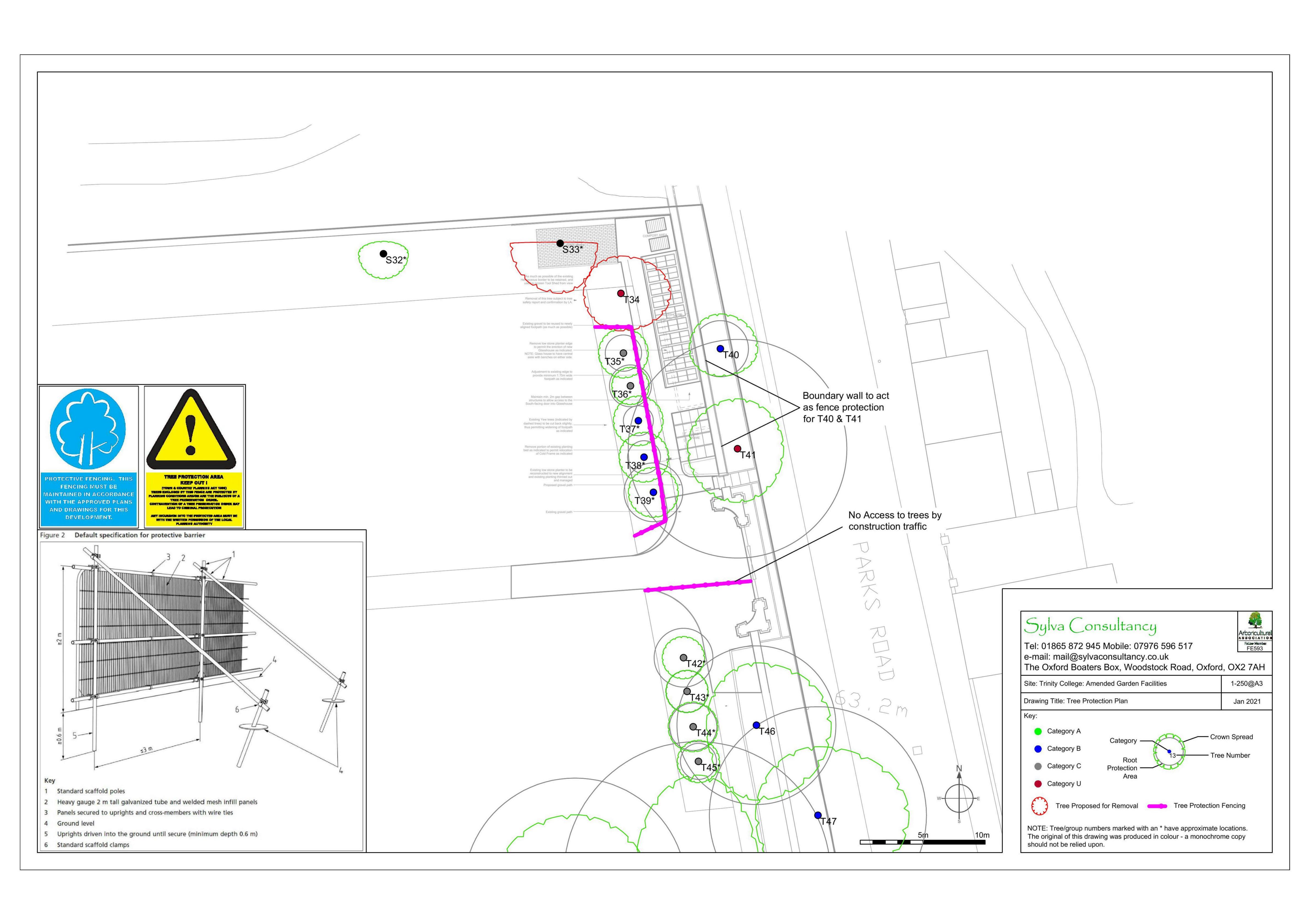
## ADAM ARCHITECTURE

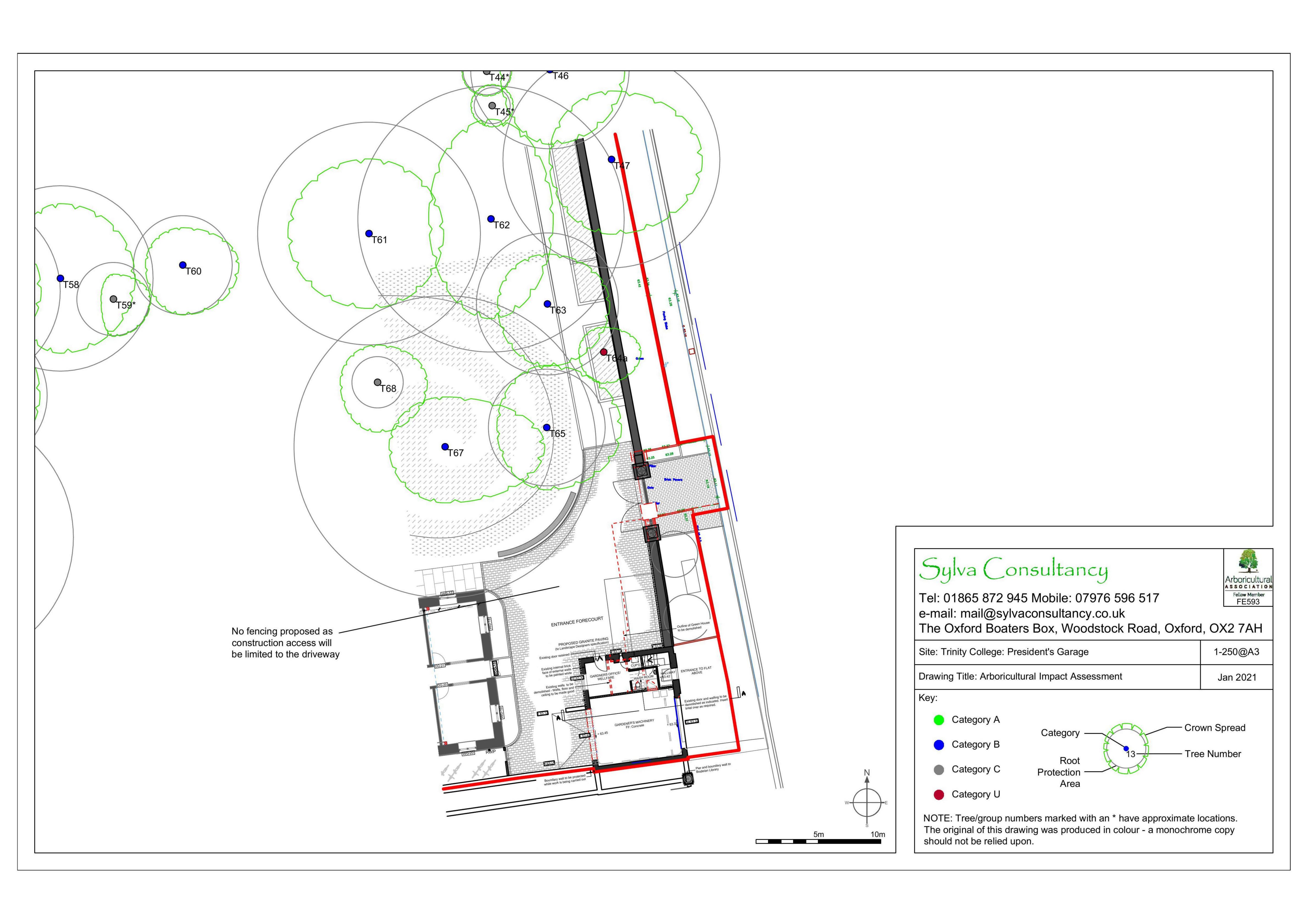
OLD HYDE HOUSE, 75 HYDE STREET WINCHESTER, HAMPSHIRE, SO23 7DW TELEPHONE: 01962 843843 FACSIMILE: 01962 843303 www.adamarchitecture.com contact@adamarchitecture.com

