

**BS 5837:2012 Tree Survey,  
Arboricultural Impact Assessment,  
Tree Constraints Plan, Arboricultural  
Method Statement and  
Tree Protection Plan**

**At  
23 Queens Road, London  
TW10 6JW  
for  
Mr A Bangar**

**September 2024**

**Advanced Tree Services  
The Depot  
Pixham Lane  
Dorking  
Surrey RH4 1PH**

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## Introduction

1. I have been instructed by Mr Anil Bangar to produce an Arboricultural Impact Assessment (AIA), Tree Constraints Plan (TCP), Arboricultural Method Statement (AMS) and Tree Protection Plan (TPP) for a development at 23 Queens Road, London TW10 6JW.
2. The purpose of the Method Statement is to demonstrate how works will be undertaken at the property to avoid unacceptable arboricultural impact and provide an adequate level of protection for those trees shown to be retained. This is shown diagrammatically on the TPP, indicating the positions of protective fences delineating the Construction Exclusion Zones (CEZ).
3. The client has supplied plans showing the existing and proposed layouts (ref: QR 181/182).
4. I have not seen any plans indicating service runs at this moment in time.
5. I undertook the BS 5837:2012 tree survey on the 6<sup>th</sup> September 2024.

## Proposed Development

6. It is proposed to refurbish the existing property and extend the lower ground and ground floors into the rear garden.

## Tree Survey

7. I assessed the trees with due regard to the recommendations and guidelines contained in BS 5837:2012 - 'Trees in relation to design, demolition and construction - Recommendations'. The tree details were recorded in tabular form (appendix a) and have been categorised in accordance with the cascade chart for tree quality.
8. The survey detail provides the data to arrive at the Root Protection Areas (RPA) for the trees shown to be retained.
9. No soil samples were taken as a part of the survey.
10. The trees were inspected from the ground utilising the Visual Tree Assessment method as developed by Mattheck and Breloer (The Body Language of Trees, DoE leaflet No.4).

## **General Site/Tree Condition**

11. No. 23 Queens Road is a large, mid terrace residential property. With a small front garden and an enclosed rear garden.
12. There are no trees in the front garden.
13. The property has been vacant for a considerable amount of time. Consequently, the rear garden is overgrown with extensive bramble and ground ivy.
14. On the rear boundary is a mature Holly (T3). This twin stem specimen is in good physiological condition and provides a useful screen between the properties. It is however growing very close to the boundary wall. In time, as the girth of this tree increases, it will give rise to direct damage to the adjacent structure.
15. The only other tree of any note is a Pear in the rear garden of the neighbouring property. Heavily Ivy clad, this tree appears to be in good physiological condition.
16. All three trees are just visible from Marlborough Road. Although their overall contribution to the wider visual amenity is severely limited.

## **Arboricultural Impact Assessment**

### **Presence of Statutory Protection**

17. The website for the London Borough of Richmond upon Thames has confirmed that the property is located within the St Matthias Conservation Area (CA30). Therefore, a six-week notification will have to be submitted to the local authority before any tree works are undertaken.
18. Details of Tree Preservation Orders are not available online.

### **Effect of Development on Amenity Value**

19. No trees are to be removed, so there will be no effect on the wider visual amenity whatsoever.

### **Above & Below Ground Constraints**

20. The proposed extension does not infringe upon the RPA of any tree shown to be retained.

## Site Access Constraints

21. There are no arboricultural constraints with regards to the proposed access routes.

## The Construction Process

22. If the trees are to remain then the protective fences should be erected prior to any aspect of the development process. This means fences should be the first thing to be erected on site and the last thing to be removed prior to soft landscaping.

23. The sequence of construction events will be as follows;

- Installation of protective fences/measures
- Construction phase
- Remove protective fences/measures

24. This logical sequence of events must be adhered to in order to ensure the smooth running of the construction and all parties are aware of the need to recognise the importance of the CEZ.

## Infrastructure Requirements

25. As mentioned previously I have not seen any plans relating to the location of drainage or service runs. Suffice to say that they should be located outside of any RPA wherever possible. If new runs are required and they need to pass within the CEZ, careful positioning must be given consideration from the outset. Any installation must be carried out in strict accordance with National Joint Utilities Guidelines (NJUG) Volume 4 - *Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees* and BS 5837 section 7.7.

## Mitigation Planting

26. The garden will undoubtedly undergo relandscaping. New trees can be incorporated within any design which would offer longevity of tree cover on the site.

