DUCKWORTHS

ARBORICULTURE LTD.

BS:5837 ARBORICULTURAL REPORT

ARBORICULTURAL SURVEY, IMPACT ASSESSMENT & METHOD STATEMENT

2 KEYMER ROAD
HASSOCKS
WEST SUSSEX
BN6 8HA

CLIENT: MICHELLE COE

DECEMBER 2023
Ref: SCD 06169 / 2023

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EXECUTIVE SUMMARY

This report provides detailed and site-specific information on the steps which will be undertaken to ensure retained trees are not harmed during the proposed construction of a new one-bed dwelling of land rear of 2 Keymer Road, Hassocks, West Sussex, BN6 8HA.

Trees growing adjacent to the property have been surveyed in accordance with the guidelines and recommendations from BS:5837 'Trees in Relation to Design, Demolition and Construction'.

There are a number of trees beyond the site boundary which enhance the verdant setting of the property. Trees beyond the west boundary grow on a raised bank and separated from the build area by a footpath and a substantial retaining wall. Roots from these trees are not expected to extend into 2 Keymer Road and the trees are not a constraint to development.

The current scheme has been designed with Arboricultural input from the start to avoid any conflict with trees. The proposed new dwelling is outside of the rooting areas of all trees and with a sustainable gap between the trees' canopies and the residential dwelling.

All retained trees beyond the southern boundary can be fully protected in accordance with the guidelines and recommendations in BS:5837 2012 - Trees in Relation to Design, Demolition and Construction.

Provided the methodology specified within the Arboricultural Method Statement is followed during the building works I am satisfied that this application can be undertaken in accordance with the guidelines and recommendations in BS:5837 2012 – Trees in Relation to Design, Demolition and Construction. The application is therefore acceptable as it relates to trees.

CONTENTS

1. INTRODUCTION

1.1 INSTRUCTION

This Arboricultural report has been prepared by Sarah Duckworth, Arboricultural Consultant and provides an Arboricultural Survey, Impact Assessment and Method Statement relating to trees growing on and adjacent to 2 Keymer Road, Hassocks, West Sussex, BN6 8HA.

I have been instructed to survey relevant trees in accordance with BS:5837 (2012) to ascertain the constraints posed by the trees to the construction of a new one-bed dwelling within the rear garden of the property.

The Arboricultural Impact Assessment in this report uses the tree data to identify any short or longer-term impact the proposed building works might have on the surrounding trees and makes recommendations for amendments or mitigation where appropriate.

This report also includes a site-specific Arboricultural Method Statement and Tree Protection Plan which details the steps which will be taken to ensure significant trees can be successfully protected and retained during and on completion of the proposed building works.

1.2 SCOPE

The British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction' is designed to assist those concerned with trees and planning to form balanced judgments. This report does not therefore seek to put arguments for or against development but provides a means of protecting the trees which may be affected during development.

The report is for the sole use of the client and its reproduction or use by anyone else is forbidden unless written consent is given by the author.

1.3 DOCUMENTS

The position of trees within the tree plan have been taken from a topographical survey provided by the client. Offsite trees not covered by the survey have been plotted by eye, their positions measured against boundaries and triangulated against fixed objects on site. The position of these trees should not therefore, be taken as exact but the plan is a fair representation of their locations in relation to the proposed build area.

The Tree Protection Plan which accompanies this report is illustrative and should only be used for dealing with tree issues only. The precise location of all tree protection measurements should be confirmed with a pre-commencement site meeting before any demolition or construction activity takes place.

1.4 CAVEATS

The report is valid for a period of two years from the date of issue being 7th December 2023 and will expire on 7th December 2025.

The report is not a Tree Risk Management Report or a Hazard Analysis Report and its use as such is invalid.

The report refers to the condition of tree(s) and an assessment of the site on the day the evaluation was undertaken. The trees were assessed from ground level only and not climbed. My assessment of third-party trees was limited where direct access was not available to the adjoining properties.

DISCLAIMER: This is an independently produced Arboricultural Report. I have no connection with any of the parties involved in this site or application that could influence or bias the opinions expressed in this report.

2. ARBORICULTURAL IMPACT ASSESSMENT

2.1 INTRODUCTION

The purpose of the Arboricultural Impact Assessment (AIA) is to evaluate the direct and indirect effects of the proposed building works and where necessary recommend solutions or mitigation as appropriate. The assessment will take account of the effects of any tree works which may be required to implement the design and identify any potentially damaging activities proposed in the vicinity of the retained trees.

2.2 PLANNING CONSTRAINTS

TREE PRESERVATION ORDERS

I have confirmed on the Mid Sussex District Council Tree Preservation Order plan that at the time of this report – 13/01/2023 trees beyond the footpath which runs along the west boundary are subject of a Tree Preservation Order (Ref CN/01/TPO/72)

The protected status of trees can change therefore you are advised to carry out current checks before carrying out works to trees on site.

