Tree Survey

Tree Constraints Plan

Arboricultural Impact Assessment

Tree Protection Plan

Tregoddick Farm

Vingoes Lane

Madron

Penzance

Cornwall

TR20 8SS

Reference: 3227

Site Visit Date: 2018

Report Date: November 2018

8 Duke Street Truro Cornwall TR1 2QE

[redacted]

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1 INSTRUCTIONS

1.1 Mr M Clyndes instructed us to provide a Tree Survey, Constraints Analysis, Tree Constraints Plan and Arboricultural Impact Assessment.

1.2 Positions of the subject trees are mapped on the Tree Constraints Plan (TCP). This survey was based on the topographical survey supplied.

1.3 I have undertaken both survey and report to accord with the recommendations in British Standard 5837:2012 Trees in relation to design, demolition & construction - Recommendations (BS 5837).

1.4 Though safety is a consideration for each survey, this report does not provide an assessment of the risk presented by trees. Neither does this assessment relate to risks associated with subsidence, heave or other forms of disturbance associated with tree root growth or removal.

1.5 I did not have access to trees outside the boundaries or on other private properties and my observations of them were confined to what was visible from within the property.

1.6 I surveyed all the trees from ground level and have not climbed or undertaken any boring or core sampling. Where needed I used binoculars to assess areas of the crown. I assess the tree's maturity, biological, physiological and mechanical factors as described in the Visual Tree Assessment (VTA) methodology.

1.7 Tree Schedule Explanatory Notes & Methodology are listed in Appendix A.

2 SUPPORTING DOCUMENTATION

2.1 This report and associated plans and findings are based on the documents provided, as listed below:

- HM Land Registry Official copy of title plan Title number CL106290 presented as Location plan undated.
- Revised layout plan with vis splays-4165311 unnumbered and undated.

2.2 This report should be read alongside Evolve Tree Constraints Plan Ref: TCP ref 3227 and Evolve Tree Protection Plan Ref: TCP 3227.

3 STATUTORY DESIGNATIONS

3.1 Statutory Protection: I have used the information provided by the Cornwall Council Interactive Map on the assumption this is a true and accurate record. Should any tree be identified for removal confirmation must be obtained

from the local planning authority in writing as to the protected status of the trees.

3.2 Tree Preservation Order/s (TPOs): None of the trees on or adjacent to the site are currently protected by a Tree preservation Order (TPO

3.3 The Local Planning Authority (LPA) may change the protected status of the trees once it becomes aware of any potential development, but I consider this very unlikely in this case.

3.4 Conservation Area (CA): The site is not within a Conservation Area.

3.5 Planning Conditions/Covenants: I did not investigate whether any planning conditions or legal covenants relevant to the trees are in place.

3.6 National Planning Policy is described in the National Planning Policy Framework (NPPF) which states that planning decisions must take regard of ancient woodlands and veteran and aged trees outside ancient woodlands.

3.7 Local Planning Policy is described by the Cornwall Local Plan and includes:

- Policy 22: European Protected Sites - mitigation of recreational impacts from development.
- Policy 23: Natural environment.

3.8 Other designations:

- The site is not within any other landscape/wildlife designated areas.
- PROW – No Public Right of Way (PROW) exists on or adjacent to the site.

3.9 Felling Licences**:** I do not believe the site to be subject to the provisions of the Forestry Act. The site is likely to be subject to the provisions of the Forestry Act. This means you cannot fell any more than 5 cubic metres of timber in any one quarter and only 2 cubic metres if it is sold. I can supply advice on timber volumes if required.

3.10 Hedgerow Regulations**:** The hedgerow regulations do not apply to the boundary of a domestic curtilage. Under the Hedgerows Regulations 1997, it is against the law to remove most countryside hedges without first getting the permission of your local council. Anyone proposing to remove a countryside hedgerow must give the LPA 42 days' notice (a Hedgerow Removal Notice) of their intentions.

Hedgerows must be on or adjoining land used for agriculture or forestry, the breeding or keeping of horses, ponies or donkeys, common land, village greens, Sites of Special Scientific Interest or Local Nature Reserves.

Hedgerows must be joined to another hedgerow at each end or exceed 20 metres in length.

3.11 If a hedgerow is subject to a notice and deemed to be important under specified criteria (found in chapter 7 of the Guide and abbreviated below) and older than 30 years, the LPA have powers to serve a Hedgerow Retention Notice, requiring that the hedgerow is retained.