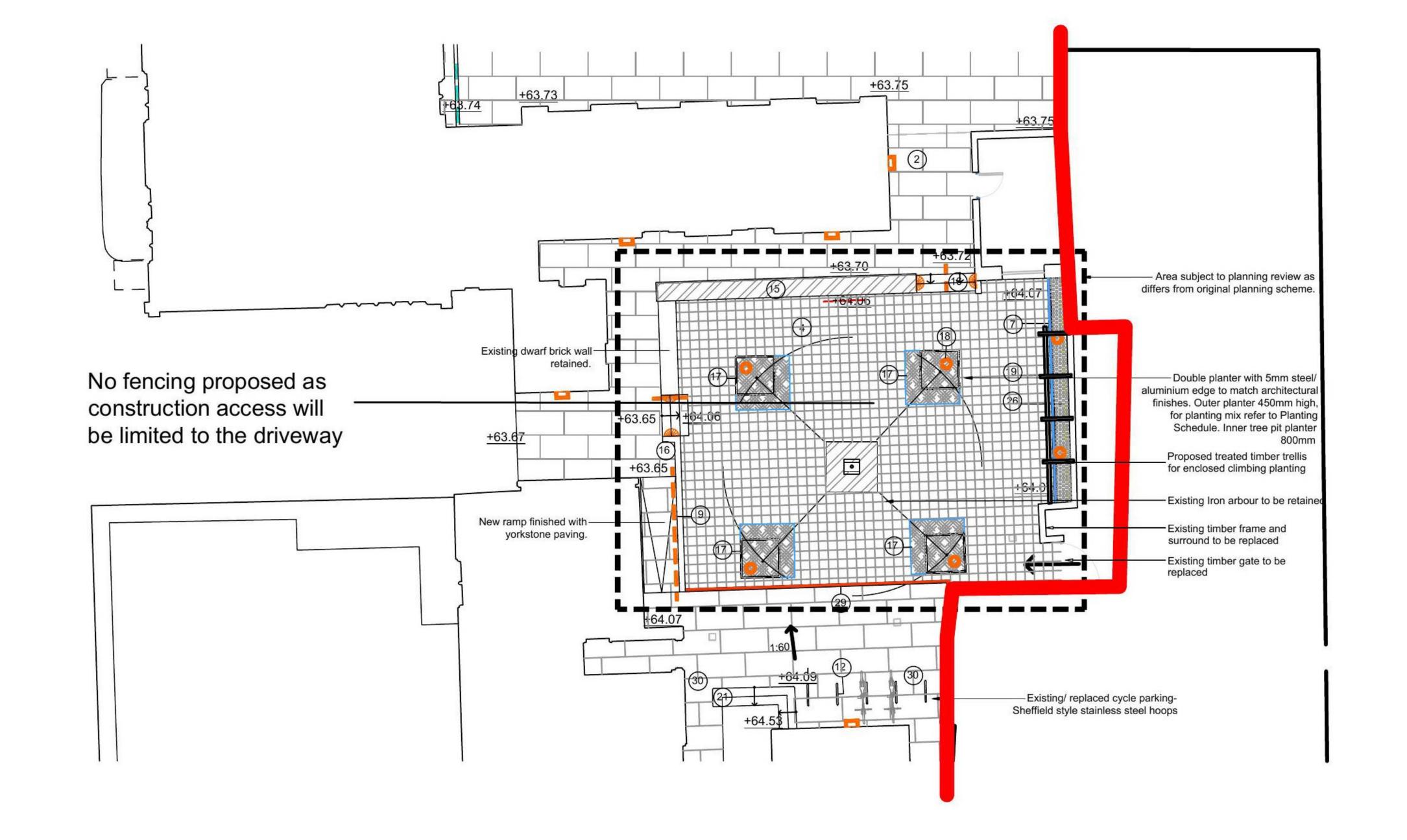
LONDON OFFICE: 6 QUEEN SQUARE, WC1N 3AT TELEPHONE: 020 7841 0140 FACSIMILE: 01962 843303

