

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

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

Phone: 01483 210066 E-mail: info@atstrees.co.uk At 260 Coombe Lane, SW20 0RW For Ghlenn Perry Capuyan

November 2023





Introduction

- I have been instructed by Ghlenn Perry Capuyan to produce an Arboricultural Impact Assessment (AIA), Tree Constraints Plan (TCP), Arboricultural Method Statement (AMS) and Tree Protection Plan (TPP) for a development at 260 Combe Lane SW20.
- 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 proposed house (A1-A14).
- 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 21st November 2023.

Proposed Development

- 6. It is proposed to construct a 2 storey, detached house with basement, loft and associated parking.
- 7. Access will remain as existing.

Tree Survey

- 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.
- 9. The survey detail provides the data to arrive at the Root Protection Areas (RPA) for the trees shown to be retained.
- 10. No soil samples were taken as a part of the survey.
- 11. 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

- 12.260 Coombe Lane is a detached bungalow on a corner plot. The front garden is mainly laid to lawn with shrubs along the boundary with Coombe Lane. There is a small patio area to the rear.
- 13. The only tree on site is a small, self-set Purple Plum on the eastern boundary. This is a poor specimen with no longevity.
- 14. In the front garden of No.262 Coombe Lane is a mature Oak. This tree has been heavily reduced in the past and as a result has lost its natural form. There are two fungal brackets emerging on the main stem on the eastern side. From ground level these appeared to be *Cerioporus squamosus*.

Arboricultural Impact Assessment

Presence of Statutory Protection

- 15. The website for the London Borough of Merton has confirmed that the site is not located within a Conservation Area.
- 16. The oak tree in the front garden of No.262 is listed as T1 under Tree Preservation Order MER 774.

Effect of Development on Amenity Value

- 17. The following trees will have to be removed as a direct result of the proposal;
 - T1 Purple Plum
- 18.T1 cannot be easily viewed from the public highway. Its loss will have no impact on the wider visual amenity whatsoever.

Above & Below Ground Constraints

- 19. The pedestrian access, bin store and cycle store are located within the RPA for T2.
- 20. Consequently, an above ground construction with permeable wearing surface will be required for this area (see AMS).
- 21. The new parking area and driveway are further from T2 and infringe upon less than 20% of the RPA. Specialist construction methods will not be required for this aspect of the development.



Site Access Constraints

22. There are no access constraints which require arboricultural intervention.

The Construction Process

- 23. Protective fences should be erected prior to any aspect of the demolition process. These will need to remain in situ during the main build.
- 24. The sequence of construction events will be as follows;
 - Installation of protective measures
 - Demolition/Construction phase
 - Remove protective measures
 - Install pedestrian access
- 25. 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

26. 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 RPA, 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.

Proximity of proposal to trees

27. Given the location, size and site orientation of T2, I do not consider that the proposal will suffer undue shading.

Modifications Proposed to Accommodate Building/Trees

28. As mentioned previously, an above ground construction for the pedestrian entrance will be required.

Mitigation Planting

29. New tree and shrub planting is shown on the landscape plan (A-14). Fundamentally, there is very little vegetation on site worth retaining so new landscaping will help to visually enhance the site



Arboricultural Method Statement (AMS)

Pre-development works

- 30. The following works will need to be undertaken to accommodate the build.
 - T1 Fell and grind
- 31. It will be the responsibility of the tree contractor to ensure that all the necessary consents have been sought from the local authority.
- 32. Where stumps are to be removed within the RPA for any retained tree, grinding will be kept to a maximum depth of 100mm.

Pre-Commencement Site Meeting

33. 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

- 34. 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
 - Landscaping
 - Site completion
- 35. 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.
- 36. 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.



- 37. 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.
- 38. 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

- 39. 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.
- 40. 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

- 41. As mentioned previously, the existing boundary fence with No.262 will remain in situ for the duration of the build.
- 42. Protective fences will be erected prior to demolition of the existing bungalow. They will remain in place during the construction of the main build. They will then be removed for the final installation of the pedestrian entrance and bin stores.
- 43. 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.
- 44. 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.
- 45. All fences will not be moved without the express permission of the local authority Arboricultural Officer.