Figure 1 – Mid Sussex District Council Tree Preservation Order Plan

CONSERVATION AREA

The site is not in a Conservation Area.

2.3 SOIL

The soil on site was assessed by an appraisal on the British Geological Drift Survey Map only. According to the 1:50 000 scale map records, the bedrock geology for 2 Keymer Road is Folkestone Formation which consists mainly of sandstone.

The soil at 2 Keymer Road is therefore likely to be free-draining and resistant to compaction. Sandy soil has less capacity to shrink and swell with changing moisture levels[1].

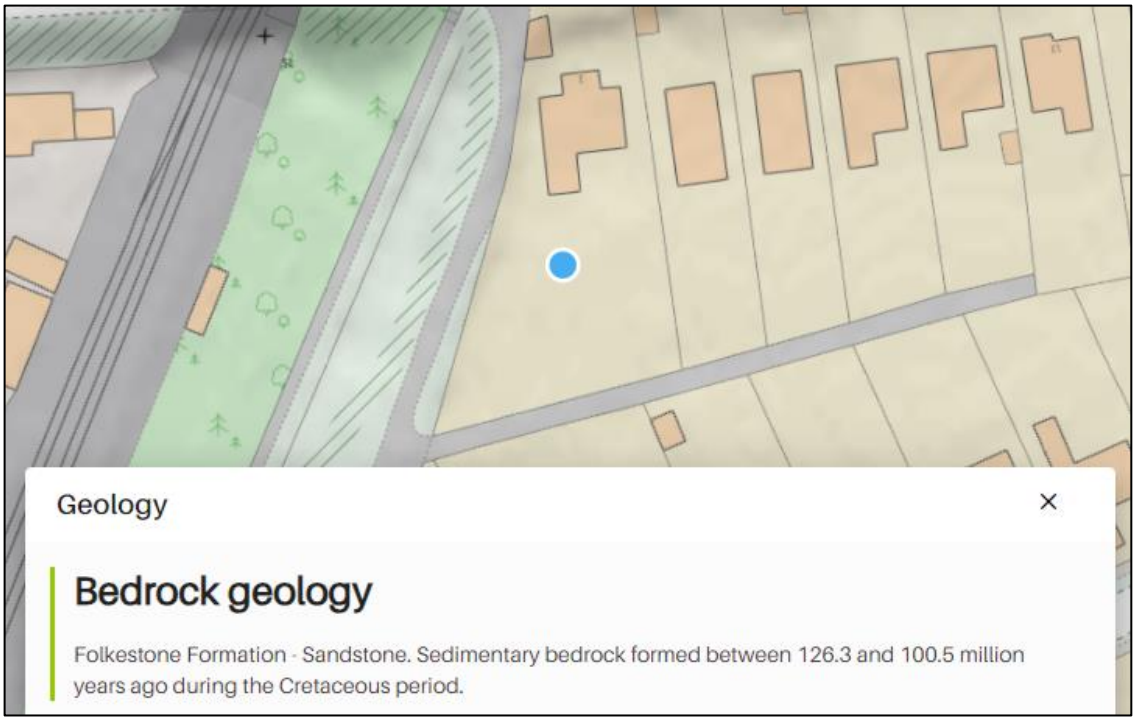

Figure 2 - Detail from the British Geological Survey

Foundation depths should be calculated in accordance with NHBC Chapter 4.2 following a detailed on-site soil analysis, taking into account the presence of any clay and future growth of the adjacent trees.

2.4 PLOTTING THE RPAS

The British Standard 5837 advises that a Root Protection Area (RPA) should initially be plotted as a circle centered on the base of the stem. However, where pre-existing site conditions or other factors exist which indicate that rooting has occurred asymmetrically, a polygon of equivalent area should be produced.

The retaining wall along the western boundary will prevent roots from trees along the western boundary extending into the lawn area at the rear of 2 Keymer Road.

[1] P.G. Biddle (1998) Tree Root Damage to Buildings - Volume 1 Causes, Diagnosis and Remedy. Published Willowmead Publishing Limited. Fig. 4.3, Principal Geological Strata Pg. 39

Photo 1. Footpath along the western boundary. The garden of 2 Keymer Road is raised above the concrete retaining wall

Photo 2. Concrete retaining wall

2.5 TREES APPRAISAL

Number of individual trees surveyed:	24
Number of tree groups surveyed:	0
Number of category 'A' trees / groups:	1
Number of category 'B' trees / groups:	8
Number of category 'C' trees / groups:	15
Number of category 'U' trees / groups:	0

Figure 3 - Tree quality summary

2.6 TREE WORKS AND REMOVAL

No trees are to be removed or cut back to facilitate the build.

