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30 OLD LONDON ROAD, BADGERS MOUNT, SEVENOAKS, TN14 7AE

BS 5837: 2012 Arboricultural Report

February 2025



Report no. 25005

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Version control

Version	Date	Author	Changes
1	February 2025	Darren Hood FdSc MArborA 	N/A

CONTENTS

VERSION CONTROL .....

EXECUTIVE SUMMARY 1

1 INTRODUCTION 2

1.1 Overview 2

1.2 Site Location and Setting 2

1.3 Proposed Scheme 2

2 METHODOLOGY 3

2.1 Tree Survey Methodology 3

2.2 Arboricultural Impact Assessment Methodology 3

2.3 Root Protection Area 3

2.4 Survey Limitations 4

3 SURVEY RESULTS 5

3.1 Tree Assessment and Categorisation 5

3.2 Tree Species Recorded 5

3.3 Age Diversity 6

3.4 Statutory Tree Protection 6

3.5 Soil Type 6

4 CONCLUSIONS 7

FIGURE 1. TREE CONSTRAINTS PLAN. 8

APPENDIX A. EXPLANATION OF TERMS 10

APPENDIX B. TREE SCHEDULES 12

APPENDIX C SELECTED SITE PHOTOGRAPHS 16

Executive Summary

Silva Arboriculture Ltd has been commissioned by Asim Erturk to provide Arboricultural services to support a development at 30 Old London Road, Badgers Mount, Sevenoaks, TN14 7AE, referred to as 'the Site'.

The Site is located within the Local Authority of Sevenoaks District Council, approximately 8km northwest of Sevenoaks Town Centre.

- Nine individual trees and one group of trees were recorded within the Study Area as Category C.

None of the recorded trees are protected by TPO and the Site does not fall within a Conservation Area.

British Geological Society records show the site Bedrock Geology being of Seaford Chalk Formation and Newhaven Chalk Formation.

An existing concrete pad, near to the existing garden shed, is in close proximity to one Category C Ash tree. It is considered that this area is devoid of tree roots due to the historic excavation works and non-permeable makeup of the concrete pad. This area has been highlighted on Figure 1 – Tree Constraints Plan.

The root protection area (RPA) of the recorded trees should be respected, and excavations avoided within these areas.

1 Introduction

1.1 Overview

Silva Arboriculture Ltd has been commissioned by Asim Erturk to provide Arboricultural services to support a development at 30 Old London Road, Badgers Mount, Sevenoaks, TN14 7AE, referred to as 'the Site'.

This report presents the results of an Arboricultural Survey conducted in line with *BS 5837: 2012 - Trees in relation to design, demolition and construction – Recommendations*[1] and is designed to identify arboricultural constraints that could impact development of the Site.

1.2 Site Location and Setting

The Site is located within the Local Authority of Sevenoaks District Council and is located approximately 8km northwest of Sevenoaks Town Centre. The Site is a domestic dwelling with associated garden and car parking. The Site is located within a residential area. The Site is presented in Figure 1 Tree Constraints Plan.

1.3 Proposed Scheme

The proposed development involves the erection of a detached summer house within the rear garden.

[1] British Standards Institution (2012) BS 5837: 2012 *Trees in relation to design, demolition and construction – Recommendations*

2 Methodology

2.1 Tree Survey Methodology

An arboricultural survey was undertaken by Darren Hood FdSc MArborA (Arboricultural Consultant) on 30th January 2025 in accordance with *BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations*.

Observations were conducted from ground level, utilising the "Visual Tree Assessment" (VTA) system as outlined in *The Body Language of Trees, A Handbook for Failure Analysis Research for Amenity Trees No.4*[2], with the aid of binoculars. For reference, individual trees have been identified with the letter 'T' and an associated number and groups of trees have been identified with the letter 'G' and an associated number on the tree schedules and plans. The stem diameter of the Site trees was recorded using a rounded down diameter tape and scaled tree callipers at 1.5m above ground level. Measurements were taken in centimetres. The height of the subject tree was estimated to the nearest metre using a digital laser range finder.

Maximum crown spread of the subject tree was measured from the centre of the trunk to the tips of the live lateral branches taken at four compass points (N-E-S-W) using a digital laser range finder where access allowed. Crown spread measurements were taken in metres.

