

Appendix 1 Tree survey and explanatory notes

Tree Survey Schedule

Site: 3 Elm Cottage
 Date of Survey: 21 04 23
 Arboricultural Consultant/Surveyor: J Choat
 Weather: Overcast, light wind

Tree ref	Species Common and Scientific	Height in m	Stem diameter in mm	Radial distance required for RPA	Branch spread				Height of crown clearance in m	Age class	Ground condition	Water demand	Observations	Preliminary management recommendations	Works urgency	Estimated remaining contribution in years	Category grading
					N	E	S	W									
T1	Lime Tilia x europaea	5	700	8.4	1	1	1	1	0	M	Shingle	Moderate	3rd party, unable to fully assess. Significant basal preventing full inspection. Recent pollard to 5m.	Maintain pollard every 5 to 8 years depending on vigour.	3	20	C1
G1	Lawson's Cypress Chamaecyparis lawsoniana	5	150	1.8	1	1	1	1	1	EM	Shingle	High	3rd party, unable to fully assess. Recently topped at 5m.	None	0	10	C1
T2	Lime Tilia x europaea	17	800	9.6	3	3	3	3	0	M	Shingle	Moderate	3rd party. Significant basal preventing full inspection. Twin stem forming compression fork. Target pruned over boundary. Decay to lateral at 6m in central crown. 2 below bark wounds at 1.5m with bark detaching..	Reduce crown by 3 to 4m - high pollard	3	20	B1/2
G2	Lawson's Cypress Chamaecyparis lawsoniana	5	150	1.8	1	1	1	1	1	EM	Shingle	High	3rd party, unable to fully assess. Recently topped at 5m.	None	0	10	C1
T3	Oak Quercus robur	19	980	11.76	6	6	6	6	7	M	Grass	High	3rd party. Recent target pruning over driveway area.	None	0	30	A1/2
T4	Oak Quercus robur	19	1000	12	6	6	6	6	7	M	Grass	High	3rd party. Occasional tear wounds within crown.	None	0	30	A1/2

Explanatory Notes

Referencing

Each tree is given a unique reference number and plotted on the attached plans for clear identity. Individual trees are referenced as T1, T2 etc., Groups G1, G2 etc. Hedgerows H1, H2 etc. and Woodlands W1, W2 etc.

Species

All species are recorded using common names. Identification is made using experience and knowledge.

Tree dimensions

Tree height is measured and recorded in meters and taken from the base of the stem to the tip of the crown. Height is estimated using experience and knowledge.

Diameter at Breast Height (DBH) is measured at approximately 1.5m from the ground up the stem and is measured and recorded in millimeters. DBH is measured accurately using a diameter tape.

Crown spread is measured in meters from the stem to the extent of the crown spread to each compass point (NESW). Crown spread is estimated using experience and knowledge.

Crown clearance is the height from ground level to the lowest branch and is measured in meters. Crown clearance is estimated using experience and knowledge.

Age class

Age class falls in to 4 categories:

Y	Young
EM	Early Mature
M	Mature
OM	Over Mature

Observations

The biological condition of the tree is assessed and noted. Notable defects are recorded; fruiting bodies, cankers, die back, exudates, etc. are recorded.

The mechanics of the tree are assessed and noted. Notable defects are recorded; buckling, rib formation, stresses, bulges, soil cracks, large cavities or wounds, tight branch junctions, etc. are recorded.

Preliminary management recommendations

Tree management is recommended following the assessment of physiological and structural condition. Recommended works may include, no work required, crown reduction, crown lift, fell, crown thin, monitor etc.

Estimated remaining contribution in years

An estimate of remaining life expectancy recorded in years. Estimated remaining contribution is made using experience considering the structural and physiological condition of the tree, nuisance, previous management, etc.

