Sharon Hosegood
ASSOCIATES

ARBORICULTURAL IMPACT ASSESSMENT REPORT

BS 5837:2012 'Trees in relation to design, demolition and construction. Recommendations'

report

SITE

Coal House, Branch Hill House, Branch Hill, London NW3 7LS

CLIENT

Almax Group

Sharon Durdant-Hollamby
FICFor FArborA BSc (Hons) Tech Cert (ArborA)

DATE: June 2023
OUR REF: SHA 681 AIA

OUR CONTACT DETAILS: 01245 210 420
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Executive summary

This report is submitted in connection with a planning application for a proposed family sized single house to adjoin the existing previously approved Branch Hill planning permission (''the main permission''). This will be a single 3 bed dwelling (C3) comprising 3 floors plus basement at Coal House, Branch Hill House, Branch Hill, London NW3 7LS. I have provided all information in accordance with the British Standard (BS 5837: 2012 ''*Trees in relation to design, demolition and construction. Recommendations*'' (referred to as BS).

The trees are not protected by a Tree Preservation Order; however, the site is within Hampstead Conservation Area.

The site is a small part of a wider area where permission has been granted for residential redevelopment. The actual site area is at the western end of the existing building and on a slightly raised mound, with two small, low quality trees, enclosed by a wall on the southern side. Beyond the wall is a path, and south of that is a mature sycamore T50. It is highly likely that the retaining wall and mound restrict root growth from this tree. This scheme follows close collaboration with the design team and T50 is able to be retained in accordance with the details in this report. It will require pruning and the two small trees will be removed. The installation of foundations will be supervised under arboricultural supervision. The removal of the two small trees will be more than compensated for by the extensive landscaping as part of the larger scheme in the immediate vicinity.

Categorisation of tree features - trees/groups/hedges/woodlands	Total	Trees to be retained (on site)	Trees to be removed (on site) in relation to works
Category A (high value)	0	-	-
Category B (moderate value)	4	4	0
Category C (low value)	6	4	2
Category U (unsuitable for retention)	0	-	-
Total	**10**	**8**	**2**

Table 1 – tree numbers by category

Contents

Appendices

1. Introduction:

1.1. This report accompanies a planning application to London Borough of Camden for a proposed family sized single house to adjoin the existing previously approved Branch Hill planning permission (''the main permission'') at Coal House, Branch Hill House, Branch Hill, London NW3 7LS. The work is in accordance with BS 5837:2012 *'Trees in relation to design, demolition and construction. Recommendations'* (referred to as BS).

1.2. This report details tree condition, the impact of the proposal on, and from, the existing trees and the measures taken to protect trees to be retained. It also includes tree surgery recommendations.

1.3. The survey has resulted in a layout as shown in the tree protection plan at Appendix 3. Where technical terms are used, explanations are found in the glossary.

2. Statement of instructions and the issues addressed:

2.1. I was instructed by Almax Group to:-

2.1.1. Carry out a tree survey in accordance with BS 5837:2012 '*Trees in relation to design, demolition and construction – Recommendations*' (BS);

2.1.2. Analyse the proposals and the impact on trees to be retained;

2.1.3. Produce a tree protection plan, showing the location of the tree protection fencing in accordance with the BS and a specification for the protection of the existing trees;

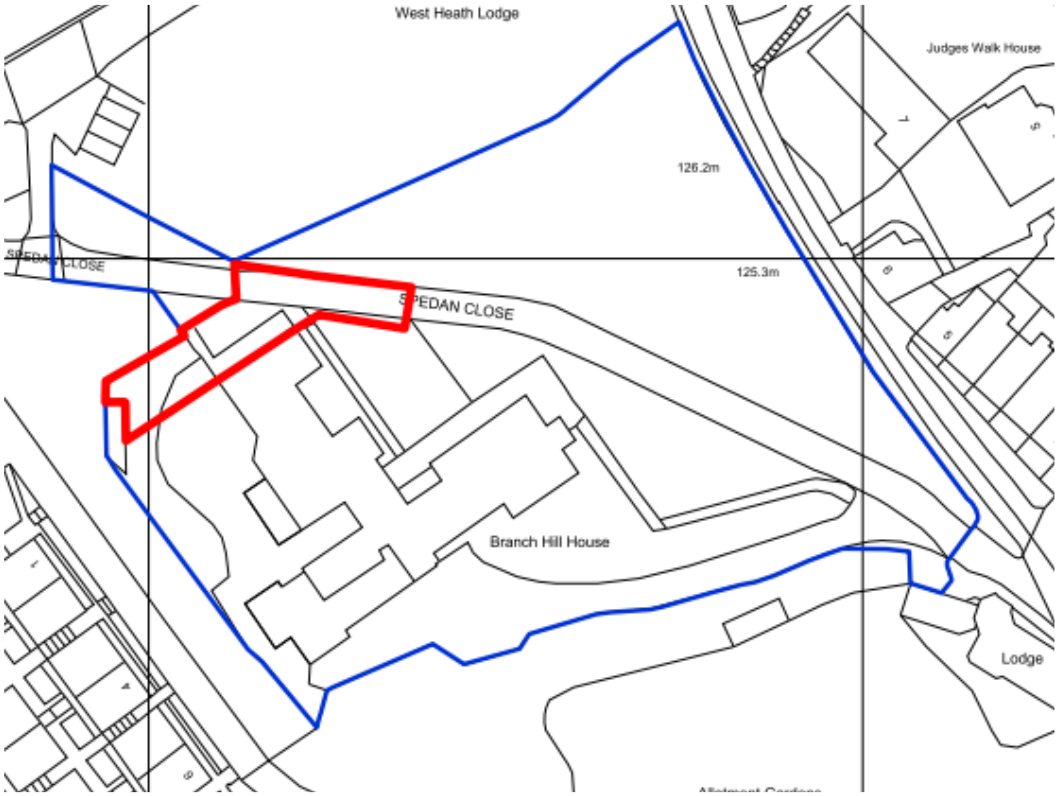
2.1.4. Provide a tree surgery schedule which includes work to facilitate construction, based on the layout of, and works to, trees due to their condition or previous management;

2.1.5. Provide arboricultural method statements in as much detail as is practical at this stage.

2.2. The issues addressed are tree condition, and how the proposal impacts on the site and vice versa.

3. The site:

3.1. The site is a former coal house on the north-west elevation of Branch Hill House, Branch Hill, London NW3 7LS. The site application area is 348.5 square metres. The red line area of the plan extract overleaf essentially covers the area immediately surrounding the Coal House. The blue line area represents the area that is in the same ownership.



Plan 1 – site location plan shown by red line boundary. Do not scale, north is vertical.

3.2. *Site soils:* An assessment of soils on-site was carried out by a desktop analysis using the National Soil Resources Institute website which identified the soils as likely to be 'Freely draining slightly acid loamy soils'. This is a guide only and detailed on-site soil analysis should be undertaken by the project engineer to inform the foundation design. The likelihood is that there is made ground containing rubble (reference: TreeRadar report TRUK 0027 Branch Hill House TreeRadar 1) and experience. The ground has been cut and filled and retained with structures built in the 1960s.

3.3. Most soils in urban areas are not true soils in the scientific sense. They do not have the same structure and profile as natural soils found in rural or natural settings. They are called 'made ground' and are a mixture of material that has accumulated in place as a result of human activity over many years. They may be lacking in structure, nutrients and organic matter, have high levels of acidity or alkalinity or be contaminated from salt spreading or previous industrial or other human activity. They may also be bacteria dominant rather than fungal dominant which can present a problem for newly planted trees. https://cdn.forestresearch.gov.uk/2022/02/7111_fc_urban_tree_manual_v15.pdf

4 The trees:

4.1. *Generally:* There are 7 individual trees and 3 groups which form the subject of this survey. Full details are found in the survey sheets at appendix 1 and their location on the tree survey plan *SHA 681 TSP B* at appendix 2.

4.2. *Legislation*: There are no Tree Preservation orders (TPO). The site is within Hampstead Conservation Area. Further information on legislation is found at appendix 7.

4.3. *BS retention category of trees in this survey, including offsite trees:*

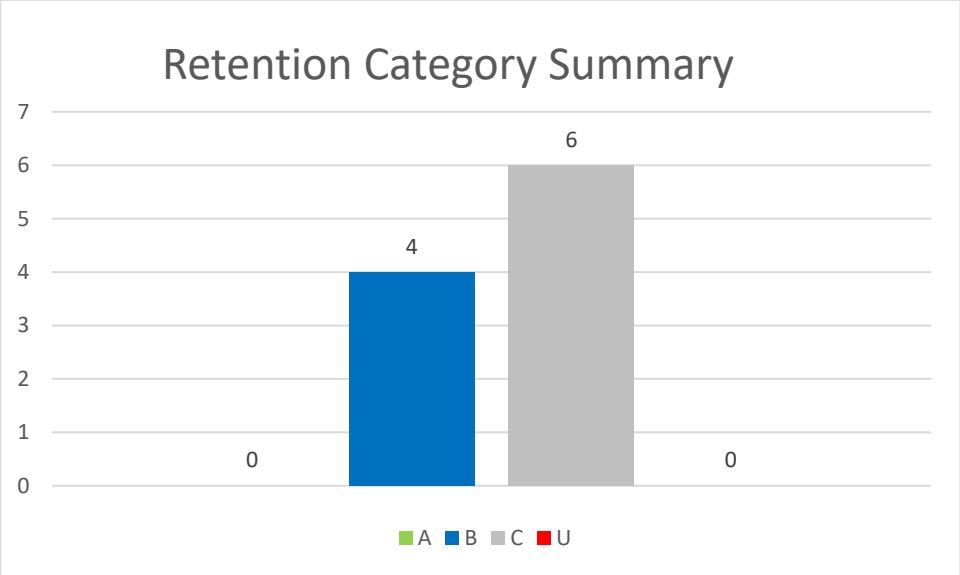


Table 3 – Retention category
A – high quality
B – moderate quality
C – low quality
U – unsuitable for retention

5. The Proposal

5.1. For a proposed family sized single house to adjoin the existing previously approved Branch Hill planning permission (''the main permission''). This will be a single 3 bed dwelling (C3) comprising 3 floors plus basement.