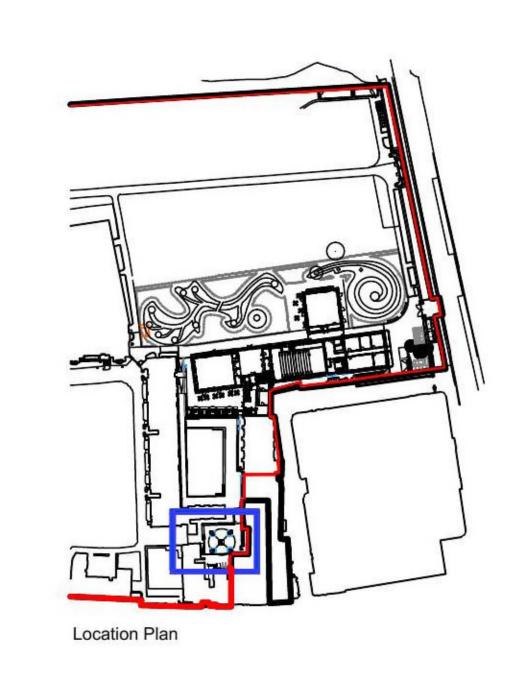
ADAM ARCHITECTURE IS A TRADING NAME OF ADAM ARCHITECTURE LIMITED

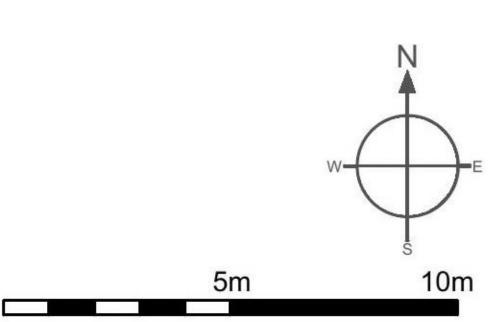
## TREE PROTECTION PLANS











## Sylva Consultancy

Arboricultural Fellow Member FE593

Crown Spread

Tree Number

Tel: 01865 872 945 Mobile: 07976 596 517

e-mail: mail@sylvaconsultancy.co.uk

The Oxford Boaters Box, Woodstock Road, Oxford, OX2 7AH

Site: Trinity College: Small Quod	1-250@A3
Drawing Title: Arboricultural Impact Assessment	Jan 2021