Tree age was estimated from visual indicators (such as tree size and appearance of bark) and should only be taken as a provisional guide. Age estimates often need to be modified based on further information such as historical records and local knowledge.

In compliance with Table 1 of *BS 5837:2012* the trees surveyed in this report have been categorised according to their arboricultural quality and value. A glossary of survey terms can be found in Appendix A - Explanation of Terms.

2.2 Arboricultural Impact Assessment Methodology

The Arboricultural Impact Assessment (AIA) was undertaken by Darren Hood, FdSc, MArborA (Arboriculturist) in January 2025, as a desk-based study based using the design details and field data collected. Table 1 provides the data sources used.

Table 1: Data sources used

Document / Plan Title and Author	Date	Information Type
OS base mapping	January 2025	Base mapping – DWG

2.3 Root Protection Area

The Root Protection Area (RPA) is a recommendation in *BS 5837:2012* and is based upon a minimum area (in m^2) calculated from the measurement of the tree stem diameter. The resulting area is usually recorded as a generalised circle surrounding the tree on the Tree Constraints and Protection and Impact Plan. In this study, the RPA has been amended to take in consideration of existing roads and built structures in line with section 4.63 *BS 5837:2012*. The RPA is represented in purple in Figure 1. The RPA presents an exclusion zone for construction activity to protect the health of the tree.

[2] Mattheck, C. and Broeler, H. DETR (1994) *The Body Language of Trees: A Handbook for Failure Analysis Research for Amenity Trees No.4*

2.4 Survey Limitations

Topographical base mapping was available without exact locations of the Site trees; tree positions are therefore considered approximate. For the purposes of *BS 5837:2012*, only trees with a stem diameter greater than 75mm, (measured at 1.5m above ground level), have been included within the survey; however, it should be noted that a number of individual trees/shrubs with a stem diameter of less than 75mm were present within the Site. Only trees within the likely zone of influence of the proposed scheme have been included within this report.

Any protective fencing distances are based on a given trees stem diameter taken at 1.5 metres above ground level with each RPA (see Appendix B - Tree Schedules) being calculated from the above ground portions of the tree. It should be recognised that the RPA may not entirely encompass all of the tree rooting material.

Trees are living organisms and as such their health and condition are naturally subject to change over time. Unforeseen future circumstances such as neglect, wilful damage or severe/extreme weather conditions may affect the future health and condition of the trees included in this report**.**

3 Survey Results

3.1 Tree Assessment and Categorisation

A total of ten arboricultural items were recorded within the Study Area. These were recorded as nine individual trees (T) and one group of trees (G). Full details of the survey data can be found in the Tree Schedule in Appendix B - Tree Schedule and Figure 1: Tree Constraints Plan.

Each arboricultural item was assigned to one of four categories, as listed below:

- Category A arboricultural items: No individual trees or groups of trees were graded as category as category A (trees of high quality) as part of this survey.
- Category B arboricultural items: No individual trees or groups of trees were graded as category B (trees of moderate quality) as part of this survey.
- Category C arboricultural items: Nine individual trees and one group of trees have been identified as category C (trees of low quality) as part of this survey.
- Category U arboricultural items: No individual trees or groups of trees were graded as category U (trees of poor quality unsuitable for retention) as part of this survey.

3.2 Tree Species Recorded

Ten tree species were recorded during the survey and were represented throughout the survey area. A summary of the species surveyed can be found within the Tree Survey Schedule located in Appendix B - Tree Schedule and within Table 2 below.

Table 2 Tree Species Recorded

Common Name	Botanical Name	Water Demand as per NHBC Chapter 4.2 (2017) [3] High, Moderate or Low	Mature Height (M) as per NHBC Chapter 4.2 (2017)
Apple	*Malus* sp.	Moderate	10
Ash	*Fraxinus excelsior*	Moderate	23
Elder	*Sambucus nigra*	Low	10
Hawthorn	*Crataegus monogyna*	High	10
Leyland cypress	*X Cupressocyparis leylandii*	High	20
Myrobalan plum	*Prunus cerasifera*	Moderate	10
Norway maple	*Acer platanoides*	Moderate	18
Norway spruce	*Picea abies*	Moderate	18
Sycamore	*Acer pseudoplatanus*	Moderate	22
Wild cherry	*Prunus avium*	Moderate	17

[3] National House Build Council Standards (2017) *Building near trees - Chapter 4.2*

3.3 Age Diversity

Table 3: Age Diversity

Age Class	Number of Arboricultural Items	Approximate Percentage
Young	1	10%
Semi-mature	5	50%
Early-mature	2	20%
Mature	2	20%
Over-mature	0	0%
Totals	**10**	**100%**

3.4 Statutory Tree Protection

Sevenoaks District Councils online mapping was consulted in January 2025 to ascertain if any of the recorded trees are protected by Tree Preservation Order(s) (TPO). None of the recorded trees are protected by TPO and the Site does not fall within a Conservation Area.

