Land Off Patterdown Road, Chippenham, Wiltshire

Arboricultural Impact Assessment

July 2019

A report on behalf of Wainhomes (Severn Valley)

Ref: 0741-AIA-AE

www.green-ecology.co.uk - 0845 474 8774 - info@green-ecology.co.uk

Green Ecology is a trading name for GE Consulting Services (UK) Ltd registered number 08435536
Registered office: Unit 11A, Gidleys Meadow, Christow, Devon, EX6 7QB. VAT Number 160595992

Site details

Site Name	Land Off Patterdown Road
Site Location	Chippenham, Wiltshire
Central OS Grid Reference	ST 907 720
Client	Wainhomes (Severn Valley)

Quality Assurance

Report Title	Arboricultural Impact Assessment
Report Reference	0741-AIA-AE
Author	Adam Earl BSc (Hons) MArborA
Checked By	Jon Garner Director
Approved By	Jon Garner Director
Revision No.	2
Issue Date	16 July 2019
Summary of Changes	Updates to TRP to reflect revision S of proposed layout. Additional removal of trees T70 and T85. Retention of sections of Group G4.
Revised By	Adam Earl BSc (Hons) MArborA
Approved By	Jon Garner Director

This report has been prepared for the exclusive use of the stated client and unless otherwise agreed in writing by Green Ecology, no other party may use, make use of or rely on the contents of the report. No liability is accepted by Green Ecology for any use of this report, other than for the purposes for which it was originally prepared and provided.

Green Ecology has exercised due care in preparing this report. It has not, unless specifically stated, independently verified information provided by others. No other warranty, express or implied, is made in relation to the content of this report and Green Ecology assumes no liability for any loss resulting from errors, omissions or misrepresentation made by others.

Any recommendation, opinion or finding stated in this report is based on circumstances and facts as they existed at the time that Green Ecology undertook the work. Nothing in this report constitutes legal opinion. If legal opinion is required the advice of a qualified legal professional should be secured.

© Copyright GE Consulting Services (UK) Limited 2018

Executive Summary

This report presents the results of an Arboricultural Impact Assessment of Land Off Patterdown Road, Chippenham, Wiltshire (central OS grid reference: ST 907 720) in relation to the development up to 72 dwellings with associated landscaping, open space and vehicular and pedestrian accesses off Patterdown Road.

The table below describes the likely impacts to the arboricultural features at the above site to facilitate the proposed development as shown on the P18-1493-01 S Proposed Site Layout.

Likely Impact	**Arboricultural Feature**			
	Category A	**Category B**	**Category C**	**Category U**
Tree Removal	T90, T91	T70, T85, T86, T87, T88, T89, T92	T1, T2, T3, G4 (in part), T22, T53, T60, T83	T21, T79
Access Facilitation Pruning	-	G3, T70, T85	G4	T81
Encroachment into Root Protection Area (% encroachment)	T74	T64	-	-

This report has been prepared and should be read in conjunction with the Arboricultural Method Statement (0741/AMS/AE).

Contents

1 Introduction 5
2 Statutory Protection 6
2.1 Legislation 6
3 Application of Arboricultural Survey Information 6
3.1 Root Protection Area (RPA) 6
4 Methodology 7
4.1 Site Survey 7
4.2 Survey Limitations 7
5 Results 8
5.1 Categorisation Summary 8
5.2 Statutory Protection 8
6 Arboricultural Impact Assessment 8
6.1 Description of Proposed Development 8
6.2 Removal of Arboricultural Features 9
6.3 Pruning of Arboricultural Features 9
6.4 Encroachment into the Root Protection Areas of Arboricultural Features 10
6.5 Routing of Services and Utilities 11
6.6 Shade created by Arboricultural Features 11
6.7 Seasonal Nuisance caused by Arboricultural Features 11
7 Further Considerations 12
7.1 Protected Species 12

Appendices

Appendix 1 – Tree Constraints Plan and Tree Retention Plan 12
Appendix 2 – Tree Survey Schedule 14

1 INTRODUCTION

This report presents the results of an Arboricultural Impact Assessment at Land Off Patterdown Road, Chippenham, Wiltshire (central OS grid reference: ST 907 720) in relation to a proposed planning application. The area within the application boundary, hereafter referred to as the 'Site', is shown in Appendix 1. The surveys were commissioned by Wainhomes (Severn Valley).

The Site is located to the west of Patterdown Road, more broadly to the southwest of Chippenham town centre. The Site comprises two grassland fields bordered by mature woodland along the western boundary and a mature tree line to the centre of the Site.

The site benefits from outline planning permission granted under reference 16/09277/OUT. All matters other than means of access are currently reserved. This arboricultural impact assessment has been prepared to accompany the reserved matters application due to the changes in the proposed layout.

This arboricultural survey report has been prepared in accordance with BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'. All trees located within the Site boundary have been surveyed as part of this assessment. Additionally, those trees located immediately adjacent to the Site boundary and that have the potential to constrain the development (either through above or below portions of the tree) have also been surveyed as part of this assessment.

An Arboricultural Constraints and Opportunities Plan (ACOP) including a tree survey schedule and tree constraints plan was prepared during the design stage to inform the scheme design.

In order to undertake the assessment, the following documentation was provided by the client:

- Topographical Survey
- P18-1493-01 S Proposed Site Layout

2 STATUTORY PROTECTION

2.1 Legislation

Some trees receive legal protection within England through the following:

- Tree Preservation Orders (TPOs);
- Conservation Areas;
- Planning Conditions;

As part of this assessment, the relevant Local Planning Authority (LPA) has been contacted or online mapping systems accessed to establish if any arboricultural features surveyed as part of this report are subject to any legal protection.

Unauthorised work to protected trees could lead to prosecution, resulting in enforcement action such as fines or a criminal record.

