



**Tree Survey to BS 5837:2012**

**28 Belsize Grove, London NW3 4TR**

Client: Sa'ad & Anna Hossain

Author: Daniel Simpson M.Arbor.A HND.For

Date: 18<sup>th</sup> July 2014

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## 1. INTRODUCTION

### **The Author / Surveyor**

- 1.1 My name is Daniel Simpson I am a professional member of the Arboricultural Association and Consulting Arborist Society. I have worked in arboriculture for twelve years including a senior post in a Local Planning Authority, and in private practice as a climbing arborist, surveyor and consulting arboriculturalist.

### **Brief From Client**

- 1.2 To carry out a tree survey to BS 5837:2012.

### **Scope of this report**

- 1.3 This report is intended to help inform the design and layout of development in relation to trees so that where possible and / or appropriate they can be retained into the long-term. Constraints such as tree roots and branch spread have been plotted on the appended plan.
- 1.4 The British Standard Institute publication BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations' is referred to throughout this report. This is a nationally recognised standard typically used by Local Planning Authorities (LPAs) to assess planning applications. It is frequently referred to in planning conditions to enforce protection or control of works that may be harmful to trees both on and off the site.

### **Limitations**

- 1.5 This report was prepared for use by our client in accordance with the terms of the contract and for planning purposes only. It is not a substitute for a tree condition, insurance, or mortgage service. Information provided by third parties used in the preparation of this report is assumed to be correct. The contents are copyright and may not be duplicated or used by third parties without the written consent of Tree Reports Ltd.

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## Printing

- 1.6 This report is compiled into a single pdf file designed for electronic release. If printing this document, please note that the plan drawings may be a different size or orientation to the standard A4 / portrait of the rest of the report. It is necessary to print plans at the full size for scaling.



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## 2. Terms and Definitions

- 2.1 Arboricultural Method Statement – guidelines for specified working operations near trees to avoid any harmful impact as defined within BS 5837:2012. This can cover a range of works from tree work to operating cranes, installing foundations or services and guidelines for how special engineering must perform to function as a tree protection measure.
- 2.2 Conservation Area – an area of land designated through planning legislation, within which no tree above 7 centimetres stem diameter (at 1.3m above ground level) can be lopped, topped or removed without following a process of notifying the LPA. There are certain notable exceptions in the cases of dead or dangerous trees.
- 2.3 Ground Protection – in this context the term refers to a method for preventing the ground from being disturbed, usually within the Root Protection Areas of retained trees. Other uses include protection areas to be planted. The way ground protection should be designed to perform is typically described within an Arboricultural Method Statement.
- 2.4 Local Planning Authority – Typically a department of the local council that manages planning and protected tree issues.
- 2.5 Root Protection Area (RPA) – a minimum recommended area that should not be disturbed to ensure successful retention of retained trees described in ‘BS 5837:2012 Tree in Relation to Construction’. An RPA should be regarded as sacrosanct and in these areas development and construction works should be avoided where possible.
- 2.6 Tree Constraints Plan – as defined within BS 5837:2012. This plan shows above and below ground constraints that may impact on a planning proposal such as the tree branch spread and Root Protection Area...
- 2.7 Tree Preservation Order (TPO) – a type of land charge which specifies certain trees for protection under the Town and Country Planning Act (1990). It makes it necessary to make an application to the LPA to work on them (with notable exceptions). And a criminal offence to otherwise damage or destroy them.
- 2.8 Tree Protection Plan – as defined within BS 5837:2012. This shows the layout of protective measures for retained trees in, typically including tree protective fencing and / or ground protection. And in some cases, shows where special working methods recommended in the Arboricultural Method Statement in this report will be adopted. This is intended to be used for planning purposes and also as a reference on-site.

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## 3. TREE SURVEY

### 3.1 METHODOLOGY

- 3.1.1 Data was collected in accordance with the requirements of British Standard 5837:2012. All observations were from ground level without detailed or invasive investigations. Measurements were taken using a diameter tape, digital clinometer and laser measure. Where this was not reasonably practical measurements have been estimated by eye.
- 3.1.2 The trees were surveyed and assessed impartially and irrespective of the proposed development. Management recommendations should be implemented regardless of any proposed development for reasons of sound arboricultural management or safety.
- 3.1.3 BS 5837:2012 requires retention of better quality (category A and B trees) where possible. Planning permission overrides a Tree Preservation Order and Conservation Area. Furthermore, trees are a material consideration in the UK planning system irrespective of their legal status. It is therefore not considered necessary to highlight or give additional merit to trees that have legal protection. Trees in land adjacent to the site are considered where they may be impacted by development. This includes (for example) where roots or branches encroach into the site.
- 3.1.4 Trees may be recorded as group or woodland where
- i) The canopies touch.
  - ii) The trees have more group value than individual merit.
  - iii) They are part of a formal landscape feature like an avenue.
  - iv) It is impractical to record them individually.
- 3.1.5 Trees within groups or woodlands are assigned an individual reference where it is necessary to distinguish them from others. Where possible, the measurements of stem diameter for trees in G1 were taken on site and RPAs plotted with these measurements. For practical purposes, woodland tree RPAs are generated from topographical survey data so that the individual measurements of a large volume of trees in close proximity can be considered. Where it is considered necessary, RPAs will be increased to reflect the importance of certain trees and assure protection in accordance with BS 5837.