## **Arboricultural Method Statement (AMS)**

### **Pre-development works**

27. No arboricultural works are required prior to the commencement of building works.

### **Timing of operations**

28. A logical sequence of events is to be observed as follows;

- Installation of protective measures
- General demolition/construction phase
- Remove protective measures

29. No tree pruning works are to take place in early spring (bud break) or autumn (leaf fall) so as to minimise stress levels on the trees in question.

### **Pre-Commencement Site Meeting**

30. A pre-commencement meeting will take place on site, with the appointed arboricultural consultant, the tree contractor, the site manager and the local authority arboricultural officer in attendance. The purpose of this meeting is to ensure that everyone fully understands the implications of the Arboricultural Method Statement and to agree on finer points of detail prior to any works commencing.

### **Site Monitoring**

31. All site monitoring will be undertaken by a suitably qualified and experienced Arboriculturalist. Key operational points will be agreed in writing with the client and LPA prior to commencement of works. Typically, these will include;

- Installation of protective measures
- Demolition/construction works
- Installation of services
- Removal of protective measures
- Landscaping
- Site completion

32. Monitoring will be undertaken at intervals requested by the LPA. A checklist will be completed, and a copy will be retained by the Site Manager with a copy sent to the LPA within 5 working days.

33. Any defects requiring attention will be notified to the Site Manager and Client (copied to the LPA by e-mail). Any emergencies will be notified to the Client and LPA by phone.

34. Day to day site supervision will be the responsibility of the Site Manager. They will be aware of the tree protection measures and significant steps in the development process which have arboricultural implications. To ensure compliance the Site Manager will undertake a site briefing with the retained Arboriculturalist before the commencement of works.
35. A final sign off visit will be carried out at the end of the development and a formal letter sent both to the client and the LPA to indicate the end of the monitoring period.

### **Where responsibilities lie**

36. It will be the responsibility of the Site Manager to ensure that the AMS is adhered to at all times by site operatives, sub contractors and hauliers during the construction process.
37. Should any problems arise the Site Manager will immediately inform the arboricultural consultant who will assess the situation and make recommendations accordingly. If modifications to the AMS are proposed the arboricultural consultant will immediately advise the local authority arboricultural officer.

### **Erection and Location of Protective Fencing**

38. All protective fences are to be erected, in accordance with the Tree Protection Plan (TPP - Appendix c) and BS 5837:2012 Trees in relation to design, demolition and construction - Recommendations, prior to any development works on site. This will include demolition works.
39. The specification for the protective fencing (in blue on the TPP) will comply with Figure 2 in BS 5837:2012 and be mounted on a horizontal and vertical framework of scaffold poles made fast in the ground. Panels of weldmesh or 20mm exterior plywood shall be fixed to the framework with wire or scaffold clamps.
40. All fences will not be moved without the express permission of the local authority Arboricultural Officer.
41. All site operatives will be made fully aware of the function of the protective fencing and its importance in the construction process as part of their site induction. All weather notices will be placed on all the protective fencing stating words such as - "Construction Exclusion Zone - Keep Out".

42. The Construction Exclusion Zone (CEZ) shall remain sacrosanct throughout the entire development process. No access will be permitted within the permanently fenced areas. Ground levels will not be changed within them and existing vegetation and topsoil will remain undisturbed.
43. If any roots smaller than 25mm require pruning to facilitate installation, this will be done by a suitably qualified and experienced Arboriculturalist using sharp bypass secateurs/handsaw. Roots larger than 25mm should only be severed following consultation with an Arboriculturalist as such roots might be essential to the trees health and stability. Any exposed roots should be immediately wrapped or covered to prevent desiccation. Any wrapping should be removed prior to backfilling.

### **Surplus Arisings**

44. Skips will not be placed within any CEZ or adjacent to any protective fencing and no demolished material will be stockpiled against any protective fencing.
45. No fires shall be lit on site.

### **Service runs/installation**

46. If existing utilities are not to be used, the routing of all the drainage and services needs to be considered from an early stage. This will ensure that any encroachment into the CEZ is avoided or kept to an absolute minimum. If the CEZ cannot be avoided then it will be a contractual requirement that all excavations are undertaken by hand and in strict accordance with the 'National Joint Utility Guidelines (NJUG) Volume 4 - Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to trees' and BS 5837 section 7.7.

### **Site Deliveries / Storage space**

47. No building materials are to be stored against any protective fences so as to avoid further compaction for the RPA's.

### **Location of huts, toilets**

48. No site huts or toilets will be placed within a CEZ.

### **Potential effect of slopes**

49. Storage and/or mixing of materials which have the potential to spill and contaminate the soil (such as concrete and fuel) will not take place within 5m of any tree shown to be retained.