3 APPLICATION OF ARBORICULTURAL SURVEY INFORMATION

3.1 Root Protection Area (RPA)

The tree's stem diameter is used to calculate the root protection area and radius for each tree. In most instances this is represented as a circle at a set dimension from the tree stem. The RPAs are shown on the tree constraints plan in **Appendix 1** and are colour coded to reflect the category of the arboricultural feature. Where existing site constraints are considered to cause restrictions to the tree's rooting morphology, the RPAs have been amended to form a polygon of equal size.

The root protection area represents the minimum area of root growth required to support a tree. Therefore, any disturbance, damage or death of roots within this area can have a detrimental impact on the tree. Roots have many key functions including as a structural support for the tree, water and nutrient uptake and gaseous exchange, allowing the tree to respire. Therefore, any changes to the root protection area that may inhibit such functions (e.g. root severance, soil compaction, changes to hydrology through new surfacing and input of chemicals) can lead to the decline of the tree. Tree roots are more frequently found within the top 1m of soil and therefore even shallow excavation can cause damage to tree roots and the available rooting medium.

4 METHODOLOGY

4.1 Site Survey

A preliminary arboricultural appraisal was undertaken by Bagshaw Ecology in July 2016. An update arboricultural survey was undertaken on the 1st October 2018 to validate the findings of the preliminary appraisal.

The key information for each arboricultural feature can be found in the tree survey schedule in **Appendix 2** (extracted from the Preliminary Arboricultural Appraisal, Bagshaw Ecology 2016).

4.2 Survey Limitations

The survey was limited to a visual inspection from ground level. Where existing constraints are present e.g. dense vegetation around tree stems or where the tree is located on third party property, the dimensions have been estimated on site to the best of the surveyor's ability. Where an arboricultural feature has not been accurately plotted on the topographical survey or within the plans provided, the feature reference has been suffixed with PA to highlight its position as being approximate.

Due to the dynamism of living organisms and the potential for Site conditions to change, the recommendations provided in this report are only considered valid for two years of the date of the report. Furthermore, the recommendations provided in this report cannot account for detrimental impacts to trees through climatic extremes and/or physical damage.

Whilst every effort has been made to identify any physiological and structural defects of the trees surveyed, this report should not be considered a tree risk assessment. No tree can be considered absolutely safe with even 'sound' trees known to fail.

No soil investigation works have been undertaken as part of this assessment and as such this report does not address issues with regards to soil heave and shrinkage. This report cannot be used to assess risks with regards to subsidence, in relation to the existing trees or as a result of the recommendations provided in this report.

A structural engineer should be consulted in all matters relating to the design and construction of foundations near trees. NHBC provides guidance for 'Building near trees'.

5 RESULTS

5.1 Categorisation Summary

A summary of the arboricultural features and their categorisation can be found in table 2 below. Full details of each arboricultural feature can be found in the tree survey schedule in **Appendix 2**.

Table 2. Summary of arboricultural feature categorisation

Categorisation	Arboricultural Feature		
	Tree	Tree Group	Hedgerow
A	12	1	-
B	37	1	-
C	36	2	-
U	9	-	-

5.2 Statutory Protection

TPO reference 2019/00015/MIXED protects multiple trees on site including trees T1-T85, T93, T94.

6 ARBORICULTURAL IMPACT ASSESSMENT

6.1 Description of Proposed Development

The development proposals include the construction of 72 residential dwellings and associated infrastructure and landscaping as shown in the P18-1493-01 S Proposed Site Layout.

The project design team were provided with an Arboricultural Constraints and Opportunities Plan (ACOP) which provides an overview of the existing tree stock and details any constraints they may pose to development on a tree constraints plan.

Green Ecology, as the project arboriculturalist, has been involved in the development of the scheme design, providing advice to the design team on arboricultural related matters and ensuring the existing arboricultural features are retained and protected where possible.

6.2 Removal of Arboricultural Features

Those trees that require removal to facilitate the proposed development are detailed in table 3 below and are shown on the Tree Retention Plan in **Appendix 1**.

Table 3. Summary of removal of arboricultural features

Reason	Arboricultural Feature(s) to be Removed			
	Category A	**Category B**	**Category C**	**Category U**
To create adequate visibility splay	T90, T91	T85, T86, T87, T88, T89, T92	G4 (in part)	-
To faciliate construction of dwellings and form sustainable buffer	-	T70	T1, T3, T4, T22, T53, T60, T83	-
To faciliate construction of footpaths	-	-	G1 (in part)	-
To facilitate construction of infrastructure	-	-	G4 (in part)	-
In interests of sound arboricultural management	-	-	-	T21, T79

The majority of tree loss is required to create the adequate visibility splay for the northern access, the location of which has been previously approved. Therefore, such tree loss is unavoidable. The loss of the trees will be compensated by replacement tree planting along Patterdown Road and within the site as per the proposed landscape scheme.

When selecting new planting, consideration will be given to the future growth of the tree (including root systems, stem and canopy). Where possible, the tree will have sufficient space to reach maturity without causing physical contact with nearby structures or causing excessive shading.

6.3 Pruning of Arboricultural Features

Those trees that require pruning to facilitate access or construction are detailed in table 4 below.

Table 4. Summary of pruning of arboricultural features

Arboricultural Feature	Species	Works Required	Reason
G4	Mixed	Reduce crown laterally by up to 2m as required.	For construction and operation of footpaths and road and To provide adequate working room for installation of scaffolding and construction of plot 72.
G3	Mixed	Trees adajcent to plots 68 and 69 - reduce crown laterally by 2m to west and crown lift to 4m. Crown lift to 4m to east over proposed attenuation tanks.	To provide adequate working room for installation of scaffolding and construction of dwellings and infrastructure.
T70	Ash	Reduce crown laterally by 2m to south.	
T81	Ash	Monolith to 8m retaining woodpecker holes for habitat.	In interest of sound arboricultural management whilst retaining ecological feature.
T82	Willow	Coppice stool.	To allow crown to regrow in absence of T81.

As well as the proposed tree works above, the tree survey schedule also details recommendations for the removal of deadwood.

All pruning works should be carried out in accordance with BS3998:2010 'Tree works – recommendations'. Any further pruning works that cannot be predicted at this stage (based on the information currently available) should be discussed during the pre-commencement meeting with the project arboriculturalist and agreed with the local planning authority arboricultural officer.