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## 3.2 SUMMARY OF TREE SURVEY DATA

### Species

3.2.1 The scientific names for the species recorded only in common names are as follows:

<b>Common Name</b>	<b><i>Scientific Name</i></b>
Common Lime	<i>Tilia x europaea</i>

### Categories

3.2.2 The distribution of categories of individual trees and groups is as follows:

<b>BS 5837 Category</b>	<b>Number of Trees</b>	<b>% of Trees</b>
A	0	0
B	2	100
C	0	0
U	0	0

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### **Life stage**

3.2.3 The life stages recorded for individual trees are summarised as follows:

<b>Life Stage</b>	<b>Number of Trees</b>
Young	0
Early-Mature	0
Middle-Aged	0
Mature	2
Over-Mature	0
veteran/Ancient	0

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### 3.3 KEY TO TREE SURVEY AND PLANS

#### **Ref:**

- 3.3.1 The reference number assigned to that item with a code to help identify the type or structure such as:

T#	Tree
S#	Shrub
TG#	Group of Trees
SG#	Group of Shrubs
O#	Orchard
W#	Woodland
H#	Hedgerow

#### **Hgt (m):**

- 3.3.2 Height of the tree in metres rounded up to the nearest half metre.

#### **DBH**

- 3.3.3 'Diameter at Breast Height' – the stem diameter measured in millimetres at 1.5m above ground level. Where the ground around the base of the tree is not level this is taken 1.5m above the upper side of the slope.

#### **Root Protection Area (RPA)**

- 3.3.4 This appears on the survey plan and is calculated by multiplying the stem diameter using one of three methods specified in BS 5837:2010 depending on the number of stems the tree has. This should be considered an indication only as various factors may influence the size and shape of the RPA, such as below ground constraints. In the first instance, development should not be located inside an RPA where it can be avoided. Where it cannot be avoided the Council will usually require a site investigation and / or special engineering and working methods if they find the development acceptable. The loss of RPA of retained category A and B trees to development is usually resisted.



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### **Crown Spread**

3.3.5 The crown spread is given to four cardinal points, rounded up to the nearest half metre.

### **Clr**

3.3.6 The height of crown clearance of the lowest branch above ground level, with the general direction it is growing to a cardinal point where appropriate.

### **Life Stage**

3.3.7 Recorded with codes as follows, and relative to the species of the tree:

Y	Young
EM	Early-mature
MA	Middle-aged
M	Mature
OM	Over-mature
V	Veteran

### **General observations**

3.3.8 Will include notes on structural defects, physiological problems, special features, decay and management recommendations. Please note that management recommendations do not constitute a specification for any required works.

### **ERC**

3.3.9 Means ‘estimated remaining contribution’, recorded in a range of years. It is the amount of time the tree can realistically be retained for.

<10	Unsuitable for retention
10 - 20	Can be retained in the short term
20 – 40	Will continue to offer benefits for the foreseeable future
40+	Good longevity potential

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**Cat.**

3.3.10 Means 'category grading', a full explanation of the categories is given in an excerpt from BS 5837:2012 in the Tree Survey Schedule section.

Category and definition	Criteria (including subcategories where appropriate)		
<b>Trees unsuitable for retention</b> (see Note)			
<p><b>Category U</b></p> <p>Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years</p>	<ul style="list-style-type: none"> <li>Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning)</li> <li>Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline</li> <li>Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality</li> </ul> <p><i>NOTE</i> Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</p>		
	<b>1 Mainly arboricultural qualities</b>	<b>2 Mainly landscape qualities</b>	<b>3 Mainly cultural values, including conservation</b>
<b>Trees to be considered for retention</b>			
<p><b>Category A</b></p> <p><b>Trees of high quality</b> with an estimated remaining life expectancy of at least 40 years</p>	<p>Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)</p>	<p>Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features</p>	<p>Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)</p>
<p><b>Category B</b></p> <p><b>Trees of moderate quality</b> with an estimated remaining life expectancy of at least 20 years</p>	<p>Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation</p>	<p>Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality</p>	<p>Trees with material conservation or other cultural value</p>
<p><b>Category C</b></p> <p><b>Trees of low quality</b> with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below</p>	<p>Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories</p>	<p>Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits</p>	<p>Trees with no material conservation or other cultural value</p>



