

OMC Associates

BS 5837 Arboricultural Report for Development

CLIENT:	Vivien & Edmund Bradley
CONTACT:	Jun Kondo
SITE:	28 Belsize Lane, London, NW3
CLIENT REF:	N/A
OUR REF:	0789D/CJO/0612
INSTRUCTION REC'D:	2 December 2013
DATE OF REPORT:	6 December 2013

Prepared by: Christopher Overbeke MSc Arb, BA (Hons), ANC (Dist), M, Arb A

28 Shelford Road, Cambridge, CB2 9NA
Tel: 01223 842253 Fax: 01223 842253 Mob: 07771 708474
Email: info@omc-associates.co.uk

CONTENTS

1.0 Introduction

- 1.1 Brief
- 1.2 Scope of report
- 1.3 Documents
- 1.4 Site description
- 1.5 Proposed development

2.0 Trees

- 2.1 Tree data
- 2.2 Trees and the law
- 2.3 Tree schedule
- 2.4 Summary of trees

3.0 Arboricultural Implications Assessment (AIA)

- 3.1 Affect of development on trees - General
 - 3.1.1 Direct/ mechanical damage (D-1)
 - 3.1.2 Ground compaction (D-2)
 - 3.1.3 Changes in ground level (D-3)
 - 3.1.4 Severance of roots by ground works (D-4)
 - 3.1.5 Contamination of ground (D-5)
 - 3.1.6 Change in ground surface (D-6)
- 3.2 Affect of development on trees specific to this site
- 3.3 Impact of trees on development

4.0 Arboricultural Method Statement (AMS)

- 4.1 Introduction
- 4.2 Tree work
- 4.3 Root Protection Area (RPA)
- 4.4 Construction Exclusion Zone (CEZ)
- 4.5 Foundations
- 4.6 Root Pruning
- 4.7 Underground Services
- 4.8 Ground protection outside the CEZ but within RPAs
- 4.9 Impact of loss of surface area of root system
- 4.10 Additional Precautions outside the Tree Exclusion Zone

5.0 Conclusions - Summary

- Appendix 1 Key to tree schedule
- Appendix 2 Details of protective barrier to be erected
- Appendix 3 Details of ground protection
- Appendix 4 BS 5837 Tree Survey
- Appendix 5 Root Protection Areas
- Appendix 6 Tree Protection Plan
- Appendix 7 Monitoring Schedule
- Appendix 8 Photos

1.0 INTRODUCTION

1.1 Brief

We are instructed to provide an arboricultural report in respect of a proposed residential development at 28 Belsize Lane.

1.2 Scope of report

This report incorporates an assessment of trees potentially affected by the development, an arboricultural impact assessment demonstrating how they may be affected by the proposed development, an arboricultural method statement providing the details necessary to ensure they are not damaged during construction and a tree protection plan illustrating the method statement.

Recommendations are consistent with the most recently revised version of the British Standard on this subject, "Trees in relation to design, demolition & construction - Recommendations", BS 5837 (2012).

1.3 Documents

We have been supplied with pdfs of elevation and ground plans.

1.4 Site Description

The property is a 1970s detached dwelling located within an established residential street and is set within a plot that rises up from street level.

It is surrounded by mature shrubs and climbers growing against the wall and along boundaries. The front largely comprises an asphalt drive and the narrow strip adjacent the left hand flank wall is concreted.

To the front apparently outside the site and 1.4m lower than the ground level of the house is a substantial sycamore tree. Along the left hand (western boundary) are several third party shrubs and trees of generally poor quality. A boundary wall built approximately 10 years ago delineates the boundary.

To the rear is a mature and well stocked garden with mature trees to the rear.

1.5 Proposed development

It is proposed that the existing house is demolished and a new dwelling built on a similar footprint. A basement will extend several metres beyond the footprint of the house to the rear.

2.0 Trees

2.1 Trees data

Dimensions relating to height, crown spread (at four cardinal points where considered necessary), girth at 1.5m as well as age class, structural and physiological condition and BS 5837 (2012) category are noted.

Though not a detailed assessment of the health of the tree, clear faults are noted.

2.2 Trees and the law

This report does not formally identify whether planning restrictions apply to the trees.

These may include:

- 1) Tree Preservation Orders (TPO).
- 2) Conservation Area (this has major implications for any tree-work).
- 3) Planning Conditions related to trees and landscape management.

We understand that trees to the rear of the property are subject of a TPO.

Please note that no works around trees should be carried out without the approval of the Local Planning Authority (since it is likely to incur large fines) unless planning permission has been granted that indisputably necessitates the removal or facing back of any of these trees. This, however, would not extend to severing of roots of trees shown to be retained on the approved drawings.

Section 197 of the Town & Country Planning Act 1990 states that it shall be the duty of the local planning authority to ensure whenever it is appropriate, that in granting planning permission, "adequate provision is made, by the imposition of conditions, for the preservation or planting of trees" Even when no specific legal protection exists it may be necessary to obtain a felling license from the Forestry Commission if the volume of timber removed exceeds felling license quotas.

Section 11 of the National Planning Policy Framework adopted in March 2012 "Conserving and enhancing the natural environment" states that, "the planning system should contribute to and enhance the natural and local environment by: protecting and enhancing valued landscapes..... recognising the wider benefits of ecosystem services and minimising impacts on biodiversity". It also stresses the importance of "protection, enhancement and management of green infrastructure"

The Wildlife & Countryside Act 1981, the Conservation (Natural Habitats etc.) Regulations 1994 and the Countryside & Rights Of Way Act 2000 are all of relevance.

Even when no specific legal protection exists it may be necessary to obtain a felling license if the volume of timber removed exceeds felling license quotas. The Forestry Commission administers the felling licenses under the Forestry Act 1967.

