Nicholas Jones Consultants Limited

Independent Professional Arboricultural Consultancy

Arboricultural Assessment and Outline Method Statement

Site: Rear of 57-63 Wilbury Road

Hove

BN3 3PB

Prepared by Nicholas Jones BSc. (Hons). MSc. M Arbor A

On behalf of Skep Projects Ltd

Date: 24th March 2023

Ref: NJC2045

Executive Summary

Nicholas Jones Consultants Limited were commissioned by Skep Projects Ltd to prepare an arboricultural report to advise on the potential impacts of the proposed development upon the existing tree population located at the rear of 57-63 Wilbury Road, Hove, BN3 3PB.

The proposed development includes the demolition of the existing garages and the construction of two detached residential properties.

This report confirms that there are no trees proposed for removal to facilitate the proposed development.

The tree population in relation to the retention categories defined in British Standard 5837:2012 'Trees in relation to design, demolition and construction - recommendations' are provided in Table 1 along with the quantities proposed for retention and removal.

	Total	Retained	Removed
Category A	0	0	0
Category B	3	3	0
Category C	1	1	0
Category U	0	0	0

Table 1

Construction activity could potentially affect the retained trees. However, by implementing suitable protection measures and monitoring for the retained trees there is ample scope within the site for the construction process and associated activities required to facilitate the proposed development.

Contents

Executive Summary 2

Validation Statement 4

1. Introduction 5

2. Arboricultural Impact Assessment 7

Direct impacts of the proposed development on existing trees 7

Review of existing site conditions 12

Impacts of the proposed tree pruning 12

Impacts of the retained trees on the proposed development 13

3 Outline Arboricultural Method Statement 15

Detailed Arboricultural Method Statement 15

4 Summary & Conclusions 17

Appendix 1 – Tree Survey 19

Appendix 2 - Drawings 23

Validation Statement

This report contains supporting information regarding trees in relation to the proposed development at the rear of 57-63 Wilbury Road, Hove, BN3 3PB.

For Local Planning Authority purposes this report contains the following elements:

- A tree survey in accordance with the guidance contained in British Standard 5837:2012 'Trees in relation to design, demolition and construction – recommendations.' The survey has been undertaken by a competent and qualified arboriculturist.

- A plan indicating a North point, at an appropriate scale and containing tree survey information and tree retention categories as defined in British Standard 5837:2012.

- An assessment of the arboricultural impacts of the proposed development and details of all trees to be removed or retained and any associated measures proposed for their protection.

- An Outline Arboricultural Method Statement detailing the means of tree protection and any constraints posed on the implementation and phasing of work.

1. Introduction

1.1 Formal details – My name is Nicholas Jones I am the Principal Arboricultural Consultant for Nicholas Jones Consultants Limited. I have 33 years' experience in the arboricultural industry with the past 23 years acting as a consultant. I hold a BSc (Hons) in Arboriculture and an MSc in Arboriculture and Urban Forestry awarded by the University of Central Lancashire. I hold Professional Memberships of both The Arboricultural Association and The International Society of Arboriculture. Moreover, I am a Lantra accredited Professional Tree Inspector, giving advice to clients on a wide range of arboricultural and horticultural issues.

1.2 This report has been commissioned by Skep Projects Ltd to advise on the following:

- The species, size and position of any trees within the area of the proposed development and within neighbouring and adjoining areas where trees may have some significance to the proposed development.
- The maturity and condition of the trees surveyed with appropriate recommendations for action.
- The impact of the proposed development upon the tree population in and around the site, along with the impact of retained trees on the end use of the site.
- Outline measures required to protect retained trees during the development works and the ongoing monitoring of construction works to ensure that retained trees remain protected effectively.

1.3 The site is under the administrative jurisdiction of Brighton & Hove City Council. To date we have been unable to confirm with the Council the extent of any Tree Preservation Orders. The site is however located within the Willet Estate Conservation Area[1].

1.4 The site was visited on 22nd March 2023 and an assessment of the trees in the vicinity of the proposed development completed in line with the guidance provided in British Standard 5837:2012 'Trees in relation to design, demolition and construction Recommendations'.

1.5 The proposed development includes the demolition of the existing garages and the construction of two detached residential properties.