## **Use of Herbicides**

50. It is not proposed to use any herbicides on the site.

## **Compaction avoidance and mitigation**

51. As mentioned previously, all CEZ's are to be clearly marked on site and will be avoided. If for any reason the CEZ is compromised, it will be the duty of the site supervisor to contact the arboricultural consultant immediately. Remedial measures will be discussed, and an agreed course of action implemented in consultation with the local authority arboricultural officer. This may involve the use of soil aeration techniques such as an airspade. Action will be dictated by severity and extent of compaction.

## **Use of sub-contractors**

52. Any sub-contractors will be made fully aware of the AMS and the importance of the CEZ as a part of their site induction by the site supervisor.

## **Fence removal**

53. The protective measures shall be the last item removed from site prior to the implementation of the soft landscaping.

## **Final Inspection**

54. Prior to handover, following the completion of the development an Arboriculturalist will inspect the trees on site to check for any indications of accidental damage or change in the condition of any tree.

55. A schedule of remedial works will be drawn up to ensure that there are no outstanding tree work issues prior to handover.



## Remedial tree works

56. Any tree works must be undertaken in accordance with BS 3998 - 2010 Tree Work - Recommendations and only once the necessary procedure has been undertaken with the Local Authority.
57. Under the Wildlife and Countryside Act 1981 (Section 1) it is an offence to take damage or destroy the nest of any wild bird while that nest is in use or being built. Planning consent for a development does not provide a defence against prosecution under this act. Trees and scrub are likely to contain nesting birds between 1 March and 31 July. In order not to contravene the Wildlife and Countryside Act 1981 the timing of the tree surgery works should avoid the bird nesting season (March - May).
58. Under the Wildlife & Countryside Act 1981, The Countryside Rights of Way Act 2000 and The Conservation Regulations 1994 (known as the Habitats Directive) it is an offence to:
- Intentionally kill, injure or take a bat.
  - Possess or control a live or dead bat, any part of a bat, or anything derived from a bat.
  - Intentionally or recklessly damage, destroy or obstruct access to any place that a bat uses for shelter or protection.
  - Intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection.
59. If a bat roost is suspected please contact the Bat Conservation Trust on 0845 1300 228 or at [www.bats.org.uk](http://www.bats.org.uk).

## Conclusion

60. The rear extension lies outside the RPA's of all trees shown to be retained.
61. If the recommendations listed in the AMS and shown on the TPP are adhered to, I see no reason why this development should not be able to proceed without undue pressure on the existing tree cover.

Yours truly,

Dominic Blake PD Arb (RFS) MArbor A  
CEO  
September 2024

## Appendices

- a) Survey schedule
- b) Tree Constraints Plans (1:200)
- c) Tree Protection Plan (1:200)
- d) Site Photographs
- e) Protective barrier
- f) Site monitoring checklist
- g) Fence signage

## References

- *BS 5837:2012 - Trees in relation to design, demolition and construction - Recommendations*
- *BS 3998:2010 - Tree Works - Recommendations*
- *National Joint Utilities Group (NJUG) Volume 4*

# **APPENDIX A**

## **BS 5837: 2012 TREE SURVEY**

## Advanced Tree Services

### Arboricultural Survey - Definitions

<b>Hgt</b>	Tree Height (height in metres, measured with a clinometer)
<b>SD</b>	Stem diameter at 1.5 metres above ground level (in millimetres)
<b>N-E-S-W</b>	Branch spread taken at four compass points (in metres)
<b>Crown clearance</b>	Height of crown clearance above adjacent ground level (in metres)
<b>Life Stage</b>	<b>Y</b> - Young <b>SM</b> - Middle Aged <b>M</b> - Mature <b>OM</b> - Over Mature <b>V</b> - Veteran
<b>P.Cond</b>	Physiological condition <b>G</b> - Good <b>F</b> - Fair <b>P</b> - Poor <b>D</b> - Dead
<b>S.Cond</b>	Structural condition - General comment on safety of tree
<b>Radius</b>	Root Protection radius (m)
<b>RPA</b>	Root protection area (m <sup>2</sup> )
<b>ERC</b>	Estimated remaining contribution in years
<b>Category grading</b>	Trees are categorized in accordance with the cascade chart given as Table 1 in B.S.5837:2012. <b>A</b> - High quality & value (40 yrs+) <b>B</b> - Moderate quality & value (20 yrs+) <b>C</b> - Low quality & value (10 yrs+) <b>U</b> - Those 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