2.7 APPLICATION ASSESSMENT

The new dwelling is positioned outside of the rooting areas of all trees.

There will remain a good gap between the trees' canopies and the new residential building on completion of the build with no further foreseeable need for pruning works in the future.

The Root Protection Areas for offsite trees beyond the southern boundary, where they extend into the garden of 2 Keymer Road will be excluded from the build area with fit for purpose Tree Protection Fencing and Temporary Ground Protection installed in accordance with BS:5837 (2012).

2.8 SERVICES

I have not received any drainage or service plans for the site. However, following discussions with the client, I am advised that services will connect forward of the dwelling via the access pathway and outside of the identified rooting areas of the retained trees.

Soakaways, where required can be constructed 5m east of the new dwelling and outside of the rooting area of all trees.

As a matter of course, the Local Authority may request confirmation on services and routes, including the locations of any new soakaways to be submitted for approval in support of any future application to ensure it does not conflict with the retained trees on site.

Materials will be delivered to site regularly in small quantities to keep vehicle delivery sizes small and on-site storage to an absolute minimum.

2.9 CONCLUSIONS

This report demonstrates that an application to redevelop land at 2 Keymer Road has been fully considered in accordance with Arboricultural and Planning best practice (BS:5837 2012 Trees in Relation to Design, Demolition and Construction').

The proposed dwelling is located outside of the rooting area of all trees and there will remain a good gap between the trees' canopies and the new residential property on completion of the build, with no further foreseeable need for pruning works in the future.

All retained trees on and adjacent to the site can be fully protected and retained in accordance with the guidelines and recommendations in BS:5837 2012 - Trees in Relation to Design, Demolition and Construction.

Provided the steps detailed in the Arboricultural Method Statement are followed in full, the application is considered to be acceptable in arboricultural terms.

3. ARBORICULTURAL METHOD STATEMENT (AMS)

3.1 INTRODUCTION

This Arboricultural Method Statement specifies the detailed methodology that will be employed to prevent damage to the trees growing on land at 2 Keymer Road during building works to construct a new one-bedroom dwelling to the rear of the property.

The correct and timely installation of tree protection measures such as tree protection fencing is critical to ensure the long-term retention of a healthy tree stock on or adjacent to the development.

This method statement will be read, approved and agreed to by all key personnel prior to the commencement of works within the site.

WARNING: FAILURE TO FOLLOW THE ARBORICULTURAL METHOD STATEMENT ONCE APPROVED CAN CAUSE IRREPARABLE HARM TO TREES AND MAY INVALIDATE YOUR PLANNING CONSENT.

3.2 SITE SUPERVISION AND MONITORING.

The proposed scheme for site supervision and monitoring is considered to be reasonable and proportionate to the low intensity of the development and the scheme takes into account there will be no vehicular access to the build area.

A site visit will be held once the Tree Protection Fencing and Temporary Ground Protection is installed as shown on the Tree Protection Plan. The Local Authority Tree Officer will be given a minimum of five days' notice of the time and date of the meeting so that they may attend should they wish to do so.

The purpose of the pre-commencement meeting will be for the appointed Arboricultural Consultant to confirm the location and construction of the Tree Protection Measures and ensure a common understanding of the requirements for Tree Protection within the site. If the Local Planning Authority is unable to attend, photographic evidence of the tree protection fencing will be emailed to the appointed planning officer once it has been erected.

A copy of the Arboricultural Method Statement and Tree Protection Plan will be available on site for reference.

3.3 ON SITE TREE SUPERVISOR

In addition to the appointed Arboriculturist, there will be a designated on-site 'tree supervisor', a member of the build team or the property owner, who will assume responsibility for ensuring no works are undertaken on site except in complete accordance with the approved Arboricultural Method Statement when the Arboricultural Consultant is not present.

The on-site tree supervisor will:

- Be present on site most of the time.
- Be aware of the arboricultural responsibilities relating to the retained trees on site.
- Have the authority to stop any work that will, or have the potential to, cause harm to any tree.
- Be responsible for ensuring that all site personnel are aware of their responsibilities towards trees on site and the consequences of the failure to observe those responsibilities.
- Make immediate contact with the Council and/or the retained arboriculturalist in the event of any related tree problems occurring whether actual or potential.
- To ensure a commitment from all parties to the healthy retention of the trees. These details will be passed to any contractors working on site, so that the practical aspects of the above precautions are included in their method statements, and financial provision made for these.

The appointed on-site Tree Supervisor will also notify the Local Authority Tree Officer 5 days prior to the tree protection measures being removed on completion of development.

3.4 TREE PROTECTION FENCING

Before demolition or construction works commence, Tree Protection Fencing will be installed as identified in the Tree Protection Plan.

