



Arboricultural Report

Impact assessment and method statement

Lyndhurst Cottage Hanham Mills BS15 3NU

15th December 2023

Compiled for:

Neale Coles

Ву

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Ref: WTC_1233.01

Status: FINAL

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Validation statement for LPA registration

This report is submitted to South Gloucestershire Council to accompany a planning application. The report contains tree information relating to the proposal for a 3-bed detached dwelling with associated parking and amenity space.

For local planning authority (LPA) validation purposes, this report contains the following:

- A full tree survey compliant to the requirements of BS5837:2012 'Trees in relation to design, demolition and construction – recommendations' undertaken by a competent and qualified arboriculturist.
- A suitably scaled plan with a north point showing the site boundaries and the tree survey information.
- An assessment of the impacts of the proposed development on the existing trees.
 This includes recommendations of which trees should be removed/retained and the proposed protection measures.
- An arboricultural method statement outlining appropriate methods of tree
 protection and any specific technical construction methods needed to implement
 the design proposals with minimal detriment to retained trees.

Summary

The site consists of an existing area of hardstanding at the foot of a cliff face. The majority of trees are growing from ledges within the cliff face at approximately 5-6m above site ground level, with the other trees being off-site and protected by existing infrastructure. No additional tree protection is therefore required.

With works being carried out in accordance with this tree report there will be no overall impact on retained trees.

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1.0 INTRODUCTION

- 1.1 Instruction: I am instructed by Neale Coles, to inspect the trees that could affect or be affected by the development proposal at the land known as Lyndhurst Cottage. This report, in compliance with BS5837:2012 'Trees in relation to design, demolition and construction recommendations' is required to accompany the submission of a planning application for the proposal for a 3-bed detached dwelling with associated parking and amenity space. My instruction is to prepare the following information:
 - A schedule of the relevant trees including tree data and condition assessment.
 - A tree constraints plan.
 - An arboricultural impact appraisal.
 - An arboricultural method statement.
 - A tree protection plan.
- **1.2 Documents provided:** Drawings WTC_1233.02 (tree constraints plan) and WTC_1233.04 (tree protection plan) are derived from the following drawings which were supplied to me by Neale Coles:
 - Client drawing Untitled Dwg No. 80810-1 Rev A Dated 7.10.23
- 1.3 I am a consulting arboriculturist with Wotton Tree Consultancy Ltd. I have a BSc (hons) Arboriculture and the AA Technicians Certificate in Arboriculture (Cert Arb L4 (ABC)). I am a LANTRA qualified Professional Tree Inspector. I am a professional member of the Consulting Arborists Society, a professional member of the Arboricultural Association and a licensed user of Quantified Tree Risk Assessment (QTRA) license no. 2278. I am trained in valuing amenity trees using the Capital Asset Value for Amenity Trees (CAVAT) system. I have been a consulting arborist since 2006.



1.4 Limitations:

- **1.4.1** My survey was a preliminary assessment undertaken from ground level and observations have been made solely from visual inspections for the purposes of assessment in terms relevant to planning and development. Only binoculars, mallet and a probe have been used to aid tree assessment. No invasive or non-invasive internal decay detection devices have been used in assessing tree condition.
- 1.4.2 The recommendations and conclusions in this report relate only to the conditions found on this site at the time of the site visit and inspection. The recommendations contained within this report are valid for a period of 12 months from the date of this report. Any significant alteration to the site that may affect the trees that are present or have planning implications (level changes, additional tree works, post extreme weather events, hydrological changes) and will necessitate a reassessment of the trees and the site.
- 1.4.3 The tree survey that forms part of this report is not a tree safety inspection. The survey has been carried out in order to inform the planning process. Where obvious risks have been observed, they have been addressed in the 'preliminary management recommendations' (see Appendix 1 Tree Schedule). Potential hazards and levels of risk are likely to change as the site usage changes during and post development.
- 1.5 Ecological Constraints: The Wildlife and Countryside Act 1981 and amendments made within and subsequent to the Countryside and Rights of Way act 2000 provides statutory protection to bats, birds and other species that inhabit or use trees. The protection afforded to these species could impose significant constraints on the use of a particular site as well as significantly restrict the timing of any works that may be necessary. Any restrictions are in addition to the tree restriction highlighted in this report. Whilst I have some working knowledge of these potential issues they are outside my area of expertise and you must seek advice from a qualified ecologist to ascertain if any further restrictions apply.