5.2. The proposals are for a single residential dwelling that will complement and form part of the wider development proposals of the former Branch Hill Care Home that was granted full planning permission on 11 August 2021 (Ref.2019/6354/P) for:

"Change of use of Branch Hill House from care home (Use Class C2) to residential (Use Class C3) and associated external alterations, demolition of the 1960s care home extension and erection of replacement building, including basement, comprising residential accommodation (Use Class C3), ancillary plant, access and servicing and car parking".

5.3. A subsequent minor material amendment (s73) application was submitted for minor amendments, and applications were approved comprising:

•S73 Application Ref 2021/5377/P granted 30 August 2022 for the Variation of Condition 2 (Approved Plans), Condition 13 (Cycle Parking) and Condition 24 (Housing). The proposed amendments included revisions to:

- basement layout;
- internal layout of flats, including the amalgamation of four flats to create two larger 3beds;
- levels shown on drawings (following detailed surveys)
- massing, including realignment of external walls and various design refinements;
- various exterior design refinements; and
- relocation of substation

5.4. This report is submitted in support of a full planning application for a single family dwelling. This report sets out how the proposals have been designed to meet adopted development plan policies, including Camden Local Plan and London Plan and Camden's supplementary planning guidance.

5.5. In addition, the report also sets out how the proposals will complement the main Branch Hill House planning permission and how the application proposals have been designed to ensure that the proposals will not prejudice the delivery of the Branch Hill permission.

5.6. In parallel with this application, a s96A NMA application has also been submitted that seeks minor internal changes to the main Branch Hill planning permission. These changes are being sought in order to facilitate the proposals that form the scope of this application

6. Arboricultural impact assessment:

6.1. *Summary of the impact on trees*: Development can adversely impact on trees by causing them to be removed to facilitate the development, or in the future, by adversely affecting their potential for retention through disturbance in root protection areas (RPAs) or through post development pressure to prune or remove.

6.2. Tree roots can be asphyxiated and die if the rooting zone becomes compacted and soil structure damaged which can easily occur, particularly on clay soils, even with the passage of light vehicles. At the design stage, disturbance within the RPA should be avoided. If unavoidable (which may need demonstrating), consideration must be given to any construction activity such as demolition, including removal of existing hard surfaces, changing soil levels and the provision of services where within RPAs, as well as new surfaces and structures.

6.3. *Comments on specific trees and the arboricultural impact: T50 sycamore (B – moderate value under the BS), T68 holly (C – low value), T69 beech (C)*

T50 is a mature sycamore with a stem diameter of 750mm, 18m tall and a crown spread of c.16m. It is growing in an elevated location in a raised bed which constrains its rooting area on the southern side, and a wall on the north east will be acting as a root barrier to the depth of its foundations.

Photo 1 of T50 looking north

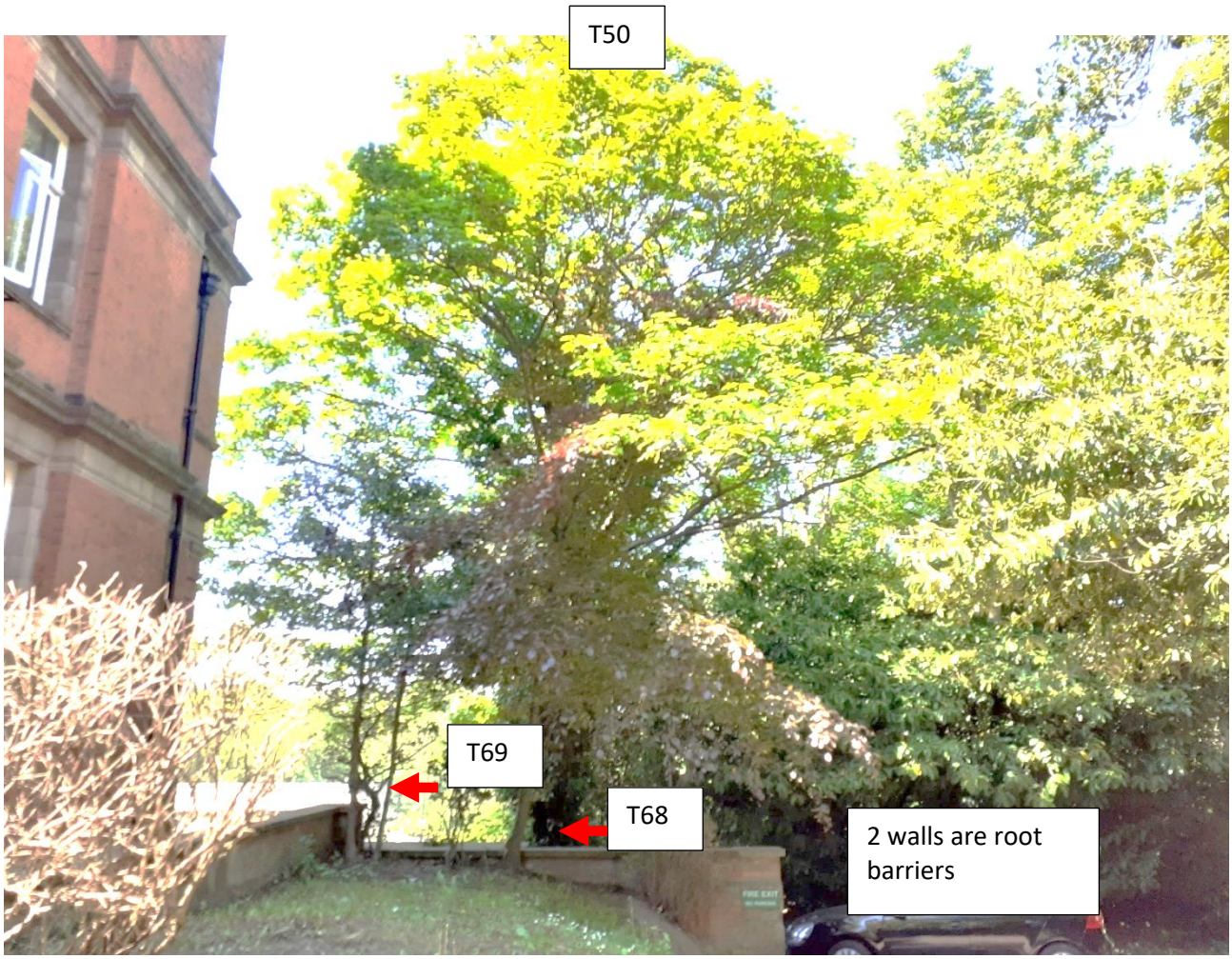


Photo 2 of T50 looking south-west

Photo 3 of T50 looking towards the property

Arboricultural impact assessment:

Retain/remove and tree protection measures – T68 and T69 will be removed. This will have a negligible impact on visual amenity. T50 will be retained. The wall will be demolished in accordance with a method statement to be developed further post planning. The line of the new building is on the line of the wall and will be constructed using sheet piling. This negates the requirement for a piling mat, which is essential as no excavation can take place in the orange rectangle overleaf. The sheet piling will require pruning of the overhang of T50 along the building line to enable the sheet piling rig to operate. The details of this will be finalized post planning for a forthcoming method statement. Services and drainage can serve the proposal from Spedan Drive, and there can be no excavation for services or drainage in this area shown below. This area will be top dressed with additional ground protection and the soft vegetation protected with tree protection fencing in accordance with the location on the tree protection plan reference SHA 681 TPP at appendix 3 to a specification at appendix 5. Tree works are found at appendix 4. There will be a lightweight stair well in this area supported by localised pads constructed in accordance with the forthcoming method statement.

Photo 3 of the wall and sensitive area looking towards the existing house.

6.4. T70 holly (C), G71 laurel (C), T72, T73, T74 sycamore (B), G75 sycamore, lime, laurel (B) and G76 laurel, holly, sycamore (C)

6.5.1 These trees and shrubs are to the west of the site in an informal landscaped area to the south of Spedan Drive with G76 to the north of the drive. T70 is a mature holly 8m high in a reasonable form and condition, although swamped with ivy. G71 is a thicket of laurel in a raised bed averaging 2m apart with an open leggy habit. T72 – T74 are mature sycamores between 18 – 20m high growing through the laurel. G75 is a mixed group providing dense screening with the sycamores ranging from young to early mature with the lime being prominent. G76 is predominantly holly growing on a raised bank next to the northern side of the drive. There is a large prominent sycamore set back 7.5m from the wall bank and together they provide collective amenity and dense screening.