The Tree Protection Fencing will consist of a vertical and horizontal scaffold framework braced well to resist impact. Onto this framework chestnut pale fencing panels or plastic mesh fencing a minimum of 1.2m high will be fixed. Vertical uprights will be spaced at a maximum distance of 2.5m apart and braced well to resist impact.

The fencing will be located to protect the lawn areas where trees are rooting and will remain rigid and complete during development.

At no time will Tree Protection Fencing be removed or relocated contrary to the recommendations in this report, without professional arboricultural advice and without the prior consent of the Local Authority Tree Officer.

3.5 TEMPORARY GROUND PROTECTION

No works will commence, including construction or excavation, prior to the area of ground protection being installed across the site access as identified in the Tree Protection Plan.

The temporary ground protection will be installed to protect soft landscaped areas (as indicated in the magenta hatch on the Tree Protection Plan).

The temporary ground protection will be constructed from rigid load bearing temporary roadway sheets such as 'euroboards' or similar or ply sheets a minimum of 15mm thick.

3.6 CONSTRUCTION EXCLUSION ZONE

The area behind the tree protection fencing and temporary ground protection is designated the Construction Exclusion Zone and is to be isolated from all activity during work on the site.

THERE WILL BE NO STORAGE, PARKING, VEHICLE MOVEMENT OR PEDESTRIAN ACTIVITY, TEMPORARY OR OTHERWISE, WITHIN THE CONSTRUCTION EXCLUSION ZONE AT ANY TIME DURING THE COURSE OF THE BUILD.

3.7 GENERAL CONSIDERATIONS

Roots can be killed by pollution of the rooting area by chemicals and leaching. Loose, granular or liquid materials, including cement mix and fuel will be stored well away from the Tree Root Protection Areas.

Particular care will be taken in the planning of deliveries if they require wide or tall loads and plants with booms, rigs or counterweights which can cause serious and permanent damage to trees making their safe retention impossible.

There will be no open fires on site during the building works.

3.8 CONSTRUCTION EXCLUSION ZONE

The area behind the tree protection fencing and temporary ground protection is designated the Construction Exclusion Zone and is to be isolated from all activity during work on the site.

THERE WILL BE NO STORAGE, PARKING, VEHICLE MOVEMENT OR PEDESTRIAN ACTIVITY, TEMPORARY OR OTHERWISE, WITHIN THE CONSTRUCTION EXCLUSION ZONE AT ANY TIME DURING THE COURSE OF THE BUILD.

3.9 UNFORESEEN CIRCUMSTANCES

In the event of unforeseen circumstances whereby it is not possible to work in accordance with the Arboricultural Method Statement then advice should be sought immediately from a qualified Arboriculturist.

THERE SHALL BE NO DEVIATION FROM THIS METHOD STATEMENT WITHOUT CONSULTATION WITH A QUALIFIED ARBORICULTURIST AND / OR THE WRITTEN CONSENT OF THE LOCAL PLANNING AUTHORITY.

APPENDICES

A. Survey Data
B. Key
C. Cascade Chart for Tree Quality Assessment
D. Tree Data
E. Tree Plans
F. Phasing of works
G. Contacts
H. Tree Protection Fencing Structure
I. Qualifications

APPENDIX A - SURVEY DATA

- The trees were surveyed on Friday 15th September 2023 from ground level only.
- The weather conditions were clear and dry. Visibility was good.
- Heights were estimated as part of a group. Soil samples were not taken.
- The tree survey identified 24 trees growing on or adjacent to the site which were relevant to this planning application.
- The trees on site were assessed for their quality and benefits within the context of the proposed development and categorised in accordance with the recommendations in the BS: 5837:2012 – 'Trees in Relation to Design, Demolition and Construction'.

APPENDIX B - KEY

Ref: T001 = Tree 1 G001 = Group 1

00A1 = Area 1 W001 = Woodland 1

Species: Common name (Botanical name)

Height: Measured with a clinometer (m) where possible or estimated when part of a group

Stem: Stem diameter taken at 1.5m with girth tape or rule and recorded in millimeters

Branch spread: Paced measurements at compass points or with a laser measure.

Crown clearance: Existing height above ground level of canopy and / or first significant branch direction of growth in metres e.g., 2.4 (N) where relevant.

Epics: Lower canopy created by epicormic growth.

Age Class: Newly planted - 3 years following planting.

Young - Tree well established but with juvenile crown form

Young Mature - Tree in first third of usual life expectancy for species

Mature - Tree in second third of usual life expectancy for species

Over Mature - Tree in final third of usual life expectancy for species / exhibiting signs of crown retrenchment & senescence.

Veteran - Older than usual for species or with historical/ cultural / ecological value

General Observations: Made with reference to physiological condition (health, vigour) and structural condition, noting evidence of decay, structural weakness and physical defect and preliminary management recommendations.