1.6 Tree preservation orders and/or conservation area protection:

I have contacted South Gloucestershire Council to enquire whether trees at the address are subject to a tree preservation order. I have been informed that site sits within a Conservation Area, although none of the surveyed trees are subject to a Tree Preservation Order.



2.0 SITE VISIT AND DATA COLLECTION

2.1 Site Visit: I visited the site on 8th December 2023. All observations were made from ground level (aided by the Visual Tree Assessment method – Mattheck and Breloer, 1994) and all measurements except stem diameter were estimated unless otherwise stated in the tree schedules. The weather at the time of the visit was cool and overcast; these conditions in no way hindered my ability to view the trees.

2.2 Site Description:

The site consists of an area of hardstanding to the east of Lyndhurst Cottage. To the north is a steep cliff face on which the trees are growing.

- **2.3 Data collection:** Each tree or group was inspected and allocated an identification number as indicated in the tree schedule (appendix 1) and tree survey plan. For each tree the following information was collected:
 - species
 - height (m)
 - stem diameter (mm)
 - average radius of crown to 4 cardinal points (m)
 - height and orientation of first significant branch
 - average height of canopy clearance
 - life stage
 - observations regarding condition
 - preliminary management recommendations
 - safe useful life expectancy

As encouraged in BS5837:2012, each tree or group was allocated to one of four categories (A,B,C or U), which reflects its suitability for retention in context of the development. Please see table 1 for explanation of the criteria for tree categorisation.



Table 1: cascade chart for tree assessment, adapted from Table 1 of BS5837:2012

Category & definition	Criteria (including subcategories where a	Identification on plan		
Trees unsuitable for retention				
Category U Trees in such a condition that they cannot realistically be retained as living trees in the context of current land use for >10 yrs	 Trees that have a serious, irrem including those that will becom Trees that are dead or showing Trees infected with significant potter quality NOTE: these trees can having existing or potential potential 	DARK RED		
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values incl conservation	
Trees to be considered for retention				
Category A Trees of high quality with an estimated remaining life expectancy of >40 yrs	Particularly good examples of their species, esp if rare or unusual. Those that are essential components of groups or formal or semi-formal arboricultural features	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	LIGHT GREEN
Category B Trees of moderate quality with an estimated remaining life expectancy of >20 yrs	Trees that might be included in category A but are downgraded because of impaired condition such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit category A designation.	Trees present in numbers, usually growing as groups or woodlands such that they attract a higher collective rating that they might as individuals. Trees occurring as collectives but situated so as to make little visual contribution to the area.	Trees with material conservation or other cultural value	MID BLUE
Category C Trees of low quality with an estimated remaining life expectancy of >10 years, or young trees with a stem diameter <150mm	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 landscape benefits.	Trees with no material conservation or other cultural value.	GREY

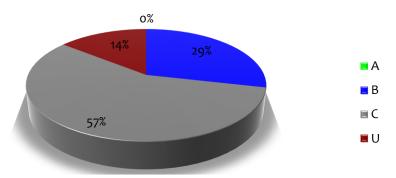


2.4 Interpretation of data: Section 4.6 of BS5837:2012 recommends that the trunk diameter measurement is used to calculate the RPA which can then be interpreted to identify the design constraints of a particular site. Once the design principal has been established the construction exclusion zone and location of protective measures can be identified.

3.0 ARBORICULTURAL OVERVIEW

3.1.1 A total of 7 items were surveyed within and adjacent to the development site. These items comprised 5 individual trees and 2 groups. The chart below shows the ratio of tree retention categories on the site.

Tree retention category ratios



3.1.2 T1-T4 are growing along the cliff face to the northeast of the site and as such will not be affected by the proposals. T2 is an ash tree, recently granted planning permission to remove - P23/03101/TCA.



