Sylva Consultancy
expert arboricultural advice

Arboricultural Report

55/56 Gordon Square
Bloomsbury
London
WC1H 0NT

August 2019

Ref: 19112

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APPENDICES

1. INTRODUCTION

1.1 Instructions

1.1.1 Instructions have been received to carry out an Arboricultural Implication Assessment on the likely impact and effect regarding the proposal to carry out a Nursery Refurbishment Scheme at 55/56 Gordon Square, London (Appendix 1).

1.1.2 This appraisal assesses the impact of the proposal in relation to the tree surveyed and discusses mitigation measures that may have to be adopted.

1.2. Arboricultural Survey

1.2.1 During August 2019 a tree survey was carried out in accordance with British Standard 5837:2012 'Trees in relation to Design, Demolition and Construction-Recommendations' and good arboricultural practice. This is a basic data collection exercise and a record of the trees condition at the time of surveying. The tree survey data can be viewed at Appendix 2, root protection area data at Appendix 3 with the tree constraints plan listed at Appendix 4.

1.2.2 Information posted on Camden Council (CC) website details that the site is located within Bloomsbury Conservation Area. The website further reveals that the Fig tree identified in this report is not subject to a Tree Preservation Order (TPO).

1.2.3 Trees in a Conservation Areas that are not protected by a TPO are protected by the provisions in section 211 of the Town and Country Planning Act 1990.

1.3 Site Description

1.3.1 The site is located to the rear of 55 Gordon Square and is within the ownership of University College London. Due to changes in levels the area subject of this report occupies an elevated position when compared to a service road and yard that is located to the (approximate) east and south of the site.

1.4 Proposed Development

1.4.1 It is proposed to carry out a Nursery Refurbishment Scheme with the purpose of this report to assist with the design process.

1.4.2 Please note all tree numbers referred to in this document relate to the tree numbers annotated on the tree constraints plan and arboricultural implication assessment plans.

2. ARBORICULTURAL SURVEY

2.1 One tree has been recorded within this assessment. The tree quality is assessed as follows:

U: Trees that are of such condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboriculture management. However, if category 'U' trees are placed in an inaccessible location such that concerns over public safety are reduced to an acceptable level, it may be preferable or possible to defer this recommendation.

A: Trees of the highest quality and value and are considered to be of such a condition as to be able to make a substantial contribution (e.g. 40 years +).

B: Trees of moderate to high value and are considered to be of such a condition as to be able to make a significant contribution (e.g. 20 years +).

C: Trees of low quality with an estimated life expectancy of at least 10 years. Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories. Young trees with a stem diameter of less that 150mm should be considered for relocation or replacement through mitigation (e.g. 10 years).

Category A, B & C trees are further divided into sub-categories. These sub-categories carry equal weight and are selected for either arboricultural values, landscape values or cultural values, including conservation. Within the British Standard 5837:2012 it is recommended to record hedge and shrub masses, however in the context of the standard it is not necessary to assess the quality of these or to provide a category classification.

The numbers of trees falling under each classification within the arboricultural survey are as follows:

U: 0 trees

A: 0 trees

B: 1 tree

C: 0 trees

3. PRINCIPLE ARBORICULTURAL IMPLICATIONS

3.1 Introduction

3.1.1 Consideration is given to the significance of the trees identified in the arboricultural tree survey, the constraints that they are likely to pose to any development that may occur, post development implications (if any) and work requirements to trees for reasons of sound arboricultural management in order to facilitate the development (BS5837:2012 Section 5.4).

3.1.2 This appraisal assesses the impact of the potential to re-develop the site in relation to the trees and discusses mitigation measures that may have to be adopted. The following documents have been provided by the client:

- Existing Layout
- Proposed Layout

3.2 Trees

3.2.1 One early semi mature Fig tree has been recorded within this report. At the time of the site visit a health and safety survey was also conducted due to the know change of use around the tree due to the proposed nursery refurbishment scheme. Please see appendix 5 for findings and recommendations.