1.6 This report should be read with refence to the following drawings (Table 2):

Originator	Drg No	Title
Nicholas Jones Consultants Limited	NJC2045_01_240323	Tree Layout Plan
Nicholas Jones Consultants Limited	NJC2045_02_240323	Preliminary Tree Protection Plan

Table 2

1.7 The following technical references are made in this report (Table 3):

Originator	Title/Reference
British Standards Institute	5837:2012 Trees in relation to design, demolition and construction - Recommendations
British Standards Institute	3998:2010 Recommendations for Tree Works

Table 3

[1]www.brighton-hove.gov.uk/sites/default/files/2022-9/CA_Map_Willett_Estate%2Blogo_08.pdf

2. Arboricultural Impact Assessment

2.1 Development proposals can impact on trees by requiring their removal or by adversely affecting their longevity through disturbance to their rooting environment or the impact of severe pruning. In many cases however it is possible to reduce the levels of disturbance by implementing precautionary measures and by adopting appropriate working practices.

Direct impacts of the proposed development on existing trees

2.1.1 This section of the impact assessment uses a matrix to consider the contributory factors that determine an individual trees likely response to disturbance and or root loss as a result of demolition or construction activity within the calculated Root Protection Area.

2.1.2 For ease of interpretation the impact assessment matrix largely uses a simple traffic light system to rank the factors in order of their potential impact.

2.1.3 Where an impact has a binary outcome then it is determined as either green or red.

2.1.4 The individual factors are:

2.1.4.1 Tree species: some species show a greater tolerance to disturbance or root loss than others. Species vary greatly in their vigour and ability to compartmentalise decay and dysfunction following wounding/pruning. In determining the tolerance of a species for the purposes of the assessment matrix information has been collated from published work on root pruning and root loss and from personal arboricultural experience and technical knowledge.

2.1.5 Age class (Table 4): Younger trees display a greater tolerance to disturbance or root loss as they have a greater ability to adapt and respond to wounding/pruning.

Age class	Tolerance
Juvenile	
Semi mature	
Early mature	
Mature	
Over mature	
Veteran	

Table 4

2.1.6 Physiological condition (Table 5): Trees with good vitality will be functioning at an optimum physiological level and will be best placed to tolerate disturbance or root loss.

Physiological condition	Tolerance
Good	
Fair	
Poor	

Table 5

2.1.7 Level of incursion (Table 6): It is a generally accepted principle, particularly in British Standard 5837:2012, that incursions of up to 20% are acceptable, on the basis that the other factors considered here are in favour of a positive response from the individual tree.

Level of incursion (%)	Tolerance
Up to 15%	
Between 15-20%	
Greater than 20%	

Table 6

2.1.8 Extent of level alterations (Table 7): Excavation to varying depths has the potential to negatively impact lateral surface roots or roots present deeper within the soil. Increases in soil levels can lead to soil compaction and asphyxiation of roots.

Extent of alteration (mm)	Tolerance
Reduction of 0-300mm	
Reduction of 300-600mm	
Reduction of 600+mm	
Increase of 0-100mm	
Increase of 100-200mm	
Increase of 200+mm	

Table 7

2.1.9 Engineering options available (Table 8): Special engineering options can be employed to reduce the impacts on trees, no dig cellular confinement systems can serve to lessen the impacts of vehicular access routes, pile and beam foundations can be utilised to negate the requirement for extensive foundation excavations.

Engineering options available	Tolerance
Yes	
No	

Table 8

2.1.10 Options for mitigation/enhancements elsewhere in the RPA (Table 9): Impacts can potentially be offset by providing additional rooting volume on an alternative side of the tree or by enhancing the soil conditions in the retained RPA.

Mitigation/enhancement possible	Tolerance
Yes	
No	

Table 9

2.1.11 Additional factors: Elements they may be relevant to either additional weighting or less significance of the factors above.

2.1.12 Final impact level (Table 10): The final level of impact following consideration of all relevant elements above. On balance, the level of each element will be used to determine the final impact level. If the level is determined acceptable then details of any mitigation or associated protection will be provided. If the level is determined as unacceptable then the tree will be highlighted for removal, the impacts of which are considered fully in the following section.