6.4 Encroachment into the Root Protection Areas of Arboricultural Features

The proposed construction works which will encroach into the root protection areas of retained arboricultural features are detailed in table 5 below.

Table 5. Summary of encroachment into root protection areas

Arboricultural Feature	Species	Percentage Encroachment	Proposed Works	Mitigation
T64	Ash	10%	Construction of footpath.	Path to be excavated under supervision of project arboriculturalist.
T74	Oak	3.6%	Construction of footpath.	None proposed.

The proposed encroachment into the root protection area of trees T64 and T74 is not considered significant as to affect the long-term viability of the tree. Furthermore, no further

rooting constraints are present within the root protection area of the impacted tree. An area of rooting medium contiguous with that lost can be retained and protected on all other aspects of the root protection area during construction.

Whilst the construction of an above-ground solution would be preferable for the construction of the path within the root protection area of T64, it is not possible in this instance as this type of construction is not acceptable for an adopted footpath.

6.5 Routing of Services and Utilities

The proposed drainage strategy has been designed so to avoid the root protection areas of retained trees.

Further details of the routing of services have not been provided at this stage. When details of the routing of services become available, they will be reviewed by the project arboriculturalist. The arboriculturalist shall then confirm to the local authority arboricultural officer either that no works will be carried out within root protection areas, or provide details of the methodology required to ensure the works are carried out in accordance with NJUG Vol. 4 'Guidelines For The Planning, Installation And Maintenance Of Utility Apparatus In Proximity To Trees' and BS5837: 2012.

6.6 Shade created by Arboricultural Features

Tree T64 (ash) will cast dappled over the southern elevation of apartment block of units 24 - 29 during the mid to latter part of the day. Given the period of shading and the dappled nature the shading is not considered significant as to affect the habitability of the proposed units.

6.7 Seasonal Nuisance caused by Arboricultural Features

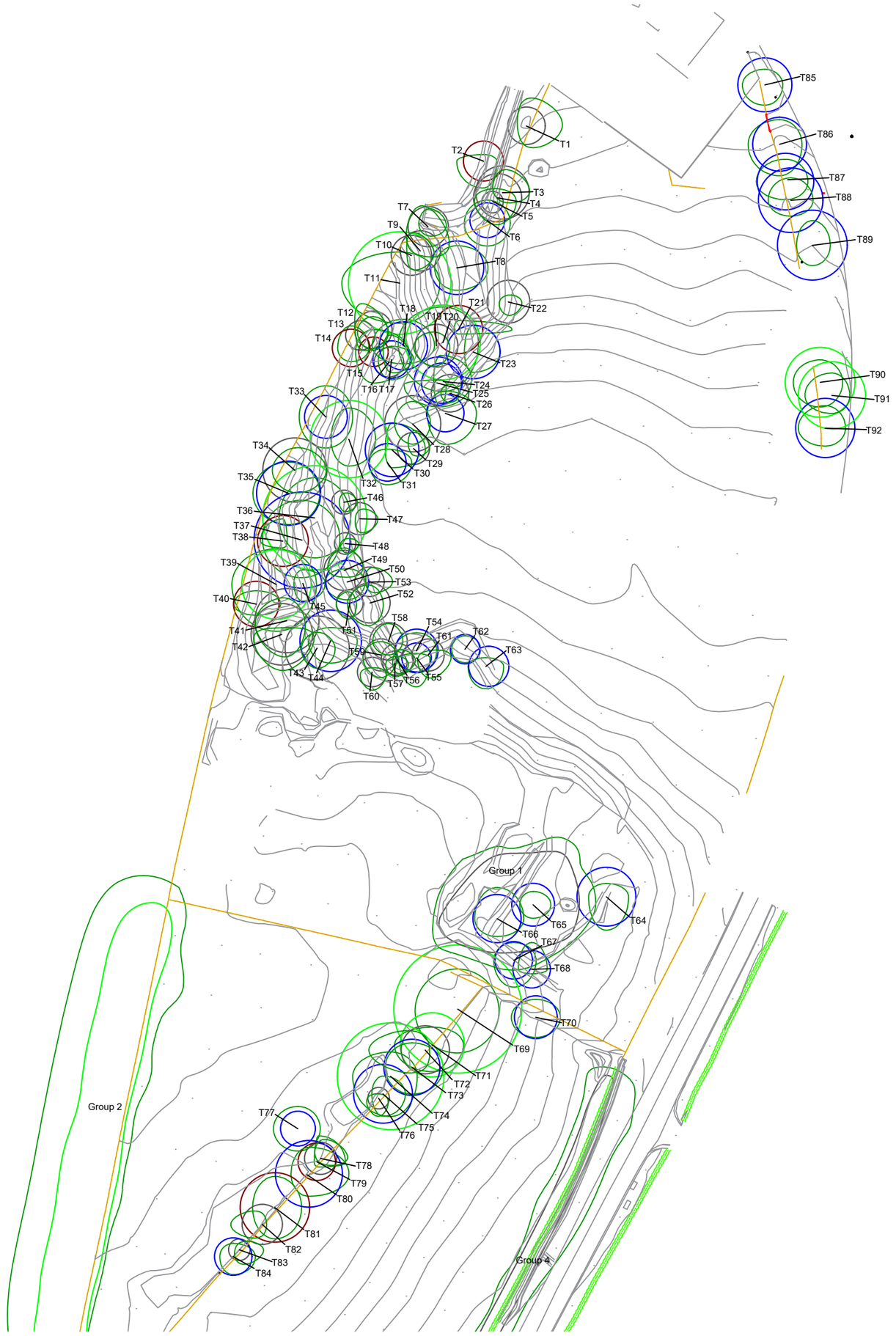
Plots 48 and 50 will be constructed adjacent to retained trees and so may be subject to leaf drop during more windy periods. To mitigate this, the dwellings should be fitted with gutter guards to prevent leaf debris build up and the associated damp issues that may arise from blocked guttering.