3.2.2 The Wildlife & Countryside Act 1981, as amended by the Countryside Rights of Way Act 2000, provides statutory protection to birds, bats and other species that inhabit trees. These have the potential to pose additional constraints on the use and timings of works that may occur to trees located at the site. These issues are beyond my expertise and it is recommended that appropriate advice is sort prior to the implementation of any works considered within this report.

3.3 Overview

3.3.1 The most noteworthy tree within influencing distance of the proposals is the category ‘B’ Fig tree. The tree is a pleasant feature within the site with the tree contributing to the visual amenity of both the Conservation Area and immediate environment.

3.3.2 The appended arboricultural implications plan (Appendix 6) illustrates the proposals in relation to the tree T1. In addition to pre-development concerns, post development concerns such as shading, debris and concerns of the tree’s proximity and juxtaposition to the proposal have also been considered during the design process.

3.3.3 An assessment of the design on the tree stock reveal that the Fig tree will not be removed to facilitate the proposal.

3.3.4 The scheme has undergone a careful design process to ensure an efficient use of the site, whilst safeguarding the continued contribution to the greening of the immediate landscape. On the bases of the appraisal it is considered that the arboricultural impact of the scheme on the Fig tree will not result in an adverse impact on the character and appearance of the conservation area, site or wider landscape.

3.4 Impact of the proposal on the tree stock

Overview

3.4.1 Only 1 tree has been surveyed for the purposes of this report. Whilst trees in categories 'A', 'B' and 'C' are all a material consideration in the development process, the retention of category 'C' trees, being of low quality or of only limited or short-term potential, will not normally be considered necessary where they impose a significant constraint on development. Furthermore, BS 5837:2012 makes it clear that young trees, even those of good form and vitality, which have the potential to develop into quality specimens when mature "*need not necessarily be a significant constraint on the site's potential*".

3.5 Proposed Nursery Refurbishment Scheme

3.5.1 The arboricultural impact assessment plan illustrates the proposal in relation to the Fig tree. The footprint of the existing buildings will be retained; however, the existing open space will be reconfigured to allow an outdoor facility for the Nursery.

3.5.2 In addition to the below ground constraints the above ground constraints have also been considered. The report notes that tree T1 has undergone historical pruning works. The data recorded in the tree survey illustrates that there is currently good spatial distance between the outer canopy of the tree and the existing building to allow the refurbishment works to occur. It is concluded that the works can be carried out without any adverse impact occurring to the Fig tree.

3.5.3 A detailed health and safety assessment has been carried out with minor pruning works recommended to ensure the continued compatibility with the tree and the existing open space. The tree can be pruned to acceptable standards in accordance with British Standard 3998:2010 'Tree Work Recommendations' and as such the tree can be successfully retained.

4. SUMMARY

4.1 Conclusions

4.1.1 The British Standard 5837:2012 states that there is the need to avoid misplaced tree retention; for example, to attempt to retain too many unsuitable trees on a site may result in excessive pressure on the trees during the development work and subsequent demands for their removal post development. However, where design permits, the retention of lower category trees can be beneficial providing screening and softening to a development and a sense of maturity to a scheme.

4.1.2 Careful planning of site operations will be carried out to avoid any adverse impact to the retained tree. In order to safeguard the Sycamore tree through the development a site specific Arboricultural Method Statement is recommended.

4.1.3 It is concluded that there is an adequate juxtaposition with the retained Sycamore tree and proposal therefore reducing any post development concerns. As such it is regarded that there will not be any future pressure to significantly prune, or to seek permission to remove trees within the site. With further regard to any concerns of debris and seasonal nuisances it is considered that this can be managed by good design and as part of the overall general maintenance of the site.

