Sylvanarb
Arboricultural Consultants

139 Bush Road, Cuxton, Rochester, Kent. ME2 1EZ.
01634 724023 07816 400991
info@sylvanarb.co.uk
sylvanarb.co.uk

(REVISED)
Arboricultural Report

BS5837 Tree Survey

Arboricultural Impact Assessment

Tree Protection Specification

Site
Four Winds & Orchard Nurseries
New Road
Egerton
Kent
TN27 9DT

Proposal
9 x Residential Dwellings
with Associated Access Road

Client
Lansdown Asset Management

by
Curtis Barkel
RCArborA, F.Arbor.A, Prof Dip (RFS)

Ref: SA/2140/23-A

Date: 03 May 2024

Contents

INTRODUCTION

Site Address	Four Winds & Orchard Nurseries, New Road, Egerton, Kent. TN27 9DT.
Survey Date	06 April 2023
Report Date	03 May 2024
Surveyed by	Curtis Barkel

1.0 Instructions

1.1 Sylvanarb has received instructions to provide a revised arboricultural impact assessment and tree protection specification, in respect of the latest development proposals for this property as detailed on the Nigel Bradbury, Proposed Site Plan, Ref. NR/675/SP01 Rev. P.

2.0 Documents Supplied

- JC White, Topographical Survey, Ref: 22/00/032 1 & 2, dated March 2022.
- Nigel Bradbury, Proposed Site Plan, Ref. NR/675/SP01 Rev. P.

3.0 Aim of Report

3.1 An earlier arboricultural report was submitted to Ashford BC under Planning Ref: PA/2023/2005. Revisions have subsequently been made to the layout in response to concerns raised by the Local Authority Tree Officer.

3.2 This report provides an assessment of the revised proposals and the impact of the scheme on existing trees.

3.3 A review of the required tree retention/tree removal has been carried out and a revised specification for tree protection measures provided.

3.4 A revised specification for tree work required to accommodate the proposed development is also provided.

4.0 Scope of Report

4.1 The survey has been carried out in accordance with British Standard 5837:2012 *Trees in Relation to Design, Demolition and Construction* (BS5837).

4.2 Subject trees have been inspected considering the current and proposed site use. Assessment categories have been allocated on the condition and merits of the individual tree irrespective of the proposed development.

4.3 A detailed condition survey and hazard assessment of the subject trees has not been carried out, where obvious faults have been noted a further detailed condition assessment may be recommended in the tree survey comments column (see Appendix A).

4.4 The 'Required Tree Works' set out in Section 17.0 detail the tree works required to accommodate the proposal.

4.5 Prior to any tree work being carried out the Local Authority is to be consulted to ascertain whether prior permission is required to carry out such work.

4.6 A tree with internal structural faults will often display associated external evidence of such faults, these would be noted in a visual tree inspection. However such signs are not apparent at all times of the year, for example pests and diseases or leaf size and condition. The following findings and recommendations have been drawn from the evidence present on the day of inspection.

4.7 All advice given in this report is based on the information available on the day of inspection. Should additional information not available or apparent on the day of inspection come to light, the right is reserved to modify the conclusions found within this report. This report is valid for 12 months notwithstanding change of site conditions, extremes of weather or other such overriding environmental changes.

5.0 Survey Method

5.1 The survey includes those trees requiring consideration in the proposed development of the property with a stem diameter greater than 75mm measured at 1.5m from ground level.

5.2 Subject trees have been allocated identification numbers prefixed with 'T'.

5.3 Where appropriate several trees growing closely together have been surveyed as groups. In such cases the group value is recognised and graded as a whole, as opposed to grading the individual members of the group. Groups are allocated identification numbers prefixed with 'G'.

5.4 Subject trees have been plotted on the arboricultural plans over the locations provided on the topographical survey. The locations of all trees are assumed to be accurate.

5.5 The survey was carried out with the help of the following inspection aids:

- Digital Clinometer To calculate tree heights
- Diameter tape To measure stem diameters
- Laser measure To plot canopy extents

5.6 Each tree was inspected from ground level noting external faults and features only. The inspection did not include an aerial crown inspection, detailed excavation of the root system or the use of internal decay detection equipment.

SITE DESCRIPTION

6.0 Site Details

6.1 The site is located in the village of Egerton to the north-west of Ashford and within the Ashford BC administrative area.

6.2 The site is comprised of part of the residential property of Four Winds and area of former nursery land to the rear.

6.3 Private residential properties adjoin the site to the west, with open farmland to the north and east.

6.4 The main area of development (the former nursery land) is currently disused and unmaintained.

6.5 The British Geological Survey shows the underlying geology to be Hythe Formation with no superficial deposits. This is characterised as a combination of sandstone and limestone, the associated soils are unlikely to present a risk of vegetation related building damage.

PROPOSED WORKS

7.0 Planning Proposal

7.1 Planning permission is sought for the construction of nine residential dwellings on the area of former nursery, with access gained from New Road via a proposed driveway along the south-eastern side boundary of Four Winds.

7.2 The proposed scheme has been designed to ensure that boundary trees and groups are retained to maintain the character of the setting and to minimise the impact of proposals within the wider setting.