*(NB. Any value suffixed with '#' is an estimated value)*

## ADVANCED TREE SERVICES

**Table 2 - BS 5837:2012 - Trees in Relation to design, demolition and construction - Recommendations - Cascade chart for tree quality assessment**

<b>TREES FOR REMOVAL</b>				
Category and definition	Criteria			Identification on plan
<b>Category U</b>	<p>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 U category trees (i.e. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning).</p> <p>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.</p> <p>NOTE:- Category U trees can have existing or potential conservation value which it might be desirable to preserve.</p>			<b>RED</b>
<p>Those in such a condition that any existing value would be lost within 10 years and which should in the current context, be removed for reasons of sound arboricultural management</p>				
<b>TREES TO BE CONSIDERED FOR RETENTION</b>				
Criteria - Subcategories				Identification on plan
Category and definition	1 Mainly Arboricultural values	2 Mainly landscape values	3 Mainly cultural values, including conservation	
<b>Category A</b>				
<p><b>Trees of high quality</b> with an estimated remaining life expectancy of at least 40 years</p>	<p>Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)</p>	<p>Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features</p>	<p>Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood pasture)</p>	<b>GREEN</b>
<b>Category B</b>				
<p><b>Trees of moderate quality</b> with an estimated life expectancy of at least 20 years</p>	<p>Trees that might be included in category A but are downgraded because of impaired condition (e.g. presence of remediable defects including unsympathetic past management and storm damage), such that are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation.</p>	<p>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</p>	<p>Trees with material conservation or other cultural value</p>	<b>BLUE</b>
<b>Category C</b>				
<p><b>Trees of low quality</b> with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm</p>	<p>Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories</p>	<p>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</p>	<p>Trees with no material conservation or other cultural value</p>	<b>GREY</b>

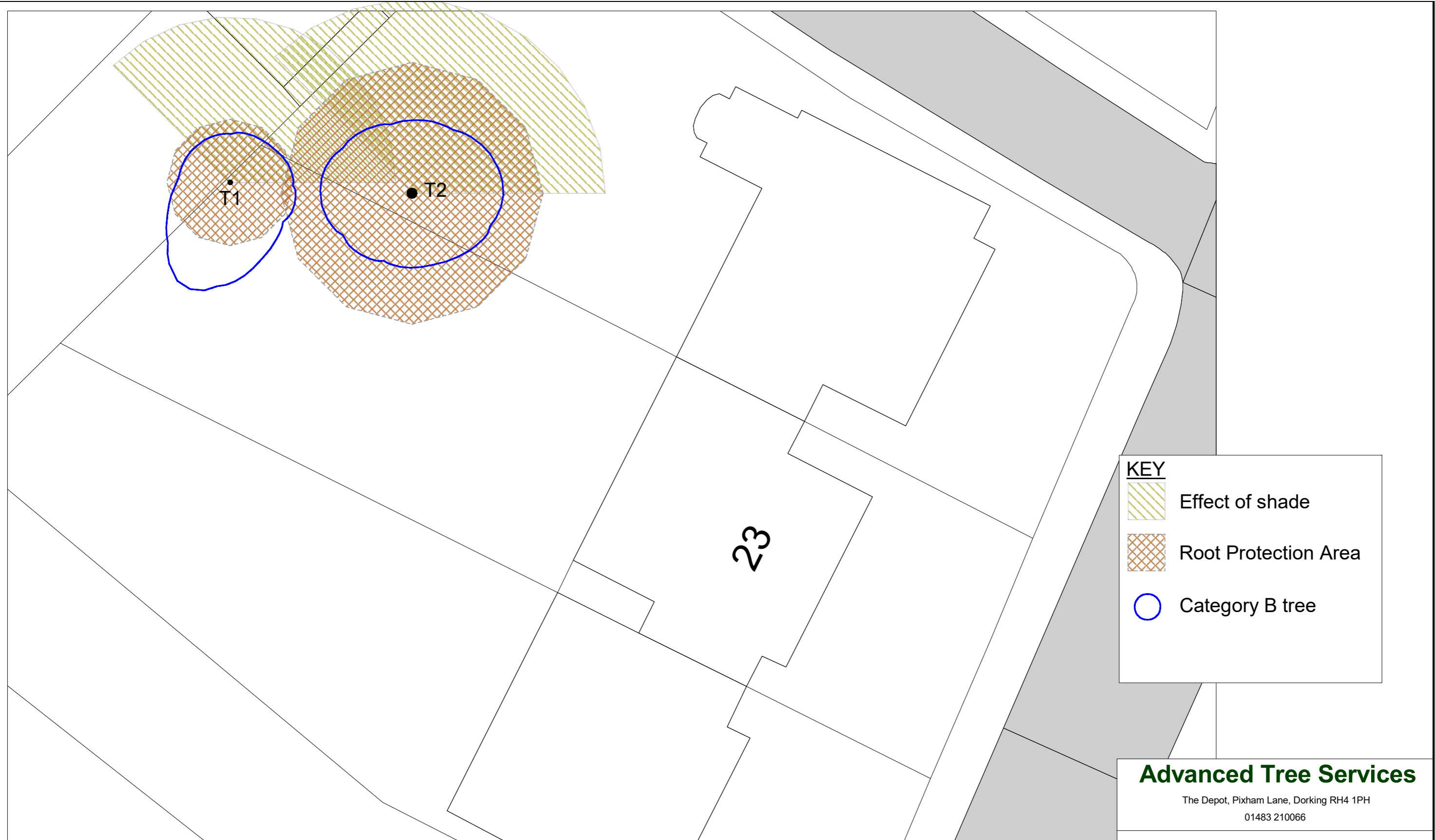
Site: 23 Queens Road, London  
 Client: Mr A Bangar  
 Date of Survey: 06/09/2024  
 Tagged: No  
 Surveyor: DB  
 Weather: Overcast, light breeze