4 THE SITE & THE TREES

4.1 Location The site is found on the eastern side of Madron, a village on the Penwith peninsula which is just north of Penzance. The access is off Vingoes Lane via a field gate.

Image 1. Location of site
Google Map data 2018

4.2 Description The site is agricultural grassland with associated boundary hedge lines populated by shrubs and trees. The north west boundary contains a group of mature conifer trees.

4.3 The data collected during the site survey including comments regarding health, condition and amenity value, is presented in the Appendix B Tree Schedule with explanatory notes given in Appendix A.

4.4 The overall arboricultural impacts of the proposed development are acceptable as the trees affected are of compromised quality or minor in

stature. Consequently, the proposal conflicts/does not conflict with either local or national planning policies.

4.5 I recommend that the tree protection measures indicated on the tree protection plan are implemented. It would be reasonable for the LPA to enforce compliance by way of a planning condition.

5 THE PROPOSAL

5.1 The proposal is to erect 17no. residential dwellings with associated driveways, road access and open space.

6 CONSTRAINTS ANALYSIS

6.1 The preliminary constraints presented by the trees are presented on the Tree Constraints Plan. These include the areas we consider most likely to be occupied by the tree's roots (the root protection areas (RPAs) and the shade arcs. We have annotated the plan to highlight areas we consider merit further explanation or consideration.

7 POTENTIAL IMPACT OF DEVELOPMENT ON TREES

7.1 Arboricultural impacts are a relationship between the magnitude of a change (positive or negative) and the quality or sensitivity of the feature being affected.

7.2 My assessment focuses on the impacts relevant to planning merits and is guided by the British Standard BS5837 'Trees in relation to design, demolition and construction – recommendations'.

7.3 Factors considered in my impact assessment are listed below, however where the impacts are clearly insignificant, the topic is not addressed specifically.

7.4 Typical AIA topics:

- Tree loss.
- Build practicability.
- Mitigation planting.
- Future conflicts.
- Construction access.
- Statutory Protection.
- Canopy protection.
- Proximity to structures.
- Shading.
- Design conflicts.
- Necessary pruning.
- Infrastructure.

- Removal of structures.
- Effect on amenity value.
- Use of land near trees.

8 TREE LOSS, SHADING AND MITIGATION

8.1 Tree Loss

8.2 The most significant in terms of scale are T4 and T5. Both of these trees are mature Monterey Cypress. T4 has lost a major leading stem with a large tear wound inflicted upon the main stem. This compromises both the amenity of the tree and the longevity and makes it a low quality C1 tree.

8.3 T5 was probably trimmed back at a young age and has developed multiple leaders with included bark which are structurally poor. One of the major leaders has failed towards the site and the remaining leaders are based on structurally poor forks. This tree has a high risk of failure and falls into the low quality category also.

8.4 G1 and G2 are growing just outside the eastern boundary of the site. A construction exclusion zone of 5 metres from the boundary fence protected by tree protection fencing prior to any construction activity and for the duration of the construction process will provide acceptable protection for the rooting area of these trees.

8.5 The mixed small trees and large shrubs along the access drive offer a mass of vegetation on a relatively small scale, none of these shrubs or trees offer large scale amenity and any amenity lost can be quickly regained through a good quality planting scheme.

8.6 The Leylandii hedges G8 and G9 bordering the plot are not a significant consideration due to the low life expectancy from their structural condition and limited amenity.

8.7 Sunlight/Daylight Availability (Shading)

8.8 G1 and G2 are growing within the neighbouring boundary. These trees will be retained but due to the orientation of the site shading issues will be minimal, partly due to the houses being to the west of the trees, and partly due to the distance between the proposed dwellings and the trees.

8.9 Build Practicability: The root protection area (RPA) and canopy of the key trees can be protected during development by establishing a Construction Exclusion Zone (CEZ), protected by way of tree protection fencing (TPF) as indicated on the TPP.

9 TREE PROTECTION PROPOSALS

9.1 Based on the information provided to date, this report and TPP provide defined tree protection proposals (related to this design) which can be implemented without further specification.

9.2 The TPP defines the position of tree protection fencing which will be erected prior to the commencement of development and thereafter retained until completion. Please refer to Appendix B and C.

10 CONCLUSIONS

10.1 The overall arboricultural impacts of the proposed development are low. Consequently, the proposal does not conflict with either local or national planning policies.

10.2 I recommend that the tree protection measures indicated on the tree protection plan are implemented. It would be reasonable for the LPA to enforce compliance by way of a planning condition.