7.3 Existing trees along the south-eastern boundary that have been subject to coppice and pollard management in the past are to be brought back under management to reinforce the screening they provide and to prolong their life expectancy.

7.4 Extensive areas of soft landscaping are incorporated within the design, presenting the potential to improve species and habitat diversity across the site and to enhance aesthetic and ecological values.

7.5 The scheme presents the opportunity to provide residential development that maintains and enhances the arboricultural features on the property through a combination of tree retention and proposed landscaping, the details of which can be agreed under conditions attached to any planning approval gained.

BS5837 TREE SURVEY

8.0 Subject Trees

8.1 The survey identifies twenty-two individual trees and sixteen groups of trees.

8.2 The trees have been graded into quality assessment categories in accordance with recommendations given in BS5837:2012 *Trees in Relation to Design, Demolition and Construction*. One tree is graded in Category A (High value); five individuals and one group are graded in Category B (Moderate value); all other subject trees are considered to be of low value and are graded in Category C (see Appendix A for full category definitions):

8.3 Table 1 provides a breakdown of tree quality assessment:

Table 1: Retention Category Breakdown

BS5837:2012 Category	Tree Survey Numbers	Total
A	T15	1 x Individual
B	T2, T5, T19-T21 G11	5 x Individuals 1 x Group
C	T1, T3, T4, T6-T15, T16-T18, T22 G1-G10, G12-G16	16 x Individuals 15 x Groups
U	-	0

8.4 Trees classified in Category A are considered to be of high value with a minimum of forty years potential in the existing setting. Tree T15 is a large, mature tree located on the adjacent property to the rear of the site.

8.5 Trees classified in Category B are recognised as being trees of moderate quality and value with a minimum of 20 years potential in the existing setting. The five individuals are semi-mature trees located internally to the site, currently of limited significance to the wider setting. The Category B group is a group of boundary Poplar that have historically been managed as pollards, presumably serving as an agricultural wind break in the past.

8.6 Trees classified in Category C are considered to be in a poor condition/or present limited current or long-term potential. These trees are not considered to be of such value as to present constraints to development proposals, assuming suitable landscape and ecological mitigation is provided to compensate for their loss.

8.7 The Ashford BC online map system shows that none of the subject trees are protected by Tree Preservation Order and the site is not located within a Conservation Area. As such, the approval of the Local Authority is not required prior to carrying out tree work on the property.

ARBORICULTURAL IMPACT ASSESSMENT

9.0 Trees Requiring Removal to Accommodate Proposal

9.1 The revised proposals result in the retention of four additional individual trees (three of which identified as being Category B trees of Moderate value).

9.2 The scheme now requires the removal of seven individual trees, five groups and part of two groups. Table 2 provides brief details:

Table 2: Trees Requiring Removal to Accommodate Proposal.

Tree No.	Species	Condition/Comments	Reason for Removal	BS5837 Cat.
T1	Magnolia	Mature garden ornamental.	Construction of access driveway.	C1
T9	Goat Willow	Semi-mature, self sown tree within nursery site.	Construction of Plot 2	C1
T10	Goat Willow	Semi-mature, self sown tree within nursery site.	Construction of Plot 3	C1
T11	Goat Willow	Mature, self sown tree within nursery site.	Construction of Plot 3	C1
T12	Ash	Young, self sown tree within nursery site.	Construction of Plot 3	C1
T14	Sycamore	Young, self sown tree within nursery site.	Not suited to proposed garden setting for Plot 4.	C1
T22	Ash	Young, self sown tree within nursery site.	Construction of access driveway.	C1
G2	Lawson Cypress	Semi-mature, outgrown ornamental rear garden group.	Construction of access driveway.	C2
G3	Hawthorn x 4 Sallow x 1	Young/semi-mature, self sown trees within nursery site.	Construction of Plot 1.	C2
G4	Sallow x 2	Semi-mature, self sown trees within nursery site.	Construction of Plot 4.	C2
G5	Sallow x 2	Semi-mature, self sown trees within nursery site.	Construction & garden for Plot 4.	C2

Part of G8	Mixed Species	Young/semi-mature, self sown trees within nursery site.	To improve garden setting for Plot 5.	C2
G10	Mixed Species	Young/early semi-mature, self sown trees within nursery site.	Construction & garden for Plot 6.	C2
Part of G12	Mixed Species	Mature, (primarily) single species scrub group, ivy smothered and in decline.	Construction of access driveway, garages and Plot 7.	C2

9.3 A Tree Removal Plan, showing the locations of those trees requiring removal, is provided at Appendix B.

9.4 All trees identified for removal are graded in Category C. Trees graded in Category C are not considered to be of such value as to impose significant constraints to the proposed development of the site, with any amenity value lost suitably replaced through a well designed landscaping scheme.

9.5 The loss of the trees identified for removal will be of no consequence to the visual amenity of the locality and will be suitably compensated by the extensive landscaping proposals that are to be incorporated within the design.

9.6 The landscaping proposals presented will serve to significantly improve and diversify the aesthetic and ecological values of the site, whilst also providing sustainable, long-term tree cover for the future.

9.7 It is expected that details and specifications for landscaping will be agreed with the Local Authority under conditions attached to any planning approval granted.