3.5 Soil Type

British Geological Society records show the site Bedrock Geology being of Seaford Chalk Formation and Newhaven Chalk Formation - Chalk. Sedimentary bedrock formed between 93.9 and 72.1 million years ago during the Cretaceous period.

4 CONCLUSIONS

A total of ten arboricultural items were recorded within the Study Area. Four individual trees and one group of trees are located within the Site boundary with the remaining trees being located outside the Site boundary on third-party land immediately adjacent to the Site.

No individual trees or groups of trees were recorded within the Study Area as Category A.

No individual trees or groups of trees were recorded within the Study Area as Category B.

Nine individual trees and one group of trees were recorded within the Study Area as Category C.

No individual trees or groups of trees were recorded within the Study Area as Category U.

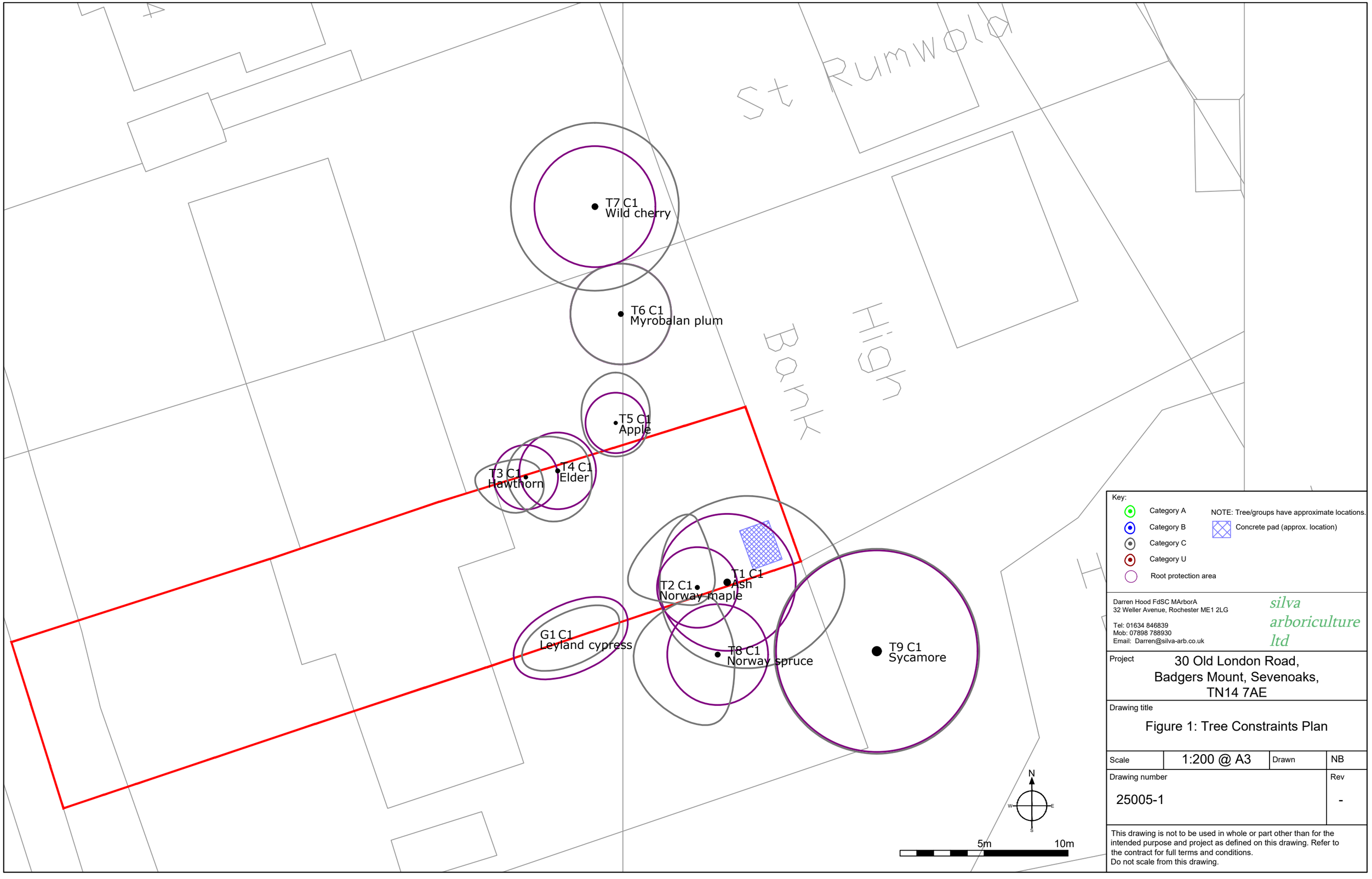
None of the recorded trees are protected by TPO and the Site does not fall within a Conservation Area.