Final impact level	**Tolerance**
Acceptable	
Unacceptable	

Table 10

2.1.13 The Impact assessment matrix is provided in Table 11, the matrix only includes those trees with a proposed incursion into their RPA as a result of demolition, construction or associated required access for those activities.

Impact Assessment Matrix

Tree number	Tree species	Species tolerance to disturbance/root loss	Life stage tolerance to disturbance/root loss	Physiological condition	Level of incursion (%)	Extent of level alteration (where applicable)	Engineering solutions available	Option of mitigation/remediation elsewhere in the RPA	Additional factors	Comments and observations	Final Impact Level
T1	Monterey cypress (Cupressus macrocarpa)						**N/A**		Existing boundary features, level changes and built structures have served to prevent root development within the application site	Establish a precautionary area and complete all excavation within its confines under direct arboricultural supervision	
T2	Sycamore (Acer pseudoplatanus)						**N/A**		Existing boundary features, level changes and built structures have served to prevent root development within the application site	Establish a precautionary area and complete all excavation within its confines under direct arboricultural supervision	
T3	Horse chestnut (Aesculus hippocastanum)						**N/A**		Existing boundary features, level changes and built structures have served to prevent root development within the application site	Establish a precautionary area and complete all excavation within its confines under direct arboricultural supervision	
T4	Holm oak (Quercus ilex)						**N/A**		Existing boundary features and built structures have served to prevent root development within the application site	Establish a precautionary area and complete all excavation within its confines under direct arboricultural supervision	

Table 11

Review of existing site conditions

2.1.4 The application site is currently under hard surfacing with garages along the western boundary, adjacent to the off-site trees, and a concrete hard standing access road and forecourt to the east. The existing ground level is approximately 1.5m lower within the application site than the soil level at the base of the adjacent trees.

2.1.5 As a result, it is considered that the rooting development of the adjacent trees will not have been symmetrical and that the roots will have exploited the wider area of the site to the west and under the existing car parking. An existing boundary wall running along the western boundary of the application site, in combination with the level changes between the sites and garage foundations are considered to have provided a physical barrier to the formation of roots within the application site.

2.1.6 Consequently, the proposal is considered acceptable in terms of its impacts on the adjacent trees, subject to the precautionary measure of the associated excavations being undertaken by hand following the principles contained within section 7.2 of BS5837:2012 'Avoiding physical damage to the roots during demolition or construction', until the absence of root growth has been confirmed. To ensure that the principles are adhered to, it is recommended that the works within the defined Precautionary Area (PA), are carried out under direct arboricultural supervision.

Impacts of the proposed tree pruning

2.1.7 The locations of the trees proposed for pruning are provided on the Tree Layout Plan (Ref: NJC2045_01_240323 **Appendix 2**).

2.1.8 The visual impacts of the proposed tree pruning are assessed in Table 12.

2.1.9 All the proposed pruning accords with the general principles contained in British Standard 3998:2010 Tree work – recommendations.

Impacts of the retained trees on the proposed development

2.1.10 The location and orientation of the proposed development obtains full benefit from available sun light.

2.1.11 The proposed pruning detailed below in Table 12 and in the Tree Survey Schedule **Appendix 1**, increases the distances between the built elements of the proposal and the retained trees, ensuring that there are not likely to be any significant issues relating to shading or seasonal nuisance.

Tree Number(s)	Reason for tree pruning	Impact of tree pruning	Photographs
T1	To abate nuisance and facilitate the proposed development	Low impact as the proposed pruning of this moderate-quality (B category) tree is limited to reduction pruning of the crown overhanging the application site only. The proposed pruning works will be largely unnoticeable from outside the curtilage of the application site.	
T2	To abate nuisance and facilitate the proposed development	Low impact as the proposed pruning of this low-quality (C category) tree is limited to crown lifting low growth overhanging the application boundary only. The proposed pruning works will be largely unnoticeable from outside the curtilage of the application site.	
T4	To abate nuisance and facilitate the proposed development	Low impact as the proposed pruning of this moderate-quality (B category) tree is limited to reduction pruning of the crown overhanging the application site only. The proposed pruning works will be largely unnoticeable from outside the curtilage of the application site.	