APPENDIX 1

Site Location Plan

Gordon Square
Gordon S
Woburn Square
Woburn Square
Centre for Research
in Autism and...
55 Gordon Square

APPENDIX 2

Tree Survey Data

KEY TO TREE SCHEDULE

Tree No:	Relates to individual trees identified within the Tree Survey Schedule and Tree Constraints Plan
Species:	Common name
Height:	Estimated height expressed in meters
ST:	Stem diameter of the main trunk taken at 1.5m above ground level or in accordance with Annex C BS5837:2012.
Height in M of Canopy:	Information of the first significant branch and direction of growth in order to inform on ground clearance.
Abbreviations:	#: Estimated Ave: Average A.G.L: Above ground level SULE: Safe Useful Life Expectancy
Branch Spread:	Estimated crown radius expressed in meters, taken for each cardinal compass point.
Age Class:	Y Young - Less than one third of natural life expectancy SM Middle aged - One to two thirds of natural life expectancy M Mature - More than two thirds of natural life expectancy OM Over mature NP Newly Planted
Physiological Condition:	G Good F Fair P Poor D Dead

Notes:

Root Protection Area: This is a layout tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability and where the protection of the roots and soil structure is treated as a priority (detailed in paragraph 3.7 British Standard 5837:2012 'Trees in relation to Construction-Recommendations').

Young trees with a stem diameter of less than 150mm: Whilst the presence of young trees of good form and vitality is generally desirable (i.e those which have the potential to develop into quality mature specimens), they need not necessarily be a significant constraint on the site's potential (detailed in paragraph 4.5.10 British Standard 5837:2012 'Trees in relation to Construction-Recommendations').

Table 1 **Cascade chart for tree quality assessment**

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U 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	• 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) • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline • 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 *NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see **4.5.7**.*			Dark Red
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**	
Trees to be considered for retention				
Category A **Trees of high quality** with an estimated remaining life expectancy of at least 40 years	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)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	Light Green
Category B **Trees of moderate quality** with an estimated remaining life expectancy of at least 20 years	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	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	Trees with material conservation or other cultural value	Mid Blue
Category C **Trees of low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	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	Trees with no material conservation or other cultural value	Grey

TREE NO.	SPECIES	Height in (M)	CALCULATED STEM DIA (MM)	BRANCH SPREAD				HEIGHT IN M OF CANOPY	AGE CLASS	PHYS. COND	COMMENTS	LIFE EXPECTANCY (EST YEARS)	BS5837:2012 CATEGORY GRADING
	(Latin)			N	E	S	W				Recommendations		
T1	Fig *Ficus carica*	13	355	3.6	5.5	4.5	2.5	GL	SM	F	Growing in an existing courtyard that is elevated above adjacent ground level which will influence the root protection area. Hard standing/ modest tree pit present. Eastern canopy overhangs retaining wall. Southern canopy estimated. Low end of B - constricted growing environment will lower SULE. Carry out a H&S Inpsection	20-40	B1