7 FURTHER CONSIDERATIONS

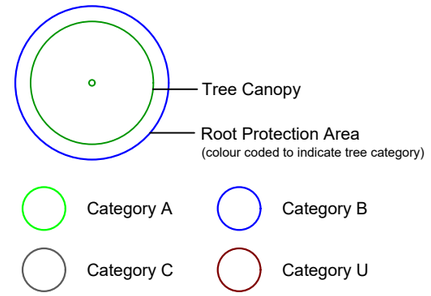
7.1 Protected Species

All trees should be checked for protected species e.g. roosting bats and nesting birds prior to any works being undertaken. Failure to undertake adequate inspections that result in the disturbance of protected species may result in the contravention of EU and national wildlife legislation and the committing of a criminal offence.

Appendix 1 – Tree Constraints Plan and Tree Retention Plan



Key:



Drawing should be viewed in colour.

N

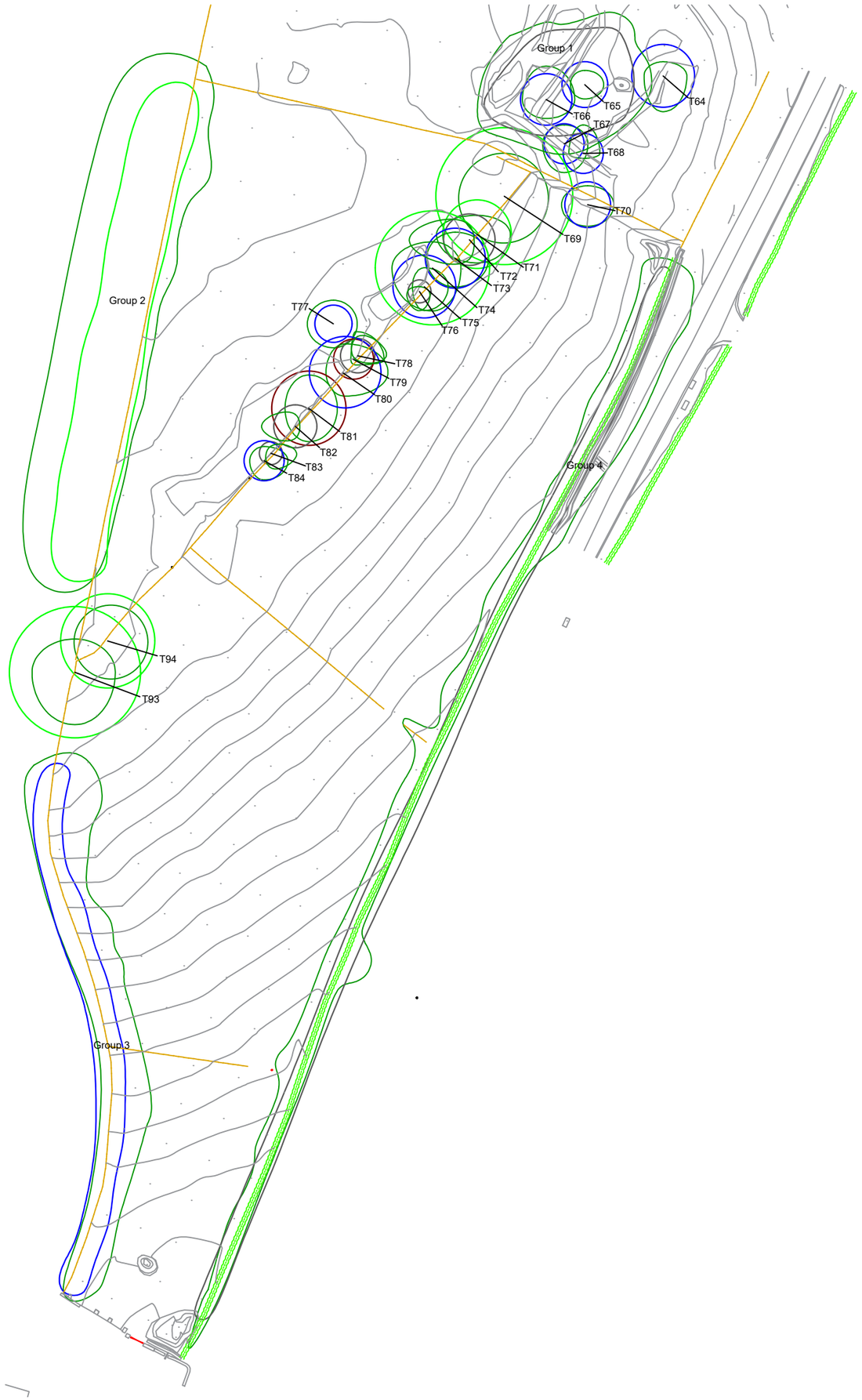
Tree Constraints Plan

Client: Wainhomes (Severn Valley)

Project: Patterdown, Chippenham

Date: 12/10/2018	**Ref:** 0741/TCP
Revision: -	**Drawn:** AE
Scale (A3): 1:1000	**Sheet:** 1 of 2

greenecology



Key:

Tree Canopy

Root Protection Area
(colour coded to indicate tree category)

Category A

Category B

Category C

Category U

N

Drawing should be viewed in colour.