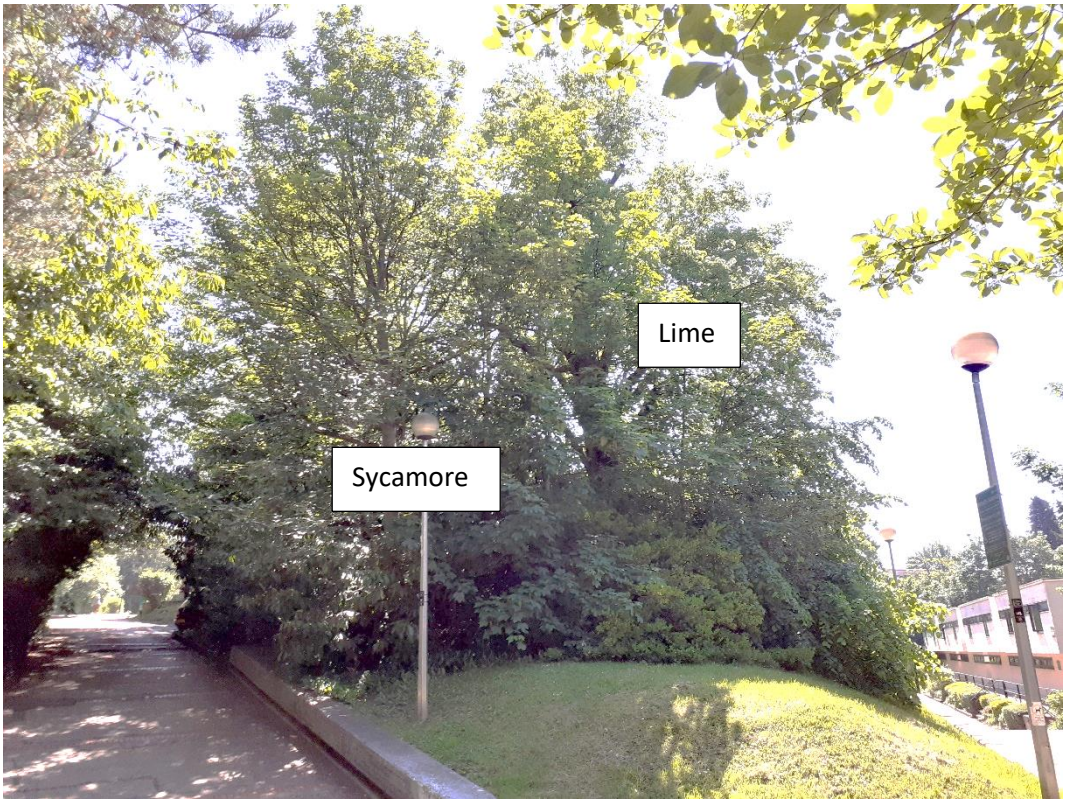


Photo 4 of G75 looking east along Spedan Close. Prominent trees to be retained

Photo 5 of G76 looking west along Spedan Close

6.5.2 *Arboricultural impact assessment:*

All will be retained and protected during construction in accordance with the specification at appendix 5 to a location on the tree protection plan at appendix 3. Minor crown lifting and dead wood removal is recommended over Spedan Drive for clearance and safety reasons. More generally, the area will be appropriately managed as part of the landscaped management plan.

Photo 6looking east along Spedan Close. Area of suitable pruning (subject to consent)

7. Conclusions:

7.1. The proposals relate to the wider main Branch Hill application and would not prejudice the main application from compliance with the relevant planning conditions and obligations.

7.2. The site is a small part of a wider area where permission has been granted for residential redevelopment. The actual site area is at the western end of the existing building and on a slightly raised mound, with two small, low quality trees, enclosed by a wall on the southern side. Beyond the wall is a path, and south of that is a mature sycamore T50. It is highly likely that the retaining wall and mound restrict root growth from this tree. This scheme follows close collaboration with the design team and T50 is able to be retained in accordance with the details in this report. It will require pruning and the two small trees will be removed. The installation of foundations will be supervised under arboricultural supervision. The removal of the two small trees will be more than compensated for by the extensive landscaping, as part of the larger scheme in the immediate vicinity.

8. Recommendations:

8.1. That a copy of this report, and subsequent more detailed arboricultural method statement, is kept on site, including A3 colour copy of the tree protection plans. The arboricultural documents will be part of site induction by the main contractor to all sub-contractors.

8.2. That the arboricultural method statements are developed further and are observed by all site personnel and supervised at key stages by the project arboricultural consultant. Short supervision reports are to be written after each inspection as a record of compliance and audit trail to the Local Authority.

8.3. That the foundation design takes into account trees to be retained, trees to be removed and trees to be planted.

8.4. That there are no ground level changes with the area shown on the plan by tree protection fencing. A meeting is to be held with the Civils team and the arboriculturist.

8.5. That the line of the underground services should be ideally located outside of Root Protection Areas. However, as a precaution the final service plan should be assessed by an arboriculturist. If it is unavoidable that services are to be located in RPAs, then a method statement must be produced. A meeting is to be held with the Civils team and the arboriculturist.

8.6. That no tree works take place until consent is granted other than the removal of dead and broken precarious branches

8.7. That the tree protection fencing is installed before machinery enters the site and remains in place until the soft landscaping stage.

Sharon Durdant-Hollamby
FICFor FArborA BSc (Hons) Tech. Cert. (Arbor A)

Director
Sharon Hosegood Associates Ltd

Appendix 1

Tree survey sheets

Tree Number	Botanical Name (Common name)	Age	Dia (mm)	Stems	Height (crown height)	Ult ht (m)	N	E	S	W	Cond	Life Exp	BS Cat	RPR (m	RPA (m^2)	Comments	Recommendations
T50	Acer pseudoplatanus (Sycamore)	M	75.	1	18		9	8	10	8			B1 (B1)		254.5	Pruned back from building (approx 2.5m separation)	
T68	Ilex aquifolium (Holly)	SM	150 100 100	3	5(0.5)	11	2	2	2	2	Fair	10+	C2	2.47	19.17	Tree located within raised bed. Reasonable form and condition. Plotted by eye as not on topo. Suckers around stem base. Multiple stems at ground level. Low bud/leaf density.Growing right on the edge of the raised area, very close to the two retaining walls.	
T69	Fagus sylvatica 'Purpurea' (Copper Beech)	Y	120	1	7(2)	12	5	4	2	4	Fair	10+	C2	1.44	6.52	Tree located within raised bed. Reasonable form and condition. Plotted by eye as not on topo. Epicormics on stem. Unbalanced crown shape. Crown distorted due to group pressure.Growing right next to retaining wall in an unsustainable location. Very suppressed by T50. T50 over area 8m. Minor deadwood in Crown. Dense ivy to upper crown.	

Tree Number	Botanical Name (Common name)	Age	Dia (cm)	Stems	Height (crown height)	Ult ht (m)	N	E	S	W	Cond	Life Exp	BS Cat	RPR (m	RPA (m^2)	Comments	Recommendations
T70	Ilex aquifolium (Holly)	M	300	1	8(0)	11	3	3	2	3	Fair	20+	C2	3.6	40.72	Reasonable form and condition. Plotted by eye as not on topo. Ivy on tree. Unable to inspect stem due to Ivy. Suckers around stem base. Unbalanced crown shape. Crown distorted due to group pressure.Swamped with ivy. Growing in an area of dense laurel. 2.7m from lamppost. Forms a dense screen.	
G71	Prunus laurocerasus (Cherry Laurel)	M	150	4	7(0)	10	4	4	2	2	Fair	10+	C2	3.6	40.72	Tree located within raised bed. Reasonable form and condition. Plotted by eye as not on topo. Leaning North. Leaning South. Leaning East. Leaning West. Suckers around stem base. Multiple stems at ground level. Unbalanced crown shape. Crown distorted due to group pressure.Thicket of laurel forming a dense screen. Average of 2m spacing. Average dimensions given. Open, leggy form and unmanaged.	

Tree Number	Botanical Name (Common name)	Age	Dia (cm)	Stems	Height (crown height)	Ult ht (m)	N	E	S	W	Cond	Life Exp	BS Cat	RPR (m	RPA (m^2)	Comments	Recommendations
T72	Acer pseudoplatanus (Sycamore)	M	250 300 350 200	4	18(7)	22	5	5	5	5	Good	40+	B2	6.73	142.31	Reasonable form and condition. Plotted by eye as not on topo. Ivy on tree. Unable to inspect stem due to Ivy. Multiple stems at ground level.7.6m from lamppost. Growing in laurel area. Tall drawn up tree. Minor dead wood interspersed in the crown.	
T73	Acer pseudoplatanus (Sycamore)	M	250 400	2	20(7)	22	5	5	5	5	Good	40+	B2	5.66	100.66	Reasonable form and condition. Plotted by eye as not on topo.6.8m from lamppost. Growing in laurel area. Tall drawn up tree. Minor dead wood interspersed in the crown. Tight fork on main stem at 2m.9.5m from T50.	
T74	Acer pseudoplatanus (Sycamore)	M	400	1	18(7)	22	5	5	5	5	Good	40+	B2	4.8	72.39	Plotted by eye as not on topo. Multiple stems at ground level. Included bark present in fork.7.7m from lamppost. Growing in laurel area. Tall drawn up tree. Minor dead wood interspersed in the crown. Tight fork on main stem at 2m.10.5m from T50.	