Plate 1: T1 to T4, growing from the cliff face. Root incursion onto site is highly unlikely and so no tree protection is required.



3.1.3 G1 is a C category group of blackthorn and elder, growing from a retaining wall on the south side of the gate. G2 is a U category group consisting of a young ash and a declining blackthorn. Whilst there is no proposal to remove them, they do not require protection due to their poor condition.



Plate 2: G1 and G2 - both unaffected by the proposals.

3.1.4 T5 is a beech tree growing from a raised bed in the garden of Lyndhurst Cottage. A retaining wall between the tree and the site is considered an adequate barrier to root growth, and so its RPA has been amended to reflect this. The wall provides protection from building activities and so no additional tree protection is required here.



Plate 3: T5 - beech tree within garden



4.0 ARBORICULTURAL IMPACT ASSESSMENT

4.1 Below ground constraints

- 4.1.1 Below ground constraints refer to tree roots. These are easily overlooked during construction operations as they are unseen and often little is understood about their importance. It is essential to ensure that roots are not damaged during building operations as they are the life blood of each tree, providing structural stability by anchoring the tree to the ground and providing transportation of water and nutrients from the soil to the foliage.
- 4.1.2 In reality the spread of roots for trees in an urban environment will rarely be distributed in a perfect circle as the environment below ground level is highly variable. The presence of structural foundations, pipes, impermeable surface coverings and differing soil conditions mean that tree roots will extend in to areas that offer a preferential environment; where water is most available and the soil is least compacted.
- 4.1.3 Root protection areas (RPAs) are shown as a circle centred on the base of the stem unless site conditions such as nearby structures indicate that the shape of the rooting area deviates from this format.
- 4.1.4 No trees have RPA conflicts with the proposals.

4.2 Above ground constraints

- 4.2.1 Trees in close proximity to buildings can provide some constraints, both actual and perceived. Actual constraints may be where low branches conflict with new elevations either at the time of building or in the future. Future growth of young trees should be accommodated in building design. Other constraints include shade, leaf litter and damage from falling branches.
- 4.2.2 Large tree canopies close to buildings can also cause 'post-development pressure' by way of requests for tree removal or pruning as a result of resident anxiety.
- 4.2.3 Shading from the trees is very unlikely.
- 4.2.4 It is possible that leaf fall could block gutters and downpipes. This can be mitigated through regular maintenance of the guttering or by installing a proprietary gutter guard.



4.3 ARBORICULTURAL IMPACT CASCADE CHART

4.3.1 Tree Values are taken from BS: 5837 and comprise of the following:



4.3.2 The **Impacts** comprise of 6 elements:













None

- 4.3.3 Causes of impacts comprise of 6 factors: 'None', 'To facilitate development', 'Due to poor condition', 'Direct disturbance to roots', 'Pruning required' and 'Possible future pruning pressure due to shade and other factors'.
- 4.3.4 Comments are also included providing more information where necessary.

	REMOVAL	PARTIAL REMOVAL	HIGH	MODERATE	LOW
TO FACILTATE DEVELOPMENT	Tree / group requires removal.	Partial removal of group is required. I.e., 'a section of hedge may require removal to allow a new access road'.	N/A	N/A	N/A
DUE TO POOR CONDITION	Tree or group require removal due to poor structural and / or physiological condition.	Part of group require removal due to poor structural and / or physiological condition.	N/A	N/A	N/A
DIRECT DISTURBANCE TO ROOTS	N/A	N/A	In many case this will result in the loss of tree/s - refer to 'TO FACILITATE DEVELOPMENT'. In rare cases a Tree/s may be retained but damage will occur to the roots. Up to 30% of total RPA area affected.	Disturbance will be caused to roots of a tree/s that are likely to result in some physiological and structural dysfunction. The extent of damage does not require trees to be felled. Remedial actions may be taken in some cases that would help mitigate against damage but site topography, tree age, condition and species condition may result in disturbance being considered MODERATE as opposed to LOW. Up to 20% of total RPA area affected.	Activity will occur within the root protection area of trees which will have a low impact, or can be mitigated by special measures. Up to 10% of total RPA area affected.
PRUNING REQUIRED	N/A	N/A	Pruning that may retain a tree but will have a potential impact on the tree condition and visual appearance	Pruning is required that is acceptable within recommendations within BS3008:2010, but would require a material alteration to the tree/group affected.	Pruning is required that will have little impact to the structural, physiological and visual amenity of a tree or group.
POSSIBLE FUTURE PRUNING PRESSURE DUE TO SHADE OR OTHER FACTORS Table and cascade chart	Removal of tree/s required as retention is unsustainable and/or undesirable within the context of development. i.e. fast growing tree in small garden.	Partial removal of tree/s required as retention is unsustainable and/or undesirable within the context of development. i.e. fast growing tree in small garden.	Tree/s likely to cause significant shading. i.e. small garden areas with dense mature trees to south.	Some level of shade or other inconvenience will occur. Not highly oppressive, but some residents may seek management of trees in long term.	Some level of shading / overhang will occur.



