

Prepared on behalf of: Nikke Maynard & Katherine Norton

Tree Survey Report

Site: Fitzroy Square, London, W1T 6EF

Date: 27th November 2019

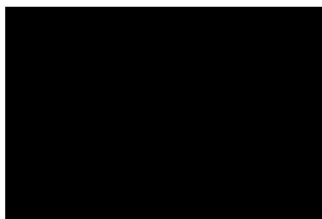
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Prepared By:

Florian MacLaren





i. Document Control Sheet

Scope:	Tree Survey Report
Site:	Fitzroy Square, London, W1T 6EF
Client:	Nikke Maynard & Katherine Norton
Our Reference:	Fitzroy Square 2019
Author:	Florian MacLaren (Arboricultural Consultant / Surveyor)
Survey Date(s):	27 th -28 th November 2019
Report Issue Date:	21 st January 2020

Disclaimer:

The recommendations contained in this Report represent Highland Arb's professional opinions, in exercising the duty of care required of a suitably experienced and qualified Arboricultural Consultant / Surveyor. All data recorded and recommendations made are based on observable factors present at the time of inspection. Inspection consisted of a aerial based visual inspection only. The depths of cavities were made with a 400mm long tool. Where access to carry out a full inspection is not possible due to reasons such as vegetation, topography, fencing or other situations that the surveyor feels are unsafe, Arboricultural Surveyor will make appropriate notes within the survey schedule.

The report has been prepared by Highland Arb for the sole and exclusive use of the Client and for the specific purpose for which Highland Arb were commissioned.

Highland Arb accepts no responsibility or liability for any use that is made of this document other than by the client for the purposes for which it was originally commissioned and prepared.

Use of the Report by any other person is unauthorised and such use is at the sole risk of the user.

ii. Executive Summary (Refer to Annex B - Survey Schedule ' for full details)

General Tree Work Notes:

- 1) All the work as specified in the Tree Table of this report should be carried out by suitably skilled and qualified arboricultural contractors in accordance with BS 3998 (2010) or to specification.
- 2) A site check with the Local Planning Authority should be carried out by Highland Arb (or any other Client chosen Arboricultural Contractor) upon acceptance of any remedial tree works. If trees are subject to a Tree Preservation Order or are situated within a Conservation Area, consent will be required before works can commence. Please note that this can take up to 8 weeks to process. Highland Arb are happy to make this application on your behalf as part of any instructed works.
- 3) Works/access to neighbouring trees will require the owner's written permission.





iii. Introduction

Client & Scope:

Highland Arb has been commissioned to undertake an aerial tree condition survey of the Site/Estate as per control sheet.

All Cable bracing in trees are to be visually inspected by a qualified LOLER inspector.

The purpose of this report is to assess the current risk of direct damage to structures, people or vehicles caused by trees located at the site address.

If site boundary information has not been provided by client, Arboricultural surveyors have made judgements whilst on site.

iv. Survey Methodology

All survey works have been undertaken with an appropriately qualified and experienced arboricultural surveyors & consultants with a minimum of LANTRA qualified professional tree inspection. The trees have been assessed from the crown of the tree by an NPTC qualified climber with the Visual Tree Assessment methodology and assessed with regards to:

- Structural Condition
- Current H&S Implications
- Recommendations for Remedial Works
- Priority for Works & Cost Implications

All tree's on sites to be plotted as an individual tree, a group, or as woodlands, and then plotted on to site maps.

Inspections are recorded within the survey and are traceable to an individual, group or woodland plotted on the maps. Each entry will record tree defects observed by the arboricultural surveyor and make recommendations for remedial action as appropriate. Where possible the number of trees and species found within groups and woodland areas will be recorded. Approximate numbers will be used where access issues arise.





Recommendations for remedial work are set out within the following Priority categorisation & time limits;

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<i>Work Priority</i>	<i>Time Limits</i>	<i>Details</i>
IMMEDIATE /URGENT		All urgent work (immediate) has been phoned / emailed through immediately to client where necessary
High	Within 3 months	Covers trees within target distance of High-Risk Zone likely to cause injury, death or substantial damage. Includes crown lifts over roads, footpaths and car parks.
Medium	Within 12 months	Covers trees within target distance of High-Risk Zone likely to cause an inconvenience such as pruning to clear buildings or phone lines. Covers trees within target distance of Medium Risk Zone likely to cause injury or damage.
Low	Within 24 months	Covers trees within target distance of High or Med Risk Zones with regard to tree works that are necessary to be programmed to promote the future health and wellbeing of tree stock, such as re-reductions whereby higher categories aren't necessary.

v. Annex A: Survey Data Collection Key

Identification numbers have been scheduled and correspond to the marked site plan. Trees have been categorised as one of the following: Tree (T) or Group (G).

Species are listed by common names. Latin can be provided on request.

Measurements are banded and include tree heights, diameter at breast height of trunk and crown diameter.