Table 12

3 Outline Arboricultural Method Statement

3.1 The principal purpose of an Arboricultural Method Statement is to ensure the preservation of retained trees through setting out appropriate working practices, construction techniques and tree protection measures that will be adopted when construction work is undertaken.

3.2 The following Outline Arboricultural Method Statement includes a Preliminary Tree Protection Plan (Ref: NJC2045_02_240323 **Appendix 2**) which identifies the following:

3.2.4 Trees to be retained.

3.2.5 Precautionary Area.

3.3 Precautionary Area

3.3.4 The Precautionary Area is deemed any area adjacent to a retained tree that is subject to construction activity. The Precautionary Area is indicated on Drg No. NJC2045_02_240323 Preliminary Tree Protection Plan **Appendix 2**. All excavation work within the Precautionary Area should be completed under the supervision of the Project Arborist.

3.4 Tree Protection Measures

3.4.4 Due to the existing boundary wall separating the trees from the application site, no tree protection fencing is proposed for use on site.

Detailed Arboricultural Method Statement

3.4.5 Pursuant to the Council's preference to ensure confident tree retention during development, a detailed Arboricultural Method Statement should

be prepared, which expands on the outline detail provided above. This could reasonably be requested by Condition.

3.4.6 Within a Detailed Arboricultural Method Statement, Heads of Terms are advised to include:

- A detailed method statement for all excavation within the defined Precautionary Areas (PA's).
- Locations and depths of all proposed services and utilities along with a method statement for their installation.
- Details of the phasing of work and a scheme for auditing tree protection, site supervision and monitoring with subsequent reporting to the LPA.

4 Summary & Conclusions

4.1 British Standard 5837: 2012 contains clear and current recommendations for a best practice approach to the assessment, retention and protection of trees on development sites. The proposed development has followed this guidance by:

- Seeking arboricultural advice to inform the layout and design of the proposal
- Respecting the constraints posed to development of the site by the retained trees, and taking proactive steps to ensure their protection during development
- Continuing to take advice on all aspects of the proposal that may impact upon the retained trees

4.2 It is my professional opinion that the proposals put forward allow for confidence in the long-term retention of the existing tree cover and would not result in any detriment to the character of the Conservation Area and the wider treescape.

4.3 From an arboricultural perspective the principle of the proposed development is therefore considered supportable in terms of Local Policy relating to trees. This opinion is strongly subject to the adoption of future safeguards for protecting trees.

4.4 In summary, I consider that there are no valid arboricultural issues that reasonably restrict the proposed development of the site.

Prepared by Nicholas Jones *BSc (Hons). MSc. M Arbor A.*

Date: 24th March 2023

Arboricultural ASSOCIATION Professional Member

MEMBER ISA

No. PRO 1672

Appendix 1 – Tree Survey

The trees within the area of the proposed development, and within neighbouring and adjoining areas where trees may have some significance to the proposed development, have been assessed and are recorded in the tree schedule (**Appendix 1**). Tree locations are plotted onto Drg No. NJC 2045_01_240323 Tree Layout Plan (**Appendix 2**). The trees have been visually assessed from ground level only using non-invasive methods of inspection. Tree height is an estimation, crown spread and height to underside of canopy are measured with a laser range finder.

The survey information collated for each tree is as follows:

- Tree reference number: As recorded on the site plan.
- Tree species: Common name and full botanical classification
- Life stage: (J) Juvenile, (SM) Semi mature, (EM) Early mature, (M) Mature, (OM) Over mature, (V) Veteran
- Estimated remaining contribution in years e.g.: Less than 10, 10-20, 20-40, more than 40
- Height: In metres
- Stem diameter measured in millimetres as follows:
    - Single stem trees - measured at 1.5m above ground level
    - Multi stem trees (less than five stems) total of all stem diameters measured at 1.5m above ground level
    - Multi stem trees (more than five stems) mean stem diameter measured at 1.5m above ground level
- Crown Spread: Measured at the four cardinal points (Metres)
- Height to underside of canopy: Measurement from ground level to the lowest branch (Metres)
- Physiological condition: Good, Fair, Poor, Dead

- Structural condition: Assessed as previous item on presence of decay and potential structural defects
- Quality assessment category: As defined in Table 1.1
- Comments and observations: Information regarded as relevant by the assessing arborist
- Preliminary management recommendations: Details of any remedial action required to address significant defects and or facilitate development
- Adjusted root protection area radius (Metres) calculated in accordance with the formulas provided in chapter 4.6 and Annex D of BS5837:2012

A full hazard assessment of the trees, such as decay detection and mapping, has not been undertaken as this is considered beyond the scope of this report. Obvious hazards and defects that would reasonably affect the trees contribution to the landscape have been fully considered and are detailed in the tree survey schedule.