	Arboricultural Impact Table									
Ref No.	Species	Value	Impact	Impact Cause	Management Options / Comments	Other				
G1	1 x blackthorn, 1 x elder	C (Low)	None	None	Growing from a retaining wall, off-site. Not affected by proposals	No tree protection required				
G2	1 x ash, 1 x blackthorn	U (Poor)	None	None	Trees in decline.	No tree protection required				
T1	Field maple	B (Moderate)	None	None	Growing from cliff face above the site. No RPA encroachment onto site	No tree protection required				
T2	Ash	C (Low)	None	None	Growing from cliff face above the site. No RPA encroachment onto site	No tree protection required				
Т3	English oak	C (Low)	None	None	Growing from cliff face above the site. No RPA encroachment onto site	No tree protection required				
T4	English oak	B (Moderate)	None	None	Growing from cliff face above the site. No RPA encroachment onto site	No tree protection required				
T5	Beech	C (Low)	None	None	Off-site tree with retaining wall between tree and site. RPA amended accordingly	No tree protection required				



4.4 Trees to be retained

Of the 5 trees and 2 groups surveyed, all are proposed to be retained.

4.4.1 Tree protection on development sites is of paramount importance if trees are to be retained successfully. The inevitable stress caused by development near an existing tree can, if provision for adequate protection is not made, be a strain that can severely damage the trees or even result in their death. Although the trees appear healthy during and on completion of the development, the full effects may not come apparent for up to five or more years after works have finished.

4.5 Trees to be removed

4.5.1 No trees are proposed for removal as a result of this development.



5.0 ARBORICULTURAL METHOD STATEMENT

5.1.1 Control measures for construction works in or near to the root protection zone are detailed in this chapter. This will form the method statement of works and will be the exact principle/methodology utilized during construction periods.

5.2 Tree works prior to construction

5.2.1 No tree works are required to facilitate this build.

5.3 Tree protection

5.3.1 The trees in proximity to the site are protected by virtue of the surrounding topography and structures. No further tree protection is required.

5.4 Site access

5.4.1 The site shall be accessed via Ferry Road.

5.5 Contractors car parking

5.5.1 No vehicles shall be parked on un-surfaced ground within the RPA of retained trees.

5.6 Site huts and storage

5.6.1 Any storage required for materials, spoil, plant or welfare facilities shall be positioned outside the RPA of retained trees. Mixing of cement shall be in a designated area where runoff will not enter the RPAs of retained trees. Ground protection in the form of a geotextile membrane will ensure no leaching of mixings enters the soil and kick boards around the perimeter will ensure that runoff is contained.

5.7 Service installation

5.7.1 I have not been supplied with details of the routing of underground services that may affect the trees on site. The provision of underground services must be led by the site's tree constraints. Should the routing of services cause conflict with the specified RPAs, a detailed and specific method of work will be provided in writing to the LPA for approval prior to installation of services.