**ADVANCED TREE SERVICES  
 TREE SURVEY SCHEDULE**




Tree ID	Species	Height (m)	SD (mm)	Crown Spread (N)	Crown Spread (E)	Crown Spread (S)	Crown Spread (W)	Age Class	P.Cond	Structural Condition	Radius	RPA	Sq.Sides	ERC	Category Grading	Category Criteria	Works in the interests of Health and Safety
T1	Holly	9	280	3	3.5	6	3	Mature	Good	Fair. Twin stem from base. Canopy weighted to south. Growing very close to wall.	3	35	6	10 to 20 yrs	B	1	No works required
T2	Pear	10.5	580	4	5	4	5	Mature	Good	Fair. Heavily Ivy clad. Reduced in past	7	152	12	10 to 20 yrs	B	1	Sever Ivy at base

**APPENDIX B**

**TREE CONSTRAINTS PLAN**




**KEY**

-  Effect of shade
-  Root Protection Area
-  Category B tree

**Advanced Tree Services**  
 The Depot, Pixham Lane, Dorking RH4 1PH  
 01483 210066

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**Tree Constraints Plan**

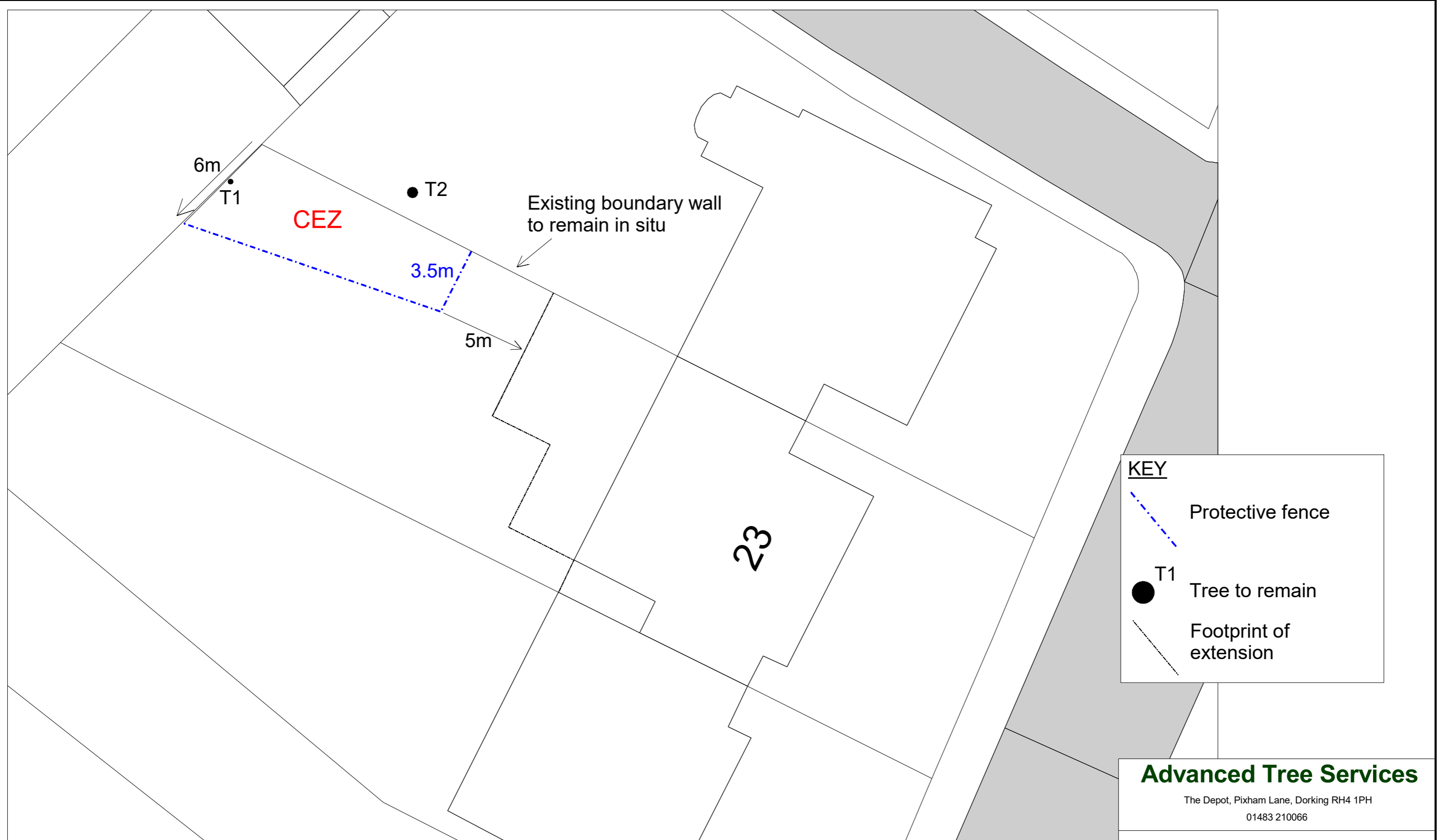
SCALE : 1 : 200 @ A3	DATE : 06/09/2024	
MAP FILENAME : 23 Queens Road TCP.mpd		