Category grading and colour coding on plan

A (Green square) high quality and value

B (Blue square) moderate quality and value

C (Grey square) low quality and value

U (Red Square) those that cannot be retained as living trees

Sub categories

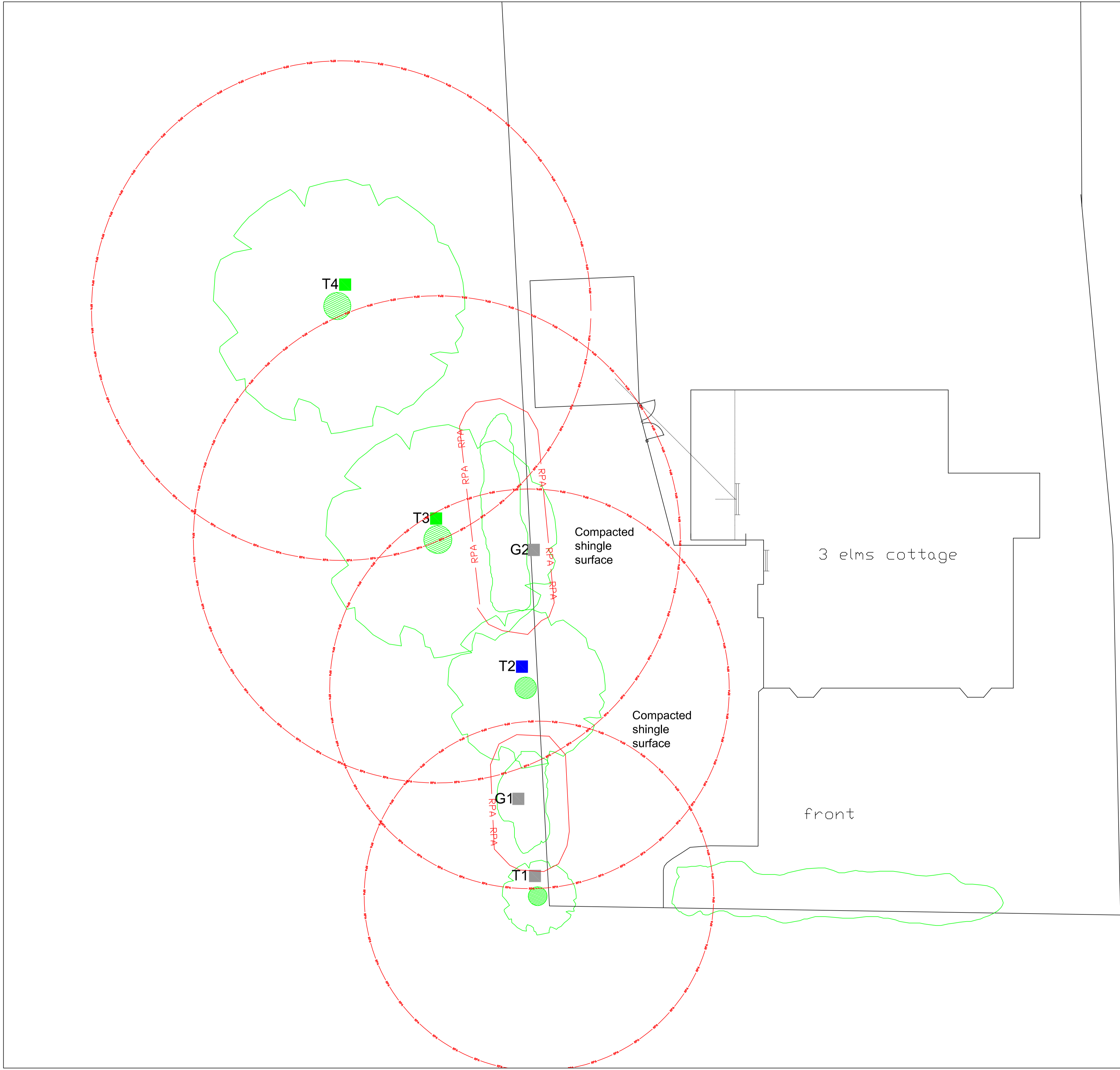
- 1 arboricultural values
- 2 landscape values
- 3 cultural values, including conservation