2.3 Summary of tree population

Twelve trees and three notable shrubs were recorded in the survey including five third party trees, T1, T2, T5, T7 & T8 and two third party shrubs S1 & S2. Their positions are indicated in the site plan in appendix 4.

A large, off site sycamore T1 to the front of the subject property is considered a category A tree on account of its health and exceptional amenity value.

The remaining six trees are all in category C. The sycamore in the rear garden, T3, is fairly prominent in the landscape but is twin stemmed with a large open basal wound which downgrades it from a possible category B.

Tree T2 is a pear tree growing outside of the western boundary of the subject property near to the front of the existing house. It is visible from the public road but appears to have been pollarded in the past and has a relatively small crown.

It grows in a narrow strip of shrubbery and the ground on either side of the tree comprises asphalt. I understand from Dr Dobson's report of November 2005 that a brick boundary wall between the two properties was constructed 'recently'. Though foundation details are not known, it is probable that

some root encroachment has taken place but significant root severance at the time of construction is likely to have occurred.

The remaining trees in category C are all small or suppressed and add little to the amenity of the area.

The trees inspected were all in fair to good condition and no immediate tree works are recommended.

TREE No.	SPECIES	HEIGHT (m)	DIA. AT 1.5M (MM)	CROWN RADIUS (m) N S E W	AGE CLASS	SULE	CONDITION (STRUCTURAL)	CONDITION (PHYSIOLOGICAL)	B.S. CAT.	SPACE BELOW CROWN	RPA (RADIUS M)	TREE-WORK
T1	<i>Acer pseudoplatanus</i> Sycamore	17	850	8.5 10 7.5 9.5	M	>40	Good	Good	A2	Y	10.2	N
T2	<i>Pyrus communis</i> Edible pear	10.5	450	4 4 2 3.5	M	>40	Fair	Fair	C2	Y	5.4	WA
T3	<i>Acer pseudoplatanus</i> Sycamore	15.5	620 & 630	8 7 6 5.5	M	>40	Fair	Fair	C2	N/A	8.3	N
T4	<i>Prunus Spp.</i>	7.5	370	1 6 4 2.5	M	>40	Fair	Fair	C2	N/A	4.5	N
T5	<i>Prunus Spp.</i>	7.0	360*	3 5.5 3.5 3	M	>40	Fair	Fair	C2	N/A	4.2	N
T6	<i>Acer palmatum cv</i> Japanese Maple cv	3.5	60 & 60	1.5 1.5 1.5 1.5	YM	>40	Good	Good	C2	N/A	0.9	N
T7	<i>Acer palmatum cv</i> Japanese Maple cv	2.5	50	1.5 1.5 1.5 1.5	YM	>40	Good	Good	C2	N/A	N/A	RA
T8	<i>Prunus Spp.</i>	8.0	290		M	10-20	Fair	Poor	U	Y	3.6	WA
T9	<i>Prunus Spp.</i>	6.5	190		YM	20-40	Fair	Poor	U	N/A	2.4	N
T10	<i>Amelanchier laevis</i> Snowy Mespil	6.0	70 & 80	3.5 2.5 0.5 3.5	M	>40	Good	Good	C2	N/A	N/A	RA
T11	<i>Cupressocyparis leylandii</i> Leyland Cypress	11.0	250*	2 2 0.5 2.5	M	>40	Good	Fair	C2	N/A	3.0	N
T12	<i>Acer palmatum cv</i> Pair of Japanese Maple cv	3.5	60 & 60	1.5 1.5 1.5 1.5	YM	>40	Good	Good	C2	N/A	N/A	RA
S1	<i>Prunus laurocerasus</i> Laurel	5.5	70 & 110	2.5 5 1 3	M	>40	Good	Good	C2	N/A	1.8	N
S2	<i>Prunus laurocerasus</i> Laurel	5.5	80	3 2 1.5 2	M	>40	Good	Good	C2	N/A	0.9	N
S3	<i>Laurus nobilis</i> Sweet Bay	3.5	70	0.5 2 2 1.5	YM	>40	Good	Good	C2	N/A	0.9	N

See Appendix 1 for key to table

3.0 Arboricultural Implications Assessment (AIA)

3.1 Affect of development on trees - General

The objective of the report is to identify and evaluate the extent of direct and indirect damage on existing trees that may arise as a result of the implementation of the proposed development without appropriate guidance.

A tree may take a century to reach maturity but it can be irretrievably damaged in a few minutes often because of a failure to appreciate the vulnerability of trees and particularly the root systems. *Irreparable damage is frequently done to existing trees in the first few days of a contractor's occupation of a site.*

This report seeks to provide guidance on how worthy trees in the immediate vicinity can be protected during the development.

It is important to be aware that the effects of tree damage may not be apparent for some time. There are a multitude of activities that can kill or damage trees on construction sites. There is a need to be mindful of these activities and why they may be so harmful to trees. These are briefly summarized below.

3.1.1 Direct mechanical damage (*Referred to as D1 in this report*)

Direct damage to the crown or stem is unlikely to kill a tree unless it is significant but may disfigure it and result in long-term decay setting in. This often occurs as a result of construction activities taking place too close to trees without protection or appropriate pre-construction tree surgery.

3.1.2 Ground compaction (*Referred to as D2 in this report*)

This is likely to be the most common cause of tree death or decline on a building site. The vast majority of tree roots are located in the upper soil horizons where soil conditions are most favourable for root growth. It is these upper horizons that are most vulnerable to ground compaction. Compaction destroys soil structure and this prevents soil moisture absorption into the ground and loss of natural aeration. This process deprives tree roots of moisture as well as giving rise to root asphyxiation and is often fatal to trees.

3.1.3 Changes in ground level (*Referred to as D3 in this report*)

The majority of a tree's root systems are generally located in the upper 0.6m of the ground and the bulk of these roots happen to be very small, delicate and essential feeder roots. Reductions in ground level such as soil stripping can be catastrophic for a tree's health. Conversely increases in ground level can result in root asphyxiation.