- 46. 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".
- 47. 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.
- 48. 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

- 49. Skips will not be placed along the boundary with No.262 and no demolished material will be stockpiled against any protective fencing.
- 50. No fires shall be lit on site.

Service runs/installation

51. 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

52. 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

53. No site huts or toilets will be placed adjacent to the boundary fence with No.262.



Potential effect of slopes

54. 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 10m of any tree shown to be retained.

Use of Herbicides

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

Compaction avoidance and mitigation

56. 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

57. 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

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

Final Inspection

- 59. 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.
- 60. 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

- 61. 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.
- 62. 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).
- 63. 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.
- 64. If a bat roost is suspected please contact the Bat Conservation Trust on 0845 1300 228 or at <u>www.bats.org.uk</u>.



Conclusion

- 65. Only one, sub-standard tree is to be removed. However, given its size, and condition, the impact on the wider visual amenity will be negligible.
- 66. Mitigation plating along the site frontage will offer sustainable planting and soften the boundary with Coombe Lane.
- 67. Construction of the pedestrian entrance within the RPA for T2 will be an above ground method with a permeable wearing surface.
- 68. 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 November 2023

Appendices

- a) Survey schedule
- b) Tree Constraints Plans (1:150)
- c) Tree Protection Plan (1:150)
- 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

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APPENDIX A

BS 5837: 2012 TREE SURVEY

Advanced Tree Services

Arboricultural Survey - Definitions

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

Category and definition	Criteria								
Category U	Onteria								
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).									
existing value would be lost within 10 years and which should in the current context, be removed for reasons of sound arboricultural management	ithin 10 current prosof other 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.								
TREES TO BE CONSIDERED	FOR RETENTION								
		Criteria - Subcategories							
Category and definition	1 Mainly Arboricultural values	3 Mainly cultural values, including conservation	Identification on plan						
Category A									
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 essential components of groups, or of 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)	GREEN					
Category B									
Trees of moderate quality with an estimated life expectancy of at least 20 years	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.	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 occuring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	BLUE					
Category C									
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 lanscpe benefits	Trees with no material conservation or other cultural value	GREY					