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**APPENDIX C**

**TREE PROTECTION PLAN**




**KEY**

-  Protective fence
-  T1 Tree to remain
-  Footprint of extension

**Advanced Tree Services**  
 The Depot, Pixham Lane, Dorking RH4 1PH  
 01483 210066

**Tree Protection Plan**

SCALE : 1 : 200 @ A3	DATE : 06/09/2024	
MAP FILENAME : 23 Queens Road TPP.mpd		

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**APPENDIX D**

**SITE PHOTOGRAPHS**

23 Queens Road, Richmond (06.09.2024)



**T1 & T2**



**Base of T1**

23 Queens Road, Richmond (06.09.2024)



**T2 in neighbouring garden**

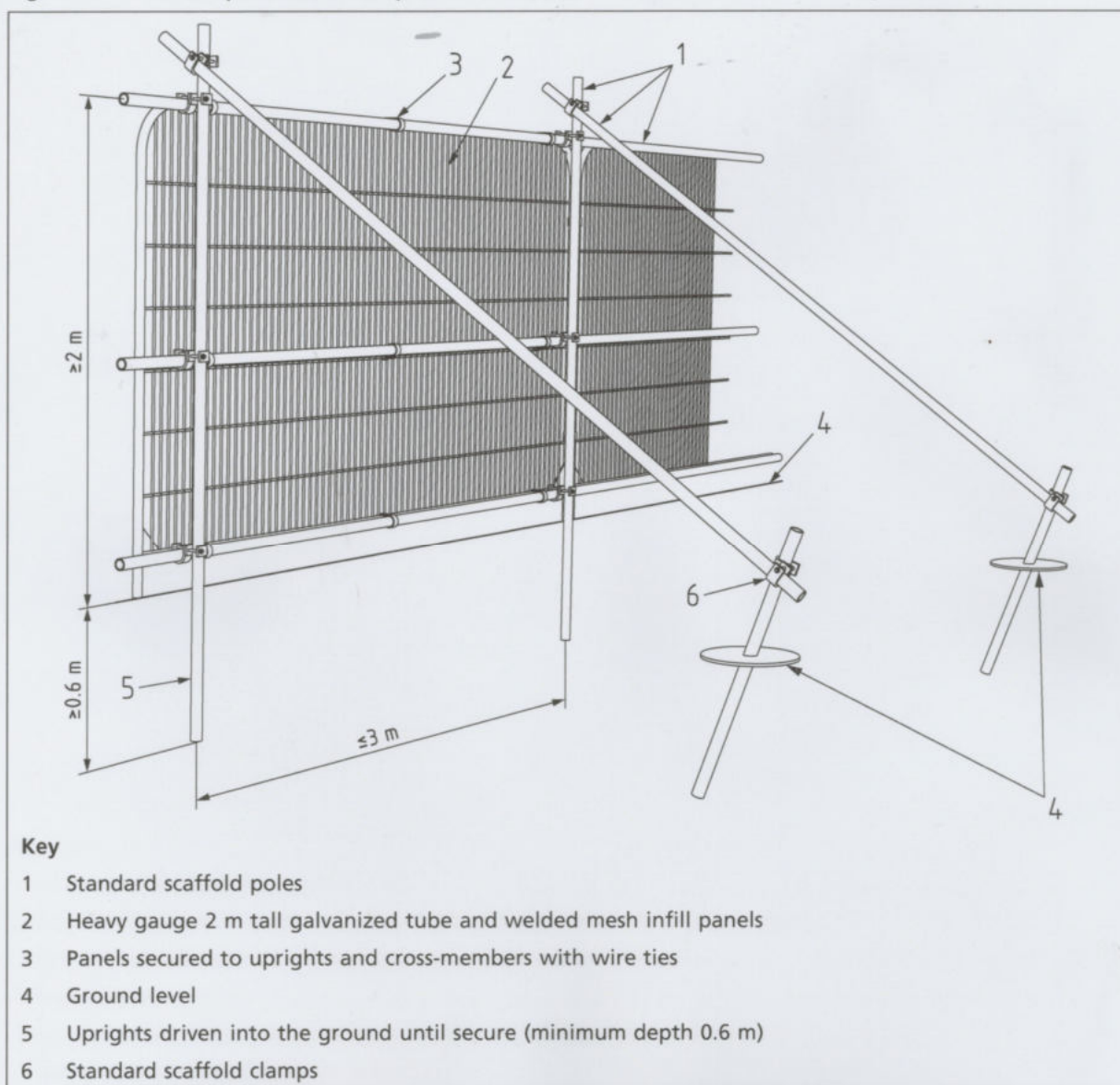
# APPENDIX E

## DETAIL OF TREE PROTECTION BARRIER

BRITISH STANDARD 5837:2012

Trees in relation to design, demolition and construction - Recommendations

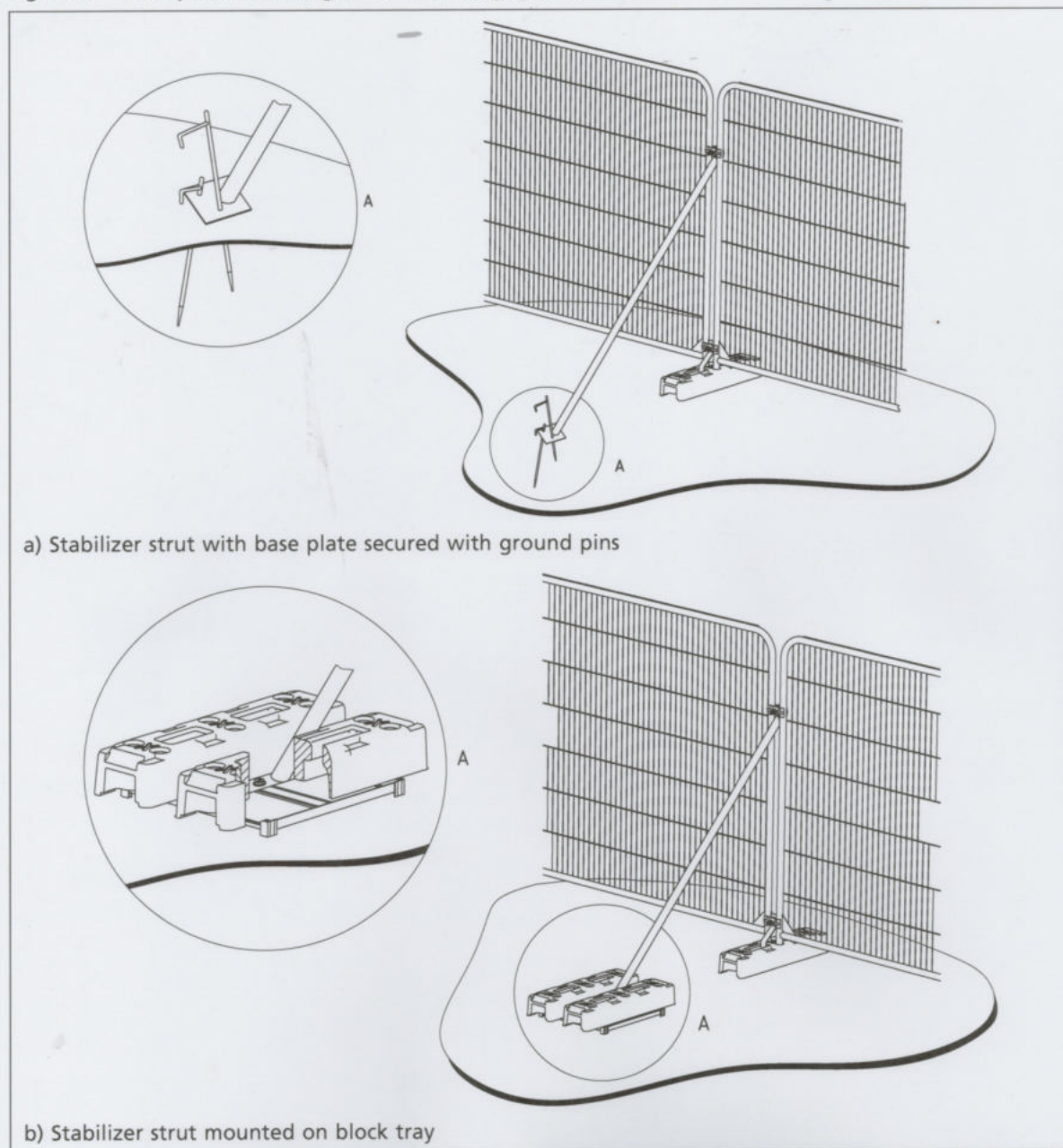
Figure 2 Default specification for protective barrier