Category A

Category B

Category C

Area

Protection

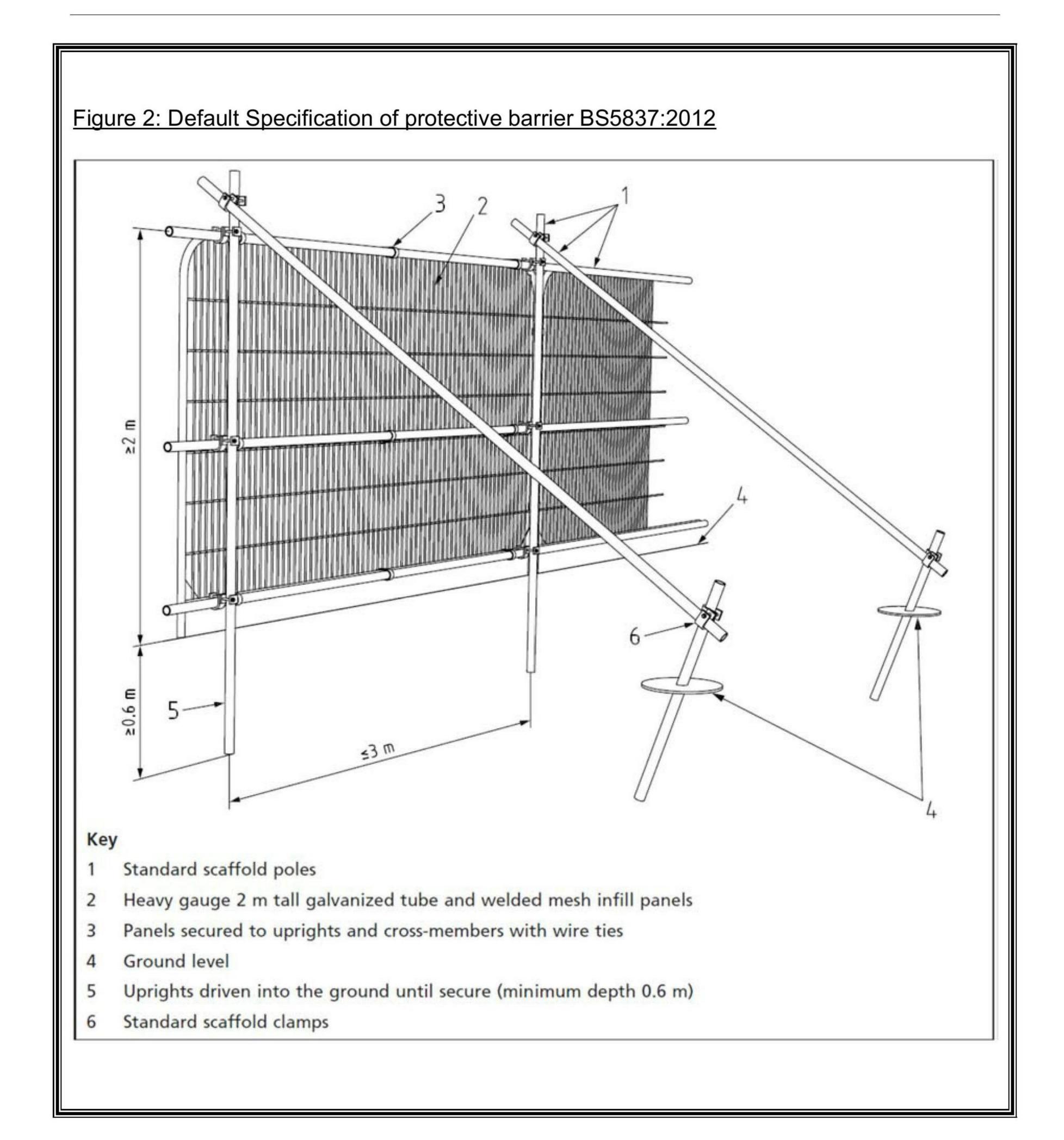
Category —

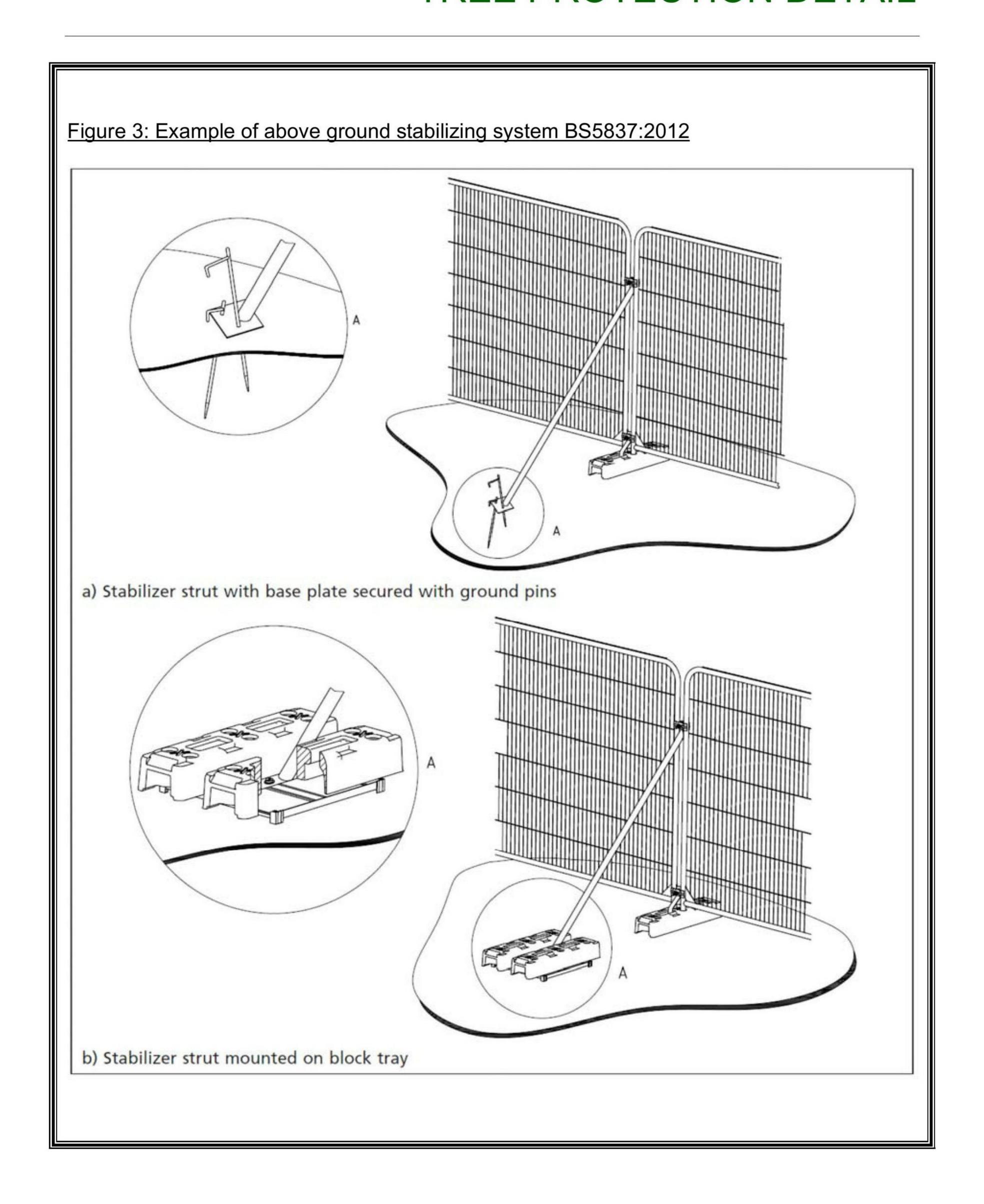
Category U

NOTE: Tree/group numbers marked with an \* have approximate locations. The original of this drawing was produced in