Tree Number	Botanical Name (Common name)	Age	Dia (cm)	Stems	Height (crown height)	Ult ht (m)	N	E	S	W	Cond	Life Exp	BS Cat	RPR (m	RPA (m^2)	Comments	Recommendations
G75	Acer pseudoplatanus (Sycamore),Tilia X europaea (Common Lime),Prunus laurocerasus (Cherry Laurel)	M	450	1	18(2)	25	7	7	7	7	Good	40+	B2	5.4	91.62	Tree located within raised bed. Provides a high level of visual amenity. Prominent tree. Reasonable form and condition. Plotted by eye as not on topo.This group is remote from any works and has been assessed from Spedan Close for visual impact. Difficult to to fully assess due to dense undergrowth. The prominent tree is a large lime at the top of the slope. This has a full dense crown. The sycamores range from Young to early mature. Max dimensions given and estimated.	

Tree Number	Botanical Name (Common name)	Age	Dia (cm)	Stems	Height (crown height)	Ult ht (m)	N	E	S	W	Cond	Life Exp	BS Cat	RPR (m	RPA (m^2)	Comments	Recommendations
G76	Prunus laurocerasus (Cherry Laurel),Ilex aquifolium Silver Queen (Holly),Acer pseudoplatanus (Sycamore)	M	100 150 150 100	4	7(2)	10	2	2	5	2	Good	10+	C2	3.06	29.42	Tree located within raised bed. Reasonable form and condition. Plotted by eye as not on topo. Part of linear group. Suckers around stem base. Multiple stems at ground level. Unbalanced crown shape. Crown distorted due to group pressure.Predominantly Holly growing on a raised bank. Average dimensions given. The crowns arch over the drive. One mature Holly less than 1m from the wall. Ivy has been recently severed and dying back from the top and in terminal decline. Leans East. Large prominent sycamore set back 7.5m from wall edge. No access, and remote from survey so not accessed but noted for visual amenity.	

Explanation of the tree survey sheets

The tree survey has been carried out in accordance with BS 5837:2012 'Trees in relation to design, demolition and construction – Recommendations'. Below is an annotation of the abbreviations in the sheet and their meanings.

1	2	3	4	5	6	7	8				9	10	11	12	13	14	15
Tree Number	Botanical Name (Common name)	Age	Dia (mm)	Stems	Height (crown height)	Ult ht (m)	N	E	S	W	Cond	Life Exp	BS Cat	RPR (m)	RPA (m^2)	Comments	Recommendations

1 Tree

T - Tree, **G** - Group of trees, **H** - Hedge and **S** -shrub mass

2 Species - Botanical name and (Common name)

3 Age

NP – Newly planted, **Y** – Young - an establishing tree that could be easily transplanted

SM - Semi-mature - an established tree still to reach its ultimate height and spread with considerable growth potential.

EM – Early mature – a tree reaching its ultimate height and whose growth is slowing, however it will still increase considerably in stem diameter and crown spread.

M – Mature – a tree with limited potential for further significant increase in size, although likely to have a considerable safe useful life expectancy

OM – Over-mature – of an age where the mature size of the tree can no longer be maintained, and adaptive growth strategies such as 'retrenchment' (growing down) are commencing. These strategies should not be confused with senescence or a moribund condition, as a good life expectancy can remain.

V – Veteran/Ancient – either a tree older than typical for the species, or a tree showing signs of age, and of great ecological, cultural or aesthetic value.

4 Dia (mm)

Diameter of the stem in millimetres at 1.5m above ground level for single stemmed tree or in accordance with Annex C of BS 5837 for multi-stemmed trees or trees with low forks or irregular stems.

5 Stems

Number or stems. Multi-stemmed is m/s

6 Height (Crown height)

Height in metres from the ground to the top of the crown

(Crown height) – height of canopy above ground level

7 Ult ht (m)

Height in metres that could be reasonably expected for the species given its condition, past management and location.

8 NSEW

The crown spread from the trunk to the tips of the crown at the four cardinal points

9 Cond

Physiological condition. Good, fair, poor or dead

10 Life Exp

Estimated remaining contribution in years; <10, 10+, 20+ and 40+.

11 BS Cat

Category in accordance with Table 1 and section 4.5 of BS

U – unsuitable for retention. Existing condition is such that they cannot be realistically retained as living trees in the context of the current land use for longer than 10 years. Note, category U trees can have existing or potential conservation value which might be desirable to preserve.

A – high quality and value (non-fiscal) with at least 40 years remaining life expectancy

B – moderate quality and value with at least 40 years remaining life expectancy

C – low quality and value with at least 10 years remaining life expectancy, or young trees with a stem diameter below 150mm

A, B and C category trees are additionally graded into: 1 – mainly arboricultural values, 2 – mainly landscape values and 3 – mainly cultural values including conservation

12 RPR (m)

RPR – Root protection area radius (m)

13 RPA – Root protection area (m^2)

14 Comments

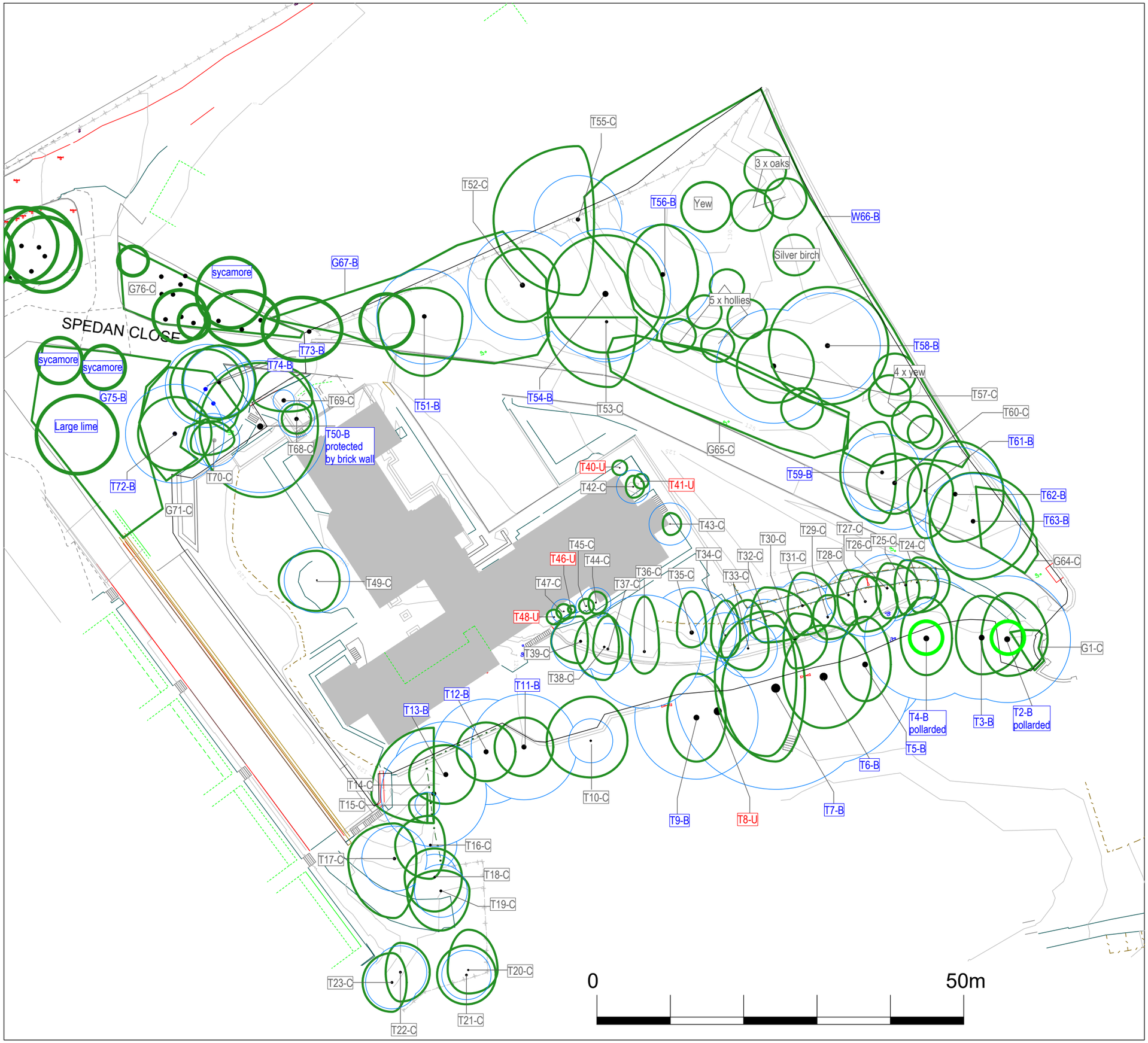
Detailed comments about the tree

15 Preliminary recommendations

Recommendations based on the tree's conditions and its current surroundings.

