



## EnviroArb-Solutions Ltd



### ARBORICULTURAL IMPACT ASSESSMENT

<b>Site:</b>	<b>5 Dagmar Road, London, SE25 6HZ</b>
<b>Client:</b>	<b>Mr Thomas, Inicio Homes, 16 Berkeley Street, London, W1J 8DZ</b>
<b>Date</b>	<b>19th July 2021</b>
<b>Our Ref:</b>	<b>EAS-079v3</b>

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## 1.0 EXECUTIVE SUMMARY

- 1.1 The site is currently a derelict residential property at 5 Dagmar Road, London with a large, contained rear garden.
- 1.2 The trees on the site surround the boundaries of both the front and rear gardens with some mature trees of high amenity value with younger poor form and condition trees located within particularly the rear garden of the site.
- 1.3 The development proposal is to demolish the existing property and rebuild a new property largely upon the same foundation footprint.
- 1.4 The primary tree related constraints to the proposed development are:
- 1.4.1 Removal of scrub poor condition, self-sown trees and shrub groups
- 1.4.2 Tree Protection measures to be installed around retained trees T1, T2, T17-T20
- 1.5 A summary of the affected trees is detailed in the table below:

Arboricultural Impact	Reason for Impact	A	B	C	U
<b>Trees to be removed:</b> - <b>Development</b> - <b>Poor Condition</b>	To facilitate the development or due to their condition (U cat)	/	T8	T3, T4, T5, T6, T7, T9, T10, T11, T12, T13, T14, T15, T16, T21, T22, SG1 & SG2	/
<b>Trees with Minor theoretical RPA encroachment</b>	To facilitate construction of landscaping	T19	/	T17	/
<b>Retained trees to be pruned</b>	To address identified defects / facilitate construction	T19	T1 & T2	H1 & T17	/

- 1.6 Following comments made by the Council tree officer and received on the 01/07/2021 the following changes were made as requested:
- 1.6.1 Insertion of additional temporary ground protection at the front within the whole of the RPA of T1 & T2 ( as indicated by the purple shading).
- 1.6.2 Amendments made to the Tree Protection Plan - specifically increased fencing for T19.

1.6.3 Confirmation from the client that they can accommodate the location of new services into the site as indicated by the Council tree officer and shown on the revised Tree Protection Plan at Appendix 4.

### Project Team Contacts List

CONTACTS	Company	Position	Contact No.
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## **2.0 REPORT METHODOLOGY**

2.1 EnviroArb-Solutions Ltd (EAS) aim is to provide “fit for purpose” field survey, data capture and report based on the client brief. EAS approach broadly follows the guidance contained in “Trees in relation to demolition, design and construction – Recommendations” (BS5837:2012); however, the use of any terms or concepts contained within it does not imply EnviroArb-Solutions Ltd acceptance of their validity or accuracy and the use of any section or concept contained within the standard is on the principle of its advisory status as guidance.

## **3.0 SCOPE**

3.1 EnviroArb-Solutions Ltd has surveyed the key trees on and adjacent to the site and has provided guidance within this report on the measures necessary to ensure successful tree retention during any development, with recommendations for tree removal and / or tree works as necessary. The scope was as follows:

3.2 To visit the site and complete a survey of trees, shrubs, hedgerows and other vegetation that may materially be of interest relative to development proposals.

3.3 To assess the likely impacts of the development on the trees and make ‘in principle’ recommendations relating to tree removals, tree retention and tree protection during development.

3.4 To carry out an arboricultural impact assessment on the effect of the new development at the site, identifying the Construction Exclusion Zones (CEZ) that are shown on the Tree Protection Plan (TPP). This plan will also show the locations for tree protective fencing and any temporary ground protection required, as well as identifying ‘No-Dig’ zones for any RPAs shown to be outside of CEZs.

3.5 To produce a Tree Constraints Plan (TCP), showing the locations of surveyed trees, their BS5837:2012 categorisation and the theoretical Root Protection Areas (RPAs).

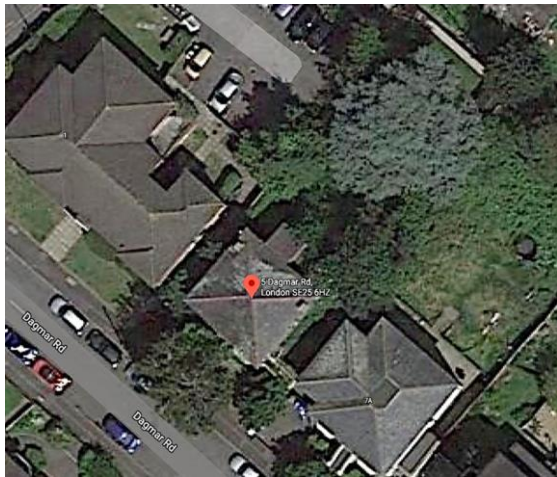
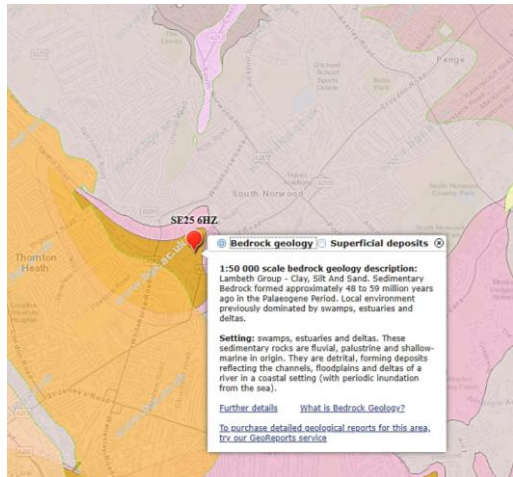
3.6 To make any other observations or recommendations required based on the survey.

## 4.0 PLANS AND REFERENCE DOCUMENTS

- 4.1 BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'
- 4.2 BS3998:2010 'Tree work – recommendations'
- 4.3 NJUG 4 – National Joint Utilities Group "Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees. Volume 4, issue 2. London: NJUG 2007"
- 4.4 Information from the Croydon Council local plan and website
- 4.5 BGS Open-Source Soil Data <http://www.bgs.ac.uk/nercsoilportal/maps.html>
- 4.6 We understand that the scheme is currently at the application stage.

## 5.0 DESCRIPTION OF SITE GEOLOGY

- 5.1 The site consists of a residential property set within its own grounds.
- 5.2 The immediate and distant landscape character is urban residential.
- 5.3 The topography of the site is largely level.

13. Site Location (OS)	14. Site Location (BGS Soil)
	
<p><b>British Geology Survey (Online) – Soils Summary</b></p> <p><b>Lambeth Group - Clay, Silt and Sand.</b></p> <p><a href="http://mapapps.bgs.ac.uk/geologyofbritain/home.html">http://mapapps.bgs.ac.uk/geologyofbritain/home.html</a></p>	

5.4 The underlying site soil has been identified as CLAY, and great care should therefore be taken to ensure no compaction of the soils occurs within the identified RPAs, as this soil type is less favourable to tree root growth / moisture movement and aeration.

5.5 All comments regarding soils should be verified with on-site geotechnical investigations and laboratory testing, with foundation depth and design determined by a structural engineer in accordance with the requirements of NHBC Chapter 4.2.

## 6.0 THE TREES

6.1 There were 22 individual trees, 2 shrub groups and 1 garden hedge section surveyed on-site or immediately adjacent to the site boundary.

6.2 By BS5837:2012 Categorisation, the trees can be summarised as follows:

BS 5837 Cat	A	B	C	U
Specific Trees	T19	T1, T2, T8 and T18	T3, T4, T5, T6, T7, T9, T10, T11, T12, T13, T14, T15, T16, T17, T20, T21 and T22	None
Total Number	1	4	17	0

6.3 These trees' locations and a summary of their visual contributions can be summarised as follows:

BS 5837 Cat	A	B	C
Northern Boundary - Contributing to the private amenity space of rear gardens of Holmsdale Road & Prince Road	T19	/	T20 & T21
Western Boundary - Contributing to the private amenity space of rear gardens of Dagmar Road	/	T1 & T2	T11 & T20
Eastern Boundary - Contributing to the private amenity space of rear gardens of Dagmar Road.	/	T1 & T2	/
Southern Boundary – Contributing to the street tree scene from Dagmar Road.	/	T1 & T2	/

6.4 We have not been informed that the trees on site are subject to statutory protection.

## 7.0 ARBORICULTURAL IMPACT ASSESSMENT

### 7.1 Tree Removals

7.1.1 The following trees will be removed as a result of the tree survey undertaken:

Arboricultural Impact	Reason for Impact	A	B	C	U
<b>Trees to be removed:</b> - <b>Development</b> - <b>Poor Condition</b>	To facilitate the development or due to their condition (U cat)	/	T8	T3, T4, T5, T6, T7, T9, T10, T11, T12, T13, T14, T15, T16, T21, T22, SG1 & SG2	/

7.1.2 Every effort has been made to reduce the number of trees removed from the site. The majority of works are, however, of low landscape significance and can be adequately mitigated as part of the overall landscaping of the site.