British Geological Society records show the site Bedrock Geology being of Seaford Chalk Formation and Newhaven Chalk Formation.

An existing concrete pad near to the existing garden shed is in close proximity to Category C Ash tree (T1). It is considered that this area is devoid of tree roots due to the historic excavation works and non-permeable makeup of the concrete pad. This area has been highlighted on Figure 1 – Tree Constraints Plan.

The RPA of the recorded trees should be respected, and excavations avoided within these areas.

FIGURE 1. Tree Constraints Plan.



Key:

- Category A
- Category B
- Category C
- Category U
- Root protection area

NOTE: Tree/groups have approximate locations.

Concrete pad (approx. location)

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Project: 30 Old London Road, Badgers Mount, Sevenoaks, TN14 7AE

Drawing title: Figure 1: Tree Constraints Plan

Scale	1:200 @ A3	Drawn	NB

Drawing number: 25005-1

Rev: -

This drawing is not to be used in whole or part other than for the intended purpose and project as defined on this drawing. Refer to the contract for full terms and conditions.
Do not scale from this drawing.

APPENDIX A. Explanation of Terms

Age Class

Young – Trees in the first fifth of full life expectancy

Semi-mature – Trees in the second fifth of full life expectancy

Early-mature – Trees in the third fifth of full life expectancy

Mature – Trees in the fourth fifth of full life expectancy

Over Mature – Trees having reached full life expectancy and trees in natural decline

Veteran – Trees of interest biologically, culturally and aesthetically because of their age

Stem Diameter

The diameter of the stem measured in millimetres (mm) at a height of 1.5m above ground level

Crown Spread

Average measured in metres using a ground tape where possible

Physiological Condition

Good – Healthy tree with no signs of ill health and signs of good extension growth for species

Fair – Trees with signs of disease, minor defects and decreased life expectancy due to physical damage

Poor – Trees with significant disease, significantly reduced life expectancy and/or under major physiological stress

Dead – Dead tree or trees with over 70% crown dieback

Structural Condition

Good – Trees with no significant defects

Fair – Trees with remedial defects which require minor tree surgery works

Poor – Trees with remedial defects which require significant tree surgery works or felling

Dead – Trees which require felling

BS 5837 Retention Category

Each tree, group of trees or hedge is assigned to a retention category where:

Table A1 Categorisation of trees

Category	Description
A	Trees of high quality and value, retention is highly desirable
B	Trees of moderate quality and value where retention is desirable
C	Trees of low quality and value, or young trees with a stem diameter <150mm. Category C trees may be retained, replaced or in the case of younger trees, relocated
U	Trees of poor quality unsuitable for retention or trees which should be removed

In addition, each tree, group of trees or hedge is assigned to a retention sub-category where categorisation is for:

Table A2 Reasons for Categorisation

Sub-category	Reason for Categorisation
1	Mainly arboricultural qualities
2	Mainly landscape qualities
3	Mainly cultural values, including conservation