3.1.4 Severance of roots by ground works (*Referred to as D4 in this report*)

Excavation of ground to remove old foundations and hard standing, construction of conventional concrete footings, new hard standing or the installation of services such as water/sewerage pipes, gas/electricity cables, TV/telephone cables using open trenching within the drip-lines of trees severs any roots present, potentially leading to destabilization, decline or death of trees. It may also have implications for local soil hydrology.

3.1.5 Contamination of ground (*Referred to as D-5 in this report*)

Spillage of petrol, diesel, paint removers, wood preservatives and many other toxic liquids regularly used on building sites can kill roots.

3.1.6 Change in ground surface (*Referred to as D6 in this report*)

Covering surfaces with impermeable materials – especially areas that were previously open ground can prove fatal for tree roots. Trees derive moisture from regular moisture recharge of the ground and nutrients generated by the nutrient cycle from decomposing leaf litter. Impervious surfaces can also prevent gaseous interchange between the ground and the atmosphere creating a build-up of toxic waste gases such as carbon dioxide and a deprivation of oxygen.

3.2 Affect of development on trees specific to this site

The new footprint of the house falls outside the RPAs of trees to be retained. Negligible and peripheral encroachment may occur but not considered in any way damaging to trees.

The area to the front of the new building where the existing ground level is to be lowered is within the RPA of tree T1 but the ground level here is currently about 1.4 metres above the street level at which the tree is growing and the surface is asphalted. It is highly unlikely that any significant tree root development has taken place beyond the position of the retaining wall and the proposed works are most unlikely to cause any significant harm to the tree, thus requiring no additional tree protection measures.

The lowering of level may encroach upon the nominal RPA of tree T2 which is growing at a similar ground level to that at the front of the existing house but we understand from trial pits that the boundary wall provides an effective barrier to 1420mm. In view of the previous severance of the roots of this tree in association with this boundary wall it is unlikely that any significant roots are to be found on the subject property. In view of the pollarding of this tree, the full RPA as calculated from the stem diameter is a little disproportionate to the crown mass of this tree and in reality the roots are likely to occupy a lesser area and the RPA is annotated to reflect this. The lowering of the ground level on the eastern side of the tree is unlikely, therefore, to cause severance of any large (over 25 millimetres diameter) roots belonging to T2 but it is important that the ground within the area extending in a radial arc of 2m from the stem is lowered manually and carefully and all the procedures laid out in section 4.6 assiduously complied with.

The same principle of root abatement applies due the depth of the foundation of this new wall to the other trees and vegetation, specifically the poor trees T8 & T9 and undergrowth grow along this western boundary.

The re-instatement of the retaining wall at the southern boundary should not impact on T1 so long as suitable precautions are followed. These are described in 4.4.

3.3 Impact of trees on development

The spatial relationship between the new building and the trees noted in this report is broadly similar to that of the existing building and no additional issues of shade are anticipated.

Where existing or proposed drains pass within the root system of a tree (not just the RPA), technical advice must be sought to assess the root-tightness of joints. Modern compression joints do not reliably prevent root ingress and it may be necessary to upgrade them.

It is considered that there will be no appreciable post development pressure and none that would oblige the Council to give consent to inappropriate tree works.

Due to prevalence of a shrinkable founding substrate and the proximity of mature trees, there is potential for tree related subsidence damage to the new building and it is important that foundations are designed in accordance with NHBC guidelines to ensure no eventuality of root induced subsidence.

Arboricultural Method Statement (AMS)

4.1 Introduction

Successful avoidance of any damage can be achieved through appropriate tree protection details, correct implementation of these details and close liaison with the Council's tree officer and the appointed arboriculturist. The Tree Officer should be informed of and given the opportunity to inspect tree protection measures prior to commencement of the development.

These details and procedures are provided in the arboricultural method statements outlined below and illustrated in the Tree Protection Plans.

4.2 Tree Work

Some minor facing back of the sections of crowns of T2, T8 & T12 overhanging the site to be developed is advisable to avoid possible mechanical damage to the crowns.

The development necessitates removal of T7, T10 & T12

All works must be carried out in full compliance with BS 3998 (2010).

4.3 Root Protection Area (RPA)

An RPA is defined in BSI 5837 (2012) as "the area surrounding a tree that contains sufficient rooting volume to ensure the survival of the tree".

The British Standard formula for calculating the RPA has been used and the resultant RPAs shown on the Root Protection Area Plan in appendix 5. This demonstrates how the new dwelling is highly unlikely to encroach upon the calculated RPAs of identified trees, largely due to the distance of the trees from the development or the role of the boundary retaining wall in acting as a root barrier.

Though encroachment upon the RPA should always be avoided, it can be acceptable in certain conditions. This involves assessment of the tolerance levels of the tree based on a variety of factors.

Encroachment can be avoided through the use of a CEZ as detailed below or where unavoidable, the potential of root damage can be avoided through the use of ground protection.

4.4 CEZ (Construction Exclusion Zone)

All damage types can be avoided through the establishment of Construction Exclusion Zones (CEZ) to protect that part of the RPA not occupied by the proposed development. Particular care and planning is necessary to accommodate the operational arcs of excavation and lifting machinery, including their loads, especially large building components such as beams and roof trusses. Operations like these have the potential to cause incidental damage and logistical planning is essential to avoid conflicts.

This is clearly illustrated in the Tree Protection Plan.

Work within the CEZ must at all times take place on protected ground. See section 4.8. Excavation carried out without appropriate supervision and not in compliance with the details in section 4.6 **must at all times be avoided**.

It is important that the Council's tree officer is given an opportunity to inspect the protection prior to commencement of each phase so that he or she can be satisfied that this key part of the tree protection condition has been implemented correctly.