British Standard 5837:2012 provides guidance for the assessment of trees on development sites and suggests four primary quality assessment categories and three associated sub-categories into which trees should be placed. These categories are defined in Table 1.1:

Category & Definition	Criteria	Identification on Plan
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 (i.e., 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	Dark Red

Trees to Be Considered for Retention				
Category & Definition	**Criteria - Subcategories**			**Identification on Plan**
	1. Mainly arboricultural qualities	**2. Mainly landscape qualities**	**3. Mainly cultural values, including conservation**	
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 or 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 as groups or woodlands, such that they attract a higher collective rating that they might as individuals; or trees occurring as collectives but situated 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 150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present on groups or woodlands, but without this conferring on them significantly greater collective landscape value, and/or trees offering low or only temporary/transient landscape benefit	Trees with no material conservation or other cultural value	Grey

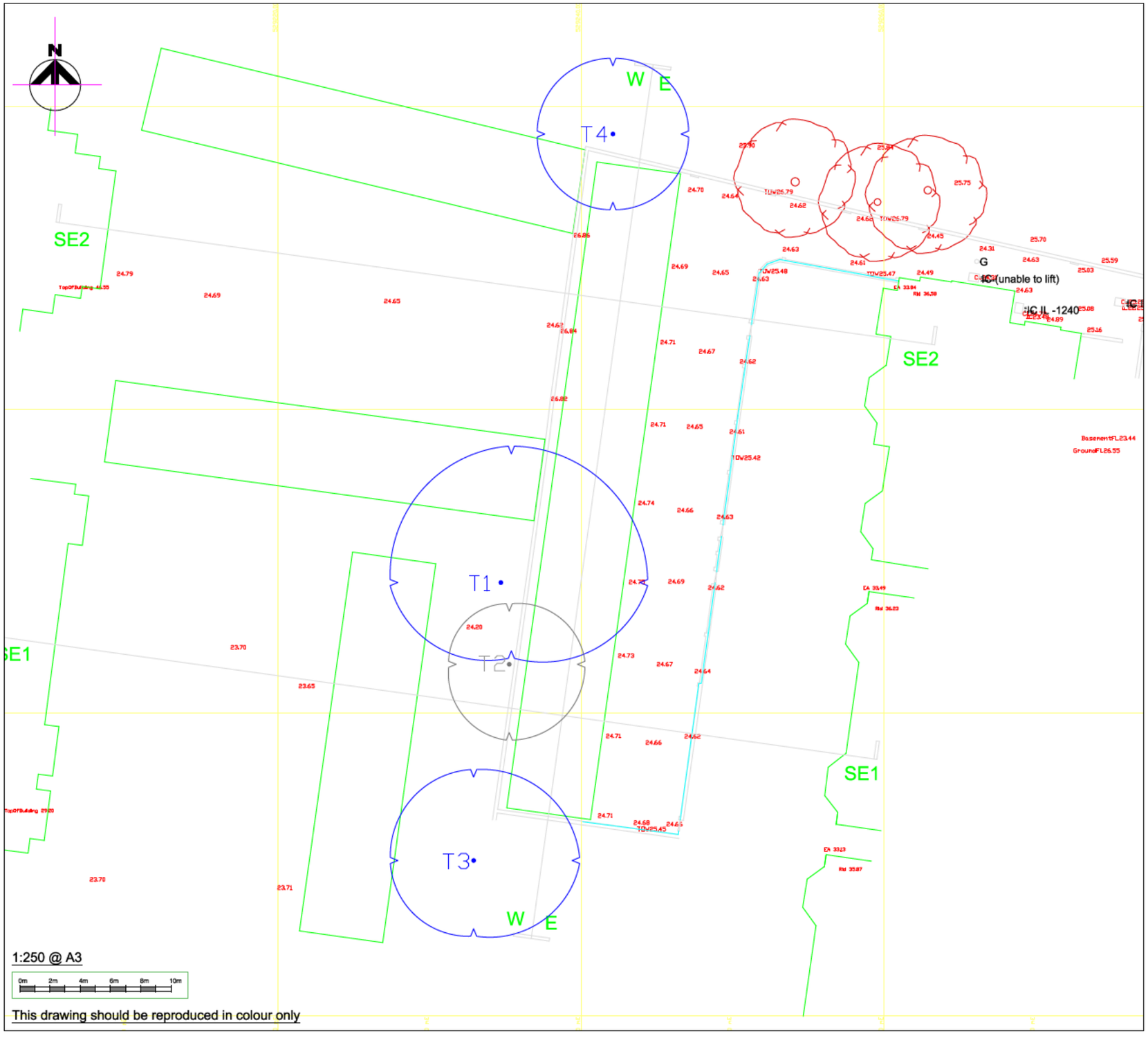
Table 1.1

Notes: Root Protection Areas have been omitted for Category U trees and others proposed for removal as it is assumed they will not be subject to retention. RPA's are capped at a 15m radius (707m²) in accordance with British Standard 5837:2012.

Site:	Rear of 57-63 Wilbury Road	**Date:**		22.03.2023			**Reference No:**				NJC2045				**Surveyor:**	N D Jones		