7.1.3 Recommended tree works are detailed within the Tree Works Schedule at Appendix 5.

### 7.2 ROOT PROTECTION AREA (RPA) INCURSIONS

7.2.1 There are some incursions into the RPAs of the retained trees on site. Most incursions are likely to be indirect relating to site access for demolition and construction activities and / or to enable the construction of new or replacement hard landscaping.

7.2.2

Arboricultural Impact	Reason for Impact	A	B	C	U
<b>Trees with Minor theoretical RPA encroachment</b>	To facilitate construction of landscaping	T19	T1 & T2	T17	/

7.2.3 Additional temporary ground protection and enlarged Construction Exclusions zones have been included as indicated on the revised Tree Protection Plan, as requested by the Council tree officer.



## **7.3 FOUNDATIONS**

- 7.3.1 The foundations of the new development proposal will theoretically encroach into the RPA of T1, T2, T17 and the outer limits of T19 retained trees on site. Please refer to the Tree Protection Plan for further information.
- 7.3.2 To minimise the impact on the trees, it is expected that the foundation design will be as specified by the structural engineer / architect, considering those trees retained and removed. Any works undertaken close to or within the RPA of retained trees will be supervised by the consultant Arboriculturalist from EAS.
- 7.3.3 In instances where soil conditions are known to be of a shrinkable clay the retained and removed trees have the potential to constrain the foundation design for any adjacent new buildings within influencing distance. Final decisions as to the risks presented by retained / removed trees upon adjacent new buildings should be subject to detailed site geotechnical information being available, assessed by a structural engineer.

## **7.4 HARD SURFACES**

- 7.4.1 The development requires the installation of new surfaces within the RPA of trees to the front of the property at T1 & T2 for site access and car parking. Where existing hard surfaces within the RPAs of trees to be retained are to be replaced, they should be removed by controlled methods to avoid compaction of the underlying ground and direct damage to roots.
- 7.4.2 To minimise the disruption on the retained trees, it is proposed that a 'reduced / no-dig' surface is installed in the areas indicated on the Tree Protection Plan. These surfaces sit above ground level after surface vegetation removal and ensure that no tree roots are severed during their installation.
- 7.4.3 Ideally, the profile of new surfaces within the RPAs of trees to be retained should be kept within the depth of profile for existing surfaces. Where existing profile depths are insufficient or there is no existing hard surface, the depth of sub-base to hard surfaces might be minimised by use of a 3D cellular confinement system, e.g. GreenFix GeoWeb details of which are included at Appendix 9.

7.4.4 Please refer to a Site Specific Arboricultural Method Statement (SSAMS), for full details on the proposed installation.



**Photograph of Installed 'Reduced-dig' 3D webbing system ground protection**

## **7.5 SERVICES**

7.5.1 The route of any services needs to be carefully considered to avoid unnecessary encroachment into retained trees' RPAs. These should, where possible, not encroach within the RPAs of retained trees. Where excavations slightly encroach into adjacent trees' RPAs, the excavation should only be considered when supervised by the consultant arboriculturist from EnviroArb-Solutions Ltd and may need to be undertaken using an 'Airspade' / hand tools.

7.5.2 Following recommendations from the council tree officer services routes into the site have been agreed to be located outside of the RPAs of T1 & T2, as indicated on the revised Tree Protection Plan.

## **7.6 GROUND LEVELS**

7.6.1 No changes to existing ground levels are proposed within the RPAs of retained trees.

## **7.7 SHADING**

7.7.1 Trees to the south of the proposal have the capacity to cast shade on the development, however the two Silver Birch trees, T1 & T2, are light shading small leaved trees casting limited shade on the existing building.

## **7.8 SITE SUPERVISION / MONITORING**

7.8.1 Most damage to trees on development sites is caused inadvertently, and to ensure continued protection during development, a system of site monitoring is proposed.

7.8.2 Basic checks will ensure that protective fencing remains intact. Any unforeseen issues can also be identified and discussed before damage to the tree(s) occurs.

7.8.3 The number of proposed visits is driven by the scale of the proposal. A more detailed explanation of what will be assessed during the proposed monitoring visits is contained in Appendix 6.

## **7.9 DEMOLITION**

7.9.1 Demolition of existing structures should take care not to cause damage to adjacent trees. This is particularly the case in respect of trees T1, T2, T17 & T19, which can be adequately protected by fencing prior to demolition. Fencing in the vicinity of these trees, as shown on the tree protection plan, should be erected at the earliest opportunity following removal of the adjacent structures. Machinery shall be restricted to operating from areas outside of the RPAs of trees to be retained. Care shall be taken to ensure vehicle cabs and hydraulic arms, etc. do not cause impact damage to adjacent trees. Where appropriate, this may require the use of a banksman.

7.9.2 Where practicable, existing buildings should be demolished onto their own footprints in order that there is no compaction of the RPAs of trees to be retained. Where possible, any existing foundations within the RPAs of retained trees should be re-used to avoid disturbance of roots; however, where removal of foundations within the RPAs of trees is required, care shall be taken to limit the extent of disturbance to surrounding soil.

## 8.0 RECOMMENDATIONS

8.1 The preliminary tree works we have recommended are contained within the tree works schedule at Appendix 5.

8.2 Our additional recommendations are as follows:

8.2.1 That during the construction build phase, following current consultation with the arboriculturist from Enviroarb-Solutions Ltd, adequate provision is made for the protection of existing trees on site and the areas to be planted with new trees and shrubs.

8.2.2 That by liaison with the council, formal agreement should be sought regarding the tree pruning required and tree protection methods employed to protect retained trees. These will be via the production of an SSAMS and will include:

- Tree protective fencing as shown on the tree protection plan.
- No ground excavations within tree RPAs, unless approved by the council.
- Any anti-compaction measures required to be taken.
- The specific locating of services trenches to avoid excavations within RPAs where possible, or if necessary being undertaken by hand dig only.
- Specific methods for construction of site access routes close to or within retained trees' RPAs.

8.2.3 That pre-commencement site meetings should be arranged to discuss the recommendations in this and subsequent reports and method statements, and that copies of all relevant arboricultural reports should be available on site.

8.2.4 That the SSAMS should be developed further with the contractor through the development process to include comments made by them, the client, and the design team, as well as council officers. A copy of the tree report, including the SSAMS and tree protection plan, should always be kept on site.

8.2.5 That details of site inspection / supervision visits by the consultant arboriculturist are recorded and sent to the council tree officer, with copies retained by the site manager.

## 9.0 CONCLUSIONS

- 9.1 The site is located within an urban landscape setting. There are some trees of modest to high amenity value on site, most of which are 'B' and 'C' category standard trees. The dominant individual tree species on this site is Blue Atlas Cedar, Silver Birch, Sycamore, Ash and Elder. We have not been informed that these trees are protected by Tree Preservation Orders. Most of the trees need some basic crown pruning works due to their lack of recent management.
- 9.2 The number of trees identified to fell are primarily due to their poor condition and form and mostly 'C' category trees. Any trees or groups felled will be mitigated by replacement planting to at the least the same percentage canopy cover as that removed.
- 9.3 Retained trees will be fully protected by at least sturdy tree protection fencing, as described at Appendix 8. Where encroachment into theoretical RPA is unavoidable temporary ground protection measures will be used which can utilise 3D 'Reduced-Dig' cellular confinement sub-base systems. All tree protection measures are detailed according to construction drawings as part of an SSAMS which will include protection methods and supervision by a consultant arboriculturist from EnviroArb-Solutions Ltd. Sufficient development room will be available after protection measures are instigated as described within this report.
- 9.4 Modifications and revisions have been made to original versions of this tree report in accordance with consultation and comments received from the Council Tree Officer. Overall, it is concluded that, subject to appropriate controls, the development can be implemented without undue impact on retained trees. These should be detailed within an SSAMS that should be submitted to and agreed in writing by the Local Planning Authority prior to the commencement of the development, as a condition of any consent.



Paul Allen MICFor Dip Arb (RFS) MAE

Consultant Arboriculturist

19<sup>th</sup> July 2021

## **10.0 APPENDICES**

<b>APPENDIX 1</b>	<b>Key To Tree Tables</b>
<b>APPENDIX 2</b>	<b>Tree Survey Tables</b>
<b>APPENDIX 3</b>	<b>Tree Constraints Plan</b>
<b>APPENDIX 4</b>	<b>Tree Protection Plan</b>
<b>APPENDIX 5</b>	<b>Tree Works Schedule</b>
<b>APPENDIX 6</b>	<b>Site Inspection &amp; Monitoring schedule</b>
<b>APPENDIX 7</b>	<b>BS5837:2012 Tree Constraints &amp; Protection Methods</b>
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<b>APPENDIX 9</b>	<b>Proprietary Information for 'Reduced-Dig' Sub-Base</b>
<b>APPENDIX 10</b>	<b>Photographs</b>
<b>APPENDIX 11</b>	<b>Report Caveats</b>

## **APPENDIX 1**

### **KEY TO TREE TABLES**

## Key

BS 5837 Cat	Description
A	Those of high quality and value: in such a condition as to be able to make a substantial contribution (> 40 years)
B	Those trees of moderate quality and value: those in such a condition as to make a significant contribution (> 20 years)
C	Those trees of low quality and value: currently in adequate condition to remain until new planting could be established (> 10 years)
U	Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed regardless of development

**Note:** Sub categories are denoted in the tree survey data (A1, B1, C2 etc.). You are referred to the BS for further detail if required.