Positioning of fencing within the site has taken into consideration space for ground protection and construction operations.

It is important that this is carefully considered and deemed sufficient space by the builders. If not it is essential that agreement is reached on a revised position, plans amended accordingly and that ground protection increased accordingly.

The barriers used to protect the CEZ must be installed before any material or machinery is brought onto sight and certainly prior to any demolition. Once erected these protection areas must not be altered without advice from the arboriculturalist and approval of the local planning authority.

Re-instatement of the front boundary wall will require the removal of the tree protective barriers around T1 for construction access and temporary ground protection will be installed in the positions shown on the TPP as hatched magenta lines.

On completion of the work on the retaining wall the tree protective barriers should be replaced and maintained until the completion of all construction activities.

The barriers must be fit for purpose. The 2012 version of BS 5837 recommends weld mesh (Heras) secured firmly to a scaffold framework. These are guidelines for best practice but some flexibility in its interpretation is sensible. Due to the relatively small scale nature of the project heras is deemed excessive. Chestnut pale fencing or mesh fencing attached to firmly inserted stakes at 2m spacing would be acceptable.

Examples are illustrated in appendix 2.

4.5 Foundations

Since no significant encroachment upon RPAs is identified by the proposed footprint there is no reason to require a specially designed foundation to oversail roots.

It should be borne in mind, however, that there are third party trees and the developer has a responsibility not to damage these trees.

Where roots too substantial to be cut are encountered, no progress can take place until the arboriculturalist and/or Council Tree Officer has gone to site to determine an appropriate course of action.

The area where such attention must be given is highlighted in a bold light green line on the TPP.

All work within the RPA must at all times take place from protected ground.

4.6 Root Pruning

Though we anticipate no excavation within identified RPAs, peripheral roots may be encountered or exposed, it is rarely possible to unequivocally state that there will be no root presence. The following guidelines must then be adhered to:

- No roots of greater than 25mm must be cut without consultation.
- All roots of less diameter that are cut must be cleanly cut with sharp secateurs or loppers, preferably to a side branch, and immediately covered with damp, clean, hessian sacking (in summer months) which must be kept damp so long as the roots remain exposed or dry hessian sacking in winter to prevent desiccation and protect from rapid temperature changes.
- Prior to backfilling, any hessian wrapping should be removed and retained roots should be surrounded with sharp sand (builder's sand should not be used because of its high salt content which is toxic to roots) or other granular fill, before soil is replaced.
- If any new concrete is to be used, an impermeable membrane must be placed along the exposed face to prevent contact with and scorching of roots and to ensure leachates do not contaminate the immediate rooting area in the future.

These procedures must be followed and liaison with the arboriculturalist be maintained at all times. The arboriculturalist need not attend site so long as he is in contact with the builders and can access photos during the excavation period.

4.7 Underground Services

There is no reason to suppose that any new underground services routes will be required but any new underground service routes will avoid identified RPAs.

4.8 Ground protection outside the CEZ but within the RPA

Protecting the ground of RPAs that necessarily falls outside the Tree Exclusion Zones is essential to militate against the effects of construction activity on ground conditions, particularly with respect to compaction and the absorption of potentially toxic materials.

The Tree Protection Plan annotates areas outside the CEZ but within the RPAs. This is only potentially applicable for T1. It is advised that if this area is to be lowered that ground protection is placed on the lowered area as annotated on the TPP immediately following ground level reduction.

The re-instatement of the retaining wall at the southern boundary of the site will require the removal of the tree protective barriers around T1 for construction access and temporary ground protection will be installed in the positions indicated on the TPP before work on the wall commences.

On completion of the work on the retaining wall the tree protective barriers should be replaced and maintained until the completion of all construction activities.

For pedestrian movements, ground protection can comprise overlapping metal plates, 20mm ply boarding, scaffold boards on a compressible layer (200mm chipped bark for example) laid onto a geotextile (as specifically described in the British Standard) or rigid recycled plastic products such as GreenTech.

Where heavy plant is anticipated ply boarding is unacceptable and only ground guard products designed to accommodate the likely loading must be used.

Scaffold planks boards with toe boards are acceptable under scaffold areas.

4.9 Impact of loss of surface area of root system

Not applicable, this is similar to the existing footprint..

4.10 Additional Precautions outside the Tree Exclusion Zone.

- All weather notices should be erected on the barrier with words such as “Exclusion Zone – Not to be moved without appropriate consent”.
- Materials that will contaminate the ground such as diesel oil and concrete mixings will not be discharged within the RPA or within 10m of any of the tree stems.
- Notice boards, telephone cables or other services should not be attached to any part of the tree.
- No fires that have the potential for flames to extend to within 5m of any point of the tree are to be lit.

5.0 Conclusions - Summary

5.1 The development can proceed with the retention of all of the significant trees on the site. Trial pits demonstrate a deep foundation to the boundary wall effectively preventing root trespass from are, in any case, generally poor trees