Estimated Remaining Contribution: Estimated in years - less than 10, 10-20, 20-40, 40+

BS: 5837:2012 category rating: In accordance with the guidelines of the British Standard.

Category 'A' tree (Green) Category 'C' tree (Grey)

Category 'B' tree (Blue) Category 'U' tree – Fell (Red)

RPA Area BS:5837 (2012) Root Protection Area calculation in square metres

RPA Radius BS:5837 (2012) Root Protection Area calculation circle radius in metres. [2]

[2] The root protection area radius is for information only and may not be appropriate in every case. BS:5837 advises that *'the RPA for each tree should initially be plotted as a circle centered on the base of the stem. Where pre-existing site conditions or other factors indicate that rooting may have occurred asymmetrically, a polygon of equivalent area should be produced. Modifications to the shape of the RPA should reflect a soundly based arboricultural assessment of likely root distributions.'*

APPENDIX C - BS:5837 (2012) TABLE 1: CASCADE CHART FOR TREE QUALITY ASSESSMENT

CATEGORY & DEFINITION	CRITERIA (including sub-categories where appropriate)		
Trees unsuitable for retention			
Category 'U' Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.	Trees that have a serious, irremediable, structural defect such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g., where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning. Trees that are dead or 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		
	Mainly Arboricultural Qualities	Mainly Landscape Qualities	Mainly cultural values including conservation
Trees considered suitable for retention			
Category 'A' Trees of High Quality with an estimated remaining life expectancy of at least 40 years.	Trees that are particularly good examples of their species especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and / or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and / or landscape features.	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood pasture)
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 remedial 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 to merit the category 'A' designation.	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little contribution to the wider locality.	Trees with material conservation or other cultural value.
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 in groups or woodlands but without this conferring on them significantly greater collective landscape value; and/ or trees offering low or only temporary / transient landscape benefits.	Trees with no material conservation or other cultural value.

Ref.	Species	Structure	Measurements	Spread	General Observations	Retention Category	RPA	Summary
T001	Eucalyptus (Eucalyptus sp.)	Tree	Height (m): 5.5 Stem Diam(mm): 120 Crown Clearance (m): 2 Life Stage: Young Rem. Contrib.: 20+ Years	N:2.5 E:2.5 S:2.5 W:2.5	Small multi-stem tree	C2	Radius: 1.4m. Area: 6 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Low
T002	Cultivar Apple (Malus domestica)	Tree	Height (m): 5 Stem Diam(mm): 300 Crown Clearance (m): 2 Life Stage: Mature Rem. Contrib.: 20+ Years	N:4 E:4 S:3 W:3	Heavily reduced. Decay pocket at base where stem removed at ground level	C2	Radius: 3.6m. Area: 41 sq m.	Physiological Condition: Fair Structural Condition: Poor Public Amenity Value: Low
T003	Sycamore (Acer pseudoplatanus)	Tree	Height (m): 12 Stem Diam(mm): 320 Crown Clearance (m): 3 Life Stage: Mature Rem. Contrib.: 20+ Years	N:4 E:1 S:4 W:5.5	Growing on steep back, asymmetrical canopy. Dead ivy in crown.	C2	Radius: 3.8m. Area: 45 sq m.	Physiological Condition: Fair Structural Condition: Physical Defect Public Amenity Value: Good Inspection Limitations: Access
T004	Sycamore (Acer pseudoplatanus)	Tree	Height (m): 8 Stem Diam(mm): 120 Crown Clearance (m): 3 Life Stage: Mature Rem. Contrib.: 20+ Years	N:1 E:1 S:4 W:3	Slender tree. Growing on steep back, asymmetrical canopy.	C2	Radius: 1.4m. Area: 6 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Good Inspection Limitations: Access
T005	Sycamore (Acer pseudoplatanus)	Tree	Height (m): 12 Stem Diam(mm): 220 Crown Clearance (m): 4 Life Stage: Mature Rem. Contrib.: 20+ Years	N:1 E:1 S:4 W:4	Slender tree. Growing on steep back, asymmetrical canopy.	C2	Radius: 2.6m. Area: 21 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Good Inspection Limitations: Access
T006	Sycamore (Acer pseudoplatanus)	Tree	Height (m): 17 Stem Diam(mm): 540 Crown Clearance (m): 2.5 Life Stage: Mature Rem. Contrib.: 20+ Years	N:5.5 E:5.5 S:5.5 W:5.5	Cavity at base, cantilevered trunk protruding over bank. Growing on steep back, asymmetrical canopy. Further detailed inspection of base recommended.	C2	Radius: 6.5m. Area: 133 sq m.	Physiological Condition: Fair Structural Condition: Physical Defect Public Amenity Value: Good Inspection Limitations: Access