Age class has been recorded as follows;

- **Y/Young:** Staked tree or tree with high growth potential (in 1st 3rd of life expectancy).
- **MA/Middle Age:** Tree nearing full height but not full spread or stem diameter (Tree in 2nd 3rd of life expectancy).
- **M/Mature:** A mature specimen with limited potential for any significant increase in size but with a reasonable safe life expectancy (in its last 3rd of life expectancy).
- **V/Veteran:** A mature specimen in decline with significant dead wood and cavities which are advantageous to wildlife.

Condition has been categorised as Good, Fair, Poor or Dead.





vi. Annex B – Tree Survey Inspection Map

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vii. Annex C – Tree Survey Inspection Schedule

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T1

This Tree has a large cavity extending down > 4m from where it has historically lost a large limb (See fig. 1). The depth of this cavity is >1m (see fig. 2) and exceeds the T/r safety ratio (The t/R ratio is the internationally accepted safety standard for ratio of the sound wood shell thickness (t), without the bark, to the radius of the cross section (R). The above example has a t/R ratio of <30%, or .30 or roughly <1/3 of the radius is sound.) The location of the cavity is also at the fulcrum of where the crown meets stem (The pressure on the stem is greatest at where the cavity is located. A heavy reduction can not be recommended in this case as it is both cable braced and has lost a main limb so the torsional forces cannot be accurately predicted but will be exacerbated by both. Due to this I recommend felling this tree to a Monolith at 7m (just below the main cavity) with the use of a MEWP.

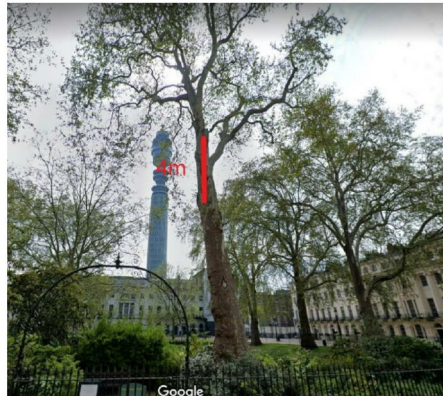


Fig 1

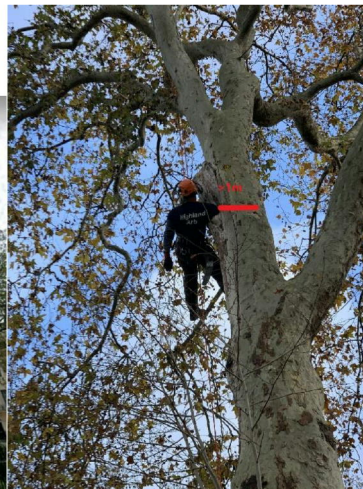


Fig 2





T2,3,4,5,6,7,8,9,11

No additional works needed until next inspection in November 2020. Massaria and deadwood present in all trees except T7 (which had sparse growth so to be monitored for vitality this Summer).

Page | 7 T3 had a very large branch (>6m) which was completely dead overhanging the public pathway which we removed. T4 has a fungal growth at its base (see Fig 3 & 4) monitor in both Summer and Autumn to identify genus of fungus.



Fig 3



Fig 4





T10

This tree was cable braced with a three way system and one of the three cables has frayed and pulled out of the system (see Fig 5). I recommend replacing this with a non invasive 'Cobra' bracing system and reducing the size of the limb to reduce pressure on the limb (see Fig 6).



Fig 5



Fig 6





T1,3,5,8,9,10

Steel cable bracing systems all inspected. Not including T10 all bracing appears to be secure (no loosening of nuts, excessive rusting or over tensioned). Bracing is being occluded within the limbs but this is part of natural processes (see Fig 7 & 8). I recommend continued annual inspections and replace with Cobra bracing if they fail or appear to be about to.

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Fig 7



Fig 8





viii. **Cobra Bracing General Information**

All about the Cobra Bracing System

The Cobra Bracing System has been scientifically developed to give the best support, shock absorbance and flexibility. Some of the specific benefits are:

- **It's lightweight** - the Cobra rope is a monofilament polypropylene hollow cable which is much lighter than the steel cable alternative, making it strong and comfortable to handle.
- **It's aesthetically superior** - there are no bracing rods which cause damage and can look unsightly. Once installed, Cobra systems are often very difficult to pick out at ground level, leaving the tree's natural beauty uninhibited
- **It can be used for several purposes** - it is suitable for dynamic bracing (for sudden stresses) and load bracing.
- **It absorbs shock** - it significantly reduces impact forces
- **It maintains strength** - it loses only 2 percent of its strength per year which means that it will generally be 12 years before it will need to be replaced.
- **It protects the tree** - the system does not require rods to be placed inside the tree and uses hollow cables made out of monofilament polypropylene together with a quick splice instead. The expanding bands and anti-abrasion cover also help to minimise any friction damage between the cables and the bark.





System components

Cobra Bracing comprises:

- Hollow cables - made from woven monofilament polypropylene in 4 and 8-tonne strengths
- Expansion inserts - used to flatten the contact area and prevent girdling.
- Anti-abrasion hose - needed to prevent rope damage by making sure that the cable does not slide around the connection point.
- End caps - which are colour coded to quickly identify the year that the bracing was erected.
- Shock Absorbers - To reduce impact forces and hence cut down on damage.