<b>Tree No.</b>	T (tree), G (group), H (hedge), W (woodland) + Ref No.
<b>Species</b>	Common Name
<b>Ht (m)</b>	Measured height in metres
<b>DBH (m)</b>	Diameter at 1.5m above ground level
<b>Branch Spread</b>	In m to cardinal points
<b>Cr Ht Clearance (m)</b>	Overall height of lowest branches from the ground level on side of proposed development
<b>Life Stage</b>	Young, Semi-Mature, Early-Mature, Mature, Over-Mature
<b>General Observations</b>	Observations on the condition of the tree(s)
<b>Tree Work Specification</b>	Proposed tree works in accordance with BS3998
<b>BS Cat</b>	See above
<b>Life Exp</b>	Estimated remaining contribution in years.
<b>RPA Radius(m)</b>	Radius of the trees Root Protection Area measured from the trunk to the edge of the RPA circle in metres
<b>RPA (m2)</b>	Overall Root Protection Area in m2
*	Indicates where tree data may have been estimated as tree was offsite / restricted access / dense vegetation hindering full inspection



**APPENDIX 2**  
**TREE SURVEY TABLES**

## Tree Table

5 Dagmar Road, London, SE25 6HZ



Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observation	Recommendations
T1	Birch (Silver)	14.5	4	4	4	4	350	1	55	4	B1	Mature	20-39	Average form, shape and condition. No significant recent crown management. Dense crown, moderate dead wood, some hung up. Lower trunk ivy - unable to fully inspect. BT wires rubbing through crown.	Sever Ivy at 2m from ground level and remove section. Re-inspect. Crown lift to 5m over public footpath / highway. Cut back to suitable side growth point to provide 1-2m clearance from BT wires. Remove dead wood.
T2	Birch (Silver)	15	5	5	5	5	410	1	76	5	B1	Mature	20-39	Average form, shape and condition. No significant recent crown management. Dense crown, moderate dead wood, some hung up. BT wires rubbing through crown.	Crown lift to 5m over public footpath / highway. Cut back to suitable side growth point to provide 1-2m clearance from BT wires. Remove dead wood.
T3	Sycamore	7	1	3	3	1	140	2	9	2	C2	Semi-Mature	10-19	Poor form (asymmetric canopy), shape and condition. Open crown, low dead wood. Co dominant self sown tree with basal included union. Cut back over drive.	Fell to ground level and treat.
T4	Oak (Sessile)	8	2	4	2	4	100	1	5	1	C2	Semi-Mature	10-19	Poor form (asymmetric canopy), shape and condition. Open crown, low dead wood. Cut back over drive.	Fell to ground level and treat.

## Tree Table

5 Dagmar Road, London, SE25 6HZ



Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observation	Recommendations
T5	Sycamore	7	1	2	2	2	140	2	9	2	C2	Semi-Mature	10-19	Poor form (asymmetric canopy), shape and condition. Open crown, low dead wood. Co dominant self-sown tree with basal included union. Cut back over drive. Suppressed.	Fell to ground level and treat.
T6	Yew (Common)	4	1	1	3	3	100	1	5	1	C2	Semi-Mature	10-19	Poor form (asymmetric canopy), shape and condition. Dense, suppressed crown, low dead wood. Cut back over drive.	Fell to ground level and treat.
T7	Laurel (Bay)	5	2	1	1	2	100	m/s	5	1	C2	Semi-Mature	10-19	Poor form (asymmetric canopy), shape and condition. Dense, suppressed crown, low dead wood. Cut back over drive. Overhangs garage	Fell to ground level and treat.
T8	Maple (Japanese)	6	1.5	2	2	2	250	m/s	28	3	B2	Early Mature	20-39	Average form, shape and condition. Dense, crown, low dead wood. Minor deadwood.	No works.
T9	Yew (Common)	3	3	3	3	3	100	1	5	1	C2	Semi-Mature	10-19	Poor form (asymmetric canopy), shape and condition. Dense, suppressed crown, low dead wood. Cut back over fenceline.	Fell to ground level and treat.

## ARBORICULTURAL IMPACT ASSESSMENT

## TREE SURVEY TABLES

Surveyor: Paul Allen

Date Surveyed: 19/01/2021

## Tree Table

5 Dagmar Road, London, SE25 6HZ



Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observation	Recommendations
H1	Mixed species hedge	2	0.5	1	1	1	80	m/s	3	1	C2	Semi-Mature	10-19	Average form, shape and condition. Dense crown, Minor dead wood.	Annual trimming maintenance.
T10	Laurel (Bay)	6	2	1	1	1	100	m/s	5	1	C2	Semi-Mature	10-19	Poor form (asymmetric canopy), shape and condition. Dense, suppressed crown, low dead wood. Cut back over drive. Overhangs boundary fence line.	Fell to ground level and treat.
T11	Laurel (Bay)	7	2	2	1	1	100	m/s	5	1	C2	Semi-Mature	10-19	Poor form (asymmetric canopy), shape and condition. Dense, suppressed crown, low dead wood. Cut back over drive. Overhangs boundary fence line.	Fell to ground level and treat.
T12	Elder	6	4	4	4	4	300	m/s	41	4	C2	Mature	10-19	Poor form, shape and condition. Dense, suppressed crown, low dead wood.	Fell to ground level and treat.

## ARBORICULTURAL IMPACT ASSESSMENT

## TREE SURVEY TABLES

Surveyor: Paul Allen

Date Surveyed: 19/01/2021

## Tree Table

5 Dagmar Road, London, SE25 6HZ



Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observation	Recommendations
T13	Ash (Common)	14	4	4	4	4	600	m/s	163	7	C2	Early Mature	10-19	4 x 150mm stems. Multiple-stemmed with basal included unions. Ivy clad crown and stem, unable to fully inspect. Unable to inspect due to restricted access & vegetation. Open crown, moderate dead wood.	Fell to ground level and treat.
T14	Silver Birch & Sycamore	12	3	3	3	3	500	m/s	113	6	C2	Early Mature	10-19	5 x 100mm stems. Self-sown Multiple-stemmed trees with basal included unions. Ivy clad crown and stem, unable to fully inspect. Unable to inspect due to restricted access & vegetation. Open crown, moderate dead wood. X 1 stem dead.	Fell to ground level and treat.
T15	Snake bark Maple	4	1	1	1	1	100	1	5	1	C1	Semi-Mature	10-19	Poor form, shape and condition. Sparse crown moderate deadwood.	Fell to ground level and treat.

## Tree Table

5 Dagmar Road, London, SE25 6HZ



Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observation	Recommendations
T16	Cherry	12	4	3	2	3	260	2	31	3	C2	Early Mature	10-19	Poor form (asymmetric canopy), shape and condition. No significant recent crown management. Dense crown rubbing building, minor dead wood. Co dominant tree with severe included unions.	Fell to ground level and treat.
T17	Pear	11	4	4	4	4	350	1	55	4	C2	Mature	10-19	Average form, shape and condition. Unable to inspect due to restricted access & vegetation. No significant recent crown management. Dense crown, minor dead. Ivy clad crown and stem and 3rd party off site tree - unable to fully inspect with overhanging branches.	No works.
T18	Magnolia	2.5	2	2	2	2	100	2	5	1	B2	Early Mature	20-39	Average form, shape and condition. Dense crown, minor dead wood.	No works.
T19	Cedar (Blue Atlas)	18	9	10	9	9	690	1	215	8	A1	Mature	40+	Good form (asymmetric canopy), shape and condition. No significant recent crown management. Dense low crown, moderate dead wood.	Remove dead wood.

## Tree Table

5 Dagmar Road, London, SE25 6HZ



Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observation	Recommendations
T20	Pear	11	5	5	5	5	350	1	55	4	C2	Mature	10-19	Poor suppressed form, shape and condition. Unable to inspect due to restricted access & vegetation. No significant recent crown management. Dense crown, major dead. Ivy clad crown and stem and 3rd party off site tree - unable to fully inspect with overhanging branches.	No works.
T21	Pear	11	4	4	4	4	400	1	72	5	C2	Mature	10-19	Poor form, shape and condition. Unable to inspect due to restricted access & vegetation. No significant recent crown management. Dense crown, major dead. Ivy clad crown and stem on tree - unable to fully inspect with overhanging branches.	Fell to ground level and treat.
SG1	Mixed species shrubs; Yew, Holly, Bottlebrush, Viburnum	3	2	2	2	2	109	m/s	5	1	C2	Mature	10-19	Poor form, shape and condition mixed tired shrub planting. No significant recent crown management. Dense crowns, moderate dead wood. Ivy clad.	Fell to ground level and treat.