Tree Constraints Plan

Client: Wainhomes (Severn Valley)

Project: Patterdown, Chippenham

Date: 12/10/2018 | **Ref:** 0741/TCP

Revision: - | **Drawn:** AE

Scale (A3): 1:1000 | **Sheet:** 2 of 2

greenecology



Key:

Trees To Be Retained

Tree Canopy

Root Protection Area
(colour coded to indicate tree category)

Category A

Category B

Category C

Category U

Trees To Be Removed

Tree to be Removed

N

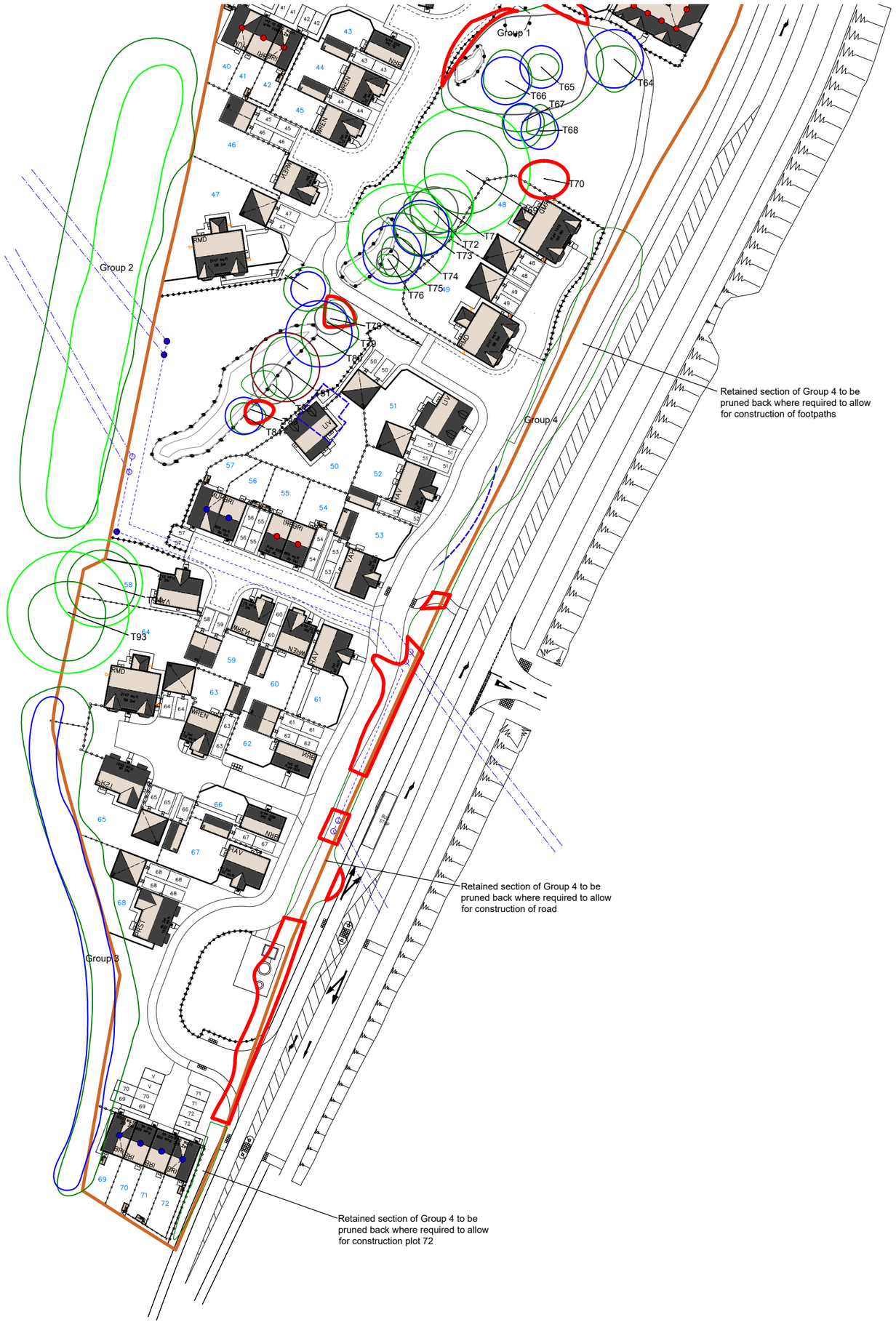
Drawing should be viewed in colour.

TRP prepared using drawing ref. P18-1493-01 P
Proposed Site Layout

Tree Retention Plan

Client: Wainhomes Severn Valley	
Project: Patterdown, Chippenham	
Date: 16/07/2019	**Ref:** 0741/TRP
Revision: 2	**Drawn:** AE
Scale (A3): 1:1000	**Sheet:** 1 of 2

greenecology



Key:

Trees To Be Retained

Tree Canopy

Root Protection Area
(colour coded to indicate tree category)

Category A

Category B

Category C

Category U

Trees To Be Removed

Tree to be Removed

N

Drawing should be viewed in colour.

TRP prepared using drawing ref. P18-1493-01 P
Proposed Site Layout

Tree Retention Plan

Client: Wainhomes Severn Valley

Project: Patterdown, Chippenham

Date: 16/07/2019	**Ref:** 0741/TRP
Revision: 2	**Drawn:** AE
Scale (A3): 1:1000	**Sheet:** 2 of 2

greenecology

Appendix 2 – Tree Survey Schedule

(Extracted from the Preliminary Arboricultural Appraisal prepared by Bagshaw Ecology, 2016 document reference BE-366)

Appendices

Appendix A: Tree Survey Schedule

A plan of the tree locations can be viewed in Appendix B: Tree Constraints Plan.

Key			
Species	Common name following Johnson & More (2004)	**Age**	Y – Young sapling/newly planted tree
Height	Estimated, in metres		SM – Semi-mature; tree in 1/3 of estimated lifespan
CC	Crown clearance, estimated, in metres		EM – Early mature; tree in 2/3 of estimated lifespan
No of stems	Number of stems bifurcating below 1.7 metres		M – Mature; tree in 3/3 of estimated lifespan
DBH	Diameter at breast height (1.7m), in centimetres		OM – Over mature; tree that has exceeded its natural life span
Crown spread	Estimated, in metres		V – Veteran tree
SULE	Estimated useful life expectancy, in years	**Category**	See BS5837 cascade chart

Individual Trees

Tree No.	Species	Height	CC	No. of stems	DBH	Crown Spread				Age	Vitality	Comments	Recommendations	SULE	Category
						N	E	S	W						
1	Ash	12	2	1	36	6	8	4.5	2	SM	Good	Suppressed by adjacent trees. Lean to west. Lateral crack on west aspect of stem.	None	21-40	C1
2	Willow	14	8	2	25 28	1.5	3	6	6	EM	Dead	Dead tree.	None	<10	U
3	Ash	16	3	2	36 34	5	6	2	2	EM	Moderate	Suppressed by adjacent trees. Deadwood <100mm diameter. Minor crown dieback.	None	21-40	C1