Works priority

- 1 Works required immediately to make the tree safe
- 2 Works required within 60 days
- 3 Works required as part of routine operations
- 0 no works required

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Appendix 2 Tree survey and constraints plan




Legend:

Tree reference	T1
Tree and crown spread	
Root protection area	
BS 5837 Retention Category A	T1
BS 5837 Retention Category B	T1
BS 5837 Retention Category C	T1
BS 5837 Retention Category U	T1

Notes:

This drawing was produced in colour; a monochrome copy should not be relied upon.



Project:
3 Elms Cottage, Old London Rd, Copdock

Drawing Title:
Tree Survey and Constraints Plan

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Date: 22nd April 2023	
Scale: 1:100 @ A1	
Drawing Number: TPSQU0040 TSACP	

Appendix 3 Barrier construction profile

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Diagram 1 Weldmesh panels with block supports pegged to brace light impact

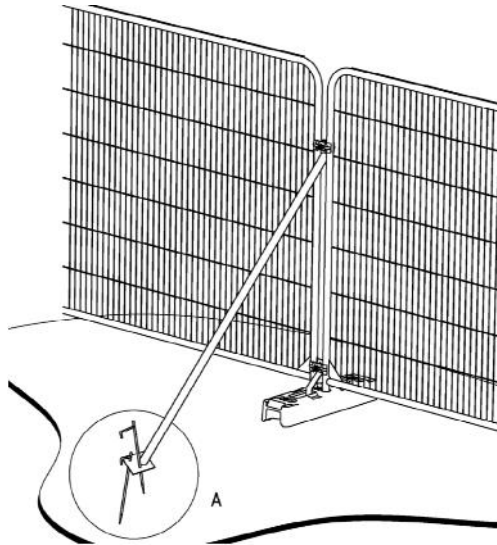


Diagram 2 Weldmesh panels with block supports and further block supports to brace intermediate impacts

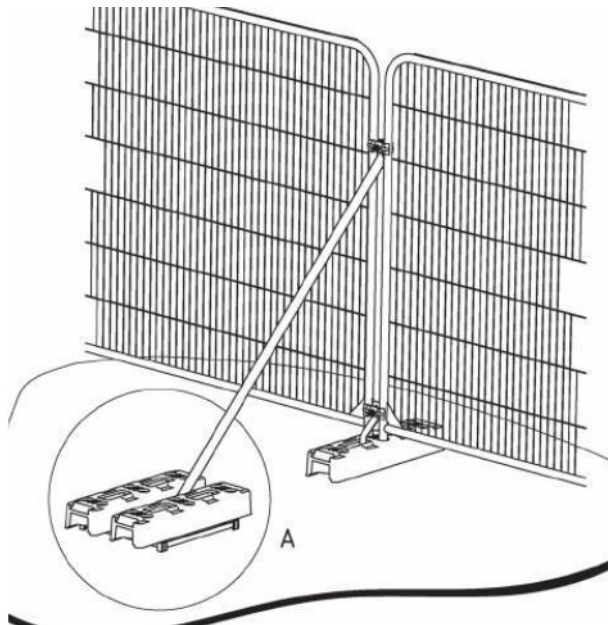
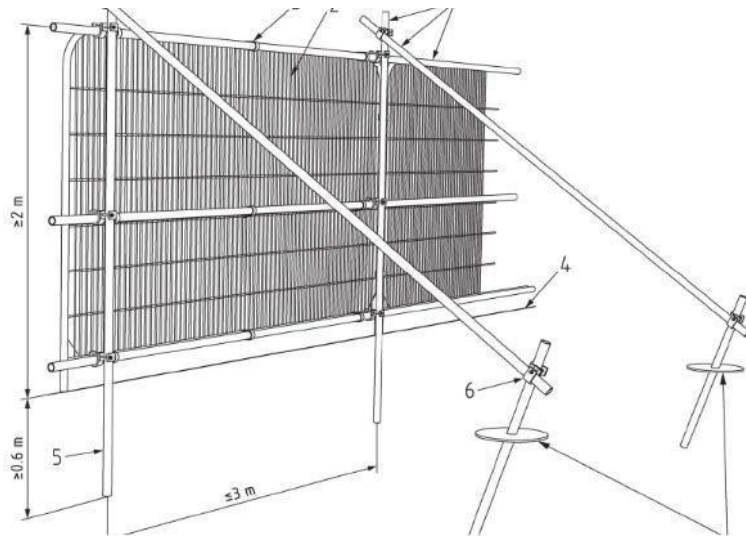