APPENDIX 3

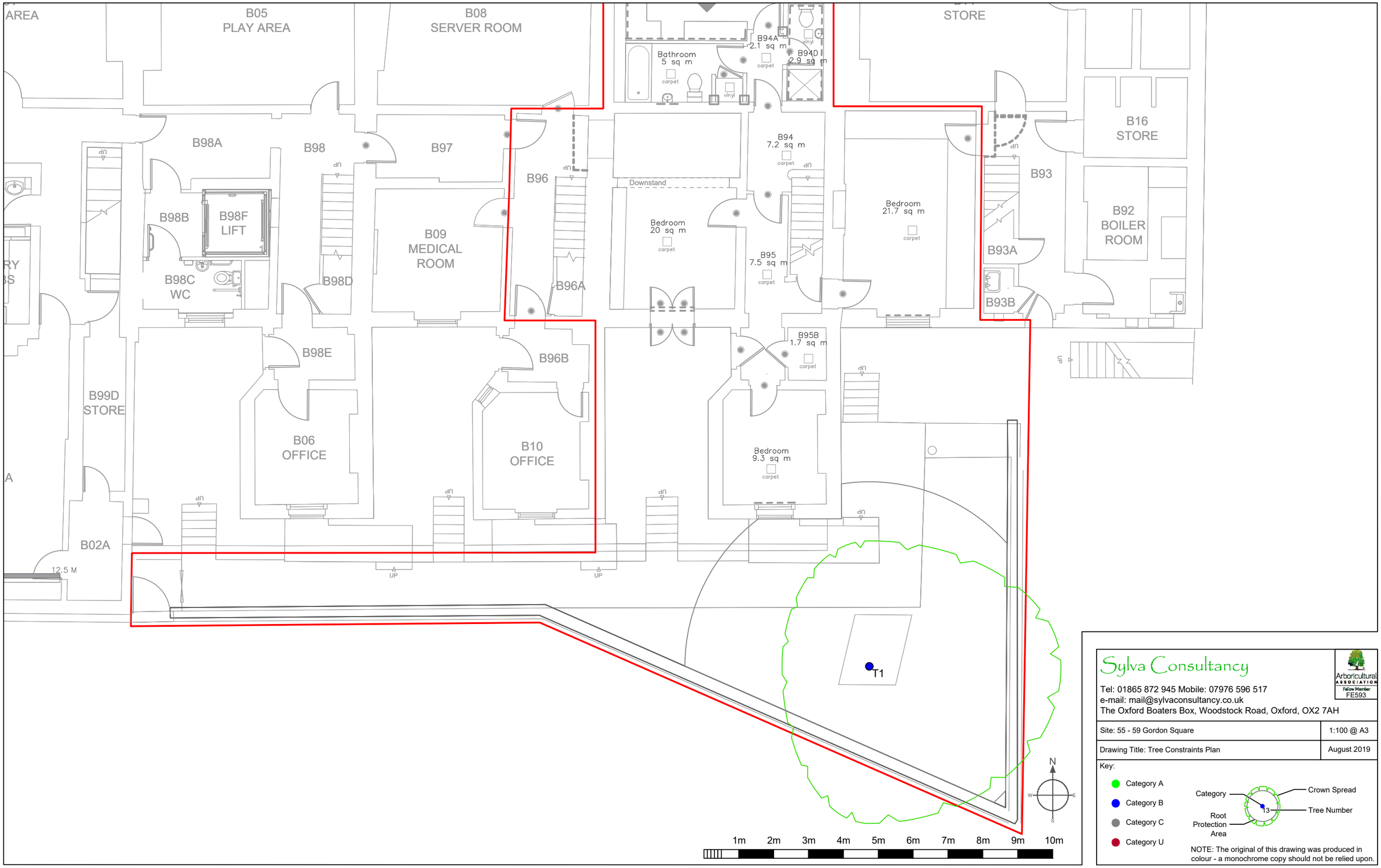
Root Protection Area

ROOT PROTECTION AREA

TREE NO.	SPECIES	NO. OF STEMS	SINGLE STEM DIA (mm)	2-5 STEMS					> 5 STEMS	ROOT PROTECTION AREA - RPA (RADIUS IN M)	RPA (M^2)	LIFE EXPECTANCY (EST YEARS)	BS5837:2012 CATEGORY
				STEM 1 (mm)	STEM 2 (mm)	STEM 3 (mm)	STEM 4 (mm)	STEM 5 (mm)	MEAN STEM DIA (mm)				
T1	Fig	1	355							4.26	57	20-40	B1

APPENDIX 4

Tree Constraints Plan



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Site: 55 - 59 Gordon Square	1:100 @ A3
Drawing Title: Tree Constraints Plan	August 2019

Key:

- Category A
- Category B
- Category C
- Category U

NOTE: The original of this drawing was produced in colour - a monochrome copy should not be relied upon.