5.8 Ground level changes

5.8.1 There shall be no changes in ground levels within the RPAs of retained trees during the construction.

5.9 Foundations within Root Protection Areas

5.9.1 There shall be no foundations within RPAs of retained trees.



5.10 Hard surfaces within Root Protection Areas

5.10.1 There shall be no new hard surfaces within RPAs of retained trees.

5.11 Soft landscaping within exclusion zones

- 5.11.1 Soft landscaping must respect the rooting areas of retained trees. Removal of spoil and the import of materials must be outside the specified RPAs.
- 5.11.2 No level changes or disturbance to the soil will take place within RPAs of retained trees. This includes in particular any rotavating of the ground. Should the soils require cultivating, the use of an airspade can be employed under an arboricultural watching brief.

5.12 Responsibilities

- 5.12.1 It will be the responsibility of the main contractor to ensure that any planning conditions attached to planning consent are adhered to at all times.
- 5.12.2 The main contractor will be responsible for contacting the Local Planning Authority at any time issues are raised related to the trees on site.
- 5.12.3 If at any time pruning works are required permission must be sought from the Local Planning Authority first and then carried out in accordance with BS 3998 Recommendations for Tree Works 2010.
- 5.12.4 The main contractor will ensure the build sequence is appropriate to ensure that no damage occurs to the trees during the construction processes.

5.13 Arboricultural supervision

5.13.1 Any works required within the RPA of retained trees that is not covered in this document can only be done so with the written permission of the Local Planning Authority, in accordance with a detailed arboricultural method statement and under an arboricultural watching brief.