Appendix 2

Tree survey plan SHA 681 TSP B



T1-B Category B - moderate quality and value

T1-C Category C - low quality and value

T1-U Category U - unsuitable for retention

Crown spread

RPA - root protection area
as defined by Table 2
BS 5837:2012

Group/Woodland

Notes

1. Contractors to check all dimensions on site
2. Discrepancies must be reported to the Arboricultural Consultant before proceeding
3. The original of this drawing was produced in colour, a monochrome copy should not be relied upon.
4. It is the responsibility of the contractor to ensure necessary consents for tree works are in place
5. This drawing is copyright

Rev :B	Description :Tree adjustment on western side adjust to match new topo	Authorized :SMD-H 16.12 21
Rev :A	Description :addtional area surveyed	Authorized :SMD-H June 21

Sharon Hosegood Associates

Sharon Hosegood ASSOCIATES

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Client

Almax Group

Site Address

Branch Hill House, Branch Hill, London NW3 7LT

Drawing Title	Orientation	Drawn	Authorized
Tree Survey Plan		ND-H	SMH
Date	**Drawing Number**	**Scale**	**Drawing Status**
13.6.18	SHA 681 TSP	1:500@A3	For Issue

Revision
A

Appendix 3

Tree protection plan SHA 681 TPP Coal House

SPEDAN CLOSE

camore

sycamore

G75-B

Large lime

T72-B

G71-C

T74-B

T73-B

T70-C

T69-C

T68-C

T50-B
roots restricted
by brick wall

T49-C

T12-B

T13-B

120

120

Notes

1. Contractors to check all dimensions on site
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3. The original of this drawing was produced in colour, a monochrome copy should not be relied upon.
4. It is the responsibility of the contractor to ensure necessary consents for tree works are in place
5. This drawing is copyright

T1-B Category B - moderate quality and value

T1-C Category C - low quality and value

T1-U Category U - unsuitable for retention

Trees to be retained

RPA - root protection area
as defined by Table 2
BS 5837:2012

Group/Woodland to be retained

Trees to be removed

Wall to be demolished under arboricultural supervision

No excavation here, and top dress wtih ground protection during works

Tree protection fencing comprising braced Heras panels

Sharon Hosegood Associates

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Client

Almax Group

Site Address

Coal House
Branch Hill House, Branch Hill, London NW3 7LT

Drawing Title	Orientation	Drawn	Authorized
Tree Protection Plan		ND-H	SMD-H
Date	**Drawing Number**	**Scale**	**Drawing Status**
07.06.2023	SHA 681 TPP	1:200@A3	For Issue
Revision	Coal House		

Appendix 4

Tree surgery schedule

Tree surgery schedule

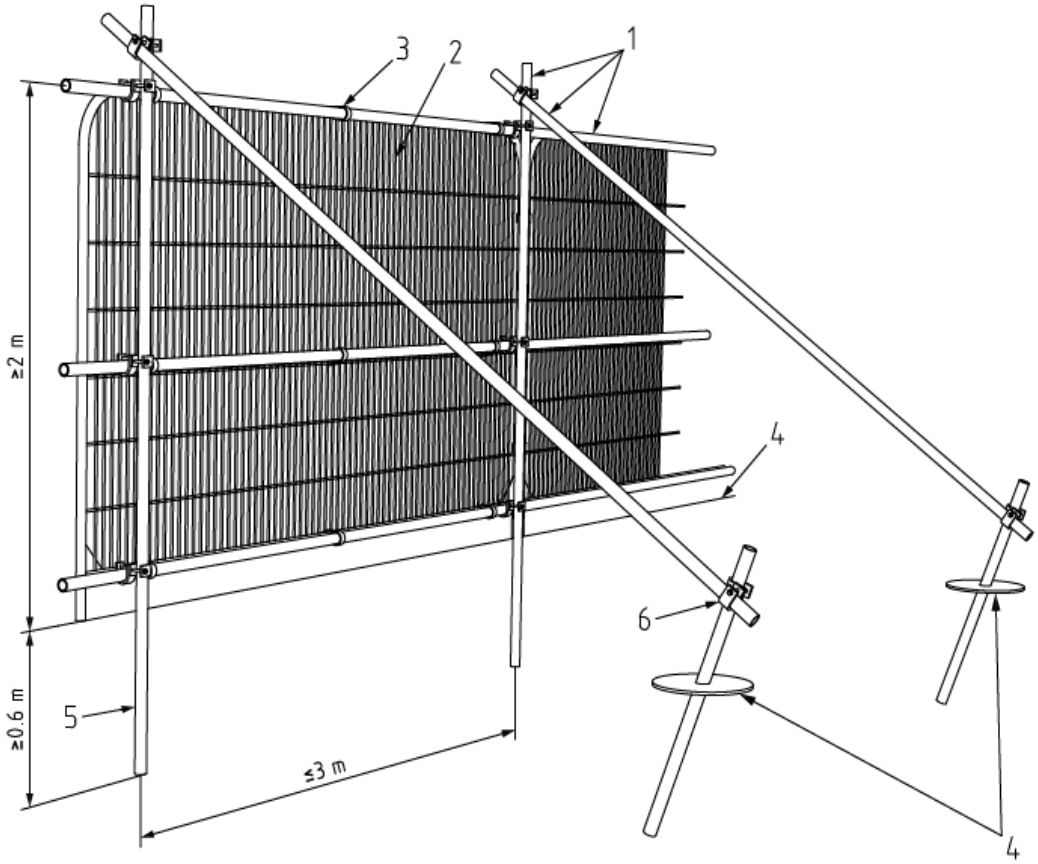
All works to be carried out in accordance with BS 3998:2010 'Tree works – Recommendations'. All pruning cuts to be made at suitable growing points in the line with the principles of 'Natural target pruning'. An ecological check is required by a competent person prior to tree works being carried out and the ecological report referred to. Works should not take place until planning permission is granted and all pre-commencement conditions are discharged. This must be communicated to the tree surgeon and storage agreed with the demolition/main contractor.

Tree no.	BS category	Species	Proposed works	Reason
T50	B	Sycamore	Prune back along the building line	To facilitate works
T68	C	Holly	Remove tree and root	To facilitate works
T69	C	Beech	Remove tree and root	To facilitate works
T70	C	Holly	No works	n/a
G71	C	Laurel	No works	n/a
T72	B	Sycamore	No works	n/a
T73	B	Sycamore	Ensure crown clearance of 5m over the drive and remove any dead branches Sever ivy and re-inspect	To provide clearance and for safety reasons
T74	B	Sycamore	Ensure crown clearance of 5m over the drive and remove any dead branches Sever ivy and re-inspect	To provide clearance and for safety reasons
G75	B	Sycamore, lime, laurel	Ensure crown clearance of 5m over the drive and remove any dead branches Sever ivy and re-inspect	To provide clearance and for safety reasons
G76	C	Laurel, holly, sycamore	Ensure crown clearance of 5m over the drive and remove any dead branches Sever ivy and re-inspect	To provide clearance and for safety reasons