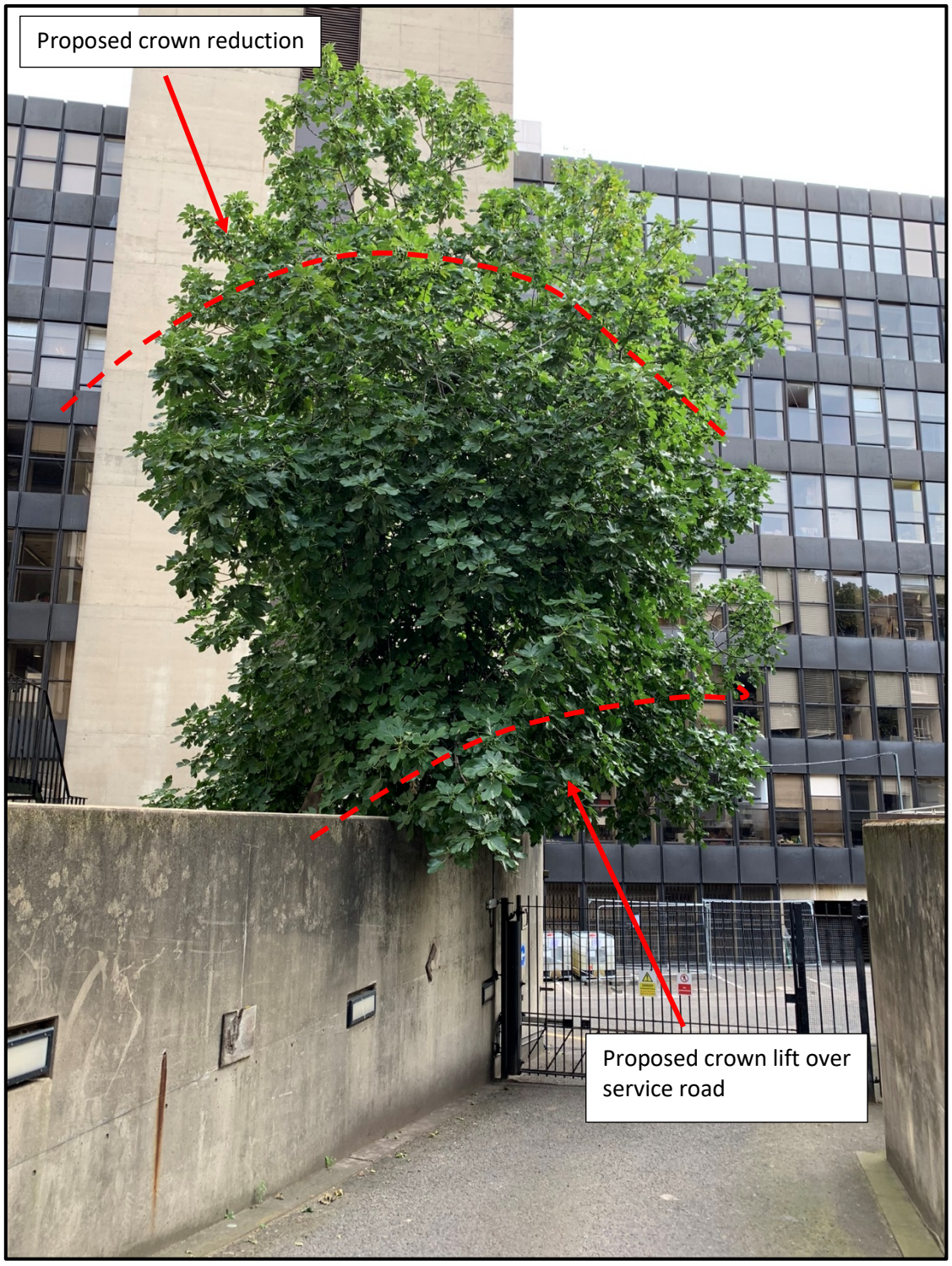
APPENDIX 5

Health & Safety Observations/Recommendations

Tree No.	Species	Work Category 1	Work Item 1	Priority 1	Work Category 2	Work Item 2	Priority 2	Work Category 3	Date of Works
T1	Fig	Prune	Crown Reduction	3 Months	Prune	Deadwood and stubs and basal epicormics	3 months	Remove deadwood and stubs, remove basal epicormics and to undertake a selective crown reduction (up to 3m) and crown lift to 2.5m above ground level- see attached photo for crown reduction pruning guidance. Also ensure appropriate clearance over the service road (6m above ground level clearance).	
T1	Fig	Further Inspection	Annual Inspections	12				Annual inspections recommended due to increase risk of tree within the proposed nursery outdoor area.	
T1	Fig	Further Assessment	Risk Assessment	3 Months				Fig sap is a known irritant and as such it is recommended that an appropriate assessment prior to the completion of the proposal is carried out given the proposed introduction of an outdoor area for the nursery refurbishment.	
T1	Fig	Ground Improvements	Planting Pit	Desirable				Recommended to increase planting pit size to maximise the growth potential / longevity of the tree wit	

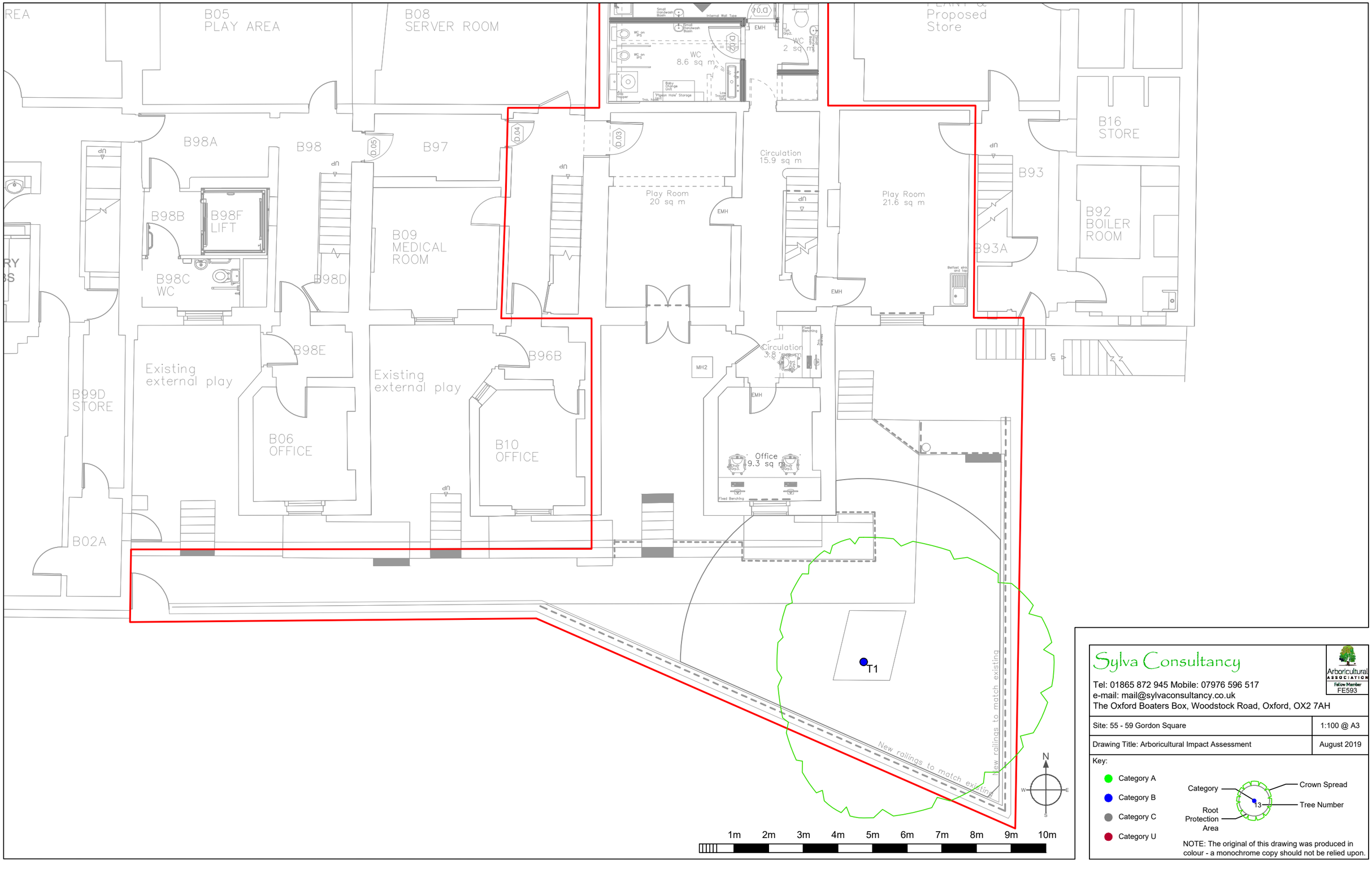
Tree No.	Species	HT (M)	Age Class	Phys. Cond.	Branches	Leaf/Buds	Stem	Roots	Comment	Proposed Work	Priority	Next Survey (months)