## ARBORICULTURAL IMPACT ASSESSMENT

## TREE SURVEY TABLES

Surveyor: Paul Allen

Date Surveyed: 19/01/2021

## Tree Table

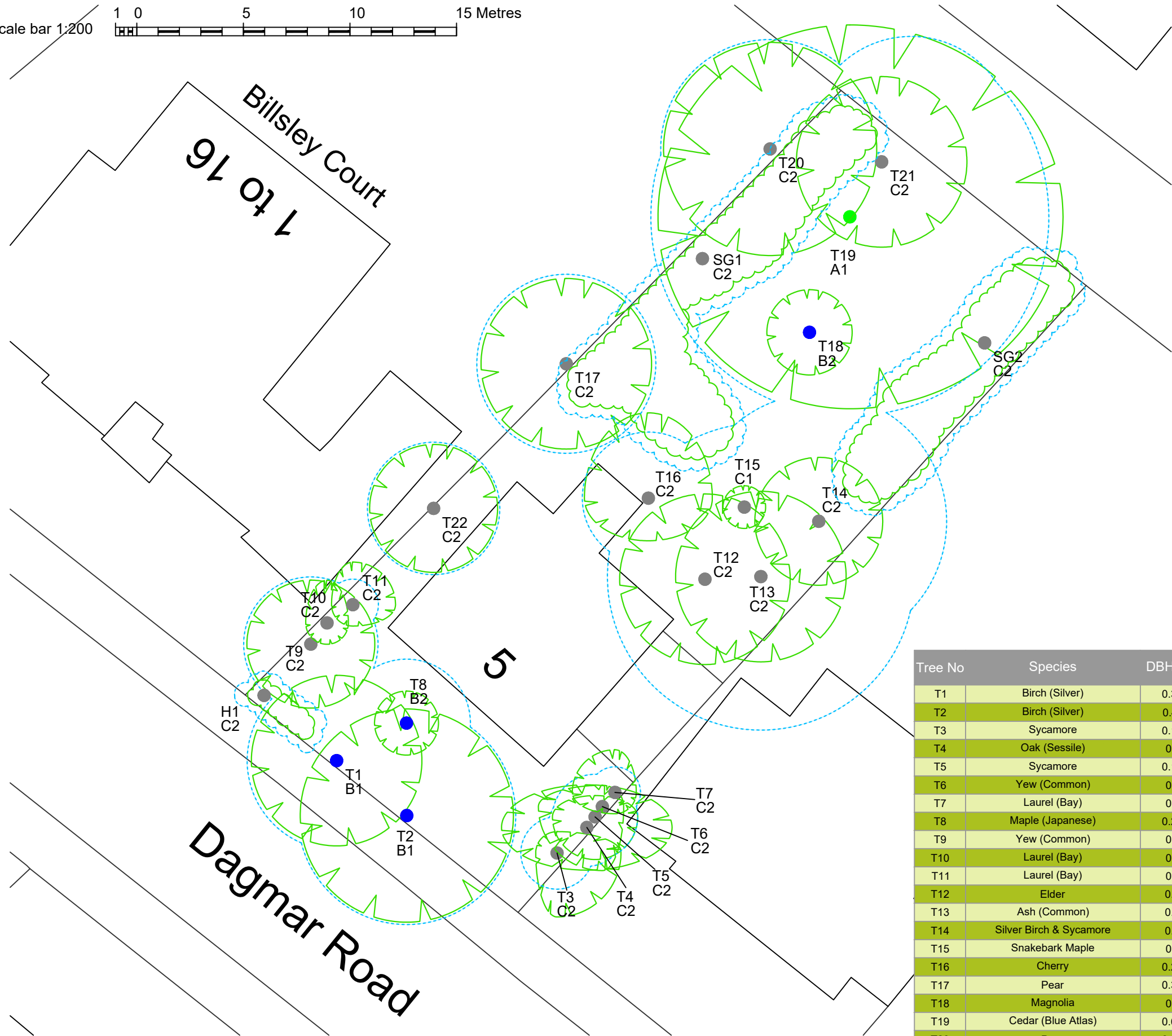
5 Dagmar Road, London, SE25 6HZ



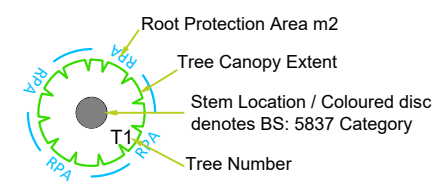
Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observation	Recommendations
SG2	Mixed species shrubs; Rose, Spirea, Philadelphia, Elder	3	2	2	2	2	109	m/s	5	1	C2	Mature	10-19	Poor form, shape and condition mixed tired shrub planting. No significant recent crown management. Dense crowns, moderate dead wood.	Fell to ground level and treat.
T22	Sycamore	11	3	3	3	3	100	1	5	1	C2	Semi-Mature	10-19	Poor, etiolated form, shape and condition. No significant recent crown management. Self-set pioneer tree.	Fell to ground level and treat.



**APPENDIX 3**  
**TREE CONSTRAINTS PLAN**

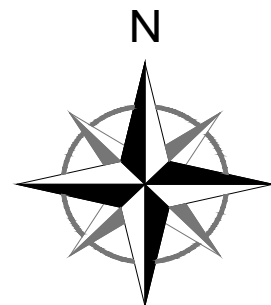


**Tree Survey Drawing Key**



See EnviroArb Tree Survey for Individual Tree Details

- KEY**  
Please refer to EnviroArb arboricultural report for details
- Category A - high quality and value
  - Category B - moderate quality and value
  - Category C - low quality and value
  - Category U - removal
- ⋄ RPA - root protection area as defined by Table 2 BS 5837:2012
- ⋄ Category U - removal



Tree No	Species	DBH (m)	Stems	Ht (m)	BS Cat
T1	Birch (Silver)	0.35	1	14.5	B1
T2	Birch (Silver)	0.41	1	15	B1
T3	Sycamore	0.14	2	7	C2
T4	Oak (Sessile)	0.1	1	8	C2
T5	Sycamore	0.14	2	7	C2
T6	Yew (Common)	0.1	1	4	C2
T7	Laurel (Bay)	0.1	m/s	5	C2
T8	Maple (Japanese)	0.25	m/s	6	B2
T9	Yew (Common)	0.1	1	3	C2
T10	Laurel (Bay)	0.1	m/s	6	C2
T11	Laurel (Bay)	0.1	m/s	7	C2
T12	Elder	0.3	m/s	6	C2
T13	Ash (Common)	0.6	m/s	14	C2
T14	Silver Birch & Sycamore	0.5	m/s	12	C2
T15	Snakebark Maple	0.1	1	4	C1
T16	Cherry	0.26	2	12	C2
T17	Pear	0.35	1	11	C2
T18	Magnolia	0.1	2	2.5	B2
T19	Cedar (Blue Atlas)	0.69	1	18	A1
T20	Pear	0.35	1	11	C2
T21	Pear	0.4	1	11	C2
T22	Sycamore	0.1	1	11	C2
H1	Mixed species hedge	0.08	m/s	2	C2
SG1	Mixed species shrubs; Yew, Holly, Bottlebrush, Viburnum	0.109	m/s	3	C2
SG2	Mixed species shrubs; Rose, Spirea, Philadelphia, Elder	0.109	m/s	3	C2