5.2 The removal of the category C trees will have negligible impact on the landscape of the area.

5.3 No new irresistible post development pressures are anticipated.

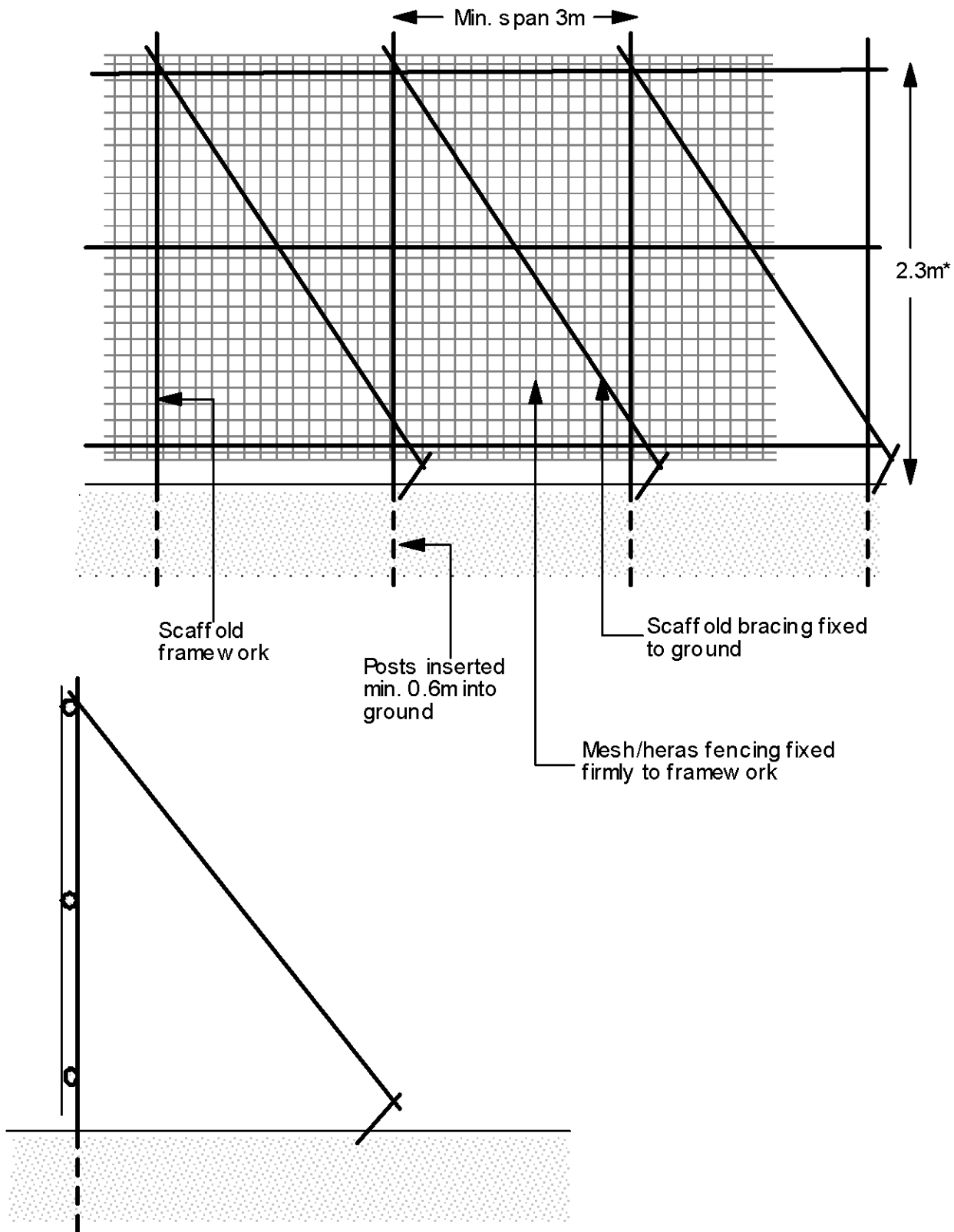
5.4 The retained trees will be protected in accordance with current industry standards and guidelines.

Appendix 1 – Key to Tree Schedule

Prefix:	T – Tree S – Shrub/Climber TG/SG – Group/Hedge of Trees or Shrubs
Dia.:	N/A = Tree less than 10cm (for shrubs: young, semi-mature or mature) • = Estimate
Age Class:	<p>Young - Generally less than 10 years old and high life expectancy</p> <p>Semi-mature - Within first 30% of life expectancy and significant growth to be expected</p> <p>Early-mature - Typically 30-60% of life expectancy, full size almost reached</p> <p>Mature - Typically 60% or more of life expectancy, full size reached with very gradual, slight further increases in size</p> <p>Veteran - A stage of development where intervention/management may be required to ensure the tree remains safe</p> <p>Over-mature - Where a tree is so senescent that management is not worthwhile</p>
Life Expectancy:	How many years before tree likely to need removing <10, 10-20, 20-40, >40
Crown Radius:	Where crown is symmetrical only one dimension is given for the diameter
B.S. Category:	<p>A - Those of high quality and value i.e. make a substantial contribution</p> <p>B - Those of moderate quality and value i.e. might be included in cat. "A" but slightly impaired</p> <p>C - Those of low quality and value i.e. adequate to remain until new planting is established or young tree with a stem diameter < 150mm</p> <p>R - Those of such poor condition that any existing value would be lost within 10 years</p> <p>1 – Mainly Arboricultural value 2 – Mainly Landscape value 3 – Mainly Ecological value</p>
Physiological Condition:	<p>Good - Healthy tree with no symptoms of significant disease</p> <p>Fair - Some disease noted and/or vitality is below what would be expected</p> <p>Poor - Significant disease noted and/or very low vitality</p> <p>Very Poor - Tree is dying</p>
Structural Condition:	<p>Good - No significant structural defects</p> <p>Fair - Defects noted but not sufficient to warrant immediate work</p> <p>Poor - significant defects. Monitoring and/or remedial works required</p> <p>Very Poor - Significant defects requiring immediate work or tree removal</p>
Form:	<p>This is included to assist in determining the amenity value of a tree based on appearance alone. There may be no obvious structural or physiological defects but because of poor form for the species it has little merit.</p> <p>Very Good - Excellent shape for the species</p> <p>Good - Very slightly asymmetric but likely to grow into "Very Good" category</p> <p>Fair - A form that may right itself but nonetheless is recognizable as typical of the species and has some individual merit</p> <p>Poor - Poor, asymmetric tree that may have no other apparent faults but has little aesthetic merit as an individual tree</p>
Space Below Crown:	<p>Height of the crown from ground level. A useful indicator to determine the practicality of developing below the crown. Rather than a measurement, a simple Y (Yes) or N (No) or N/A is provided.</p> <p>Y - Potential to develop below the dripline with either no treework or removal of limbs that will not adversely affect the health and appearance of the tree.</p> <p>N - No scope to develop below the dripline of the tree</p> <p>N/A - Tree to be removed</p>
Treework:	<p>This is necessarily kept general at this stage since the report is not a tree-work specification. It indicates:</p> <p>H - High priority. For trees to be retained and where work required to make safe*</p> <p>L - No urgent work required but would benefit from a crown clean or some other intervention</p> <p>N - No treework identified as necessary in the foreseeable future</p> <p>P - Enabling tree surgery advised</p> <p>R - Remove – tree identified to be removed because "R" category tree</p> <p>RPL - Tree removed to accommodate development</p>