10.0 Impact of Development on Trees Identified for Retention

10.1 All proposed dwellings are located beyond the Root Protection Areas (RPA) of retained trees.

10.2 A number of incursions within the RPA's of retained trees are required to accommodate the scheme. The condition, health and management of the adjacent trees has been considered, along with best practice guidance provided in BS5837. I confirm that the required incursions do not present a risk to the long-term health of the adjacent trees. Table 3 provides details of the proposed incursions:

Table 3: Required Incursions Within RPA's of Retained Trees

Tree No.	Species	Reason for Incursion	Comments
G1	Cornus/ Hazel Group	Proposed access driveway.	Minimal incursion into multi-stemmed, small diameter, shrub group - low risk of significant damage.
T2	Tulip Tree	Proposed access driveway.	No-dig hard surfacing to be installed in accordance with BS5837 - see Appendix D.
T3	Hazel	Proposed access driveway.	Minor incursion, tree to be re-coppiced to rejuvenate stool.
T21	Ash	Proposed parking bay.	No-dig hard surfacing to be installed in accordance with BS5837 - see Appendix D.
Part of G14	Hazel	Proposed access driveway.	Minor incursion, trees to be re-coppiced to rejuvenate stools.

10.3 The proposed incursions are not considered to present a risk to the health of the adjacent trees. All of the subject trees are in good physiological condition and as such are able to withstand any minor loss of fibrous rooting that may result from the proposed works.

10.4 The proposal requires no other works within the RPA's of retained trees.

10.5 Minor pruning of retained trees, along with recoppicing of Hazel (T3, G9, G13, G14) and re-pollarding of the Poplar group G11, is required to accommodate the scheme and to bring the trees back under management. A specification for these works is provided at Section 17.0.

TREE PROTECTION MEASURES

11.0 Monitoring and Maintenance

11.1 The trees identified for retention are likely to be protected under planning conditions. To cause damage to retained trees may result in Planning Enforcement action. It is therefore imperative that the recommended tree protection measures are complied with for the duration of all works associated with the build.

11.2 The contract manager is to be made aware of their responsibility to ensure that the protection of retained trees is maintained throughout the development of the site.

11.3 The details of tree protection measures and work restrictions within RPA's is to be highlighted at the induction of all contractors involved with the project.

12.0 Operations Resulting in Damage to Trees

12.1 The following operations are likely to result in significant damage to trees. Damage resulting from these operations may take immediate effect resulting in the rapid death of a tree, or alternatively may result in years or even decades of gradual decline and ultimate early death.

12.2 *Compaction of Soil*
Whether from repeated pedestrian passage or due to just a single passing of a vehicle, soil compaction within a Root Protection Area will inevitably lead to root death and may ultimately greatly reduce the longevity of a tree.

12.3 *Storage or Spillage of Toxic Materials*
The following materials commonly used during construction operations are toxic to trees:

- Builders Sand (due to salt content)
- Cement
- Fuels
- Tarmac

The uncontrolled storage or use of such materials on unsealed surfaces within 10 metres of trees is likely to be detrimental to their long-term health.

12.4 *Excavations / Soil Grading / Lowering of Levels*
Contrary to popular belief nearly all of a tree root system is located within the top 1 metre of soil, often with the majority of roots found within 600mm of the soil surface.

The Root Protection Area (RPA) is the *minimum* area of protection required to retain a tree. The full root system of a tree will extend beyond this, usually to a distance at least equivalent to the height of the tree.

Any excavations within the specified RPA's are therefore to be carried out in strict accordance with the arboricultural advice provided herein.

12.5 *Raising of Levels*
Roots absorb both oxygen and water from the soil and therefore develop in free-draining, aerated conditions.

Where levels are raised over tree roots the availability of oxygen is reduced and moisture filtration hindered, tree roots may subsequently be starved of oxygen and water leading to root death, potential disease and reduced longevity.

13.0 Tree Protection Fencing

13.1 Tree protection fencing and construction site boundary hoarding is to be installed in the locations specified on the Tree Protection Plan at Appendix C. The fenced off areas are to be treated as Construction Exclusion Zones, with no contractor access permitted without the prior approval of the Local Authority Tree Officer.

13.2 Tree protection fencing and boundary hoarding is to be installed upon completion of access facilitation pruning and tree removal work (see Section 17.0), and prior to the commencement of any site clearance/development operations on the site.

13.3 Tree protection fencing is to be installed in accordance with BS5837: 2012 Fig.2 (see Appendix C), comprising of weldmesh panels secured to a braced scaffold framework.

13.4 Informative signs (model sign provided at Appendix C) are to be laminated and attached to the installed fencing.

13.5 All fencing is to be maintained throughout the development of the site and through to completion of the superstructure phase. Fencing is only to be removed immediately prior to approved hard/soft landscaping works.

14.0 No-Dig Hard Surfacing

14.1 The proposed section of driveway surfacing through the RPA of T2 and the proposed parking bay within the RPA of T21 are to be designed in accordance with the following guidance.

14.2 Bothe areas of surfacing (sub-base and finished surface) are to be entirely permeable and constructed over existing ground levels in accordance with Section 7.4 of BS5837:2012.