Appendix 5

Tree protection specification

Figure 2 **Default specification for protective barrier**



Key

1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

Tree protection fencing specification from BS 5837:2012 Figure 2

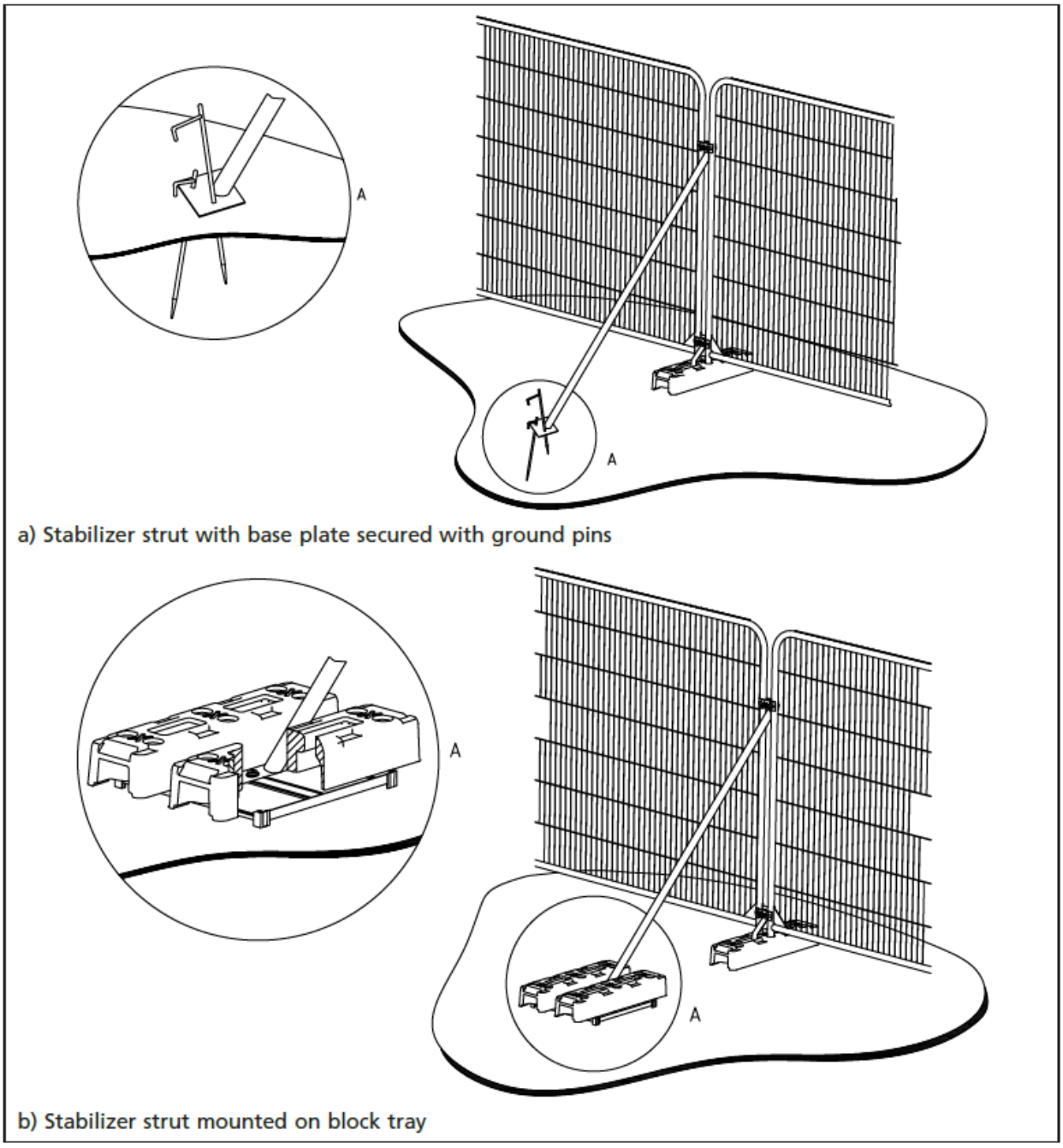
Section 6.2.2 of BS.

Barriers should be fit for purpose of excluding construction activity and appropriate to the degree and proximity of work taking place around the retained trees(s). Barriers should be maintained to ensure that they remain rigid and complete.

The default specification is shown above at Figure 2. Care should be taken when locating the vertical poles to avoid underground services and structural roots. Where it is not possible to drive a pole into the ground, for example on hard surfacing, figure 3 overleaf, applies.

The location for the tree protection fencing is shown on the tree protection plan delineated by a black dashed line. The location of the fencing is on the outer edge of the root protection area and the dimensions from fixed points are shown on the drawings. All weather signs should be affixed to the barriers, no more than 12m apart.

Figure 3 **Examples of above-ground stabilizing systems**



a) Stabilizer strut with base plate secured with ground pins

b) Stabilizer strut mounted on block tray

Suggested site warning sign format

Individual trunk protection for unique circumstances to be justified in this report

Recommend Green Grid Systems Trunk Protecta®

1.2m high, or 1.8m high. Orange ribbed padded protection which acts as an abrasion and impact resistance protected barrier over the tree bark, stopping wounds and tear injuries that could allow disease and decay to enter the tree.

- Unroll and wrap around trunk
- Connect the top buckle and pull the strap end to moderate tension. Repeat with the bottom buckle
- Release from the tree for a short period once a fortnight and reinstall for the time period required by the construction project.

https://greengridsystems.com/products/trunk-protecta

Ground protection during demolition and construction

Where working space 'temporary access' is needed within the root protection area during works, fencing should be set back the minimum amount to achieve the required room. If there is existing hard surfacing in this area, it should remain during the works as ground protection. The suitability of this surfacing for ground protection, and whether it needs to be reinforced to bear the weight of machinery, should be assessed by an engineer and discussed with an arboriculturist.

Where the set back of the fencing exposes unmade ground, the ground must be protected before any works take place on site. This is to prevent root damage and soil compaction.

The ground protection might comprise of one of the following: (section 6.2.3.3 of BS)

A) For pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold frame, so as to form a suspended walkway, or on top of a compression-resistant layer (e.g. 100mm depth of woodchip), laid onto a geotextile membrane;
B) For pedestrian-operated plant up to a gross weight of 2 tonnes, proprietary, inter-linked ground protection boards placed on top of a compression-resistant layer (e.g. 150mm depth of woodchip), laid onto a geotextile membrane;
C) For wheeled or tracked construction traffic exceeding 2 tonnes gross weight, an alternative system (e.g. proprietary systems or pre-cast reinforced concrete slabs) to an engineering specification designed in conjunction with arboricultural advice, to accommodate the likely loading to which it will be subjected.

SGN 3-02
Heavy-duty plywood set onto a compressible woodchip layer and pinned into position is suitable to spread the loading from pedestrian access.

SGN 3-05
A scaffold framework attached to the main scaffold fencing can be used to support either scaffold planks or plywood to create an elevated platform with a gap beneath.

SGN 3-06
Cellular products are a very effective means of providing ground protection where heavy vehicle use is expected. Here, it is being used to temporarily widen an existing road, to be removed once the construction is finished.

https://www.barrelltreecare.co.uk/assets/Uploads/SGN-3-Ground-Protection-V3.pdf

Appendix 6

Draft arboricultural method statement

1.0 **Tree works:**

1.1 Recommendations for tree works can be found in the tree surgery schedule in Appendix 4. All works shall be in accordance with BS 3998:2010 '*Tree work. Recommendations'*. The use of a competent and insured tree surgery contractor is necessary to comply with this. The main contractor and tree surgery contractor must ensure that any necessary consents have been received from the local authority and that no protected species are harmed whilst carrying out site clearance or tree surgery works. Within root protection areas, stumps, shrubs and other vegetation must be removed by hand or using stump grinding machinery to minimize root damage of retained trees. Where poisoning of stumps is specified, this must be carried out by competent operatives. Only chemicals approved for this purpose and used in accordance with the manufacturer's instructions will be used.

1.2 The following information must be sought:

- Current employers, public and product liability insurance
- Waste carriers' licence
- Qualification and experience of key personnel, including relevant NPTC certificates
- COSHH assessment
- Tool and task based risk assessment, including a Working at Height Risk Assessment
- Site specific risk assessment
- Emergency procedure plan
- Method Statement

1.3 A list of suitable tree surgeons is found at:
http://www.trees.org.uk/find-a-professional/Directory-of-Tree-Surgeons
Bio security measures are important and found at:
https://www.forestry.gov.uk/biosecurity

2.0 **Fires:** Fires on site should be avoided if possible. If unavoidable, they should be situated far enough so that there is no risk of damage to the trees, taking into consideration the wind direction.

3.0 **Site and fuel storage, cement mixing and washing points:** All site storage areas, cement mixing and washing points for equipment and vehicles and fuel storage areas should be outside root protection areas unless otherwise agreed with the Local Planning Authority. No discharge of potential contaminants should occur within 10m of a retained tree stem or where there is a risk of run off into Root Protection Areas.

4.0 **Temporary buildings for site use:** Site cabins, trailers and other temporary buildings can sometimes be used in root protection area if consent is agreed by the local planning authority. This can be very useful if there is a robust existing hard surfacing in place. The method for installing the buildings, and assessment of whether ground protection is needed is to be agreed with the Arboriculturist and specified prior to installation.

5.0 **Protection of tree canopies:** Piling rigs and cranes are often used close to trees. Work must be carefully planned so that there is sufficient room to avoid hitting the canopy during transportation or operation. Arboricultural supervision may be required, however, it is the responsibility of the contractor to assess and plan the work. Any access facilitation pruning required is detailed in the tree surgery schedule.

6.0 The following bespoke method statements will be developed further post planning:

The following are draft and detailed in the Arboricultural method statement post planning which will be developed with close team working.

7.0 **`Demolition of the wall**

- Remove the two small trees and the mound
- Remove the top of the wall
- Under arboricultural supervision, remove the foundations by working from the site side and pulling back with a smooth bucket.
- Any roots found growing up to the wall's foundations will be pulled away carefully and protected by damp hessian which will be secured in place.
- An assessment will be made of the number and size of the roots to see if any compensatory branch pruning is required. Any further pruning must be agreed with Camden Council.

8.0 **Removal of hard surfacing within the root protection areas:** Lift the tarmac using handheld tarmac spade or a digger pulling backwards to lift the hard surfacing whilst keeping the ground underneath intact. In my experience, using a smooth bucket digger carefully can lift large slabs relatively easily without disrupting the ground beneath. There may be a sheath of fine feeder roots and main structural roots beneath the concrete. Great care must be taken to avoid scuffing and damaging these roots. Once removed, the exposed soil must be immediately covered with a suitable backfill medium such as good quality top soil.

The works should not take place in frosty or hot sunny dry weather as this can harm fine roots.

If roots are accidentally damaged, then the arboricultural consultant must be contacted immediately.