## Tree Survey Schedule

Client: Sa'ad and Anna Hossain

Site: 28 Belsize grove

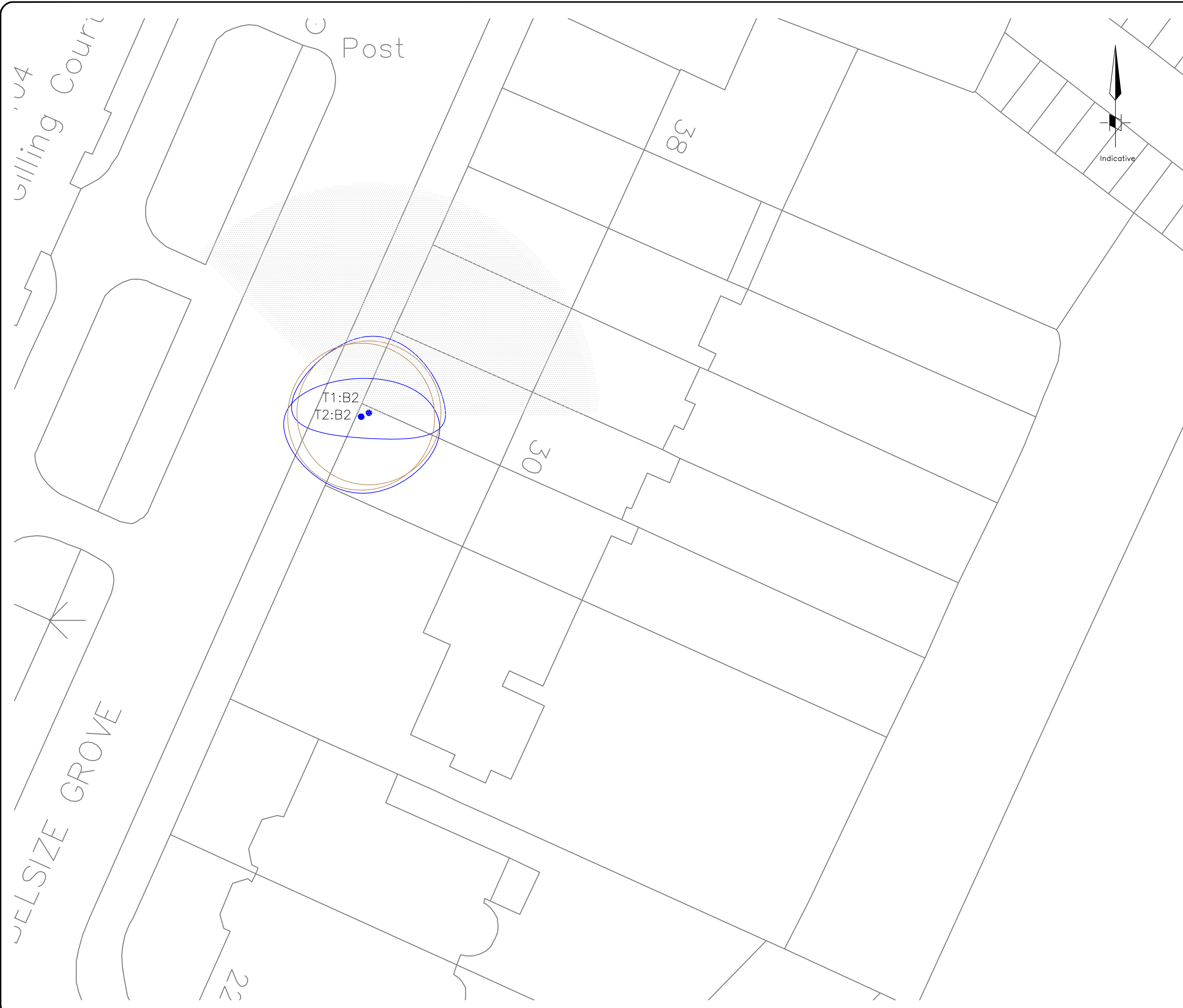
Surveyor: Daniel Simpson

Present: N/a

Date: 11th February 2014

Weather: Mild temperature, no significant wind and cloudy.

Individual Trees and Shrubs													
Ref.	Common Name	Hgt. (m)	Dia. (mm)	Branch Spread				Clr. (m)	Life Stage	General Observations	Recommendations	ERC	Cat.
				N	E	S	W						
T1	Common lime	18	470	6	6	2	6	3	M	Topped over 5 years ago. Base of stem pushing stem base of T2.	Reduce crown back to previous point.	40+	B2
T2	Common lime	18	480	3	6	6	6	5	M	Topped over 5 years ago. Base of stem pushing stem base of T1. I noticed that the soil level around the base of T2 is approximately 34cm higher than that of the pavement.	Reduce crown back to previous point.	40+	B2



**KEY**

- Root Protection Area (RPA)
- Tree Stem
- T1 Tree No.

**Guide To Tree Quality Assessment Categories**

- A
- B
- C
- U

Tree Shadow

This drawing has been prepared in accordance with BS 5837:2012. It is an appendix of an arboricultural report which expands on the data presented, and therefore it must not be read used without also referring to that report.

This drawing is intended to be printed and used in colour only, and for no purpose other than the consideration of trees in accordance with BS 5837.

REV.	DESCRIPTION	DWN	CHK'D	DATE
THIS DRAWING IS CONFIDENTIAL AND MUST NOT BE REPRODUCED WITHOUT THE CONSENT OF TREE REPORTS LTD.				

CLIENT  
Sa'ad and Anna Hossain

PROJECT  
28 Belsize grove

TITLE  
Tree Survey Plan (TSP)

DWN	DATE	CHK'D	DATE	APP'D	DATE	SCALE
RCK	11/2/2014					1:200

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