14.3 The design is to incorporate a three-dimensional cellular confinement system within the sub-base to minimise the compaction of soils within the protected area.

14.4 The proposed section of driveway is to be constructed prior to the commencement of all other works on site, so as to provide construction access through the RPA of T2; the proposed parking bay is to be installed as part of final landscaping operations, upon completion of the main development phase.

14.5 The locations of the no-dig areas of construction are shown on the Tree Protection Plan at Appendix C and a method statement for the required works is provided at Appendix D.

15.0 General Protection Measures

15.1 Other than to carry out approved development, no contractor access is permitted within the fenced off Construction Exclusion Zones specified on the Tree Protection Plan without the prior approval of the LPA Tree Officer.

15.2 Other than approved development, no level changes, service runs or other development works are permitted within the RPA's specified on the Tree Protection Plan without prior arboricultural approval.

15.3 No fires are permitted where flames will reach within 5m of a tree canopy.

15.4 No storage or discharge of materials harmful to tree health is permitted on unsealed surfaces within 10m of any retained tree, including storage of fuels, tarmac, cement and oil.

15.5 No cement mixing is to be carried out on unsealed surfaces within 10m of any retained tree.

16.0 Excavations Within RPA's: Drainage, Services etc

16.1 Details of services and drainage runs have not been provided at this stage. Such details will require arboricultural consultation and tree officer approval. It is expected that service and drainage details will be submitted to the LPA for approval under conditions attached to any planning approval granted.

16.2 Other than approved development, no trenching or excavations are to be carried out within the specified Root Protection Areas shown on the Tree Protection Plan without prior arboricultural consultation.

16.3 It is imperative that any such works proposed within the Root Protection Areas of retained trees be first approved by the Project Arboriculturist. Any root damage associated with excavations within the RPA may result in trees being left in an unsafe condition.

16.4 Particular care is required to ensure that all tree roots larger than 25mm diameter encountered during excavations are not severed or damaged. Should roots of 25mm or larger be encountered all excavation work is to stop and further advice is to be sought from the arboricultural advisor or LPA tree officer prior to continuing.

PROPOSED TREE WORKS

17.0 Required Tree Works

17.1 Table 4 provides details of the tree work required to accommodate the proposal.

Table 4: Proposed Tree Work

Tree No.	Schedule of Works
T1, T9-T12, T14, T22 G2, G3, G4, G5, G10 Part of G8 and G12	Fell and grind/grub-out stumps.
T2	Crown lift to 4-5m over site access.
T3 G9, G13, G14	Re-coppice.
G11	Re-pollard to previous pollard points.
T5 G7	Crown lift to 3m over application site.
T7, T8	Crown lift to 3m.
T13 G6, G8	Crown lift to 2m over application site.

17.2 The specified tree works are considered to be required to accommodate the proposed development. Should detailed planning approval for the development be granted it will be assumed, unless the LPA informs otherwise, that the tree works detailed at Table 4 may be carried out under the planning approval without any additional notification of intent or application for tree works.

17.3 All tree work is to be carried out prior to the commencement of any site clearance/ development operations on the site.

17.4 The tree work is to be carried out by a competent arborist in accordance with the British Standard for tree work BS3998: 2010 'Recommendations for Tree Work'.

CONCLUSION

18.0 Conclusion

18.1 The revised proposals result in the retention of three additional Category B trees, thereby ensuring that all of the highest value trees are retained to complement the proposed setting.

18.2 All trees identified for retention are to be retained and protected in accordance with BS5837:2012.

18.3 All trees identified for removal are of low value, the loss of these trees will be of no detriment to the character of the wider setting.

18.4 All trees located around the site boundaries are to be retained to complement the proposed setting and to provide valuable screening to minimise the visual impact of the development.

18.5 The scheme presents the opportunity for extensive landscaping proposals to be secured under the planning approval, these will serve to significantly improve and diversify the aesthetic and ecological values of the site.

Appendix A

Tree Survey Data & Plan

Tree Survey Key

Tree No. Tree Number - cross-referenced with tree numbers shown on Tree Survey Plan.

Hgt (m) Height - estimated in metres.

Dia. at 1.5m (mm) Stem Diameter - in millimetres taken at 1.5m above highest adjacent ground level

No. of Stems Number of main stems arising from below 1.5m above ground level.
M = Multi-stemmed tree.

Crown Spread N,E,S,W (m) Given as a radial measurement in metres from the centre of the stem to the extremity of the canopy at the four main compass points NESW.

Crown Cl/nce (m) Crown Clearance - Height in metres of crown above adjacent ground level.

Age Class

Y	Young	Staked or recently established tree at the fast growing early stage of establishment.
SM	Semi mature	An established tree at a stage of rapid growth with increasing future growth potential
M	Mature	A tree that is at a stage of constant growth nearing ultimate canopy size.
V	Veteran	A mature tree, often of great ecological or heritage importance, that has reached a stage of natural decline.

Physiological Condition Provides some evidence of the general well being of the tree. Assessed by comparison of growth characteristics with similar species in the locality and/or from personal experience.