9.0 **New soft landscaping:** Within the root protection areas of trees to be retained, the preparation of soil for planting and turfing will be carried out by hand. Cultivation will be kept to a minimum and new topsoil must not exceed 100mm in depth in the root protection areas, with no increase within 300mm of the stem. Top soil and other materials will be transported by wheelbarrow on running boards when working near trees. Enriched biochar to supplier's recommendations (typically 5% of soil volume) is advised to assist the establishment of new planting.

10.0 **Arboricultural site supervision**

An initial site meeting:

Before works have started, but after the tree surgery and tree protection measures are in place. At this meeting the site manager, contractor, arboricultural consultant should discuss methodology and the tree protection measures will be examined. A '*What you need to know about working near trees at Coal House, Branch Hill House, Branch Hill, London NW3 7LS* ' sheet will be issued which includes contact details.

After each site supervision, a short report will be sent to the contractor, client and local authority as a record of compliance within 5 working days.

Appendix 7

Tree related legislation and National Policy

1. Tree preservation orders

The Town and Country Planning (Tree Preservation) (England) Regulations 2012.

No tree preservation orders affect the site.

2. **Conservation Area**

The site lies in Hampstead Conservation Area. This means that no work can take place to trees (over 75mm at 1.5m) unless 6 weeks' notice of intent to carry out work is sent to the Local Planning Authority (LPA). The LPA can either raise no objection, or if they consider that the proposed works are detrimental to the visual amenity of the area, they will serve a Tree Preservation Order. Works listed in this report do not require separate consent, provided that all the pre-commencement conditions have been discharged from a full planning approval relating to this report.

3. Ecological considerations

The Wildlife and Countryside Act 1981, as amended, The Conservation of Habitats and Species Regulations 2010 and the Countryside and Rights of Way Act 2000, provide statutory protection to species of flora and fauna including birds, bats and other species that are associated with trees.

4. Occupiers Liability Act 1957 and 1984

The Occupiers Liability Act (1957 and 1984) places a duty of care to ensure that no reasonably foreseeable harm takes place due to tree defects. Therefore, this report includes recommendations within the tree tables for work required for safety reasons. 'Common sense risk management of tree (National Tree Safety Group 2012)' states that *'The owner of the land on which a tree stands, together with any party who has control over the tree's management, owes a duty of care at Common Law to all people who might be injured by the tree. The duty of care is to take reasonable care to avoid acts or omissions that cause a reasonably foreseeable risk of injury to persons or property'.*

5. Common law

This enables pruning back to the boundary line providing the work is reasonable. Other restrictions, such as tree preservation orders/conservation areas still apply.

The owner of a tree is not obliged to trim their trees or hedges to prevent them from crossing over a boundary. Whilst the tree owner is not obliged to cut back the branches, the person whose property is overhung has the right to cut back the branches to the boundary providing there are no planning or legal restrictions on the trees such as Tree Protection Orders or if they are located in a church yard, in which case suitable consent must be obtained. Such pruning works must be undertaken to a suitable standard and must not cause damage to the tree.

The resulting debris remains the property of the tree owner, but you must not cause any damage to their property when returning it back to them and you do not have the right to trespass on the tree owner's property in carrying out the works. In the interests of good neighbourly relations, we would encourage neighbours to discuss their intentions with each other before carrying out such works, providing the work is reasonable and that the trees are not subject to TPO or Conservation Area protection.

National Policy

The National Planning Policy Framework July 2021

Habitats and biodiversity 179.

To protect and enhance biodiversity and geodiversity, plans should:

a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation;

b) and b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

180. When determining planning applications, local planning authorities should apply the following principles:

a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location
proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy
exists; and

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

The London Plan 2021

Policy G7 Trees and woodlands

A London's urban forest and woodlands should be protected and maintained, and new trees and woodlands should be planted in appropriate locations in order to increase the extent of London's urban forest – the area of London under the canopy of trees.

B In their Development Plans, boroughs should:

1) protect 'veteran' trees and ancient woodland where these are not already part of a protected site[139]

2) identify opportunities for tree planting in strategic locations.

C Development proposals should ensure that, wherever possible, existing trees of value are retained.[140] If planning permission is granted that necessitates the removal of trees there should be adequate replacement based on the existing value of the benefits of the trees removed, determined by, for example, i-tree or CAVAT or another appropriate valuation system. The planting of additional trees should generally be included in new developments – particularly large-canopied species which provide a wider range of benefits because of the larger surface area of their canopy.

139 Forestry Commission/Natural England (2018): Ancient woodland and veteran trees; protecting them from development, https://www.gov.uk/guidance/planning-applications-affecting-trees-and-woodland

140 Category A, B and lesser category trees where these are considered by the local planning authority to be of importance to amenity and biodiversity, as defined by BS 5837:2012

The Camden Local Plan (July 2017)

Policy A3
Trees and vegetation
The Council will protect, and seek to secure additional, trees and vegetation.
We will:
j. resist the loss of trees and vegetation of significant amenity, historic, cultural or ecological value including proposals which may threaten the continued wellbeing of such trees and vegetation;
k. require trees and vegetation which are to be retained to be satisfactorily protected during the demolition and construction phase of development in line with BS5837:2012 'Trees in relation to Design, Demolition and Construction' and positively integrated as part of the site layout;
l. expect replacement trees or vegetation to be provided where the loss of significant trees or vegetation or harm to the wellbeing of these trees and vegetation has been justified in the context of the proposed development;
m. expect developments to incorporate additional trees and vegetation wherever possible

Appendix 8

Statement of methodology and reference material

Statement of methodology

Review of supplied plans and information

Site visit made by Sharon Durdant-Hollamby in June 2019 and June 2021 (for the current application site)

Tree survey using Visual Tree Assessment carried out in accordance with BS 5837:2012 '*Trees in relation to design, demolition and construction – Recommendations'* (BS). All investigations were from ground level only and binoculars were used when necessary. All trees with a trunk diameter of 75mm or above were surveyed. Obvious hedges and shrub masses were identified where appropriate. Information collected is in accordance with recommendations in subsection 4.4.2.5 of BS and include species, height, diameter, branch spread, crown clearance, age class, physiological condition, structural condition and remaining contribution. Each tree was then allocated one of four categories (U, A, B or C).

Received material

BH-CH PL-01 Site Location Plan, BH-CH PL-02 Block Plan, BH-CH PL-03 Proposed Basement Plan Branch Hill House Site, BH-CH PL-04 Proposed Ground Floor Plan Branch Hill House Site, BH-CH PL-05 Proposed First Floor Plan Branch Hill House Site, BH-CH PL-06 Proposed Second Floor Plan Branch Hill House Site, BH-CH PL-07 Proposed Roof Plan Branch Hill House Site, BH-CH PL-08 Proposed Basement Plan, BH-CH PL-09 Proposed Ground Floor Plan, BH-CH PL-10 Proposed First Floor Plan, BH-CH PL-11 Proposed Second Floor Plan, BH-CH PL-12 Proposed Roof Plan, BH-CH PL-13 Proposed Elevations, BH-CH PL-14 Proposed Sections

Reviewed text

BSI. BS 3998:2010 *Tree work-Recommendations.*

BSI. BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations*

R.G.Strouts and T.G.Winter 'Diagnosis of ill-health in trees' TSO 1994

London Borough of Camden website

C. Mattheck 'The body language of trees' 2015

Arboricultural Association Guidance Note 12 'The use of Cellular Confinement Systems Near Trees

Appendix 9

Caveats & Exclusions

Specific report caveats

1. At the time of writing this report, the protected tree status is correct. However, this can change. Therefore, I advise that a further check is made with London Borough of Camden before any works to trees take place.
2. No internal diagnostic equipment was used other than a sounding mallet and probe and all inspections were from ground level only, with the aid of binoculars where necessary.
3. The survey is concerned solely with arboricultural issues.
4. Any changes in ground level, or excavations near to tree roots not discussed within this report may change the stability and condition of the trees and a further examination would be required.
5. As trees are a dynamic living organism this report is only valid for a period of 12 months, in respect to their health and condition.
6. Only the trees listed in this report have been examined.
7. The measure of offsite trees has been estimated, except any crown within the site overhang which is measured. Where the crown of an onsite tree overhangs the boundary, the crown spread in this direction is also estimated.
8. The base and trunk of the offsite trees could not be examined, and therefore a full assessment of the trees condition could not be made.
9. Dense ivy and undergrowth prevent a full condition survey being carried out. The vegetation may be hiding structural defects.
10. The tree information is from the time of the survey. Some pests, diseases and fungi only appear seasonally, therefore it is possible not all issues that may affect the health of the trees could be observed.

Appendix 10

My experience and qualifications

Sharon Hosegood
ASSOCIATES

Sharon Durdant-Hollamby

FICFor FArbor A BSc (Hons) Tech Cert Arbor A

CARDIFF UNIVERSITY LAW SCHOOL BOND SOLON CIVIL Expert Certificate

Institute of Chartered Foresters
Registered Consultant

Arboricultural ASSOCIATION
Fellow Member

Profile

Sharon is an Expert Witness, chartered arboriculturist and Director of Sharon Hosegood Associates Ltd. Sharon had eleven years' experience as a local government tree and landscape officer before joining a contractor as a tree consultant in 2005. In 2007 she formed an environmental practice in Essex with the owner. As managing director, she built up the ecological and arboricultural consultancy to a team of 20. She is a past President of the Institute of Chartered Foresters (May 2021 – April 2023). She joined Essex Quality Review Panel in June 2023 as an arboricultural expert.