Ref.	Species	Structure	Measurements	Spread	General Observations	Retention Category	RPA	Summary
T007	Sycamore (Acer pseudoplatanus)	Tree 2 stems	Height (m): 14 2 stems, avg.(mm): 300 Crown Clearance (m): 3 Life Stage: Mature Rem. Contrib.: 20+ Years	N:5 E:3 S:3 W:5	Growing on steep back, suppressed canopy. Twin stem from ground level. Fork satisfactory.	C2	Radius: 5.1m. Area: 82 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Good Inspection Limitations: No access due to dense vegetation
T008	Sycamore (Acer pseudoplatanus)	Tree 5 stems	Height (m): 19 5 stems, avg.(mm): 200 Crown Clearance (m): 3 Life Stage: Mature Rem. Contrib.: 20+ Years	N:4 E:2 S:7 W:5	Multistem from ground level. Regeneration of old stump. Asymmetrical canopy. Growing at top of steep bank. 7m from ground level, edge of footpath.	B2	Radius: 5.4m. Area: 92 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Good Inspection Limitations: No access due to steep bank
T009	Corsican Pine (Pinus nigra laricio)	Tree	Height (m): 19 Stem Diam(mm): 650 Crown Clearance (m): 8 Life Stage: Mature Rem. Contrib.: 20+ Years	N:5 E:7.5 S:4 W:5	Mature tree, asymmetrical crown due to large low lateral branch on West side of canopy. Tree is growing at top of steep bank. 6m from ground level, edge of footpath.	B2	Radius: 7.8m. Area: 191 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Good Inspection Limitations: No access due to steep bank
T010	Sycamore (Acer pseudoplatanus)	Tree	Height (m): 9 Stem Diam(mm): 200 Crown Clearance (m): 4.5 Life Stage: Mature Rem. Contrib.: 20+ Years	N:1 E:1 S:4 W:5	Slender tree. Swept stem. Growing on steep back, asymmetrical canopy.	C2	Radius: 2.4m. Area: 18 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Low Inspection Limitations: Access
T011	Sycamore (Acer pseudoplatanus)	Tree	Height (m): 19 Stem Diam(mm): 450 Crown Clearance (m): 7 Life Stage: Mature Rem. Contrib.: 20+ Years	N:4 E:5 S:5 W:6	Slender tree. High canopy. Growing on steep bank.	B2	Radius: 5.4m. Area: 92 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Low Inspection Limitations: No access to base due to topography and vegetation
T012	Sycamore (Acer pseudoplatanus)	Tree	Height (m): 19 Stem Diam(mm): 500 Crown Clearance (m): 4 Life Stage: Mature Rem. Contrib.: 20+ Years	N:4 E:4 S:5 W:7	Slender tree. Ivy clad. Growing on bank.	B2	Radius: 6.0m. Area: 113 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Low Inspection Limitations: No access to base due to topography and vegetation

Ref.	Species	Structure	Measurements	Spread	General Observations	Retention Category	RPA	Summary
T013	Alder (Alnus sp.)	Tree	Height (m): 11 Stem Diam(mm): 300 Crown Clearance (m): 5 Life Stage: Mature Rem. Contrib.: 10+ Years	N:1 E:1 S:2 W:4.5	Slender tree, high, asymmetrical canopy. Cavity on trunk 3.5m above ground level.	C2	Radius: 3.6m. Area: 41 sq m.	Physiological Condition: Fair Structural Condition: Physical Defect Public Amenity Value: Low Inspection Limitations: No access due to dense vegetation
T014	Goat Willow (Salix caprea)	Tree	Height (m): 6 Stem Diam(mm): 350 Crown Clearance (m): 0 Life Stage: Mature Rem. Contrib.: 20+ Years	N:1.5 E:1.5 S:1.5 W:1.5	Main trunk topped at 2.5m. Dense new growth up length of trunk.	C1,2	Radius: 4.2m. Area: 55 sq m.	Physiological Condition: Fair Structural Condition: Poor Public Amenity Value: Low Inspection Limitations: No access due to dense vegetation
T015	Goat Willow (Salix caprea)	Tree	Height (m): 17 Stem Diam(mm): 400 Crown Clearance (m): 6 Life Stage: Mature Rem. Contrib.: 20+ Years	N:7 E:5 S:3 W:4	Multistem tree with smaller trunks topped at 2.5m. Asymmetrical crown, base obscured by dense vegetation	C1,2	Radius: 4.8m. Area: 72 sq m.	Physiological Condition: Fair Structural Condition: Unknown Public Amenity Value: Low Inspection Limitations: No access due to dense vegetation
T016	Sycamore (Acer pseudoplatanus)	Tree 5 stems	Height (m): 15 5 stems, avg.(mm): 150 Crown Clearance (m): 4 Life Stage: Mature Rem. Contrib.: 20+ Years	N:5.5 E:3 S:4 W:5	Multistem tree. Ivy clad. Visible roots under footpath.	C2	Radius: 4.0m. Area: 50 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Moderate Inspection Limitations: No access due to dense vegetation
T017	Sycamore (Acer pseudoplatanus)	Tree 7 stems	Height (m): 14 7 stems, avg.(mm): 100 Crown Clearance (m): 4 Life Stage: Mature Rem. Contrib.: 20+ Years	N:3.5 E:3.5 S:3.5 W:3.5	Multistem tree. Ivy clad.	C2	Radius: 3.2m. Area: 32 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Moderate Inspection Limitations: Access
T018	Corsican Pine (Pinus nigra laricio)	Tree	Height (m): 19 Stem Diam(mm): 650 Crown Clearance (m): 14 Life Stage: Mature Rem. Contrib.: 20+ Years	N:6 E:6 S:6 W:6	Mature tree, high crown. No obvious defects.	B2	Radius: 7.8m. Area: 191 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Good Inspection Limitations: Access