Given in four classifications:

G	Good
F	Fair
P	Poor
D	Dead

Preliminary Mgt Recommendations for tree work to bring the trees to an acceptable and safe standard in context with the current site use.

Category Category of quality assessment allocated to a tree derived from an individuals potential contribution to a site: considering tree health, condition, age and value. Full description given on Table 1 of BS5837:2012 'Trees in Relation to Demolition, Design and Construction'.
Trees are colour coded on the attached Tree Survey plan.

Given in four categories:

A - Green - Trees of high quality and value (likely to contribute a further 40+ years)

B - Blue - Trees of moderate quality and value (likely to contribute a further 20-40 years)

C - Grey - Trees of low quality and value (likely to contribute a further 10-20 years)

U - Red - Trees which may require removal on health and safety grounds, be in decline, infected by significant pathogens or, due to their current condition would lose their existing value within 10 years.

A provisional category may be allocated pending further advised inspection/tree work.

RPD (m) Root Protection Distance - The distance in metres of the radius of a circle depicting the root protection area required for an individual tree.

RPA (m) Root Protection Area – The total area of ground to be protected around an individual tree.

(p) Provisional quality assessment category – the highest expected category is allocated to the tree based on an incomplete preliminary visual inspection due to limited access ie. ivy clad, basal growth, dense undergrowth or off-site tree.

(e) Estimated figure due to obstruction such as ivy or off-site tree.

Tree Survey Data

TREE NO	SPECIES	HEIGHT (m)	DIAMETER AT 1.5m or arf (mm)	NO. OF STEMS	CROWN SPREAD N,E,S,W (m)				CROWN CL/NCE (m)	AGE CLASS	PHYSIOLOGICAL CONDITION	STRUCTURAL CONDITION	PRELIMINARY MGT RECOMMENDATIONS	ESTIMATED REMAINING CONTRIBUTION	CATEGORY	RPD (m)	RPA (m2)	NOTES
G1	Cornus/ Hazel	5	100	M	3	3	3	1	3	Mature	Good	Good		10-20	C2	1.2	5	
T1	Magnolia	7	200 200 200	3	4.5	1	3.5	5.5	3	Mature	Good	Good		10-20	C1	4.2	54	
T2	Tulip Tree	20	730	1	6	7	6	6	2.5	Semi-mature	Good	Good		>40	B1	8.8	241	
T3	Hazel	5	<100	M	4	4	4	4	2	Mature	Good	Good		20-40	C1	1.2	5	2.5m RPD provided.
G2	Lawson	8	450 300 230 150	M	3	3	3	3	2	Semi-mature	Fair	Fair		20-40	C2	7.3	167	Topped at 7m, poor form.
T4	Douglas Fir	10	320e	4	4	4	4	4	2	Semi-mature	Good	Good		>40	C1	3.8	46	Off-site.
G3	Hawthorn x 4 Sallow x 1	6	<150	M	3	3	3	3	1	Young/ Semi-mature	Good	Good		>40	C2	1.8	10	
T5	Oak	12	300 300	2	7	7	7	7	1	Semi-mature	Good	Good		>40	B1	5.1	81	Off-site.
T6	Trachycarpus	5	250e 250e 250e	3	3	3	3	3	1	Semi-mature	Good	Good		20-40	C1	5.2	85	Off-site.

TREE NO	SPECIES	HEIGHT (m)	DIAMETER AT 1.5m or arf (mm)	NO. OF STEMS	CROWN SPREAD N,E,S,W (m)				CROWN CL/NCE (m)	AGE CLASS	PHYSIOLOGICAL CONDITION	STRUCTURAL CONDITION	PRELIMINARY MGT RECOMMENDATIONS	ESTIMATED REMAINING CONTRIBUTION	CATEGORY	RPD (m)	RPA (m2)	NOTES
T7	Sycamore	8	150 150 150 130 130	5	6	6	6	6	2	Young	Fair	Fair		20-40	C1	3.8	46	Ivy clad coppice.
T8	Prunus	8	250	1	3.5	3.5	3.5	3.5	2	Semi-mature	Good	Good		20-40	C1	3.0	28	
T9	Goat Willow	9	230 230 230	3	5	5	5	5	2	Semi-mature	Good	Fair		20-40	C1	4.8	72	Previously topped at 1.5m.
T10	Goat Willow	9	300 base	M	1	5	5	5	1	Semi-mature	Good	Fair		20-40	C1	3.6	41	Suckering stump.
T11	Goat Willow	11	250 300 350	3	6	6	6	6	1	Mature	Good	Fair		10-20	C1	6.3	124	Previously topped at 1.5m.
T12	Ash	9	160	1	3	3	3	3	1.5	Young	Good	Good		>40	C1	1.9	12	
G4	Sallow x 2	8	<250	1	3	3	3	3	1	Semi-mature	Good	Fair		20-40	C2	3.0	28	1 x previously topped at 1.5m, 1 x coppiced.
T13	Weeping Birch	3.5	170e	1	4	4	4	4	1	Semi-mature	Good	Good		20-40	C1	2.0	13	Off-site.
G5	Sallow x 2	8	<120	M	4	4	4	4	1	Semi-mature	Good	Fair		20-40	C2	1.4	7	Coppice, 2.5m RPD provided.