T1	Fig	13	SM	F	Old pruning wounds; Minor deadwood; Stubs	Normal	Old Pruning wounds; Epicormics	No visual defects	Tree is growing in an outdoor area in a modest tree pit. Considered a 'harsh' growing environment for the tree.	Prune	3 Months	12
Additional Comments:	Tree was originally a co-dominant specimen with the stems orientated approx. North/South. Northern stem has been removed at close to ground level with the stump still present. Minor decay present on cut stump - no visual evidence to suggest the existing stem has decay as a result of this work. Existing southern stem leans to the south but has undergone adaptive growth. Stem growth would have been influence by northern stem. Basal epicormics present on cut stump with additional epicormics around the basal area of the existing stem. Tree has been crown lifted and pruned away from existing buildings. A tree works application was submitted in 2013 and the work is consistent with the works cited in the notice. Western side of the canopy extends to the ground. Tree has also been reduced in the past - multiple regrowth's present. Recommend to remove deadwood and stubs, remove epicormics and to undertake a selective crown reduction and crown lift- see attached pruning guidance. Also ensure appropriate clearance over the service road. Fig sap is a known irritant and as such it is recommended that an appropriate assessment is carried out given the proposed introduction of an outdoor area for the nursery refurbishment. Annual inspections also recommended.											

Photo 1: Pruning Guidance for T1: Fig



APPENDIX 6

Arboricultural Impact Plan



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Site: 55 - 59 Gordon Square	1:100 @ A3
Drawing Title: Arboricultural Impact Assessment	August 2019

Key:

- Category A
- Category B
- Category C
- Category U

Category — Crown Spread
13 — Tree Number
Root Protection Area

NOTE: The original of this drawing was produced in colour - a monochrome copy should not be relied upon.

APPENDIX 7

Qualifications

Fiona Bradshaw

MicFor; RFS Dip Arb;F. Arbor.A; Tech Cert (Arbor.A)

I have over 20 years' experience of arboriculture and I am the principal consultant at Sylva Consultancy. I hold the Royal Forestry Society's Professional Diploma in Arboriculture and the Arboricultural Associations Technicians Certificate. I am a Fellow member of the Arboricultural Association and a professional member of the Institute of Chartered Foresters, of which I am also a registered Consultant.

I have the benefit of both a local authority and private practice background and I am frequently instructed to provide advice and assistance relating to trees and the planning process. I am also experienced at compiling expert reports, providing evidence and also appearing as an expert witness at Public Inquires.

I am committed to my continued professional development which is reflected in my regular attendance of seminars and workshops.