Specialties:	Trees in relation to development, including appeals and planning hearings
	Tree root investigations, including TreeRadar
	Tree hazard evaluation
	Tree preservation orders
	Trees and well-being with community engagement
Professional bodies:	Immediate Past President of the Institute of Chartered Foresters Fellow of the Institute of Chartered Foresters (ICF) Fellow of the Arboricultural Association
Qualifications:	Cardiff University Law School Bond Solon Civil Expert Certificate Arboricultural Associations Technicians Certificate BSc (Hons) Geography and Landscape Studies Managing Safely IOSH (2017)
Awards:	Top student award for the Technician's certificate in 2005
	The Broomfield Hospital Woodland Management project she has managed between 2009 -2015 won the following awards: The Essex Biodiversity Awards (nomination) The Excellent Community Engagement Award (NHS Forest) Green Flag and Green Apple Award Highly commended for the Health Sector Journal Award 2013

Appendix 11

Glossary

Arboriculture	Formerly all aspects of the culture of trees, especially for forestry. Latterly, the art and science of cultivating and managing trees as groups and individuals, primarily for amenity and other non-forestry purpose**.**
Arboricultural method statement	Methodology for the implementation of any aspect of development that is within the root protection area, or has the potential to result in loss of or damage to a tree to be retained.
Arboriculturist	Person who has, through relevant education, training and experience in the field of trees in relation to construction.
Architecture	In a tree, a term describing the pattern of branching of the crown or root system.
Biochar	Biochar is charcoal used as a beneficial soil amendment enabling nutrient uptake and assisting the trees defense mechanism
Biodiversity	The variability among all living organisms of an ecological complex.
Biomechanical	Pertaining to the mechanical functions and properties of living organisms, such as trees.
Body language	In trees, the outward display of growth responses and/or deformation in response to mechanical stresses.
Branch	A limb extending from the main stem or parent branch of a tree.
Branch bark ridge	The raised arc of bark tissues that forms the acute angle between a branch and its parent stem
Branch collar	The swelling or roughened bark often found at the base of a branch which should be left intact if the branch is to be pruned off.
Canker	A lesion in which bark and cambium have been killed, sometimes exposing the wood and often showing a swollen appearance owing to the encircling growth of new tissues.
Canopy	The topmost layer of twigs and foliage in a tree.
Co-dominant	In trees, a similarity between two or more stems or branches with regard to their size and their position within the canopy.
Column	In the wood or phloem of a tree, an axially elongated zone of tissue that is distinguished form the surrounding tissue; e.g. Live verses dead or decayed versus non-decayed.
Construction exclusion zone	An area based on the root protection area from which access is prohibited for the duration of the project.
Crown	In arboriculture, the main foliage-bearing portion of a tree.
Crown lifting	The removal of shortening of the branches that form the lower part of the crown of a tree.
Crown reduction	Pruning in order to reduce the size of the crown of a tree.
Crown thinning	Pruning inside the crown of a tree in order to reduce its density.
Defect	In relation to tree hazards, any feature of a tree which detracts from the uniform distribution of mechanical stress, or which makes the tree mechanically unsuited to its environment.
Dieback	The death of part of a plant, usually starting from a distal point and often progressing proximally in stages.
Direct damage	Direct physical damage to a structure of surface from pressure exerted by the trunk or growing roots.

Ecosystem services	The benefits that a particular species or range of species bestow upon others (including humans) though ecological relationships. Such services can sometimes be estimated in a form that allows them to be included in financial accounting.
Epicormic	Pertaining to shoots or roots which are initiated on mature woody stems; shoots can form tin this way from dormant buds or they can be adventitious.
Failure	In connection with tree hazards, a partial or total fracture within woody tissues or loss of cohesion between roots and soil.
Flush cut	A pruning cut close to the parent stem which removes part of the branch bark ridge.
Foreseeable	In hazard assessment, pertaining to failure and associated injury of damage which are predictable on the basis of evidence from a tree and its surroundings.
Fungi	Organisms of several evolutionary origins, most of which are multicellular and grow as branched filamentous cells within dead organic matter or living organisms.
Hazard	A thing, a process or a potential event that has the potential to cause harm.
Heartwood	The dead or predominantly dead central wood of various tree species whose outer living wood, sapwood, has a finite and pre-determined lifespan.
Independent in the landscape	Point at which a newly planted tree is no longer reliant on excessive or abnormal management intervention in order to grow and flourish with realistic prospects of achieving its full potential contribute to the landscape.
Level arm	A mechanical term denoting the length of the lever represented by a structure that is free to move at one end, such as a tree or an individual branch.
Landscape character	A distinct, recognisably and consistent pattern of elements in the landscape that make one landscape different from another, rather than better or worse.
Mulch	Material laid down over the rooting area of a tree or other plant to help conserve moisture, suppress weeds and encourage a beneficial microflora.
Mycorrhizal	Pertaining to an intimate symbiotic association between plant roots and specialised fungi.
PICUS	The Picus Sonic Tomograph is a non-invasive tool for assessing decay in trees. It works on the principle that sound waves passing through decay move more slowly than sound waves traversing solid wood. By sending sound waves from a number of points around a tree stem to a number of receiving points, the relative speed of the sound can be calculated and a two-dimensional image of the cross-section of the tree can be generated
Pollard	A term for a pollarded tree
Pollarding	The complete or partial removal of the crown of a young tree so as to encourage the development of numerous branches; also, further cutting to maintaining this growth pattern.
Probability	A statistical measure of the chance that a particular event (e.g. a specific failure of a tree or specific kind of harm to persons or property) might occur.
Resistograph	

	The IML-RESI system is based on the measurement of drilling resistance. The IML-RESI operates in a similar manner to a normal drill. A drilling needle with a diameter of 1.5mm is inserted into the wood under constant drive. While drilling, the resistance is measured as a function of the drilling depth of the needle. The data is printed and stored electronically at a scale of 1:1 simultaneously. Although invasive the relatively small needle diameter causes very little damage, testing is normally only undertaken to confirm the remaining stem wall thickness in decaying trees.
Retrenchment	Progressive reduction in the size of the crown of an old tree, by means of the dieback of breakage of twigs and small branches, accompanied by the enhanced development of the lower or inner parts of the crown.
Risks	The likelihood of the potential harm from a particular hazard becoming actual harm.
Root protection area	A layout tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority. BS 5837:2012 *'Trees in relation to design, demolition and construction – Recommendations'*.
Root flare	Thickened and expanded base of s tree stem at ground level form which buttress roots form.
Rootplate	The central part of the root system of a tree, consisting of the large-diameter main roots and a dense mass of smaller roots and soil.
Service	In construction, any above-or below-ground structure o apparatus for utility provision.
SULE	Safe useful life expectancy of a tree (Barrell)
Stag-headed	In a tree, a state of dieback in which dead branches protrude beyond the current living crown.
Stress	In plant physiology, a condition under which one or more physiological functions are not operation within their optimum range, for example owing to lack of water, inadequate nutrition or extremes of temperature.
Stub cut	A pruning cut which is made at some length distal to the branch bark ridge.
Target pruning	The pruning of a twig or branch so that tissues recognisably belonging to the parent stem or branch are retained and not damaged.
Targets	In tree hazard assessment, persons or property or other things of value which might be harmed by mechanical failure of the tree or by objects falling from it.
Tree Preservation Order	In Great Britain, an order made by a local authority, whereby the authority's consent is generally required for the cutting down, topping or lopping of specified trees.
Tree protection plan	Scale drawing, informed by descriptive text where necessary, based upon the finalized proposal, showing trees for retention and illustrating the tree and landscape protection measures.
Utility	An undertaker by statute that has a legal right to provide customer services (e.g. communication, electricity, gas and water).

Veteran tree	*'A tree that has passed beyond maturity and is old, or aged, in comparison with other trees of the same species'.* Ancient Tree Guide No. 4 (ATF, 2008).
Vigour	In tree assessment, an overall measure of the rate of shoot production, shoot extension or diameter growth.
Vitality	In tree assessment, an overall appraisal of physiological and biomechanical processes, in which high vitality equates with near-optimal function, in which high vitality equates with healthy function.
Visual Tree Assessment (VTA)	In addition to the literal meaning, a system expounded by Matteck and Breloer (1995) to aid the diagnosis of potential defects through visual signs and the application of mechanical criteria.
White-rot	Various kinds of wood decay in which lignin, usually together with cellulose and other wood constituents, is degraded.
Wound	Injury caused to a tree by a physical force.

Sharon Hosegood
ASSOCIATES

ARBORICULTURAL IMPACT ASSESSMENT REPORT
BS 5837:2012 'Trees in relation to design, demolition and construction. Recommendations'

SITE

Coal House, Branch Hill House, Branch Hill, London NW3 7LS

CLIENT

Almax Group

Sharon Durdant-Hollamby
FICFor FArborA BSc (Hons) Tech Cert (ArborA)

DATE: June 2023
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