Ref.	Species	Structure	Measurements	Spread	General Observations	Retention Category	RPA	Summary
T019	Pedunculate Oak (Quercus robur)	Tree	Height (m): 18 Stem Diam(mm): 700 Crown Clearance (m): 3 Life Stage: Mature Rem. Contrib.: 40+ Years	N:8 E:7 S:6 W:6.5	Mature tree, some deadwood. Good vitality.	A1,2	Radius: 8.4m. Area: 222 sq m.	Physiological Condition: Good Structural Condition: Fair Public Amenity Value: Good Inspection Limitations: Access
T020	Corsican Pine (Pinus nigra laricio)	Tree	Height (m): 19 Stem Diam(mm): 800 Crown Clearance (m): 6 Life Stage: Mature Rem. Contrib.: 20+ Years	N:5 E:5 S:5 W:5	Beyond retaining wall. Base obscured by close board fence. Curved trunk. Dead ivy on trunk. Deadwood in canopy. Foliage sparse and indicating physiological stress.	B2	Radius: 9.6m. Area: 290 sq m.	Physiological Condition: Fair Structural Condition: Unknown Public Amenity Value: Moderate Inspection Limitations: Access
T021	Pedunculate Oak (Quercus robur)	Tree	Height (m): 12 Stem Diam(mm): 520 Crown Clearance (m): 3 Life Stage: Mature Rem. Contrib.: 40+ Years	N:1 E:5.5 S:4.5 W:2	Heavily reduced crown. Epicormic shoots on trunk	C1	Radius: 6.2m. Area: 121 sq m.	Physiological Condition: Good Structural Condition: Fair Public Amenity Value: Low Inspection Limitations: Access
T022	Scots Pine (Pinus sylvestris)	Tree	Height (m): 17 Stem Diam(mm): 600 Crown Clearance (m): 4 Life Stage: Mature Rem. Contrib.: 40+ Years	N:5 E:3 S:3 W:5	Mature tree, asymmetrical crown.	B2	Radius: 7.2m. Area: 163 sq m.	Physiological Condition: Good Structural Condition: Unknown Public Amenity Value: Moderate Inspection Limitations: Access
T023	Scots Pine (Pinus sylvestris)	Tree	Height (m): 14 Stem Diam(mm): 320 Crown Clearance (m): 3 Life Stage: Mature Rem. Contrib.: 40+ Years	N:4 E:2 S:2.5 W:3.5	Mature tree, asymmetrical crown.	B2	Radius: 3.8m. Area: 45 sq m.	Physiological Condition: Good Structural Condition: Unknown Public Amenity Value: Moderate Inspection Limitations: Access
T024	Alder (Alnus sp.)	Tree	Height (m): 10 Stem Diam(mm): 120 Crown Clearance (m): 3 Life Stage: Early Mature Rem. Contrib.: 40+ Years	N:2.5 E:2.5 S:2.5 W:2.5	Slender tree growing offsite in dense vegetation	C2	Radius: 1.4m. Area: 6 sq m.	Physiological Condition: Fair Structural Condition: Unknown Public Amenity Value: Low Inspection Limitations: Access

APPENDIX E - PLANS

Attached as separate pdf documents

- Tree Constraints Plan ref: 2 KEYMER ROAD TCP 06169/2023
- Tree Protection Plan ref: 2 KEYMER ROAD TPP 06169/2023

APPENDIX F – PHASING OF WORKS

STAGE 1 (PRE-COMMENCEMENT)

INSTALLATION TREE PROTECTION FENCING
& TEMPORARY GROUND PROTECTION

SITE MEETING TO SIGN OFF TREE PROTECTION FENCING
(NOTIFY LOCAL AUTHORITY -MIN 5 DAYS)

STAGE 2 (DEMOLITION & CONSTRUCTION)

TREE PROTECTION MEASURES TO REMAIN RIGID AND INTACT
THROUGHOUT BUILD WORKS.