Diagram 3 Weldmesh panels with scaffold frame posts driven into the ground to brace heavy impacts



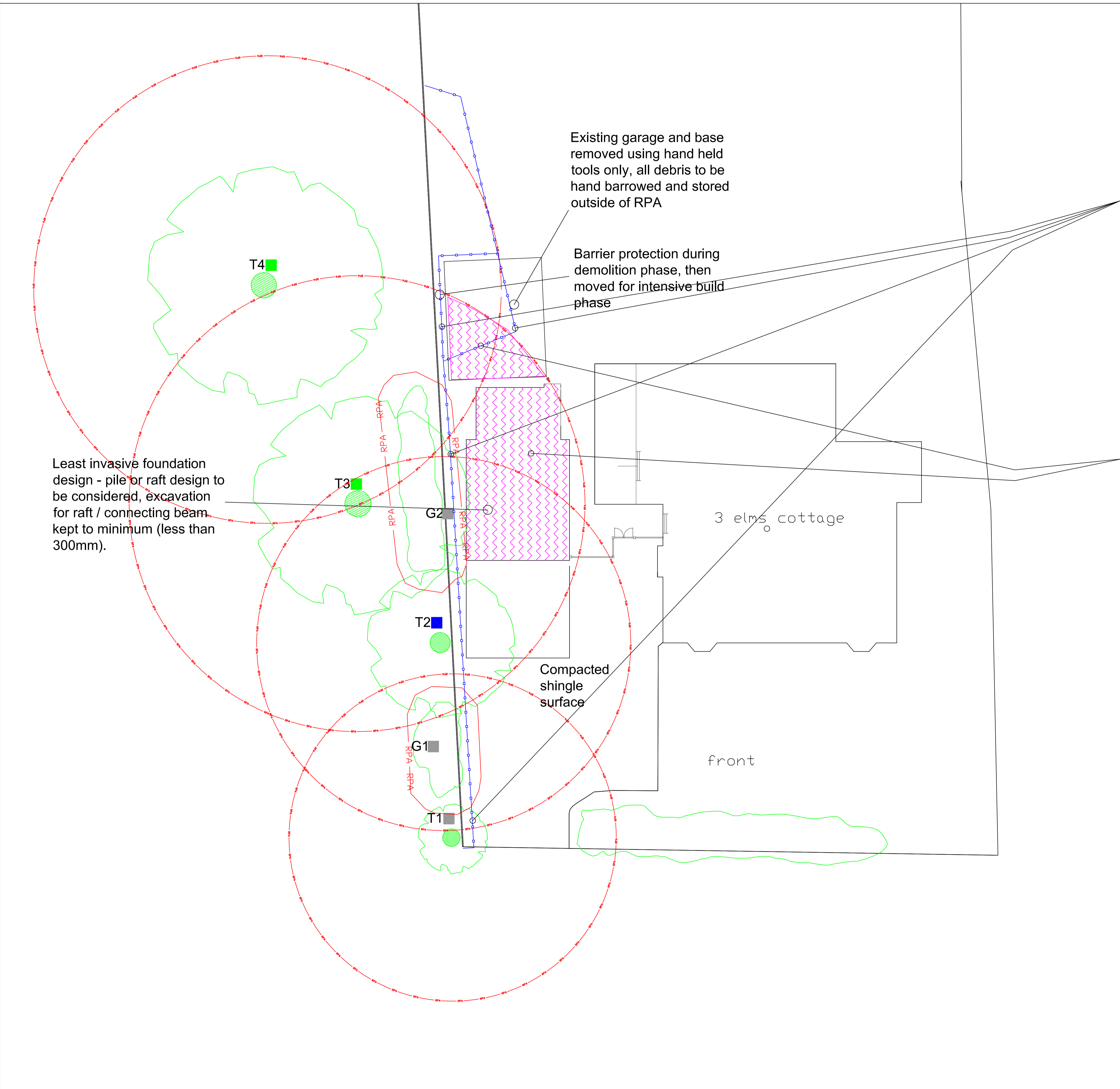
Construction Exclusion Zone

These trees have been retained and protected as part of the planning permission for this site.

Any breach of the protection will result in enforcement action from the Local Authority.



Appendix 5 Tree protection plan



Key Arboricultural Work Phasing

All methods statements below and annotations to the plan are to be read in conjunction with the arboricultural impact assessment ref TPQU0040.

The installation and removal of the tree protection is to be supervised by the project arboriculturist and confirmed as correct prior to the remaining work commencing (see section 2.2.2 - 2.2.5 & when the accompanying impact assessment ref TPQU0040). Further monitoring provisions during the construction phase are recommended within the monitoring specifications; the contents of the tree protection will be assessed during such visits.

Phase 1 - Tree works - See section 7 of accompanying impact assessment, no vehicle movements within the RPA unless on visible ground protection.

Phase 2 - Build / demolition phase barrier protection

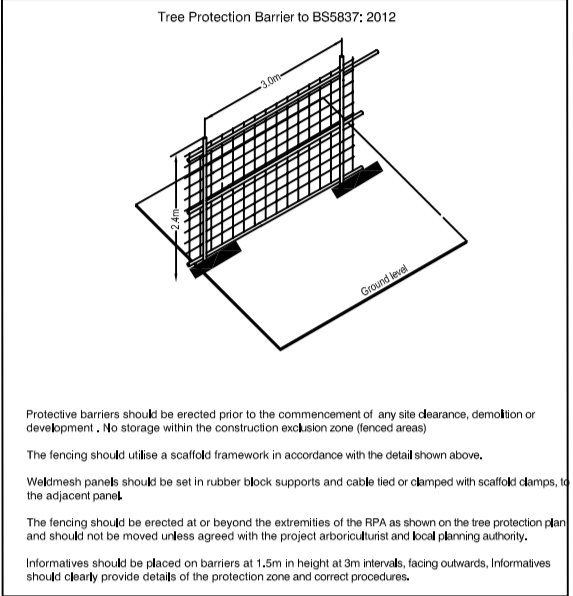
- Tree scaffolding frame as per drawing provided below and location as specified in drawing to left
- Install three panels, set on rubber blocks supports and cable to scaffolding frame and to each additional panel ensuring continuous barrier. An 800mm gap for garden maintenance may be created.
- Cable to wrap throughout installation to barrier

Phase 3 - Intensive build phase. Removal of garage / hard surfacing and hand excavation as per method statement provided.

Phase 4 - Soft and hand landscaping phase barrier protection

- Move barrier to ensure protection of the trees and root mass of the crown as possible while allowing access to carry out the approved soft and hand landscaping - see method statement below and when accompanying impact assessment.

Phase 5 - Removal of ground and barrier protection. Temporary barrier is to be removed first then any ground protection as the final phase of development once the intensive build and landscaping phases is complete.



Construction Exclusion Zone

No access is permitted.

The trees beyond this protected zone are subject to planning conditions and statutory protection.

Any breach of this zone will result in enforcement action by the Local Authority.