Phil Dye - BSc (hons) Arb, Cert Arb L4 (ABC), BA (Hons), MArborA

15th December 2023



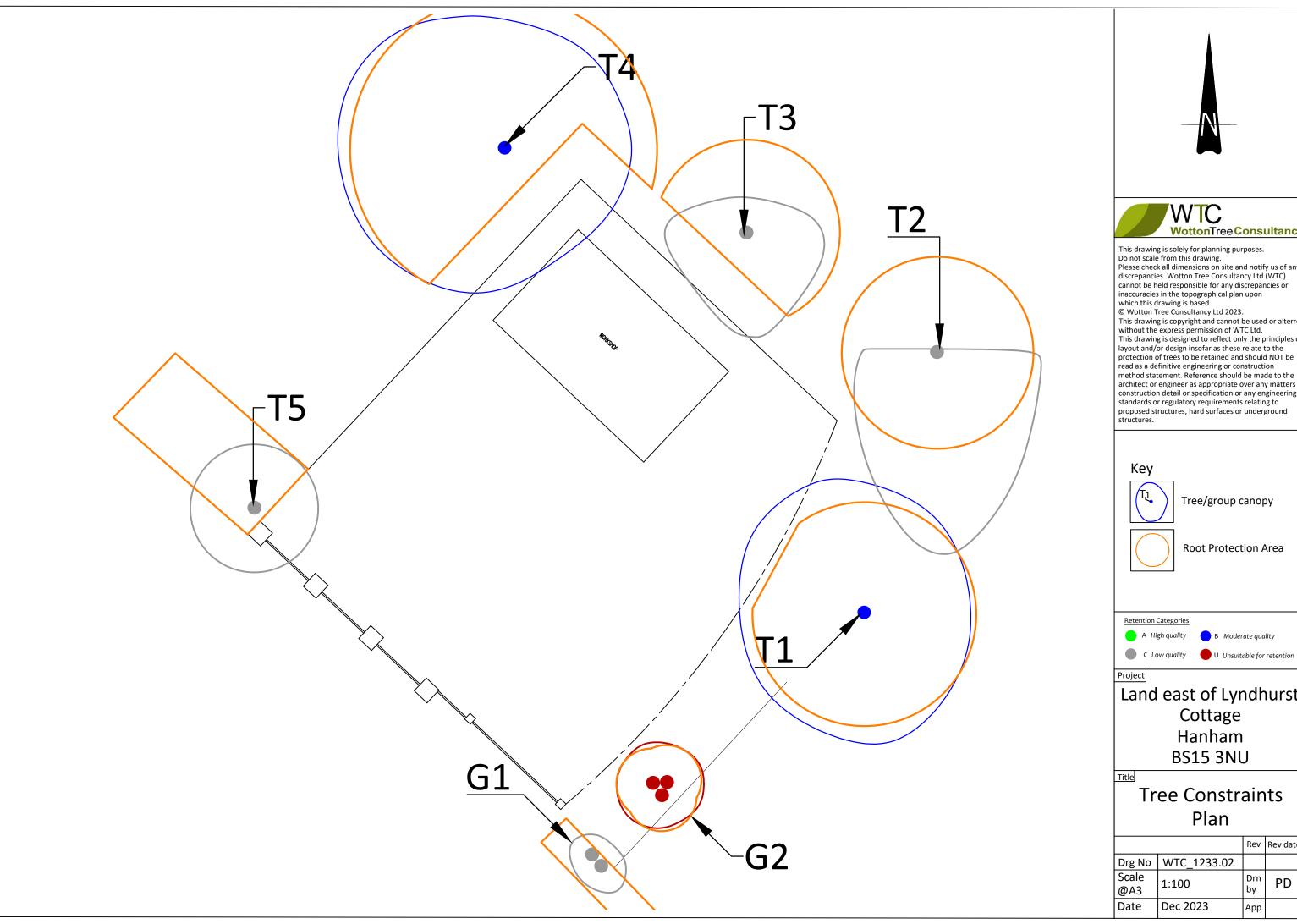
APPENDIX 1: Tree schedule

Tree	Species	Ht (m)	Stem Dia.	Sı	prea	ıd (n	1)	Avg.		Health &	Struct.	General Observations	Preliminary Recommendations	Estimated safe useful life		RPA Radius	RPA m²
וט		(111)	(mm)					Canopy Height	Stage	vitality	cona.	Observations	Recommendations	expectancy	2012 Category	(m)	1115
				Ν	Ε	S	W	(m)						(Years)			
G1	1 x blackthorn, 1 x elder	4	90	-	-	-	-	3	Semi- mature	Fair	Fair	Growing in top of a wall. RPA adjusted accordingly.	-	10+	C3	1.1	4
G2	1 x ash, 1 x blackthorn	5	90	1	ı	-	-	1	Young	Poor	Fair	North trees declining. Suspected ash dieback	-	<10	U	1.1	4
T1	Field maple	9	290	5	3	4	4	4	Early- mature	Fair	Good	Growing from bank approximately 2.5m above site ground level.	-	20+	B2	3.5	38
Т2	Ash	8	250	0	3	6	2	3	Semi- mature	Poor	Fair	Growing on steep back approximately 6m above site ground level. Ash dieback suspected	-	<10	U	3.0	28
Т3	English oak	6	240	1	2	3	2	5	Semi- mature	Fair	Fair	Growing from rock face 6m above site ground level.	-	10+	C2	2.9	26
T4	English oak	6	400	4	4	6	6	6	Early- mature	Good	Good	Growing from rock face 6m above site ground level.	-	20+	B2	4.8	72
T5	Beech	4	170	2	2	2	2	1	Semi- mature	Fair	Fair	Within garden of Lyndhurst Cottage. RPA adjusted due to substantial wall between garden and site.	-	10+	C2	2.0	13



APPENDIX 2: Tree constraints plan

WTC_1233.02







Please check all dimensions on site and notify us of any discrepancies. Wotton Tree Consultancy Ltd (WTC) cannot be held responsible for any discrepancies or inaccuracies in the topographical plan upon which this drawing is based.