STAGE 3 (POST DEVELOPMENT)

REMOVE TREE PROTECTION MEASURES
NOTIFY LOCAL AUTHORITY -MIN 5 DAYS)

LANDSCAPING WORKS

APPENDIX G – CONTACTS

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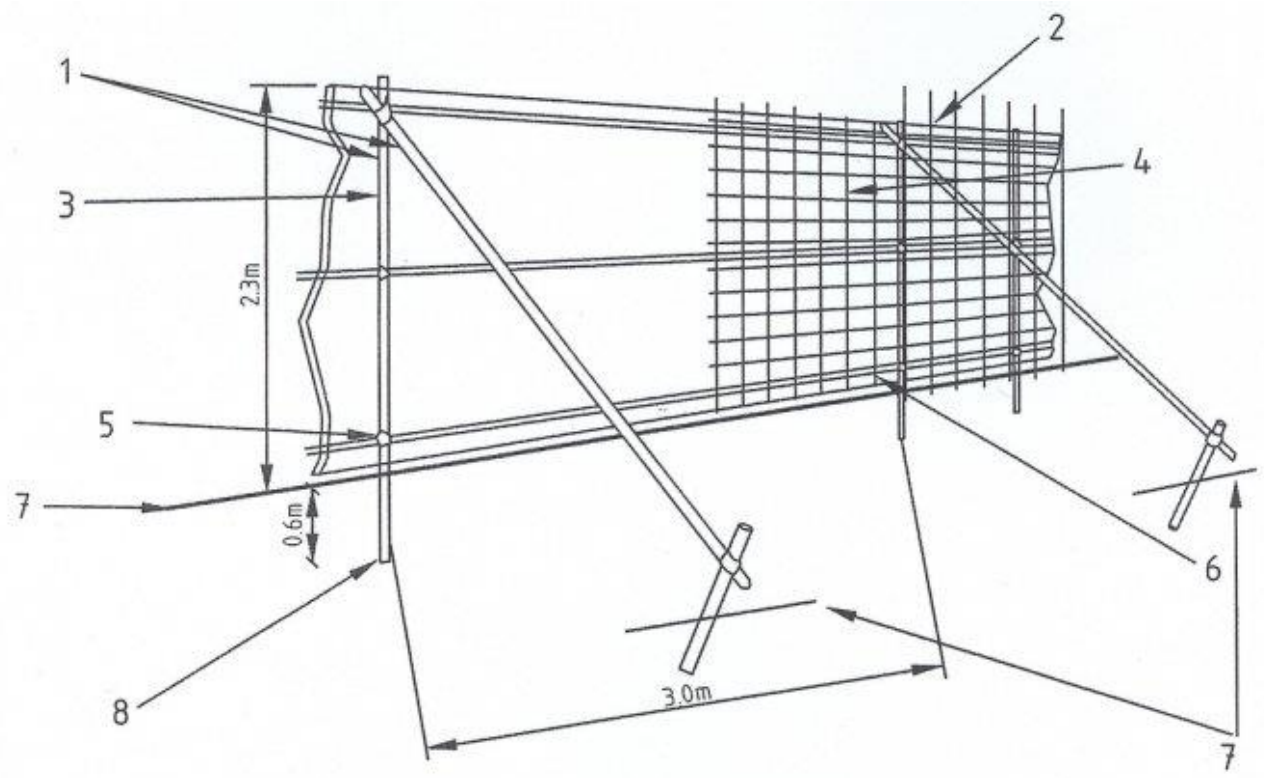
APPENDIX H - TREE PROTECTION FENCING



1 Standard scaffold poles
2 Uprights to be driven into the ground
3 Panels secured to uprights with wire ties and, where necessary, standard scaffold clamps
4 Weldmesh wired to the uprights and horizontals
5 Standard clamps
6 Wire twisted and secured on inside face of fencing to avoid easy dismantling
7 Ground level
8 Approx. 0.6m driven into the ground

Figure 2. – Protective fencing for RPA

APPENDIX I - QUALIFICATIONS

This Arboricultural report has been prepared by Sarah Duckworth, Independent Arboricultural Consultant, trading as Duckworth's Arboriculture Limited.

I have over 19 years' experience working in the field of Arboriculture and for the past 16 years I have worked as a Local Authority Tree Officer both directly and independently providing contracted support. Since 2010 I have worked as a private consultant carrying out a range of Arboricultural Reports and Assessments for private clients.

I hold the Royal Forestry Society's Professional Diploma (Level 6) for which I received the Lockhart Garrett Award commendation.

I also hold the Arboricultural Association's Technicians Certificate (with Distinction) and am a LANTRA qualified Professional Tree Inspector.

I am a Professional Member of both the Arboricultural Association and the Consulting Arborist Society (CAS).