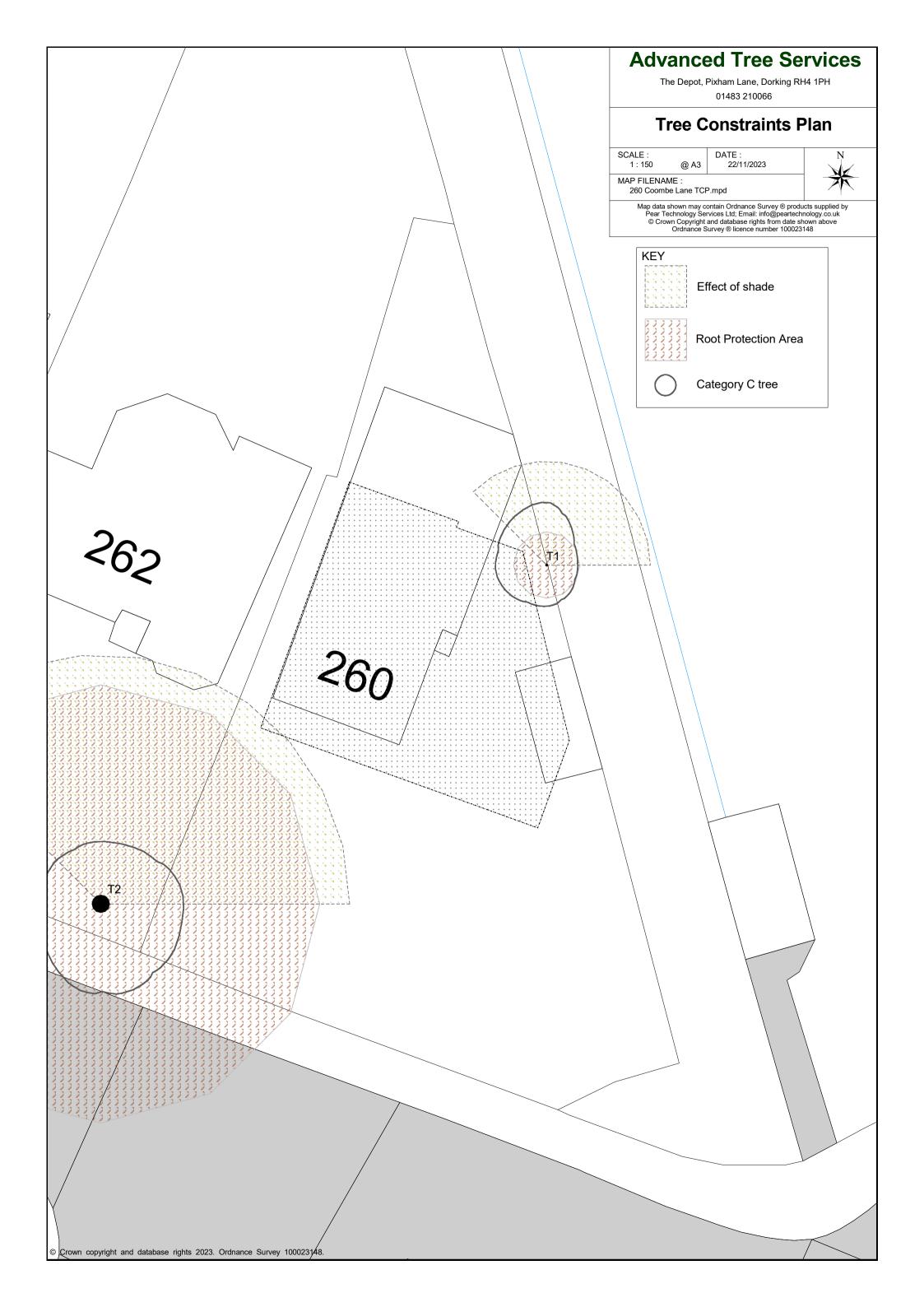
Site: 260 Coombe Lane, SW20 Client: Mikko Veluya Date of Survey: 21/11/2023 Tagged: No Surveyor: DB Weather: Clear, dry.

Tree ID	Species	Height (m)	SD (mm)			Crown Spread (S)		Age Class	P.Cond	Structural Condition	Radius	RPA	Sq.Sides	ERC	Category Grading	Category Criteria	Works in the interests of Health and Safety
T1	Purple Plum	5	130	3	1.5	2	2.5	Young		Poor. Multistem from base. Poor form. No longevity. No retention value.	2	8	3	<10 yrs	С	1	No works required
T2	Oak	12	860	3	4	4.5	3	Mature	Fair	Fair. Heavily reduced in past. Poor structure. Polyporus emerging at two points on main stem on east side. Question longevity.	10	335	18	10 to 20 yrs	С	1	No works required