Tree No.	Species	Height	CC	No. of stems	DBH	Crown Spread				Age	Vitality	Comments	Recommendations	SULE	Category
						N	E	S	W						
4	Ash	15	2	3	18 36 22	2	4	6	5	EM	Good	Dense ivy on stems. Suppressed by adjacent trees.	None	21-40	C1
5	Ash	8	1.5	2	15 13	1	6	5	1	SM	Good	Suppressed by adjacent trees.	None	21-40	C1
6	Ash	16	2.5	1	32	4.5	5	6	5	EM	Good	No major visible defects.	None	>40	B1
7	Ash	15	5	2	35 14	4	4	2	2	EM	Good	Suppressed by adjacent trees. Dense ivy on stem.	None	21-40	C1
8	Ash	15	7	1	50	5	7	5	5	EM	Good	Occluded cavity on north aspect of stem.	None	>40	B1
9	Ash	17	8	1	38	10	6	1	2	EM	Good	Suppressed by adjacent trees. Lean to north.	None	21-40	C1
10	Hawthorn	11	4	2	20 31	5	5	3	1	EM	Good	Suppressed by adjacent trees. Lean to northwest. Included stem unions.	None	>40	C1
11	Ash	14	5	1	95	7	9	9	13	OM	Moderate	Early signs of crown retrenchment. Deadwood 150mm diameter.	Deadwood removal recommended only if proposals within crown spread.	>40	A3
12	Hawthorn	8	2.5	1	36	3	3.5	4.5	3.5	EM	Moderate	Stem bifurcates at 2m with severely included unions. Large branch wound on stem from 0.5-2m.	None	10-20	C1
13	Ash	14	10	1	28	7	6	3	1	EM	Good	Suppressed by adjacent trees.	None	21-40	C1

Tree No.	Species	Height	CC	No. of stems	DBH	Crown Spread				Age	Vitality	Comments	Recommendations	SULE	Category
						N	E	S	W						
14	Ash	14	7	2	27 21	5	4	3	3	SM	Good	Large cavity on larger stem with white rot and frass. Sounding hammer indicates hollow. Occluded cavity on smaller stem.	None	<10	U
15	Ash	15	6	1	28	5	8	7	4	EM	Good	Stem doglegs to east at 1m. Decay cavity at 1m leading to suspected hollow stem with good occlusion. *Daldinia concentrica* and young *Pleurotus* sp. fruiting body on stem.	Remove only if near development proposals.	<10	U
16	Ash	11	4.5	1	28	6	5	2	1	EM	Good	Occluded cavity on north aspect at 0.5m. Suppressed by adjacent tree.	None	10-20	C1
17	Ash	15	9	1	35	3	5	4.5	3	EM	Good	Large occluded cavity on south aspect of stem at 0.5m.	None	21-40	B1
18	Ash	16	10	1	45	6	7	4	7	EM	Good	Deadwood 120mm diameter.	Remove deadwood only if near development proposals.	>40	B1
19	Hawthorn	7	2	1	39	3	3	4.5	5	EM	Good	Stem bifurcates at 1.8m with severely included unions. Deadwood 100mm diameter.	None	21-40	C1
20	Ash	19	8	1	71	8	8	11	10	M	Good	Deadwood 100mm diameter.	None	>40	A1

Tree No.	Species	Height	CC	No. of stems	DBH	Crown Spread				Age	Vitality	Comments	Recommendations	SULE	Category
						N	E	S	W						
21	Ash	5	2	1	45	2	12	1	1	EM	Moderate	Stem failed at 4m.	Remove only if near development proposals.	<10	U
22	Hawthorn	6.5	2	3	22 25 20	1.5	3	3	2	SM	Good	Included stem unions. Deadwood <100mm diameter.	None	21-40	C1
23	Ash	15	7	1	50	6	6	4.5	2	EM	Good	Suppressed by adjacent trees.	None	>40	B1
24	Ash	15	6	1	38	5.5	7	6	1.5	EM	Good	Wire included into cambium at basal area. Suppressed by adjacent tree.	None	>40	B1
25	Ash	15	9	1	45	1	1.5	5	8	EM	Good	Suppressed by adjacent tree. Branch wound on south aspect at 5m. Deadwood <100mm diameter.	None	>40	B1
26	Hawthorn	7	3	1	34	2	2	2	2	SM	Moderate	Suppressed by adjacent trees. Crown dieback. Significant deadwood <100mm diameter. Fresh compost above root collar.	None	10-20	C1
27	Ash	13	5	1	36	5	7	7	4	EM	Good	No major visible defects.	None	>40	B1
28	Hawthorn	8	2	2	35 38	5	4	4.5	4	EM	Moderate	Dense ivy on stems and throughout crown. Suppressed by adjacent trees.	None	10-20	C1
29	Ash	10	5	1	29	4	3.5	1.5	1	SM	Good	Suppressed by adjacent trees.	None	21-40	C1

Tree No.	Species	Height	CC	No. of stems	DBH	Crown Spread				Age	Vitality	Comments	Recommendations	SULE	Category
						N	E	S	W						
30	Ash	15	7	3	32 30 26	6	7.5	4	1.5	EM	Good	Included stem unions. Suppressed by adjacent trees. Deadwood 100mm diameter with Daldinia concentrica.	None	>40	B1
31	Ash	14	4.5	1	36	3	5.5	5	4	EM	Good	Deadwood <100mm diameter.	None	>40	B1
32	Pedunculate oak	17	8	1	73	7	6	6	4	M	Good	Lean to north. Stem epicormic.	None	>40	A1
33	Ash	16	8	1	41	7	6	7	6	EM	Good	No major visible defects.	None	>40	B1
34	Pedunculate oak	14	7	1	59	5	7	5	5	M	Moderate	Crown dieback. Deadwood 100mm diameter.	Monitor for further dieback.	10-20	C1
35	Ash	17	7	1	61	7	7	7	8	EM	Moderate	Minor crown dieback.	None	21-40	B1
36	Pedunculate oak	18	3	1	97	9	8	9	8	M	Good	Branch wounds on stem. Stem epicormic. Snapped primary branch to west. Deadwood 200mm diameter.	Remove deadwood only if near development proposals.	>40	A1
37	Ash	18	8	1	91	9	8	8.5	9	M	Good	Partially occluded cavity from 1-4m with honey bee nest.	None	21-40	B1
38	Hawthorn	5	4	2	35 31	5	1	1.5	5	EM	Poor	Extensive crown dieback. Failed primary branch. Dense ivy on stem.	Remove only if near development proposals.	<10	U
39	Pedunculate oak	14	5	1	66	8	9	10.5	10	M	Good	No major visible defects.	None	>40	A1