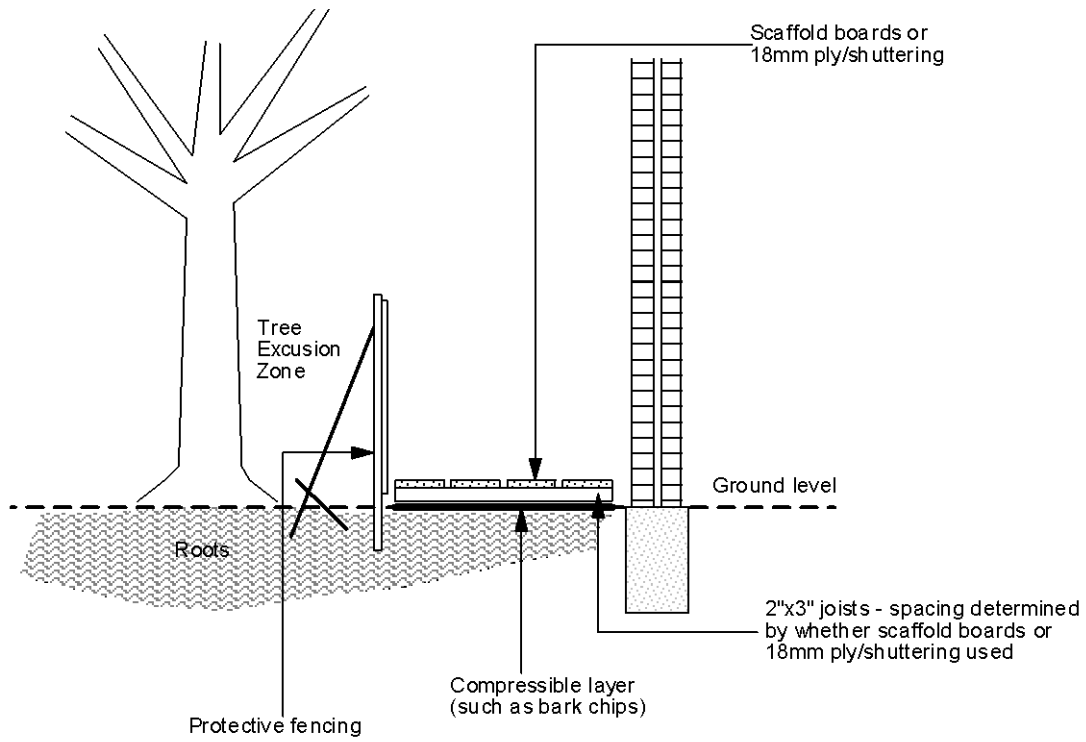
* NB This survey does not represent a detailed hazard assessment of trees

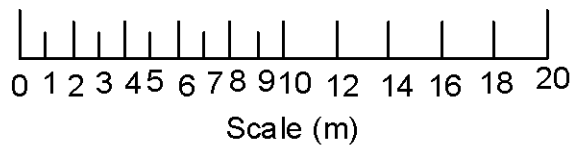
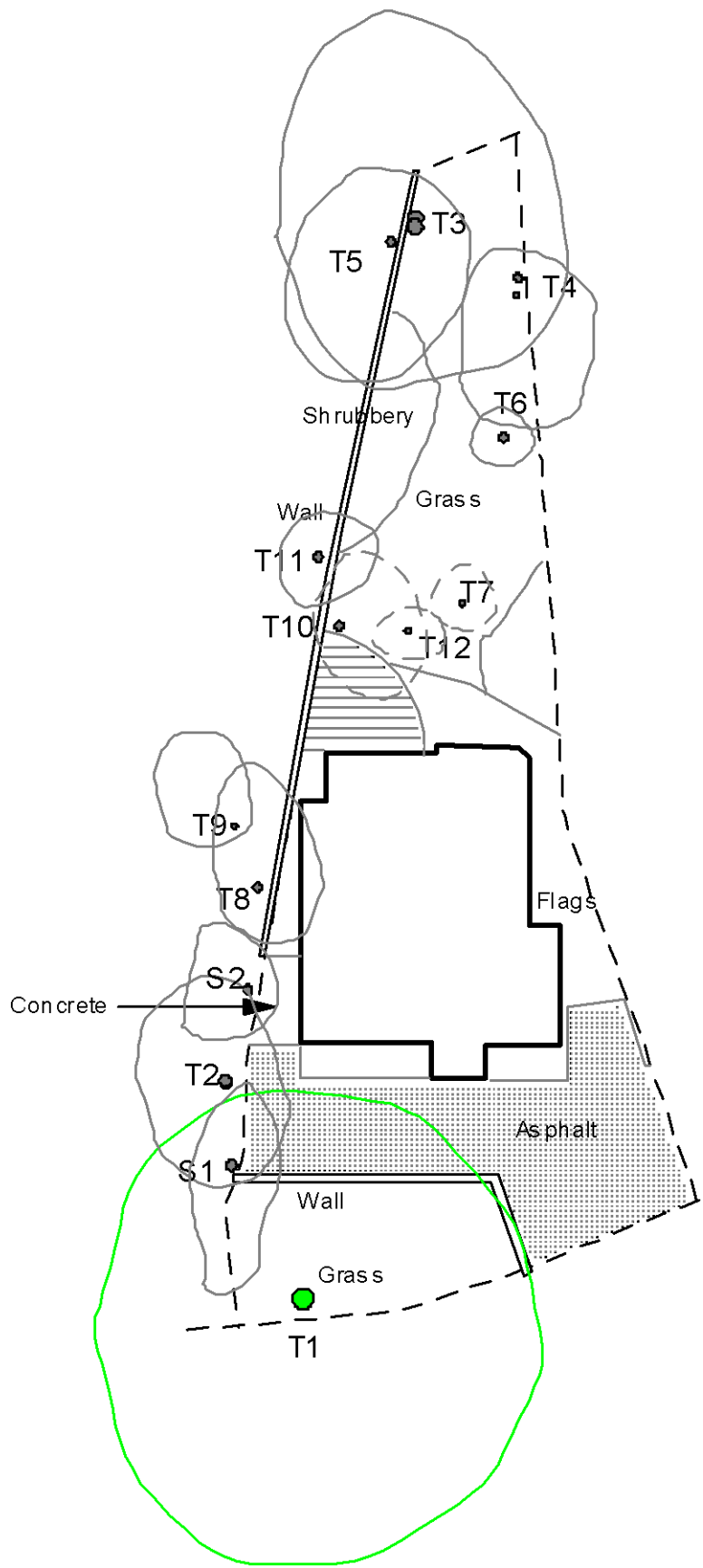
Appendix 2 – Details of Protective fencing - Heras