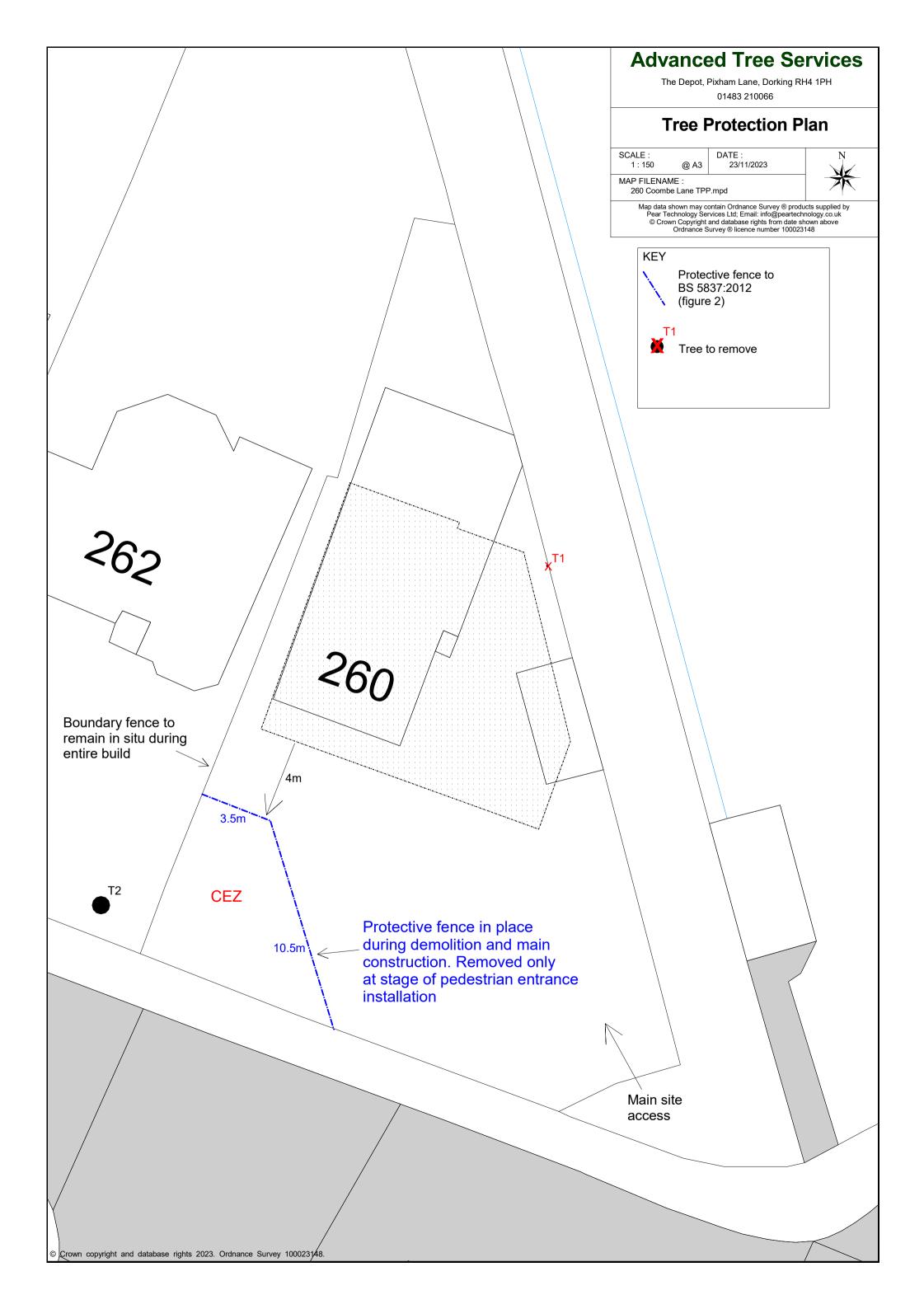
Tree in neighbouring property

APPENDIX B

TREE CONSTRAINTS PLAN



APPENDIX C TREE PROTECTION PLAN



APPENDIX D SITE PHOTOGRAPHS



260 Coombe Lane SW20 (21.11.2023)



Site frontage



Rear garden



260 Coombe Lane SW20 (21.11.2023)

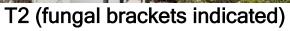


Т1



260 Coombe Lane SW20 (21.11.2023)





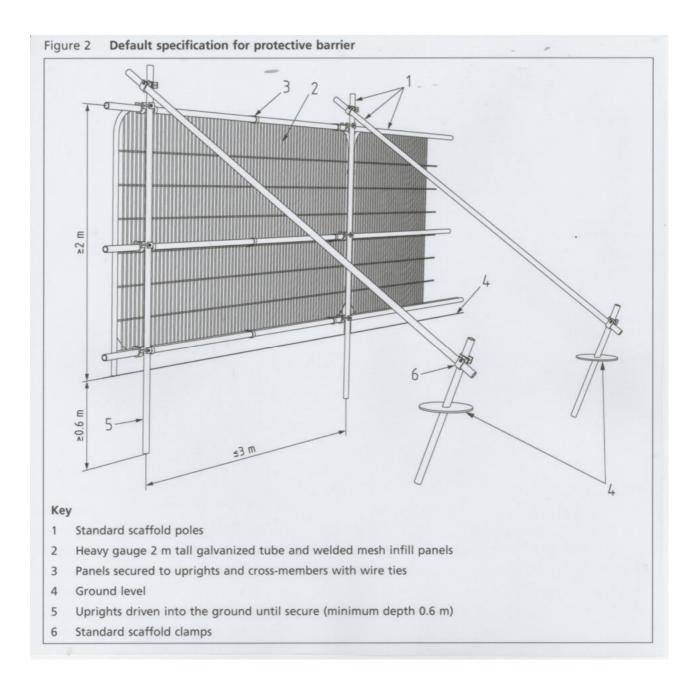
APPENDIX E

DETAIL OF TREE PROTECTION BARRIER