TREE NO	SPECIES	HEIGHT (m)	DIAMETER AT 1.5m or arf (mm)	NO. OF STEMS	CROWN SPREAD N,E,S,W (m)				CROWN CL/NCE (m)	AGE CLASS	PHYSIOLOGICAL CONDITION	STRUCTURAL CONDITION	PRELIMINARY MGT RECOMMENDATIONS	ESTIMATED REMAINING CONTRIBUTION	CATEGORY	RPD (m)	RPA (m2)	NOTES
G6	Mixed Species	3-7	<150	1	2.5	2.5	2.5	2.5	0	Young	Good	Good		>40	C2	1.8	10	Ownership unclear.
G7	Sycamore x 2	13	<250	1	3.5	3.5	3.5	3.5	2	Young	Good	Good		>40	C2	3.0	28	Ownership unclear, Largest recorded.
G8	Mixed Species	5	<150	M	2.5	2.5	2.5	2.5	0	Young/ Semi-mature	Good	Good		20-40	C2	1.8	10	Ownership unclear.
T14	Sycamore	12	170 140 150 130 130	5	3.5	3.5	3.5	3.5	2	Young	Good	Fair		20-40	C1	3.9	48	
T15	Ash	20	930	1	10	8	12	12	5	Mature	Good	Good		>40	A1	11.2	391	Off-site.
T16	Ash	18	500	1	5	4	5	2	8	Semi-mature	Good	Fair		10-20	C1	6.0	113	Off-site, topped at 1.5m.
T17	Ash	15	500e	1	6	8	5	1	7	Semi-mature	Good	Poor		10-20	C1	6.0	113	Off-site, stem divides at 1m with included bark to 1.8m.
T18	Hawthorn	8	200	1	3	4	3	1	2	Mature	Fair	Fair		10-20	C1	2.4	18	On boundary, ownership unclear.
T19	Ash	20	300 300 300 200	4	8	8	8	8	8	Semi-mature	Good	Fair		20-40	B1	6.7	140	Coppice, ownership unclear.

TREE NO	SPECIES	HEIGHT (m)	DIAMETER AT 1.5m or arf (mm)	NO. OF STEMS	CROWN SPREAD N,E,S,W (m)				CROWN CL/NCE (m)	AGE CLASS	PHYSIOLOGICAL CONDITION	STRUCTURAL CONDITION	PRELIMINARY MGT RECOMMENDATIONS	ESTIMATED REMAINING CONTRIBUTION	CATEGORY	RPD (m)	RPA (m2)	NOTES
G9	Hazel	8	<100	M	4	4	4	4	2	Mature	Good	Good		20-40	C2	1.2	5	2.5m RPD provided.
G10	Mixed Species	12	<250	1	3	3	3	3	3	Young	Good	Good		>40	C2	3.0	28	
T20	Ash	15	360	1	5	5	5	5	5	Semi-mature	Good	Good		>40	B1	4.3	57	
T21	Ash	15	320	1	5	5	5	5	5	Semi-mature	Good	Good		>40	B1	3.8	46	
T22	Ash	10	<120	M	3	3	3	3	3	Young	Fair	Fair		10-20	C1	1.4	7	Coppice, 2.5m RPD provided, suspect Ash Dieback.
G11	Poplar	20	<500	1	6	6	6	6	6	Semi-mature	Good	Fair		20-40	B2	6.0	113	Previously pollarded at 4m.
G12	Mixed Species	8 to 10	<250	1	3	3	3	3	3	Mature	Good	Good		10-20	C2	3.0	28	Mainly Prunus some Hawthorn, ivy clad, in state of collapse.
G13	Hazel	8	<150	M	4	4	4	4	4	Mature	Good	Good		20-40	C2	1.8	10	Remnant line of Hazel coppice.
G14	Hazel	7	<150	M	3	3	3	3	3	Mature	Good	Good		20-40	C2	1.8	10	Ownership unclear, 2.5m RPD provided.

Table 1 (BS5837:2012) – Cascade Chart for Tree Quality Assessment.

Category & Definition	Criteria (Including subcategories where appropriate)			Identification On Plan
TREES UNSUITABLE FOR RETENTION (See Note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (i.e. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline • Trees infected with pathogens of significance to the health and/or safety of other trees nearby or very low quality trees suppressing adjacent trees of better quality NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.			DARK RED
TREES TO BE CONSIDERED FOR RETENTION				
Category & Definition	**Criteria — Subcategories**			
	1 Mainly arboricultural values	**2 Mainly landscape values**	**3 Mainly cultural values, including conservation**	
Category A **Trees of high quality** With an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of 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)	LIGHT GREEN
Category B **Trees of moderate quality** With an estimated remaining life expectancy of at least 20 years	Trees that might be included in the high category, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually 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 visual contribution to the wider locality	Trees with material conservation or other cultural value	MID BLUE
Category C **Trees of low quality** With an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present 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	GREY

Appendix B

Tree Removal Plan

Appendix C

Tree Protection Measures

- **Tree Protection Plan**
- **Tree Protection Warning Sign**

Principles of Tree Protection

i) The majority of damage to tree root systems on development sites occurs either at the early stages of development when protection measures have not been installed promptly enough, or at the final stages of development when protective fencing, having been adequate throughout development, is taken down prematurely.

ii) The tree protection measures described are to be installed prior to the commencement of any other works associated with the proposal.

iii) The site manager is to be made aware of their responsibility to ensure tree protection measures are maintained throughout the development of the site.