Tree number	**Tree species**	**Life stage**	**Estimated remaining contribution (years)**	**Tree Height (m)**	**Number of stems**	**Stem diameter (mm)**	**Crown spread (m)**				**Height to underside of canopy (m)**	**Physiological condition**	**Structural condition**	**Quality Assessment Category**	**Comments and observations**	**Preliminary Management Recommendations**	**Root Protection Area (m²) for retained trees**	**Root Protection Area Radius (m) for retained trees**
							N	**E**	**S**	**W**								
T1	Monterey cypress (*Cupressus macrocarpa*)	M	<40	16	1	1350	9.0	9.0	5.0	8.0	4.5	Fair	Fair	**B1**	Fair specimen located off site to the west, prominent visual feature providing a valuable visual screen	Raise the low crown over the application site to achieve a ground clearance of approximately 7.5m by removing secondary growth only. Reduce the overhang over the application site by approximately 2-2.5m	707	15.0
T2	Sycamore (*Acer pseudoplatanus*)	M	<15	14	1	350	4.0	5.0	5.0	4.0	4.0	Fair	Poor	**C1**	Located off site to the west immediately adjacent to the boundary wall. Damage and decay are evident at the base	Remove low growth to approximately 5m above ground level over the application site	55	4.2
T3	Horse chestnut (*Aesculus hippocastanum*)	M	<20	15	1	800	6.0	7.0	5.0	5.5	3.5	Fair	Fair	**B1**	Fair specimen located off site to the west, prominent visual feature providing a valuable visual screen	No work required	290	9.6
T4	Holm oak (*Quercus ilex*)	M	<20	15	1	600	5.0	5.0	5.0	5.0	4.0	Good	Good	**B1**	Fair specimen located off site to the north	Reduce the overhang over the application site only by approximately 2-2.5m	163	7.2

Appendix 2 - Drawings

*Do not scale from the drawings reproduced within this report



Category B - Trees of moderate quality with an estimated remaining life expectancy of at least 20 years

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

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Client's Name
Skep Projects Ltd