APPENDIX B. Tree Schedules

Client: **Asim Erturk**

Project: **30 Old London Road, Badgers Mount, Sevenoaks, TN14 7AE**

Survey date**: 31st January 2025**

Surveyor**: Darren Hood FdSc MArborA**

Table B1 - Tree Schedule

Tree reference number	Species	Height (m)	Stem diameter (mm)	Crown spread (m)	Height of crown clearance (m)	Age class	Physiological condition	Structural condition	Comments	Estimated remaining contribution (years)	Category grading
T1	Ash *(Fraxinus excelsior)*	26	340	N5 E7 S5 W4	6	SM	Fair	Poor	Wound at base and on main stem, minor stem decay. In close proximity to concrete pad.	10+	C (1)
T2	Norway maple *(Acer platanoides)*	8	200	N4 E1 S1 W4	2	Y	Fair	Fair	Supressed by T1.	10+	C (1)
T3	Hawthorn *(Crataegus monogyna)*	5	160	N1 E1 S2 W3	2	SM	Fair	Fair	Suppressed. Located within retaining wall/bed.	10+	C (1)
T4	Elder *(Sambucus nigra)*	6	190	N2 E2 S3 W3	2	M	Fair	Fair	Suppressed. Located within retaining wall/bed.	10+	C (1)
T5	Apple *(Malus sp.)*	5	150#	N3 E2 S2 W2	2	SM	Fair	Fair	Offsite located within neighbouring garden. Within 20m of Site boundary. All attributes estimated.	10+	C (1)
T6	Myrobalan plum *(Prunus cerasifera)*	7	250#	N3 E3 S3 W3	2	M	Fair	Fair	Offsite located within neighbouring garden. Within 20m of Site boundary. All attributes estimated.	10+	C (1)
T7	Wild cherry *(Prunus avium)*	10	300#	N5 E5 S5 W5	3	EM	Fair	Fair	Offsite located within neighbouring garden. Within 20m of Site boundary. All attributes estimated.	10+	C (1)

Tree reference number	Species	Height (m)	Stem diameter (mm)	Crown spread (m)	Height of crown clearance (m)	Age class	Physiological condition	Structural condition	Comments	Estimated remaining contribution (years)	Category grading
T8	Norway spruce *(Picea abies)*	18	250#	N3 E1 S4 W5	5	SM	Fair	Fair	Offsite located within neighbouring garden. Within 20m of Site boundary. All attributes estimated.	10+	C (1)
T9	Sycamore *(Acer pseudoplatanus)*	27	500#	N6 E6 S6 W6	15	EM	Fair	Fair	Offsite located within neighbouring garden. Within 20m of Site boundary. All attributes estimated.	20+	C (1)

Table B2 Group Schedule

Tree reference number	Species	Height (m)	Stem Ø (mm)	Average Radial Crown Spread (m) N-E-S-W	Height of crown clearance (m)	Age class	Physiological condition	Structural condition	Estimated remaining contribution (years)	Category grading
G1	Leyland cypress *(X Cupressocyparis leylandii)* x4	3	Avg 180	1	0	SM	Fair	Fair – Well maintained hedge. Minor dieback in one tree.	10+	C (1)

Table B3 Root Protection Area

Tree reference number	Species	Stem diameter (mm)	Radius of nominal circle (m)	RPA (m^2)
T1	Ash *(Fraxinus excelsior)*	340	4.1	52.3
T2	Norway maple *(Acer platanoides)*	200	2.4	18.1
T3	Hawthorn *(Crataegus monogyna)*	160	1.9	11.6
T4	Elder *(Sambucus nigra)*	190	2.3	16.3
T5	Apple *(Malus sp.)*	150	1.8	10.2
T6	Myrobalan plum *(Prunus cerasifera)*	250	3	28.3
T7	Wild cherry *(Prunus avium)*	300	3.6	40.7
T8	Norway spruce *(Picea abies)*	250	3	28.3
T9	Sycamore *(Acer pseudoplatanus)*	500	6	113.1
G1	Leyland cypress *(X Cupressocyparis leylandii)*	Avg 180	2.2	14.7

Table B3 Key to Categories

Tree Reference Number	Category
T/GXX	Category A
T/GXX	Category B
T/GXX	Category C
T/GXX	Category U

Appendix C Selected Site Photographs



Photo 1 Ash T1 in close proximity to concrete pad and shed



Photo 2 Concrete pad



Photo 3 Group of trees G1.



Photo 4 T3 Hawthorn and T4 Elder