General Precautions

- No materials that are likely to have an adverse effect on tree health such as oil, bitumen or cement will be stored or discharged on unsealed surfaces within 10 metres of the trunk of a retained tree. Consideration for the slope of the ground is to be considered when discharging or storing materials that are potentially harmful to trees.

- No fires to be lit where flames could extend to within 5m of foliage, branches or trunks of trees.

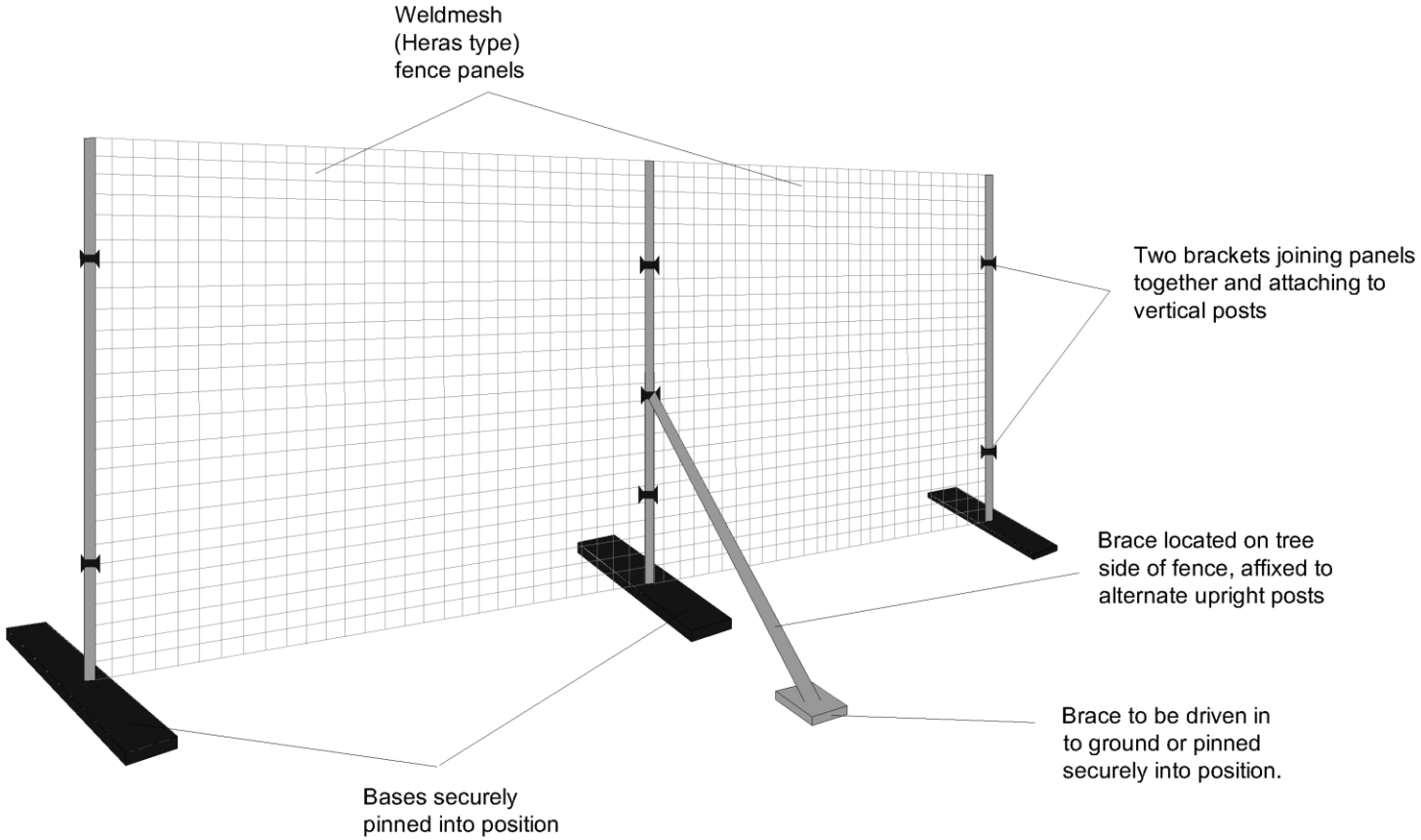
- No signs, cables or other items are to be attached to trees.

- Details of service runs have not been provided. Service runs are to avoid Root Protection Areas and will ideally be laid within one combined trench. Trenching operations are to be carried out in accordance with NJUG Vol.4.

- Should tree roots over 25mm in diameter be encountered whilst carrying out any excavations within the vicinity of retained trees advice from the arboricultural advisor or LPA tree officer is to be sought prior to continuing with works.

- Any proposed level changes within Root Protection Areas are to be approved by the Local Authority Tree Officer prior to work being carried out.