Tree No.	Species	Height	CC	No. of stems	DBH	Crown Spread				Age	Vitality	Comments	Recommendations	SULE	Category
						N	E	S	W						
40	Hawthorn	8	3	2	28 31	3	5.5	2.5	5	EM	Poor	Suppressed by adjacent tree. Crown dieback. Primary branch to east failed.	Remove only if near development proposals.	<10	U
41	Pedunculate oak	14	6	1	60	5	4	8	7	EM	Moderate	Sparse crown. Deadwood 100mm diameter.	Monitor for further dieback.	10-20	C1
42	Turkey oak	15	2.5	1	57	1.5	7	8	6	EM	Good	Suppressed by adjacent tree. Lean to southeast.	None	21-40	C1
43	Turkey oak	9	2	1	61	3.5	4	4.5	3.5	EM	Moderate	Sparse crown.	Monitor for further dieback.	10-20	C1
44	Pedunculate oak	15	5	1	58	3	6	5	5	EM	Good	Deadwood 100mm diameter. Suppressed by adjacent trees.	None	>40	B1
45	Ash	12	7	1	34	3	5	4	2	SM	Good	Suppressed by adjacent trees.	None	>40	B1
46	Hawthorn	5	1.5	2	15 18	2	3	2	1	SM	Good	Suppressed by adjacent trees. Dense ivy on stems.	None	10-20	C1
47	Hawthorn	4	2	2	28 14	2	4	3	1	SM	Good	Suppressed by adjacent trees. Lean to east.	None	10-20	C1
48	Hawthorn	6.5	2.5	1	21	1	3	2	1	SM	Moderate	Suppressed by adjacent trees. Lean to east. Minor crown dieback.	None	10-20	C1
49	Hybrid black poplar	15	9	1	37	5	4	1.5	3.5	EM	Moderate	Sparse crown. Suppressed by adjacent trees. Deadwood <100mm diameter.	None	10-20	C1
50	Hybrid black poplar	17	10	1	41	3	4	4	5	EM	Good	Deadwood <100mm diameter.	None	21-40	B1
51	Hybrid black poplar	16	9.5	1	25	2.5	1	3.5	3	SM	Moderate	Suppressed by adjacent trees. Sparse crown.	None	10-20	C1

Tree No.	Species	Height	CC	No. of stems	DBH	Crown Spread				Age	Vitality	Comments	Recommendations	SULE	Category
						N	E	S	W						
52	Hybrid black poplar	15	6	1	38	4	3	5	5	EM	Good	Woodpecker holes on east aspect at 8m. Deadwood <100mm diameter.	None	10-20	C1
53	Hybrid black poplar	12	5	1	28	3	5	2	1	SM	Moderate	Suppressed by adjacent trees. Sparse crown.	None	10-20	C1
54	Ash	15	6	1	39	4	4.5	5	5	EM	Good	Occluded crack on north aspect of stem. Deadwood <100mm diameter.	None	>40	B1
55	Pedunculate oak	12	2.5	1	27	1	3	6.5	4	SM	Good	Suppressed by adjacent trees. Lean to south. Deadwood <100mm diameter.	None	>40	B1
56	Hybrid black poplar	12.5	4.5	2	30	2	4	3	1	SM	Good	Suppressed. Lean to east.	None	10-20	C1
57	Silver birch	9	2.5	1	23	1.5	3	3	2	SM	Good	Suppressed by adjacent trees.	None	21-40	C1
58	Pedunculate oak	12	5	1	34	4	3	3	3.5	SM	Good	Stem epicormic. Deadwood <100mm diameter.	None	>40	C1
59	Pedunculate oak	11	3.5	1	31	3	3.5	5	4	SM	Good	Suppressed by adjacent trees.	None	21-40	C1
60	Silver birch	9	2	1	27	1	3	4	2.5	SM	Good	Lean to south.	None	>40	C1
61	Pedunculate oak	9	2	1	30	1	5	5	2	SM	Good	Suppressed by adjacent trees.	None	10-20	C1
62	Turkey oak	7	2	1	28	3	3.5	3	3	SM	Good	No major visible defects.	None	>40	B1
63	Pedunculate oak	8.5	2.5	1	37	2	4	5	4	SM	Good	Lean to south. Branch wound on stem with decay.	None	21-40	B1
64	Ash	12	2	1	55	3	5	7.5	4	EM	Moderate	Included primary branch unions. Lean to south. Minor crown dieback.	None	21-40	B1