**REVISIONS**

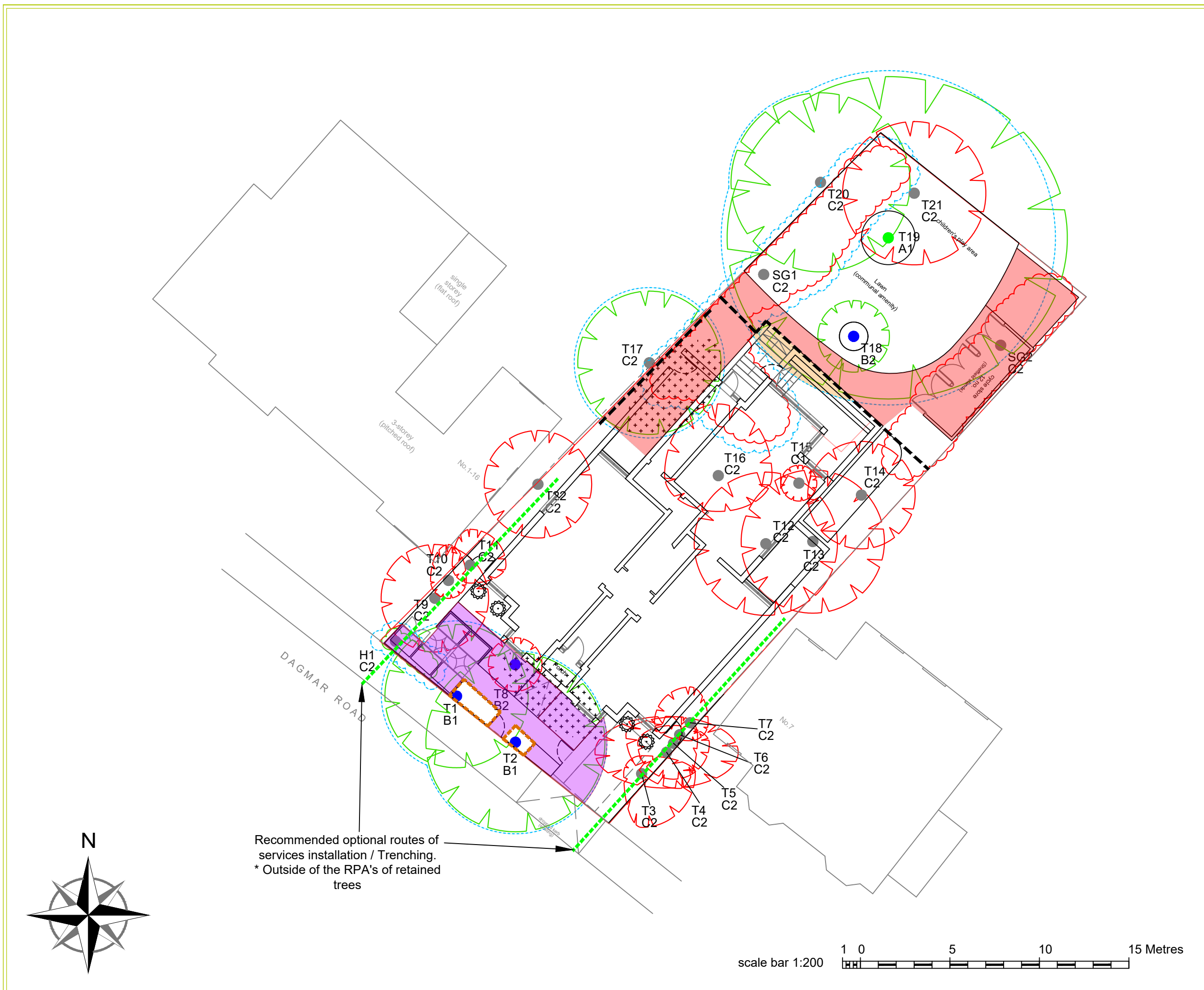
No	Description	By	Date	Chkd
A	T19 move approx 1.75M NE	SPB	20-02-21	SPB

**EnviroArb-Solutions Ltd**

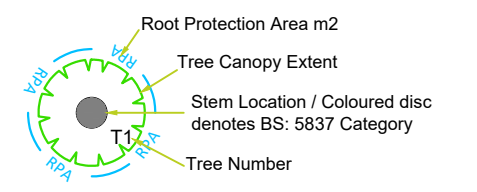
16 Compton Road, Colchester Essex  
Tel 07734 715337  
E-mail paul.allen@enviroarb-solutions.co.uk  
www.enviroarb-solutions.co.uk

Drawing Title <b>Tree Constraints Plan (TCP)</b>		This drawing, its contents and associated properties are the property of EnviroArb-Solutions Ltd. No unauthorised reproduction is permitted without prior written consent by the management.
Client <b>Inicio Homes</b>	Site Address <b>5 Dagmar Road South Norwood SE25 6HZ</b>	
Project No. <b>EAS-079</b>	Drwg No. <b>EAS-079 TCP</b>	Sheet 1 of 1
Drawn <b>S Blackwell</b>	Approved <b>P Allen</b>	Date <b>20/01/21</b>
		Scale <b>1:200</b>
		<b>A3</b>

**APPENDIX 4**  
**TREE PROTECTION PLAN**



**Tree Survey Drawing Key**



See EnviroArb Tree Survey for Individual Tree Details

**KEY**

- Tree to be retained
- Tree to be Pruned
- Tree to be removed
- Tree protective fencing
- Plyboard Trunk Boxing
- No Dig Area
- Supervised Excavations
- Temporary Ground Protection

**REVISIONS**

No	Description	By	Date	Chkd
A	T19 move approx 1.75M NE	SPB	20-02-21	PA
B	New Baseplan, measures updated	SPB	25-02-21	PA
C	Fencing amended, TGP Enlarged	SPB	05-07-21	PA

**EnviroArb-Solutions Ltd**

16 Compton Road, Colchester Essex  
 Tel 07734 715337  
 E-mail paul.allen@enviroarb-solutions.co.uk  
 www.enviroarb-solutions.co.uk

Drawing Title Tree Protection Plan (TPP)		This drawing, its contents and associated properties are the property of EnviroArb-Solutions Ltd. No unauthorised reproduction is permitted without prior written consent by the management.	
Client Inicio Homes			
Site Address 5 Dagmar Road South Norwood SE25 6HZ			
Project No. EAS-079	Drwg No. EAS-079 TPP	Sheet 1 of 1	A3
Drawn S Blackwell	Approved P Allen	Date 20/01/21	

Recommended optional routes of services installation / Trenching.  
 \* Outside of the RPA's of retained trees

scale bar 1:200 1 0 5 10 15 Metres

**APPENDIX 5**  
**TREE WORKS SCHEDULE**

**NOTE:** All tree works to be undertaken in accordance with BS 3998:2010 'Tree work - Recommendations'. All pruning cuts to be made at suitable growing points, in line with the principles of natural target pruning.

### Trees To Be Pruned

Tree No	Species	Ht (m)	DBH (mm)	BS Cat	Age Class	Observation	Recommendations
T1	Birch (Silver)	14.5	350	B1	Mature	Average form, shape and condition. No significant recent crown management. Dense crown, moderate dead wood, some hung up. Lower trunk ivy - unable to fully inspect. BT wires rubbing through crown.	Sever Ivy at 2m from ground level and remove section. Re-inspect. Crown lift to 5m over public footpath / highway. Cut back to suitable side growth point to provide 1-2m clearance from BT wires. Remove dead wood.
T2	Birch (Silver)	15	410	B1	Mature	Average form, shape and condition. No significant recent crown management. Dense crown, moderate dead wood, some hung up. BT wires rubbing through crown.	Crown lift to 5m over public footpath / highway. Cut back to suitable side growth point to provide 1-2m clearance from BT wires and adjacent property. Remove dead wood.
H1	Mixed species hedge	2	80	C2	Semi-Mature	Average form, shape and condition. Dense crown, Minor dead wood.	Annual trimming maintenance.
T17	Pear	11	350	C2	Mature	Average form, shape and condition. Unable to inspect due to restricted access & vegetation. No significant recent crown management. Dense crown, minor dead. Ivy clad crown and stem and 3rd party off site tree - unable to fully inspect with overhanging branches.	Cut back branches overhanging the site boundary fenceline.
T19	Cedar (Blue Atlas)	18	690	A1	Mature	Good form (asymmetric canopy), shape and condition. No significant recent crown management. Dense low crown, moderate dead wood.	Remove dead wood.

## Trees To Be Removed

Tree No	Species	Ht (m)	DBH (mm)	BS Cat	Age Class	Observation	Recommendations
T3	Sycamore	7	140	C2	Semi-Mature	Poor form (asymmetric canopy), shape and condition. Open crown, low dead wood. Co dominant self-sown tree with basal included union. Cut back over drive.	Fell to ground level and treat.
T4	Oak (Sessile)	8	100	C2	Semi-Mature	Poor form (asymmetric canopy), shape and condition. Open crown, low dead wood. Cut back over drive.	Fell to ground level and treat.
T5	Sycamore	7	140	C2	Semi-Mature	Poor form (asymmetric canopy), shape and condition. Open crown, low dead wood. Co dominant self-sown tree with basal included union. Cut back over drive. Suppressed.	Fell to ground level and treat.
T6	Yew (Common)	4	100	C2	Semi-Mature	Poor form (asymmetric canopy), shape and condition. Dense, suppressed crown, low dead wood. Cut back over drive.	Fell to ground level and treat.
T7	Laurel (Bay)	5	100	C2	Semi-Mature	Poor form (asymmetric canopy), shape and condition. Dense, suppressed crown, low dead wood. Cut back over drive. Overhangs garage	Fell to ground level and treat.
T8	Maple (Japanese)	6	250	B2	Early Mature	Average form, shape and condition. Dense, crown, low dead wood. Minor deadwood.	Fell to ground level and treat.
T9	Yew (Common)	3	100	C2	Semi-Mature	Poor form (asymmetric canopy), shape and condition. Dense, suppressed crown, low dead wood. Cut back over fenceline.	Fell to ground level and treat.
T10	Laurel (Bay)	6	100	C2	Semi-Mature	Poor form (asymmetric canopy), shape and condition. Dense, suppressed crown, low dead wood. Cut back over drive. Overhangs boundary fence line.	Fell to ground level and treat.