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This drawing is designed to reflect only the principles of layout and/or design insofar as these relate to the protection of trees to be retained and should NOT be read as a definitive engineering or construction method statement. Reference should be made to the architect or engineer as appropriate over any matters of construction detail or specification or any engineering standards or regulatory requirements relating to proposed structures, hard surfaces or underground

Tree/group canopy

Root Protection Area



Land east of Lyndhurst Cottage Hanham **BS15 3NU**

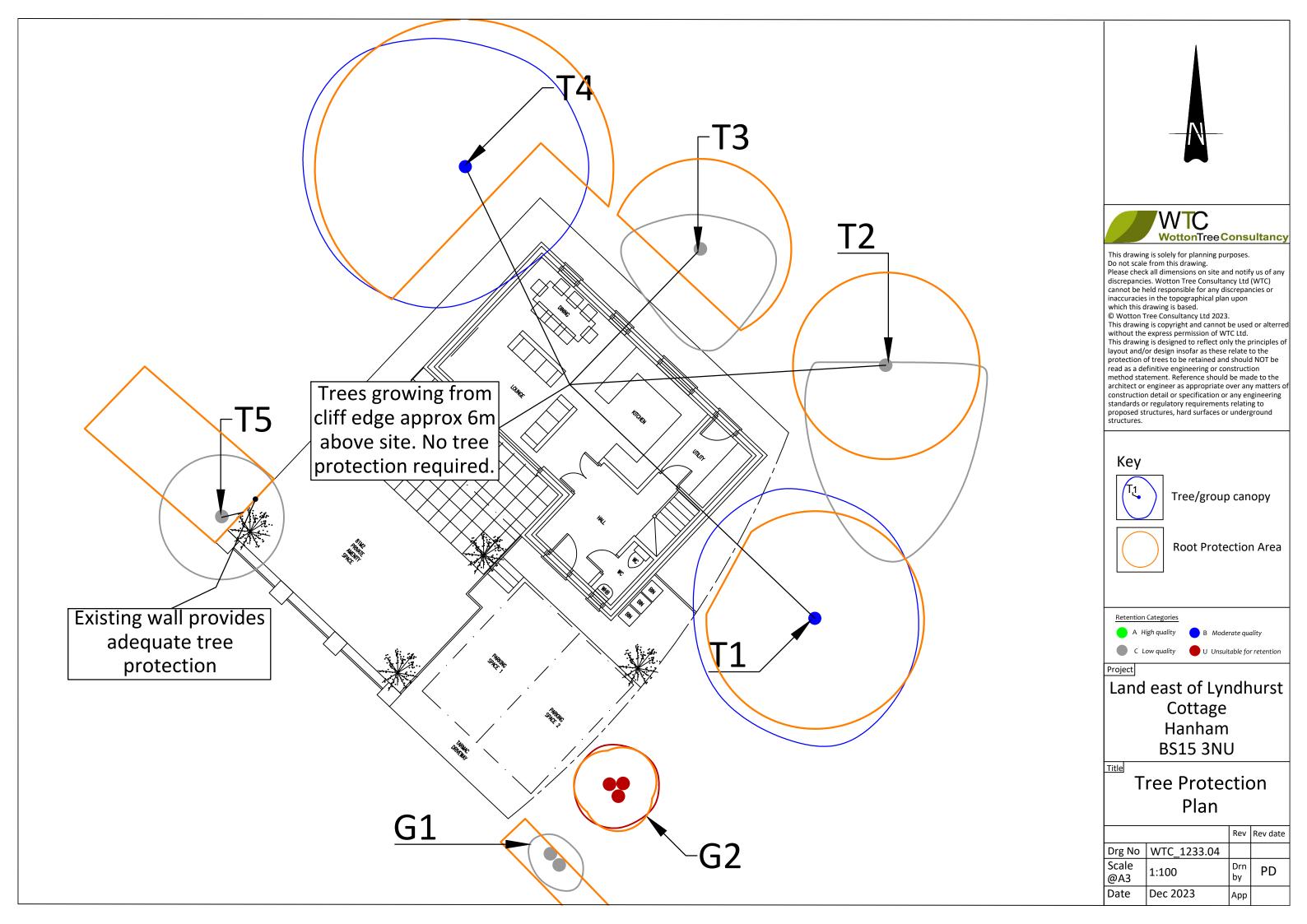
Tree Constraints Plan

		Rev	Rev date
Drg No	WTC_1233.02		
Scale @A3	1:100	Drn by	PD
Date	Dec 2023	Арр	



APPENDIX 3: Tree protection plan

WTC_1233.04





References

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