- 1) Secure wooden posts and 18mm ply/shuttering can alternatively be used
- 2) Specifications taken from figure 2 of BS 5837
- 3) Once erected, barriers not to be moved without the permission of the Council






Ground Protection





KEY

BS 5837 Category:

-  C
-  B
-  A
-  U
-  Where crown line is broken, indicates removal



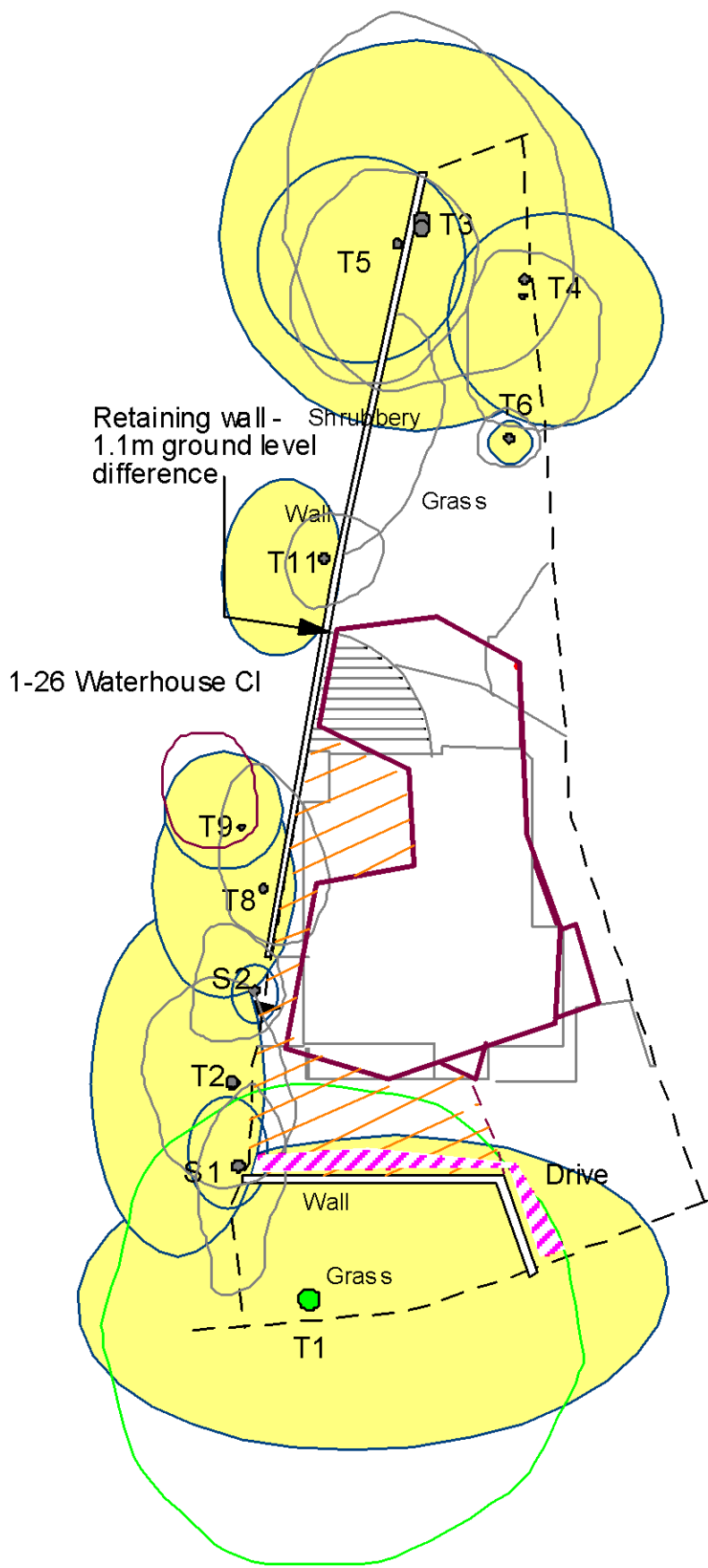
To be read in colour

OMC ASSOCIATES






T: 01 223 8 42253
www.omc-associates.co.uk

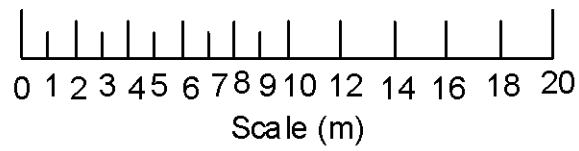
SITE	28 Belsize Lane, London, NW3
CLIENT	Vivian & Edmund Bradley
DRG No.	0789SV
SCALE	1:300 on A3
DATE	Dec 2013