Tree No	Species	Ht (m)	DBH (mm)	BS Cat	Age Class	Observation	Recommendations
T11	Laurel (Bay)	7	100	C2	Semi-Mature	Poor form (asymmetric canopy), shape and condition. Dense, suppressed crown, low dead wood. Cut back over drive. Overhangs boundary fence line.	Fell to ground level and treat.
T12	Elder	6	300	C2	Mature	Poor form, shape and condition. Dense, suppressed crown, low dead wood.	Fell to ground level and treat.
T13	Ash (Common)	14	600	C2	Early Mature	4 x 150mm stems. Multiple-stemmed with basal included unions. Ivy clad crown and stem, unable to fully inspect. Unable to inspect due to restricted access & vegetation. Open crown, moderate dead wood.	Fell to ground level and treat.
T14	Silver Birch & Sycamore	12	500	C2	Early Mature	5 x 100mm stems. Self-sown Multiple-stemmed trees with basal included unions. Ivy clad crown and stem, unable to fully inspect. Unable to inspect due to restricted access & vegetation. Open crown, moderate dead wood. X 1 stem dead.	Fell to ground level and treat.
T15	Snake bark Maple	4	100	C1	Semi-Mature	Poor form, shape and condition. Sparse crown moderate deadwood.	Fell to ground level and treat.
T16	Cherry	12	260	C2	Early Mature	Poor form (asymmetric canopy), shape and condition. No significant recent crown management. Dense crown rubbing building, minor dead wood. Co dominant tree with severe included unions.	Fell to ground level and treat.
T21	Pear	11	400	C2	Mature	Poor form, shape and condition. Unable to inspect due to restricted access & vegetation. No significant recent crown management. Dense crown, major dead. Ivy clad crown and stem on tree - unable to fully inspect with overhanging branches.	Fell to ground level and treat.



Tree No	Species	Ht (m)	DBH (mm)	BS Cat	Age Class	Observation	Recommendations
SG1	Mixed species shrubs; Yew, Holly, Bottlebrush, Viburnum	3	109	C2	Mature	Poor form, shape and condition mixed tired shrub planting. No significant recent crown management. Dense crowns, moderate dead wood. Ivy clad.	Fell to ground level and treat.
SG2	Mixed species shrubs; Rose, Spirea, Philadelphia, Elder	3	109	C2	Mature	Poor form, shape and condition mixed tired shrub planting. No significant recent crown management. Dense crowns, moderate dead wood.	Fell to ground level and treat.
T22	Sycamore	11	100	C2	Semi-Mature	Poor, etiolated form, shape and condition. No significant recent crown management. Self-set pioneer tree.	Fell to ground level and treat.

## **APPENDIX 6**

### **SITE INSPECTION & MONITORING SCHEDULE**

## **General Tree Protection Methods**

1. Site Inspections and Supervision of construction works close to, within of adjacent to retained tree RPAS will avoid potentially costly breach of tree protection conditions.
  
2. We recommend the arboricultural consultant from EnviroArb-Solutions Ltd is retained to undertake inspections and supervision and work with the site manager to ensure compliance with tree protection conditions and advise where appropriate.
  
3. Both scheduled and unannounced site visits is often the most effective as these will serve to identify any damage to the Tree Protection Fencing, poor working practices, potential problems and points of conflict between the construction process and the health of the trees. The associated reports will include recommendations for remedial action.
  
4. During these instructed visits, any changes to the proposed works will be discussed, their impact assessed and recommendations for best practice will be outlined. After each of these visits, a copy of the report should be sent to the Site Agent, Local Authority Tree Officer and Client. The remedial action undertaken will be recorded on the next visit.
  
5. All Tree Protection Measure will remain in-situ for the full duration of the build and not removed until the very final stages of construction. i.e. landscaping stages.
  
6. It is essential to the successful implementation of the principles set out in this report that effective supervision and remedial actions are implemented from the outset, as detailed in the site supervision schedule below:

<b>Constraints Item</b>	<b>Site Monitoring Required?</b>	<b>Visits No.</b>	<b>Timing of Site Visits</b>	<b>Actual Visit Date</b>
<b>Approved Tree works tree mark up</b>	Yes	Visit 1	Prior to construction	
<b>Pre-commencement meeting with site manager to discuss CEZ, tree protection methods etc.</b>	Yes	Visit 1	Prior to site clearance	
<b>Establishment and protection of Root Protection Areas (RPAs) for retained trees, to 'sign off' installed tree protection fencing and temporary ground protection</b>	Yes	Visit 1	Prior to site clearance	
<b>Supervision of any changes in soil levels near retained trees</b>	Yes	Visit 2	During site clearance phase	
<b>Location of temporary access route through / adjacent to the retained trees and for access for construction vehicles and avoidance of compaction to the RPAs of retained trees</b>	Yes	Visit 2	During construction phase	
<b>Protection and prevention of damage to retained tree canopies during construction</b>	Yes	Visit 2	During construction phase	
<b>Supervision of the Installation of any 'Reduced-dig' special surfacing within / through retained tree RPAs</b>	Yes	Visit 3	During construction phase	
<b>Supervision of the excavation of services trenches near retained trees</b>	Possible	Visit 4	During construction phase	
<b>Generic construction site constraints: 1 Site office / welfare unit location 2 Temporary toilets 3 Siting of fuel tanks / mortar silos 4 Location of contaminant storage and washout areas 5 Location of stripped topsoil</b>	Yes	Visits 1-5	During construction phase	
<b>Post construction site assessment for any required remedial tree works operations recommendations</b>	Yes	Visit 5	Post construction	

## **APPENDIX 7**

### **BS5837: 2012 TREE CONSTRAINTS & PROTECTION METHODS**

## **1 Pre-Construction / Toolbox Talk Meeting**

Prior to commencement of demolition / construction, an onsite meeting will be held with all relevant parties, including the site manager and appointed arboricultural consultant from EnviroArb-Solutions Ltd. The purpose of this meeting is to ensure features on site match those in the approved Tree Protection Plan and CMS.

## **2 Installation of Tree Protection Measures**

Usually in conjunction with 1. Above the tree protection fencing should be inspected to ensure it is installed at the correct locations prior to any demolition or groundworks commencing and remain in place throughout construction and be removed only after completion of construction works on the site. The demolition and construction process should not be commenced until the tree surgery works have been completed and the protective areas have been fenced off. Clear notices are to be fixed to the outside of the fencing with words such as 'TREE PROTECTION AREA – NO ACCESS OR WORKING WITHIN THIS AREA'.

## **3 Installation of Temporary Ground Protection**

Within the fenced off area (or Construction Exclusion Zone – CEZ), no materials or chemicals should be stored at any time, no fires should be lit and no pedestrian or vehicle traffic should be allowed. Level changes within these areas should be kept to an absolute minimum. Every effort should be taken to protect a maximum possible area of the root system. No level changes or excavation within the RPAs should be undertaken without the consent of the LPA Tree Officer. Where ingress is unavoidably required suitable temporary ground protection may be laid as approved in writing by the LPA council tree officer, as described at Appendix 9.

The site manager, all contractors and other relevant personnel are to be informed of the role of all the tree protection measures installed and their importance. A copy of the approved Tree Protection Plan will be displayed on site at all times during construction.

## **4 - Locations of Site Offices Compound and Storage Area**

The site office, welfare facilities, storage yard and contractors' parking area need to be located within an area of the site that is outside the Root Protection Areas (RPAs). The compound will remain at least 1 metre outside the RPAs, with access from the main access road. All fuel storage and Mortar silos are stored in the designated compound area and bunded to prevent overspill into protected CEZ's.

## **5 - Groundworks, Level Changes and Foundations**

With regard to the approved drawings provided, the construction of foundations for the new build is ideally located beyond the Root Protection Areas (RPAs) of retained trees. Where close to or slightly within RPA's specialised low impact foundation design should be used as recommended by a structural engineer and approved by the council tree officer. If the subsoil is found to be plastic, the foundations will be specified to take into account the potential influence of the vegetation on the moisture content and volume of the subsoil.

## **6 - Services**

We have updated our recommendations that all drainage and underground service routes are located beyond the RPAs of all the retained trees, T1 & T2, as shown on the revised Tree Protection Plan at Appendix 4. If the service runs are to be located within an RPA, we recommend that this matter is dealt with by the approved SSAMS secured by planning condition. If services are located within an RPA, special implementation techniques such as moling, airspade, or hand digging may be required by the LPA. In the majority of cases, however, careful excavation with a low tonnage mechanical excavator, supervised by the consultant arboriculturist from EnviroArb-Solutions Ltd, can adequately undertake services excavations. When tree roots are encountered, hand digging, and root protection can then be undertaken as and when they are observed.

## **7 - Dismantling Protection Barriers & Post Construction Site 'Sign Off'**

Dismantling the protection barriers around retained trees may be required to allow completion of final surface treatments and landscaping. Supervision of this exercise and control of the landscaping thereafter will be administered by the appointed arboricultural consultant from EnviroArb-Solutions Ltd. The removal of the Tree Protection Fencing is not an opportunity for machinery to access the previously fenced off area.

No further excavation will be carried out during this process and soils levels will not be raised above that existing by greater than 100mm and not within 4m of the trunk. Any removal of existing structures within the Root Protection Areas, including gardens type walls or paths, will be carried out by hand.

All Tree Protection Measure will remain in-situ for the full duration of the build and not removed until the very final stages of construction. i.e. landscaping stages.

## **APPENDIX 8**

### **TREE PROTECTION FENCING SPECIFICATION**



on retained hard surfacing or it is otherwise unfeasible to use ground pins, e.g. due to the presence of underground services, the stabilizer struts should be mounted on a block tray (Figure 3b).