BRITISH STANDARD 5837:2012

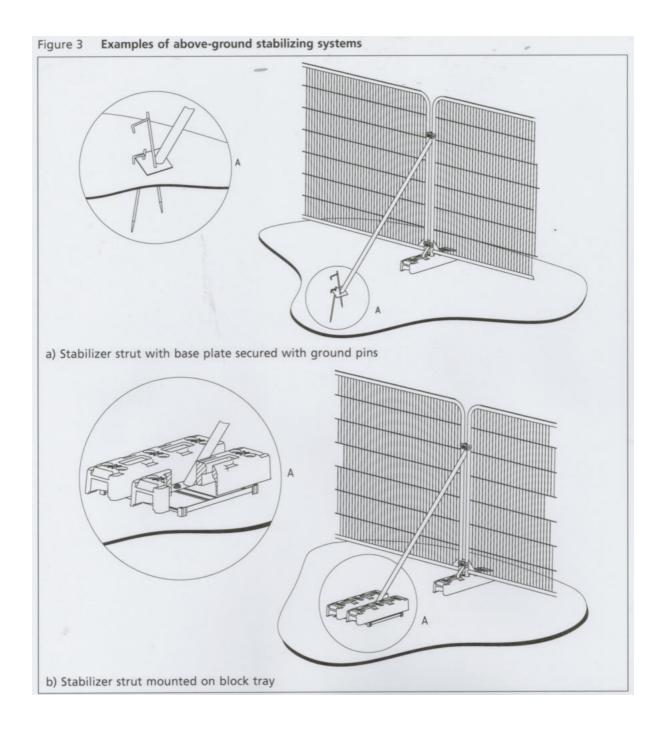
Trees in relation to design, demolition and construction - Recommendations





BRITISH STANDARD 5837:2012

Trees in relation to design, demolition and construction - Recommendations



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 Arboriculutral 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.



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Arboricultural Monitoring Report Sheet