colour - a monochrome copy should not be relied upon.

## TREE PROTECTION DETAIL

## TREE PROTECTION DETAIL





## ARBORICULUTRAL INFORMATION



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



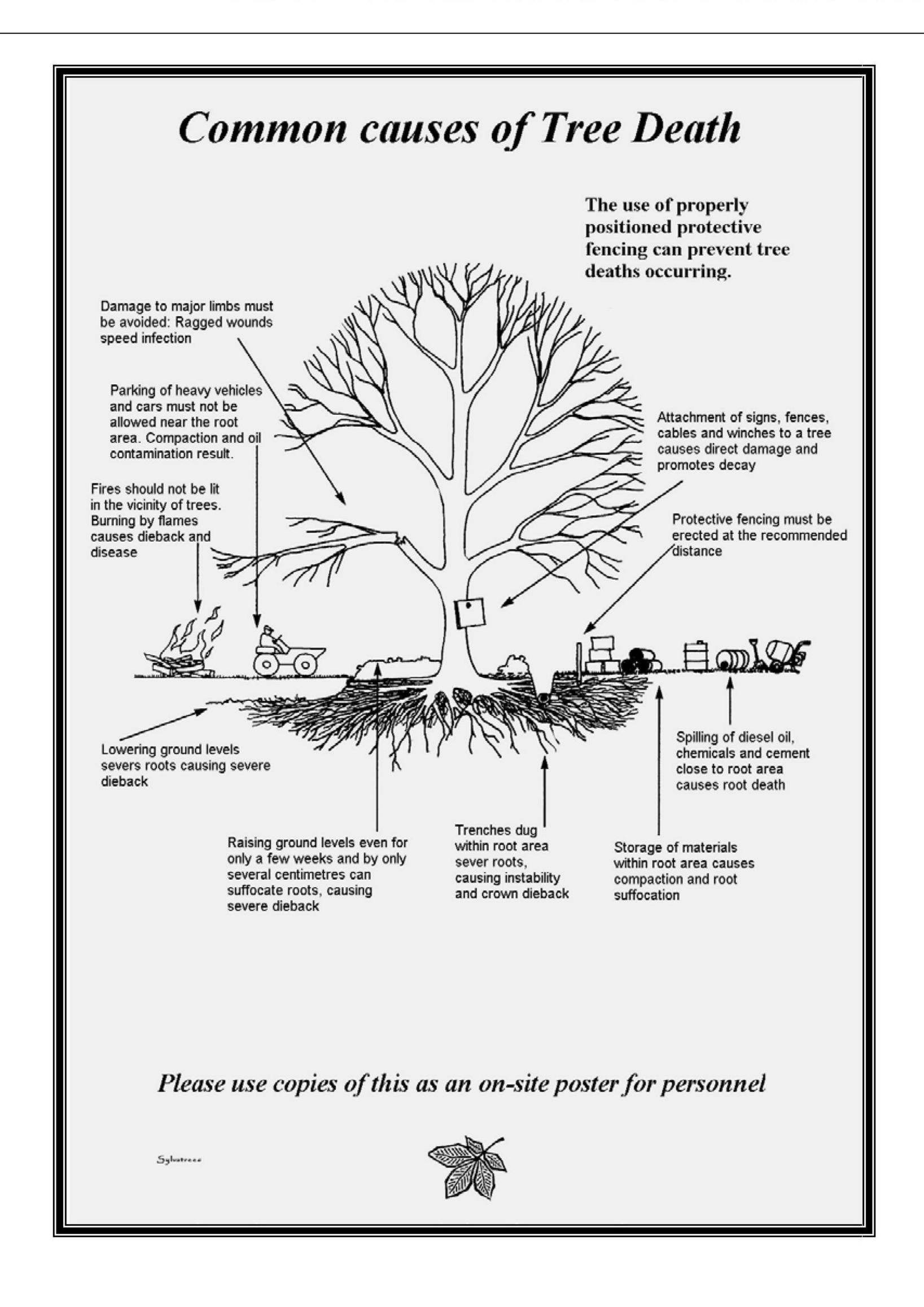
## TREE PROTECTION AREA KEEP OUT!