**BRITISH STANDARD 5837:2012**

**Trees in relation to design, demolition and construction - Recommendations**

Figure 3 Examples of above-ground stabilizing systems





**APPENDIX F**

**SITE SUPERVISION CHECKLIST**



## **BS 5837:2012 – Trees in Relation to Design, Demolition and Construction – Recommendations**

### **ARBORICULTURAL SITE SUPERVISION - SUMMARY**

1. Once retained as Arboricultural Consultants for a specific development site, all site monitoring will be undertaken by a suitably qualified and experienced Arboriculturalist.
2. Our Arboriculturalist will be present throughout the key operations to ensure compliance with the Arboricultural Method Statement and Tree Protection Plan. Key operational points will be agreed in writing with the client and LPA prior to commencement of works. Typically these will include;
  - Remedial tree works
  - Installation of protective measures (fences and ground)
  - Installation of site facilities
  - Demolition works
  - Installation of services
  - Landscaping within RPA's
  - Site completion
3. Monitoring will be undertaken on a fortnightly basis as well as ongoing communications with the Client, Site Manager and LPA. A checklist will be completed (*appendix a*) and a copy will be retained by the Site Manager with a copy sent to the LPA.
4. Monitoring visits will generally be unannounced. Upon arrival the Arboriculturalist will check in at the site office and inspect the tree protection measures in conjunction with the Site Manager. The Arboriculturalist will also visit the site at pre-determined dates to view specific operational issues (see above).
5. Any defects requiring attention will be notified to the Site Manager and Client (copied to the LPA by e-mail). Any emergencies will be notified to the Client and LPA by phone.
6. Day to day site supervision will be the responsibility of the Site Manager. They will be aware of the tree protection measures and significant steps in the development process which have arboricultural implications. To ensure compliance the Site Manager will undertake a site briefing with the retained Arboriculturalist before the commencement of works.
7. A final sign off visit will be carried out at the end of the development and a formal letter sent both to the client and the LPA to indicate the end of the monitoring period.



**Arboricultural Monitoring Report Sheet**

(BS 5837:2012 Trees in Relation to Design, Demolition and Construction - Recommendations)

<b>Client</b>		<b>Planning Ref:</b>	
<b>Planning Authority</b>		<b>Date of inspection</b>	

<b>Site Address</b>	
---------------------	--

<b>Site Checklist</b>	
<b>Protective fencing in place</b>	
<b>Protective fencing to specification</b>	
<b>Ground protection in place (if applicable)</b>	
<b>Site Foreman briefed</b>	
<b>Tree(s) damaged?</b>	
<b>Remedial works required</b>	

**General Comments:**

**Recommendations:**

**Report sent to LPA:**

**Inspection by:**



**APPENDIX G**

**PROTECTIVE FENCE  
WARNING SIGNS**



**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**