Job Title
Rear of 57-63 Wilbury Road
Hove, BN3 3PB

Drawing Title
Tree Layout Plan

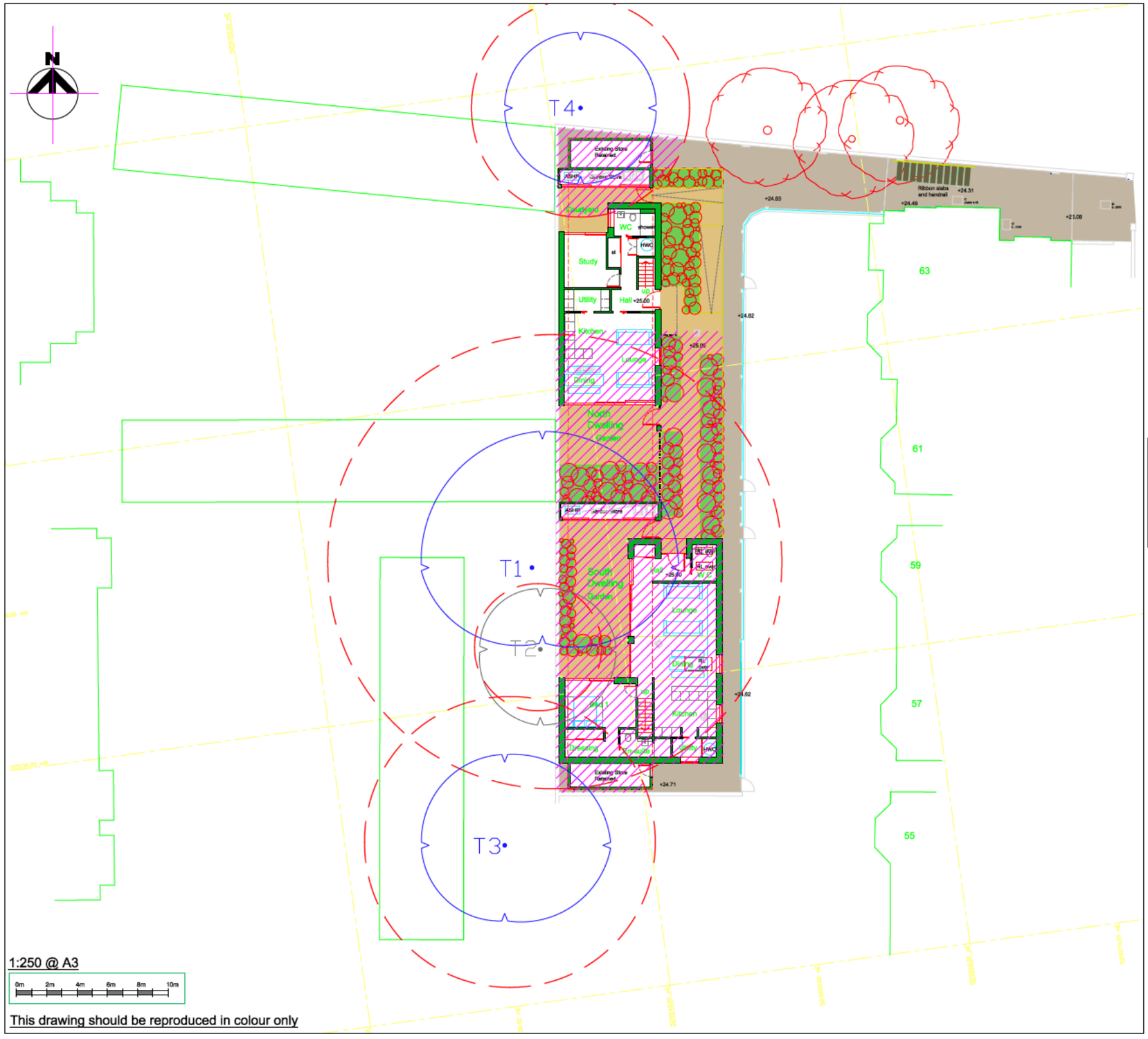
Scale
1:250 @ A3

Drawn
NDJ

Date
24.03.2023

Drg No
NJC2045_01_240323

Status
INFORMATION



1:250 @ A3

0m 2m 4m 6m 8m 10m

This drawing should be reproduced in colour only

Category B - Trees of moderate quality with an estimated remaining life expectancy of at least 20 years

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

Root Protection Area (RPA)

Extent of Precautionary Area (PA)

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Client's Name
Skep Projects Ltd

Job Title
Rear of 57-63 Wilbury Road
Hove, BN3 3PB

Drawing Title
Preliminary Tree Protection Plan

Scale
1:250 @ A3

Drawn
NDJ

Date
24.03.2023

Drg No
NJC2045_02_240323

Status
INFORMATION

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