*NOTE 1* Examples of configurations for steel mesh perimeter fencing systems are given in BS 1722-18.

*NOTE 2* It might be feasible on some sites to use temporary site office buildings as components of the tree protection barriers, provided these can be installed and removed without damaging the retained trees or their rooting environment.

6.2.2.4 All-weather notices should be attached to the barrier with words such as: "CONSTRUCTION EXCLUSION ZONE – NO ACCESS".

Figure 2 Default specification for protective barrier

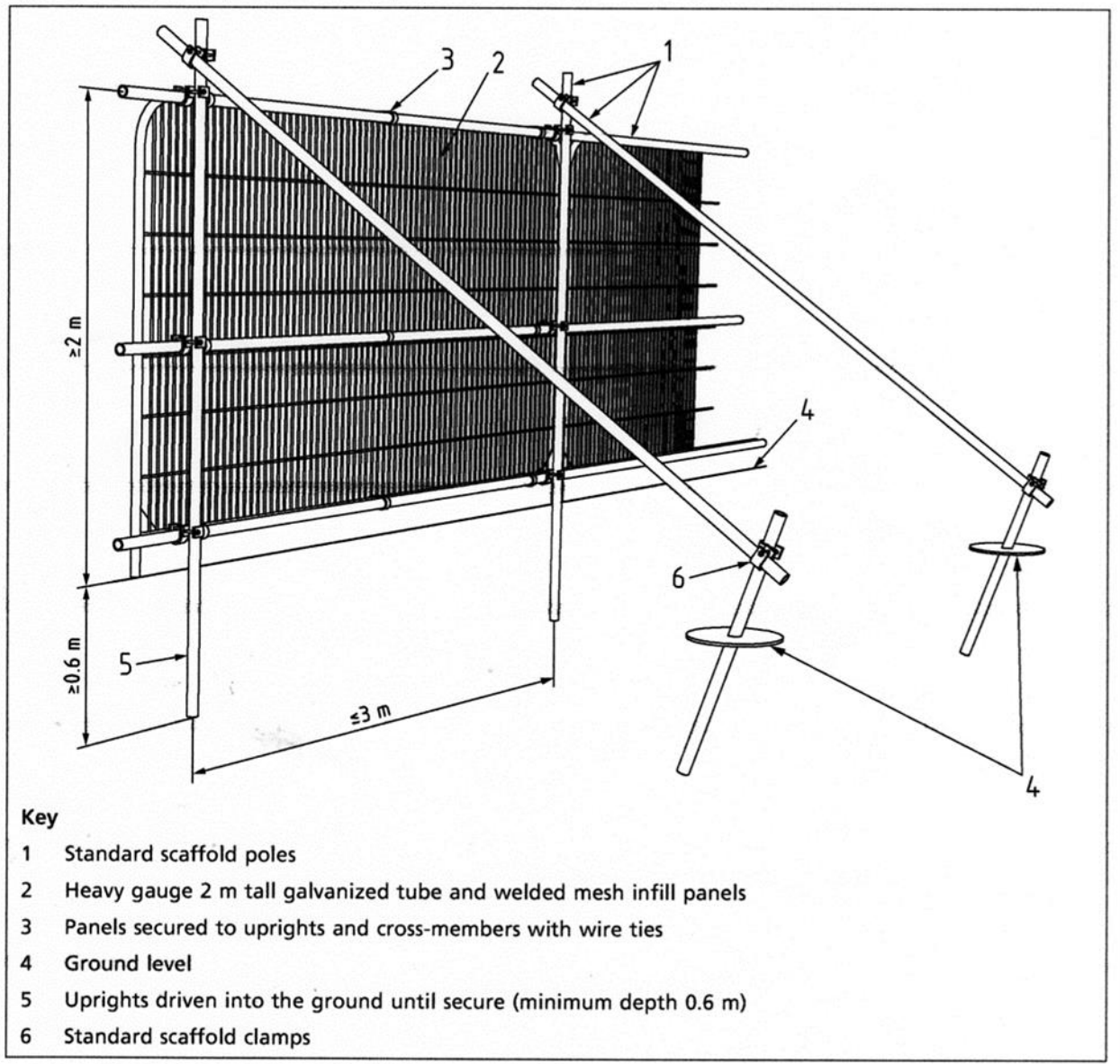
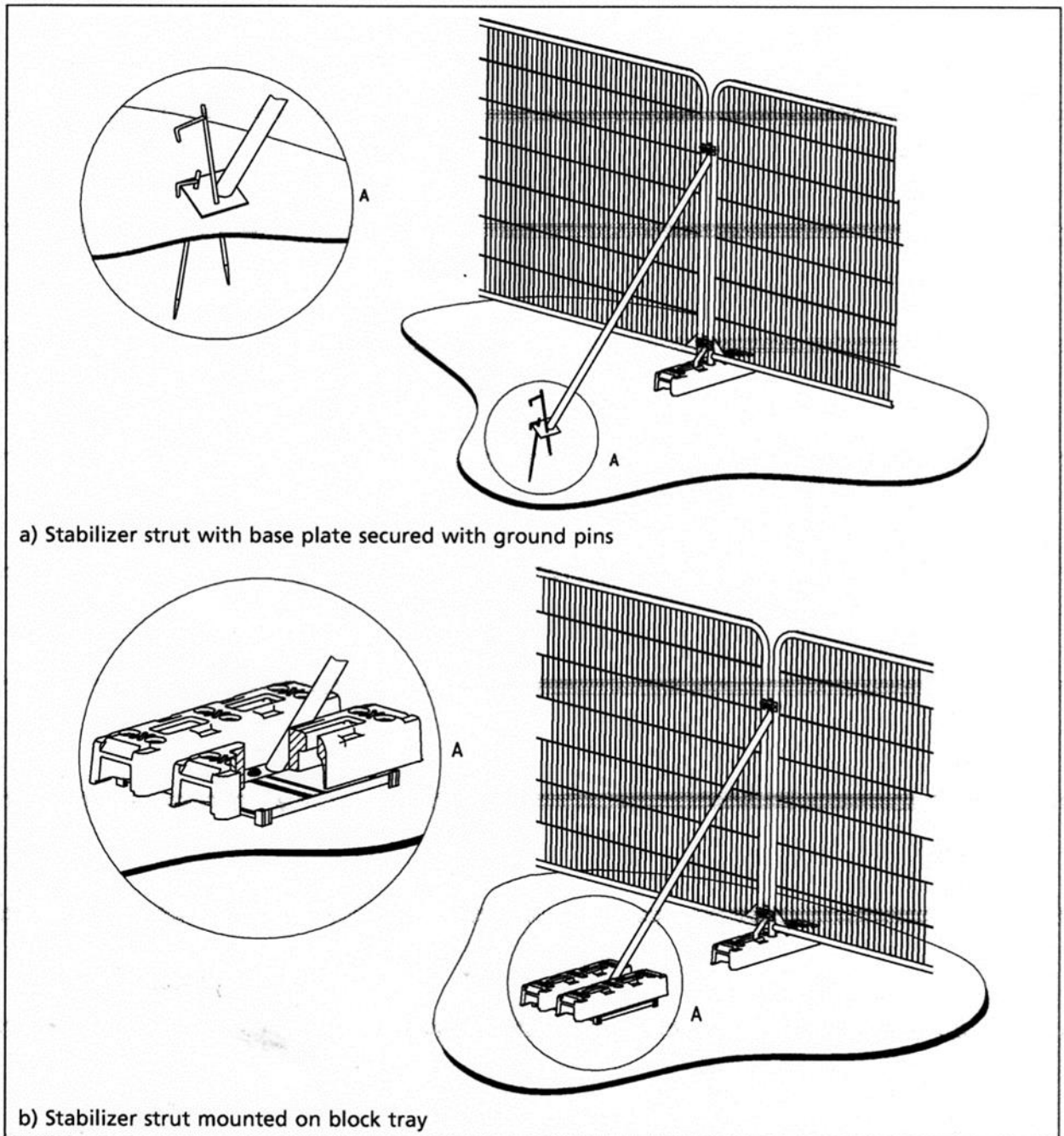


Figure 3 Examples of above-ground stabilizing systems



### 6.2.3 Ground protection during demolition and construction

6.2.3.1 Where construction working space or temporary construction access is justified within the RPA, this should be facilitated by a set-back in the alignment of the tree protection barrier. In such areas, suitable existing hard surfacing that is not proposed for re-use as part of the finished design should be retained to act as temporary ground protection during construction, rather than being removed during demolition. The suitability of such surfacing for this purpose should be evaluated by the project arboriculturist and an engineer as appropriate.

**SUGGESTED TREE PROTECTION SIGN**



**TREE PROTECTION AREA**

**KEEP OUT**

**(TOWN & COUNTRY PLANNING ACT 1990)**

**THE VEGETATION PROTECTED BY THIS FENCE IS  
PROTECTED BY PLANNING CONDITIONS AND/OR IS  
THE SUBJECT OF A TREE PRESERVATION ORDER.**

**IF YOU REQUIRE ACCESS INTO THIS AREA PLEASE  
CONTACT THE SITE MANAGER AND CONSULTANT FROM**

**ENVIROARB-SOLUTIONS LTD FOR ADVICE ON:**

**M: 07734 715337**

**APPENDIX 9**

**PROPRIETARY INFORMATION FOR 'REDUCED-DIG' SUB-BASE**



## GEOWEB® Tree Root Protection

INSTALLATION GUIDE  
simplified version

- 1 Prepare subgrade. Remove debris, rocks.