Tree Survey



KEY

-  Root Protection Area (RPA) (that part within property also indicates potential encroachment of general building activity upon RPA)
-  Possible encroachment of development upon RPA
-  New buildings
-  Ground level reduction anticipated
-  Footprint of dwelling to be demolished



To be read in colour

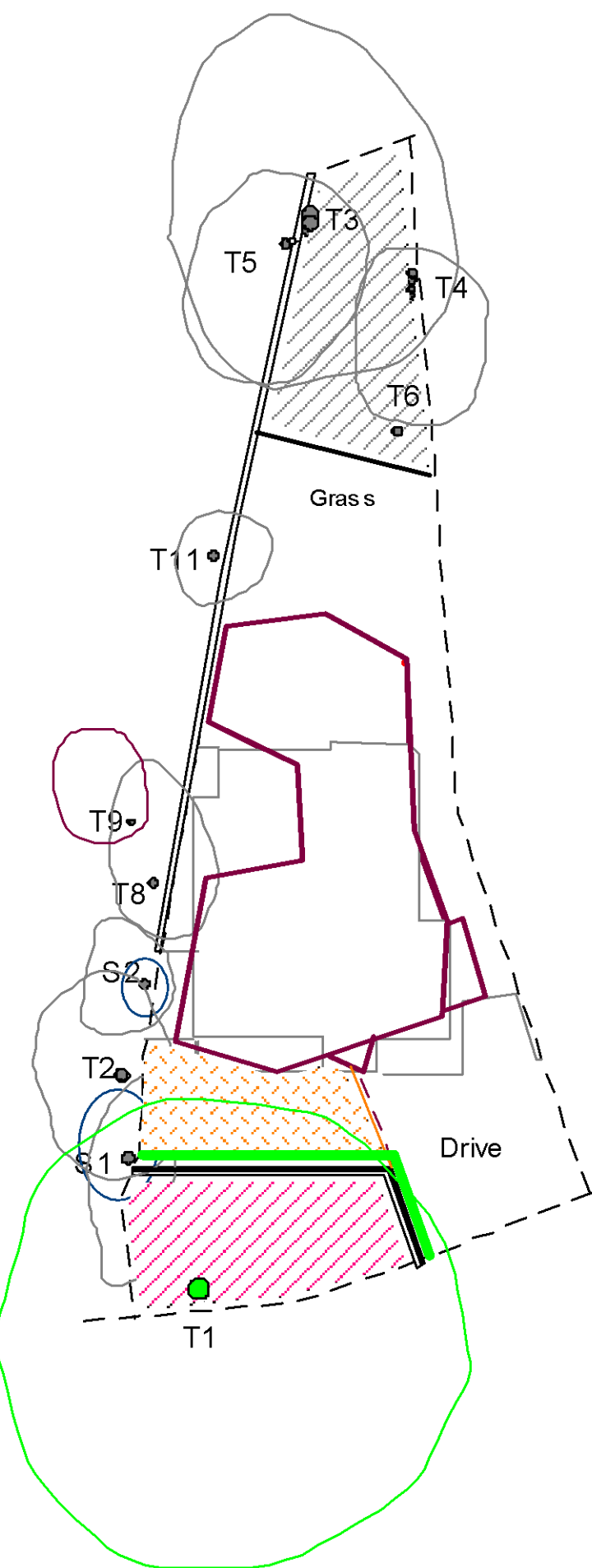


OMC ASSOCIATES







T: 01223842253
www.omc-associates.co.uk

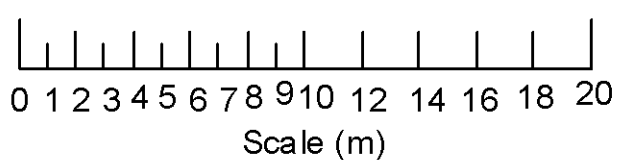
SITE 28 Belsize Lane, London, NW3
CLIENT Vivian & Edmund Bradley
DRG No. 0789RP
SCALE 1:300 on A3
DATE Dec 2013

Root Protection Areas



KEY

-  Any excavation to be hand dug only and all procedures detailed in Sections 4.5 & 4.6 of method statement 0789D/CJO/0612 to be complied with
-  Construction Exclusion Zone (CEZ) (Heras)
-  New buildings
-  Existing building to be demolished
-  Ground protection for possible RPA once ground level reduced
-  Construction Exclusion Zone (CEZ) during demolition and construction. To be removed and replaced with ground protection prior to re-instatement of wall



To be read in colour

OMC ASSOCIATES

T: 01223 842253
www.omc-asociates.co.uk

SITE 28 Belsize Lane, London, NW3
 CLIENT Vivian & Edmund Bradley
 DRG No. 0789TPP
 SCALE 1:300 on A3
 DATE Dec 2013



Tree Protection Plan

APPENDIX 7

MONITORING SCHEDULE

ACTIVITY	DATE OF INSPECTION	INSPECTOR	COMMENTS
Erection of protective fencing (See TPP) and manual explorative dig.			
Removal of protective fencing and installation of ground protection for re-instatement of front retaining wall			

Each stage as detailed above must be signed off by the Council's Arboricultural Officer prior to commencement of further stages.

Council Tree Officer:

Developer: ABA

Arboriculturist: Chris Overbeke – 01223 842253

Notes:

T8 & T9



Looking towards T11 & T12





T2



T8, S1 & S2