Tree Protection Fencing



Sylvanarb Arboricultural Consultants Tree Protection Fencing	Site Address: Four Winds & Orchard Nurseries New Road Egerton Kent TN27 9DT	By: C. Barkel Date: May 2023 Ref: FW/TPF/Spec1 Scale: NTS	TYPE 1 Tree Protection Fencing Specification To be installed in locations shown in RED on Tree Protection Plan Ref: FW/TPP/2140-03

!KEEP OUT!

Protected Trees

No Contractor Access Without Local Authority Permission

REPORT ANY DAMAGE
TO TREES OR FENCING IMMEDIATELY TO
ASFORD BC TREE OFFICER
Tel: 01233 331111

Sylvanarb
Arboricultural Consultants

Sylvanarb Arboricultural Consultants
Tel:01634 724023 / Email: info@sylvanarb.co.uk

Appendix D

No Dig Hard Surface Specification

Method Statement for No-Dig Hard Surface Construction

Important Notes:

Tree Protection Measures as shown on the Tree Protection Plan are to be installed prior to any other operations on the site.

The proposed section of no-dig surfacing within the RPA of T2 is then to be installed prior to the commencement of any site set-up, site clearance or ground works, so as to provide access into the site for contractors.

The proposed parking bay within the RPA of T21 is to be installed as part of final landscaping operations, upon completion of the main development phase.

i) It is important that a structural engineer be appointed to design the no-dig surfacing and to specify the appropriate materials required for the expected load and usage. The suggested materials given below are used as examples only.

ii) The engineer is to take into consideration the Californian Bearing Ratio of underlying soils and potential weight limit of vehicles using the driveway when specifying the depth of cellular confinement system to be used.

iii) The no-dig surfacing is to be constructed over existing ground levels. It is important to note that NO EXCAVATIONS, including the skimming off of topsoil, are permitted within the specified area of no-dig surfacing without the prior approval of the LPA.

iv) The entire construction (build-up, sub-base and finished surface) is to be permeable to allow moisture and air through to the underlying soil, no cement is to be used in the construction of the no-dig surfacing.

v) Prior to the installation of the load bearing element no vehicular activity or heavy machinery is permitted along the proposed driveway or into the proposed parking area.

vi) Upon installation of the three-dimensional cellular confinement system (CCS) the required aggregate in-fill may be progressively spread by machine driven along the CCS.

vii) The following sequence of operations provides recommendations for the process of installing a no-dig hard surface incorporating a three-dimensional load bearing system in accordance with guidance provided in BS5837:2012. The recommended geotextile membrane and three dimensional cellular confinement system (*Cellweb*) can be sourced from the following company: Geosynthetics, Hinkley (01455 617139). The manufacturers guidelines must be followed during the installation of these systems. Similar alternative products are available.

Sequence of Operations for the Installation of a No-Dig Hard Surface Within a Root Protection Area in accordance with BS5837:2012

Stage 1: Tree protection measures are to be installed as detailed on the Tree Protection Plan at Appendix C.

Stage 2: Mark out the position of the proposed no-dig surfacing within the RPA of T2. The approximate area is shown on the Tree Protection Plan.

Stage 3: Treat surface vegetation within area of no-dig construction using an approved translocated herbicide

Stage 4: Once recommended time period for herbicide to act has passed remove all vegetation, also removing major protrusions such as rocks and stumps. NOTE: Vegetation removal is to be carried out using hand tools only. The skimming off of topsoil is not permitted within the Root Protection Area without the prior approval of the LPA.

Stage 5: Lay non-woven, permeable geotextile membrane over the area of construction and pin into place.

Stage 6: Install retaining edge supports around the perimeter of the area. These may be either drilled concrete kerbstones or treated timber edging boards fixed by pins to provide adequate support. Alternatively railway sleepers pinned into place can create an attractive edging.
All edge supports are to be installed over existing ground level. No excavations within the specified RPA's are permitted without prior arboricultural permission.

Stage 7: Install the three-dimensional cellular confinement system (100mm depth is adequate for light domestic use, 150-200mm depth is recommended for heavier vehicles – consult manufacturer) and pin into place. Consideration for the weight of construction traffic will be required.

Stage 8: Fill cellular confinement system with washed, no-fines, 40/20mm, angular aggregate. (Aggregate is to be no fines angular granular material to ensure long-term permeability is maintained. Type 1 roadstone is *not* acceptable).

Stage 9: **The driveway may now be used by vehicles. If vehicles associated to the development of the site are likely to exceed the maximum load bearing limit of the hard surface ensure weight limit warning signs are installed and drivers are aware of the location of the no-dig hard surface. The installation of the finished surface may be postponed upon completion of Stage 8 until such time that the main development works have been completed.**

Stage 10: The above process is to then be applied for teh construction of the parking bay within the RPA of T21 upon completion of the main development phase of works and under the approved landscaping works.

Stage 11: Final Surface Options

i) Permeable tarmac or permeable resin bound gravel may be laid directly over the installed sub-base.

ii) Alternatively, lay second layer of non-woven geotextile membrane over the sub-base, spread a bed of sharp sand or gravel over the membrane and install a dry-jointed permeable block paving system such as Hanson 'Formpave' *Aquaflow.*