(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.

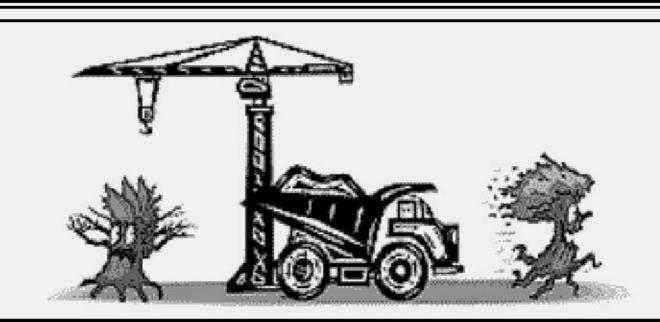
CONTRAVENTION OF A TREE PRESERVATION ORDER MAY LEAD TO CRIMINAL PROSECUTION

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

## ARBORICULTURAL INFORMATION



# Construction and Trees



## Why Is Fencing Erected Around Trees?

- The major cause of damage to trees on construction sites is due to soil compaction.
- Roots use the spaces between soil particles to obtain Oxygen, Water and Nutrients.
- Heavy plant and machinery compresses (compacts) the soil, squashing out the air spaces and preventing root function.
- 4. A compacted soil structure will stay compacted.
- Consequently the tree suffers and will show signs of branch die-back.
- Symptoms such as die-back may take several years to appear.
- Soil compaction over roots can be prevented by maintaining a fenced exclusion zone over the tree roots.
- The exclusion zone distance is calculated using British Standard 5837.
- Protective Fencing is installed at the calculated distance.
- 10. Protective Fencing is a condition of planning approval, if it is removed or repositioned the construction firm is in breach of a condition and may be subjected to legal action.

Sylvatrees

## SITE MONITORING & SUPERVISION PROFORMA

## SITE SUPERVISION PROFORMA

### ARBORICULTURAL SUPERVISION RECORDING

Client:		Planning Ref:				
Local Authority:		Date:				
Site Address						
Dranga al.						
Proposal:						
Visit Checklist	Y/N		Y/N			
Tree Protection Fencing in place		Tree protection as approved				
Ground Protection in place		Ground Protection as approved				
Tree or Ground protection		Trees damaged				
breached		Dhataaraaba talkara				
Site Agent briefed by AC		Photographs taken				
AC briefed by Site Agent LPA informed						
Remedial action required						
. tottiodiai action roquirou						
Comments						
Recommendations						
Outcome						
1						
2						
3						
5						
Signed		Print name				
Date						

## QUALIFICATIONS

## QUALIFICATIONS

### Fiona Bradshaw

MicFor; RFS Dip Arb; F. Arbor. A; Tech Cert (Arbor. A)

I have over 22 years' experience of arboriculture and I am the principal consultant at Sylva Consultancy. I hold the Royal Forestry Society's Professional Diploma in Arboriculture and the Arboricultural Associations Technicians Certificate. I am a Fellow member of the Arboricultural Association and a professional member of the Institute of Chartered Foresters, of which I am also a registered Consultant.

I have the benefit of both a local authority and private practice background and I am frequently instructed to provide advice and assistance relating to trees and the planning process. I am also experienced at compiling expert reports, providing evidence and also appearing as an expert witness at Public Inquires.

I am committed to my continued professional development which is reflected in my regular attendance of seminars and workshops.