Sequential method statement for hand excavation and root grouting T2, T3 and T4

1. Prior to the start of the existing garage should be removed using hand held tools only. The walls should be pulled away from the RPAs or pushed inward on the footprint of the garage. All debris should be hand barrowed and stored outside of the RPAs. The remaining base should be removed using the below method statement.

2. Hand surfacing existing garage base - Break out using hand held concrete breaker to the original construction depth, assumed to be 200-300mm. Hand barrow and store all debris outside of RPA.

3. Soft surface / underlying soils - use an air spade or raise / form to soften and break the underlying soft / soft surface. Carefully remove the excavated soil using hand held heavy duty spade, shovel, soft tools, rakes, riddle the debris and the excavation depth is reached (SR to project structural engineer), hand barrow and store all debris outside of RPA.

4. Where roots are visible and will not be damaged by movement, push to side of pit or downwards.

5. Any exposed roots should immediately be wrapped or covered in damp burlap to prevent desiccation and protect them from root temperature changes.

6. If required, when any roots with diameter less than 25mm (use a sharp tool to provide a clean cut across the cross section root to root protected ground plane).

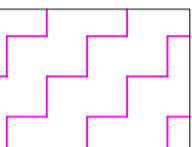
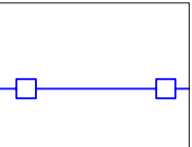
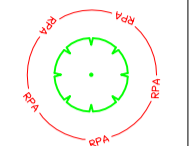
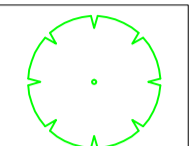
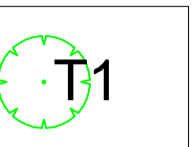
7. Avoid severing roots greater than 25mm or damage to roots (root mass). If this is necessary, then report on arboriculturist to advise the site to assess likely impact upon tree health and future stability.

8. Prior to backfilling any roots should be removed from the protective wrapping and surrounded by hand made or other foam greater than 25mm and other material as required. The backfill to be free from any contaminants or foreign objects.

9. Monitor tree health during next 2 growth seasons. Check leaf colour, size, density and extension growth.

Soft surfaces within RPA

- Any tractor mounted or heavy plant requiring machinery is to be used solely working on surface for purposes of relevel / spread load and prevent soil compaction.
- Cultivation is to be completed using manual hand tools only.
- Exposing soil is to be used, where additional soil is required it should be contained free, well drained and suitable for horticulture for the site and planting medium (see tree) sheets.
- Change large roots to be avoided. Large structural roots may be seen at or over the surface and where they radiate from the stem of the tree from large buttresses. After around 6m radial distance structural roots tend to turn 90 degrees.
- Changes to ground levels are to be avoided, any lowering or raising of levels should be carried out using a suitable method statement that provides continued soil conditions of gas exchange and water penetration.
- Planting is to be done with care and to avoid severing tree roots; generally, planting should be completed outside the RPA.



Legend:

Tree reference

Tree and crown spread

Root protection area

Temporary barrier protection

Hand excavation

Notes:

This drawing was produced in colour, a monochrome copy should not be relied upon.

Project: 3 Elms Cottage, Old London Rd, Copdock

Drawing Title: Tree Protection Plan

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Date: 22nd April 2023

Scale: 1:100 @ A1

Drawing Number: TPSQU0040 TPP

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Appendix 6

Example of arboricultural monitoring form

Tree Planning Solutions

Contract Monitoring Form

Details

Date	
Time	
Surveyor	
Client	
Site	
Ref	

Trees

Tree ref	Condition	Recommendations

Barrier

Tree ref	Barrier type	RPA radial distance as per planning permission	Actual barrier radial distance at site	Condition of barrier	Condition of signage	Comments

Tree Planning Solutions

Ground Protection

Tree ref	Type of ground protection installed	RPA distance as per planning permission	Actual distance of ground protection at site	Condition of ground protection	Comments

Additional Comments