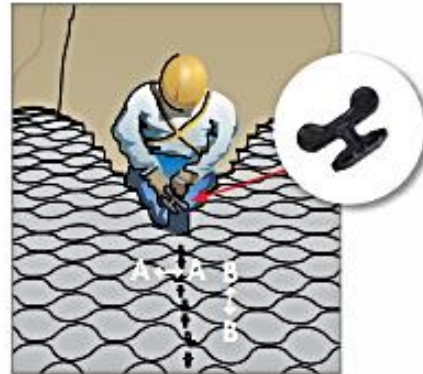
- 2 Install TRP4000 geotextile.  
Overlaps by minimum 300 mm.



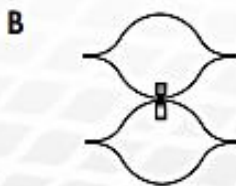
- 3 Partially expand GEOWEB® sections.



- 4 Connect GEOWEB® sections with ATRA® keys.



- 5 Connect side to side (A) and end to end (B).



- 6 Fully expand GEOWEB® sections.



7 Hold sections open. Use Options A, B, C or D.

A T-Bars



B ATRA® anchors



C Wood Stakes



D Infill Select Cells



8 Infill GEOWEB® cells.



9 Spread Infill ensuring a 25 mm overfill at all times.



10 If required, use a 4t smooth, non-vibrating roller on overfilled GEOWEB® system. Refill as needed to ensure a 25 mm overfill.



11 Surface option ready to install according to specification.





Soil Stabilisation and  
Erosion Control Specialists

info@greenfix.co.uk  
tel: 01608 666027  
www.greenfix.co.uk

Specify with material for Tree Root Protection  
**Clean Angular Stone 4-20mm**

Specification for open graded 4-20mm material for Geoweb cellular confinement within tree root protection applications. The voids material is to ensure high void space which corresponds with ideal soil void ratios for tree root health.

Material to BS71343 or BS71342. Graded gravels not permitted.

Properties of material	Test	Value
Grading of particle size	BS71343	Grading 4-20mm
Flux Content	BS71343	%
Shaper Resistance Index	BS71343	Flux
Resistance to Fragmentation	BS71343	Flux
Resistance to wear	BS71343	Flux
Water absorption rate BS41 1887-4:2000 class 7	BS41 1887-4:2000	Flux
For typical 100-175 magnesium sulphate equivalent	BS41 1887-4:2000	Flux
Acid soluble sulphate content air-cooled blast furnace slag	BS41 1887-4:2000	Flux
Acid soluble sulphate content non air-cooled blast furnace slag	BS41 1887-4:2000	Flux
Total sulphur aggregates other than air-cooled blast furnace slag	BS41 1887-4:2000	<1% by mass
Total sulphur air-cooled blast furnace slag	BS41 1887-4:2000	<1% by mass

sieve size (mm)	Percentage of 4-20mm passing
4.75	100
7.5	100
15	100
30	100
4.75	0-10
7.5	0-10
15	0-10
30	0-10



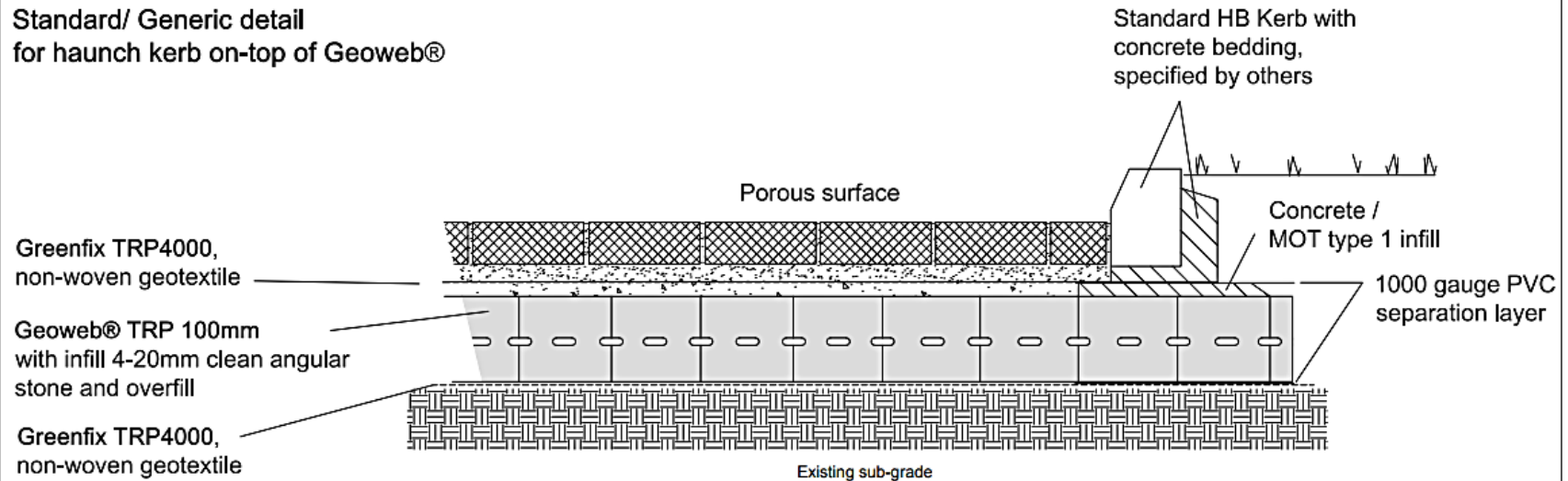
Our coated blast furnace and pozzol slag should be free from Sulfonium residue and iron disintegration in accordance with BS71343:2003, 6.4.3.2 v5.

Leaching of materials for blast furnace slag and other recycled materials should meet requirements of the Environmental waste acceptance criteria for inert waste when tested in accordance with BS71 12:07-0

On joint site conditions which require construction, this should be minimum 4 passes of a smooth wheeled roller at this weight 1000kg/m width without vibration.

For assistance on correct 4-20mm clean angular stone infill specification, please contact Greenfix technical team.

**Standard/ Generic detail  
for haunch kerb on-top of Geoweb®**



Adjacent Geoweb® units to be joined with Atra-keys.  
Subbase could be required depending on the existing ground CBR % and the type of traffic on the surface

Project: Geoweb® Tree Root Protection (TRP)  
Distributor: Greenfix soil stabilisation and erosion control  
Date: 30.10.2015

Not to scale



**LIMITATIONS OF USE**  
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Greenfix Soil Stabilisation and Erosion Control Ltd

Tel 01608 666027 | Email [info@greenfix.co.uk](mailto:info@greenfix.co.uk) | [www.greenfix.co.uk](http://www.greenfix.co.uk)

**APPENDIX 10**

**PHOTOGRAPHS**





T1 - Birch (Silver)



T2 - Birch (Silver)



T3 - Sycamore



T4 - Oak (Sessile)



T5 - Sycamore



T6 - Yew (Common)



T7 - Laurel (Bay)



T8 - Maple (Japanese)



T9 - Yew (Common)



H1 - Mixed species hedge



T11 - Laurel (Bay)



T12 - Elder



T13 - Ash (Common)



T14 - Silver Birch & Sycamore



T15 - Snakebark Maple



T16 - Cherry



T17 - Pear



T18 - Magnolia



T19 - Cedar (Blue Atlas)



T20 - Pear



SG1 - Mixed species shrubs



SG2 - Mixed species shrubs; Rose, Spirea, Philadelphia, Elder



T22 - Sycamore

# APPENDIX 11

## REPORT CAVEATS

### **Full Legal Disclaimer**

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### **Specific - Trees**

*All tree inspections, unless specified, have been undertaken from ground level and using non-invasive techniques. Comments contained within the report on the condition and risk associated with any tree relate to the condition of the tree at the date and time of survey. Please note that the condition of trees is subject to change. This change may occur but is not limited to biological and non-biological factors as well as mechanical/ physical changes to conditions in the proximity of the tree. Trees should be inspected at intervals relative to identified site risks and in accordance with relevant HSE and Central Government guidance. EnviroArb Solutions Ltd can provide further information on this matter if required. Please note no statutory control checks have been undertaken (unless specified). Where tree surgery works have been identified these works are based on the assumption that planning is approved, no tree works should be undertaken prior to determination of this application without up to date confirmation of the Tree Preservation Order / Conservation Area Status of the vegetation. All works should be undertaken in accordance with the appropriate Duty of Care. This should include, for example, site specific risk assessments and due diligence inspections for the presence of protected species.*

*Any comment relating to 3<sup>rd</sup> party trees has been made without full access to the tree(s). Should these trees have any impact on the proposed development we would advise you to instruct us to contact the 3<sup>rd</sup> party and undertake further inspection work.*



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