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

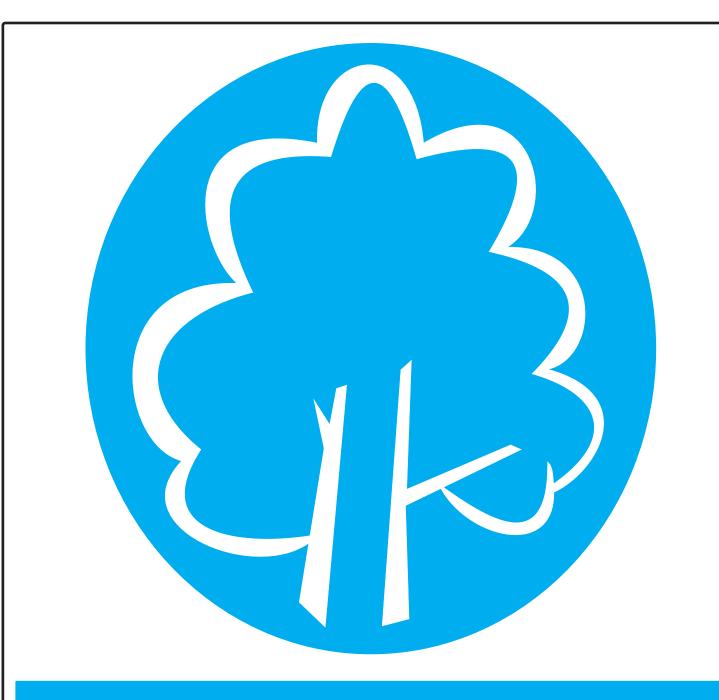
Client		Planning Ref:	
Planning Autho	ority	Date of inspection	

Site Address		
Site Checklist		
Protect	tive fencing in place	
Protective	fencing to specification	
Ground protec	tion in place (if applicable)	
Site	Foreman briefed	
Tre	ee(s) damaged?	
Remed	dial works required	
General Comments:		
Recommendations:		

Report sent to LPA: Inspection by: ISO 14001 Environm Managem OHSAS 18001 Occupational Health & Safety Management ISO 9001 Quality HAS

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

Cellweb®TRP

Why protect trees?

Trees provide a wealth of benefits within the urban environment including cleaning the air, prevention of flooding and moderation of the climate.

As a result, within the UK it is an offence to cut down, lop, uproot, top, wilfully damage or destroy a protected tree without authorisation. Fines, if the defendant is found guilty in a Crown Court, are unlimited.

To minimise the environmental impact and avoid legal proceedings, we offer the independently tested Cellweb®TRP system.



What is Cellweb®TRP?

Cellweb®TRP is a cellular confinement system specifically designed for tree root protection. The system creates a stable, load-bearing surface for traffic or footfall whilst eliminating damage to roots through compaction and desiccation.

The Cellweb®TRP system comprises of three specific elements, Cellweb®TRP, Treetex™ pollution control geotextile and an infill of clean angular stone. The system has been designed to create an unparalleled solution to tree root protection applications.

Cellweb®TRP is a no-dig solution that ensures that the load placed upon it is laterally dissipated rather than transferred to the soil and roots below. The use of Treetex[™] pollution control geotextile allows for drainage and separation whilst preventing contaminants from reaching the roots.

The walls of the cells are perforated and when combined with the infill of clean angular stone, enables free movement of water and oxygen, ensuring that supplies to the tree roots are maintained.



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What makes Cellweb®TRP different?

With over 15 years of captured data and thousands of installations, the Cellweb®TRP system has developed a reputation for excellence.

We are so confident in our system, we offer a guarantee that covers the replacement of the trees and of the system itself. With Cellweb®TRP being quick to install and having a 100% success rate it is clear to see why the Cellweb®TRP is regularly specified by tree officers and arboriculturalists across the country.

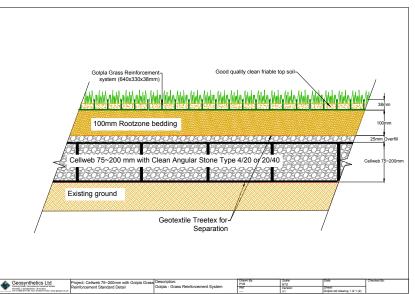
From the drawing board to installation, we are here to help.

We have been supplying the Cellweb[®]TRP system since 1998 and our technical team have vast experience with tree root protection and the associated legislation.

Delivering complete peace of mind to customers is our number one priority. As part of this customer care package we offer free on site consultations, technical recommendations and on site installation guidance on all projects.

Our in-house engineering team provide site specific recommendations to ensure the solution used is cost effective and environmentally sound.

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