Tree No.	Species	Height	CC	No. of stems	DBH	Crown Spread				Age	Vitality	Comments	Recommendations	SULE	Category
						N	E	S	W						
65	Pedunculate oak	12	3	1	39	3	4	3	3	EM	Good	Deadwood <100mm diameter.	None	>40	B1
66	Pedunculate oak	12	4	1	45	7	6	4	5	EM	Good	Lean to northeast. Hanging deadwood 100mm diameter.	None	>40	B1
67	Ash	10.5	4	1	35	4	5	6	4.5	EM	Good	Deadwood <100mm diameter.	None	>40	B1
68	Ash	10	4	1	34	6	3.5	1	3	EM	Good	Lean to north.	None	>40	B1
69	Pedunculate oak	18	3	1	119	9	9	10	9.5	OM	Good	Failed primary branch at 6m. Deadwood 150mm diameter.	Remove deadwood only if near development proposals.	>40	A3
70	Ash	11	3.5	1	41	4	5.5	4.5	5.5	EM	Good	Pruning wound with epicormic growth at 2m.	None	>40	B1
71	Ash	16	6	1	61	4	7	6	8.5	M	Good	Branch wound at 8m to west. Deadwood 100mm diameter.	None	>40	A1
72	Pedunculate oak	9	2	1	45	3	1	4	12.5	EM	Good	Stem extends horizontally to west for 9m due to phototropic growth. Cavity from 0.5-1.5m leads to hollow stem.	None	10-20	C1
73	Ash	15	6	1	53	5.5	7	6	6	M	Moderate	Minor crown dieback. Deadwood 100mm diameter.	Monitor for further dieback.	21-40	B1
74	Pedunculate oak	16	3.5	1	99	5.5	6	9	8.5	M	Good	Deadwood 100mm diameter.	None	>40	A1

Tree No.	Species	Height	CC	No. of stems	DBH	Crown Spread				Age	Vitality	Comments	Recommendations	SULE	Category
						N	E	S	W						
75	Ash	14	4.5	2	48 29	4	5	5	2.5	EM	Good	*Inonotus hispidus* on primary branch to south at 8m. Deadwood 150mm diameter. Birds' nest in crown.	Remove primary branch if near development proposals.	21-40	B1
76	Ash	5	3	1	20	1	2	4	2.5	SM	Moderate	Suppressed by adjacent trees.	None	10-20	C1
77	Pedunculate oak	7	1	1	32	5	5	5	5.5	EM	Good	Bifurcates at 2m with included primary branch unions. Deadwood 100mm diameter.	None	>40	B1
78	Ash	12	4	1	31	4	6	1	1	SM	Good	Suppressed by adjacent trees. Numerous occluded cavities on stem.	None	10-20	C1
79	Ash	14.5	7	1	35	6	6	1	1	EM	Good	Suppressed by adjacent trees. Decay cavity at basal area leading to hollow stem. Old fruiting body on stem.	Remove only if near development proposals.	<10	U
80	Ash	17	5	3	41 38 29	6	9	5	4	M	Good	Lapsed coppice stool.	None	21-40	B1
81	Ash	10	10	1	65	7	6	7	5	EM	Moderate	Woodpecker holes on stem from 1.5-8m. *Inonotus hispidus* on main leader. Crown dieback.	Remove only if near development proposals.	<10	U
82	Grey willow	6	1	4	28 15 17 12	2.5	1	2.5	7	SM	Good	Heavily suppressed. Lean to west.	None	10-20	C1

Tree No.	Species	Height	CC	No. of stems	DBH	Crown Spread				Age	Vitality	Comments	Recommendations	SULE	Category
						N	E	S	W						
83	Pedunculate oak	7	4	1	19	1.5	5.5	3	1	SM	Moderate	Suppressed by adjacent trees. Minor crown dieback.	None	10-20	C1
84	Pedunculate oak	8	3	2	28 22	3	5	4	3	SM	Good	No major visible defects.	None	>40	B1
85	Italian alder	14	1.5	1	50	3.5	4	4.5	5	EM	Good	Utility wires through crown.	None	>40	B1
86	Small-leaved lime	12	1.5	1	50	5.5	5	7	7	EM	Good	Utility wires through crown.	None	>40	B1
87	Italian alder	14	2	1	53	5	5	4	6.5	EM	Good	Pruning wound on stem at 2m with old fruiting bodies (likely saprobic).	Re-inspect September-November for fresh fruiting bodies.	>40	B1
88	Italian alder	15	1	1	59	5	5	3.5	5	EM	Good	Included foreign body at 1m.	None	>40	B1
89	Ash	10	1	3	46 35 29	5.5	4	4.5	3.5	EM	Good	Included stem unions. Deadwood <100mm diameter. Occupied wood pigeon nest at 3m. Stem epicormic.	None	>40	B1
90	Italian alder	18	5	1	65	5	5	5.5	6	M	Good	No major visible defects.	None	>40	A1
91	Italian alder	17	1	1	62	5	4	4	6	M	Good	Deadwood <100mm diameter.	None	>40	A1
92	Italian alder	16	2	1	56	5	4.5	4	6	M	Good	Lean to west.	None	>40	B1
93	Ash	19	1.5	1	82	7.5	9	8	7	M	Good	Wire fence included into cambium. Deadwood <100mm diameter.	None	>40	A1

Tree No.	Species	Height	CC	No. of stems	DBH	Crown Spread				Age	Vitality	Comments	Recommendations	SULE	Category
						N	E	S	W						
94	Pedunculate oak	20	3.5	1	116	7	8.5	11	9	M	Good	Deadwood 200mm diameter.	Remove deadwood only if near development proposals.	>40	A1

Groups of Trees

Group No.	Species	Av. Height (m)	CC	No. of trees	Av DBH (cm)	Crown Spread				Age	Vitality	Comments	Recommendations	SULE	Category
						N	E	S	W						
G1	Hawthorn, goat willow	5	1	14	15	2	2	2	2	SM	Good	Scattered trees. EM/M trees and Category B trees recorded individually	None	>40	C1
G2	Pedunculate oak, ash, hawthorn, field maple	15	5	28	35	4	4	4	4	EM	Good	Linear group, including lapsed coppice ash previously forming boundary hedgerow	None	>40	A1

Group No.	Species	Av. Height (m)	CC	No. of trees	Av DBH (cm)	Crown Spread				Age	Vitality	Comments	Recommendations	SULE	Category
						N	E	S	W						
G3	Ash, pedunculate oak, hawthorn	10	1	12	25	3	3	3	3	EM	Good	Linear group	None	>40	B1
G4	Hawthorn, goat willow, field maple	8	1	45	15	2	2	2	2	SM	Good	Linear hedge	None	>40	C1


greenecology