[redacted]

Mark Nankervis M Arbor A, MICFor,
Evolve Tree Consultancy

I am a Professional Member of the Arboricultural Association, and Chartered Arboriculturist. I have been working as a full-time, professional arboriculturist since 1996.

Institute of Chartered Foresters
Registered Consultant

Arboricultural ASSOCIATION
Fellow Member

The authority of this report ceases when any site conditions change or pruning or other works unspecified in the report are carried out to, or affecting, the subject tree(s). The statements made in this report do not consider the effects of extremes of climate, vandalism or accident, whether physical, chemical or fire. Evolve Tree Consultancy cannot accept any liability about these factors, nowhere prescribed work is not carried out in a correct and professional manner in accordance with current good practice.

The recommendations within this report remain valid for the period stated for re-inspection or twelve months from the date of survey.

The limit of Evolve Tree Consultancy's indemnity over any matter arising out of this report extends only to the instructing client; Evolve Tree Consultancy cannot be held liable for any third-party claim that arises following or out of this report. This report remains the intellectual property of Evolve Tree Consultancy.

APPENDIX A
TREE SCHEDULE EXPLANATORY NOTES

Sequential Tree, Group or Woodland Reference Number.

Name: Scientific name (Common name in brackets).
Height: Recorded in metres by inclinometer in each discrete area and estimated from the measured tree. **(lwr crn ht)** Lower crown height, the height of the canopy above the ground.
Trunk diameter: Tree stem diameter in millimetres at 1.5 metres above adjacent ground level rounded up to nearest 50 millimetres. For multi-stemmed trees a cumulative diameter is calculated (in accordance with BS 5837:2012 Annex C).
Crown Spread: Measured in metres & taken at four cardinal points (N E S W).
1st Sig branch: Existing height in metres above ground level (agl) of the first significant branch with direction of growth (if available).

Life stage	**Y**	**Young**	Recently planted or establishing tree.
	SM	Semi-mature	Age less than one-third life completed. Established tree but one that has not reached its potential ultimate height and has significant growth potential.
	EM	Early-mature	One-third to two-thirds life completed. A tree reaching its ultimate potential height, whose growth rate is slowing down but will still increase in stem diameter and crown spread.
	M	Mature	Two thirds plus life completed. Specimen with limited potential for any significant increase in size but with a reasonable life expectancy.
	LM	Late-mature (Over-mature in the BS)	Two-thirds plus life completed and declining. A tree that has passed its optimum growth rate and may require specialist management. These trees may offer significant benefits in terms of nature conservation
	V	Veteran	A tree that shows features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned.

Category: A grade given in accordance with BS 5837:2012 - Tree Categories (see copy of Table 1 from BS 5837:2012 below).
Comments: General observations e.g. collapsing, the presence of any decay and physical defect and including further investigation of suspected defects that require more detailed assessment and potential for wildlife habitat.
Life Expectancy: Estimated remaining contribution in years in terms of amenity (<10, 10+, 20+, 40+).

Physiological condition	**G**	**Good**	Tree that appears to be in good condition and healthy without significant defects.
	F	**Fair**	Tree that appears to be structurally sound but due to minor defects is downgraded from good.
	P	**Poor**	Tree which shows signs of poor health, in decline and/or with significant defects.
	D	**Dead**	Tree which is moribund or has died.

Recommendations: Preliminary management recommendations based on the site as surveyed and for any likely pruning likely to be required should any development proceed.
RPA-R (m) - Root Protection Area (RPA) Radius - The radius of an indicative circle of the RPA.
RPA (m^2) - RPA Area in metres squared.

Tag	Name	Life Stage	Trunk dia.	Ht (low ht)	1st Sig bch	N	E	W	S	Cond	Life Exp	Comments	Recommendations	RPA R m	RPA A m^2	Cat
G1	Pinus radiata (Monterey Pine)	M	450	18(2)	2	5	5	5	5	Fair	10+	Mixed conifer group of predominently Monterey Pine and Leylandii growing approx. one metre from boundary in neighbouring property.	No work required.	5	92	
G2	Acer pseudoplatanus (Sycamore)	M	500	10(2)	0.5	3	3	3	5	Fair	20+	Row of mature Sycamore, most are immediately inside neighbouring boundary.	No work required.	6	113	
T3	Eucalyptus gunnii (Cider Gum)	EM	300	4(0)	0	4	8	4	0	Poor	<10	Failed tree, still alive.	Remove	4	41	
T4	Cupressus macrocarpa (Monterey Cypress)	M	450	13(3)	2	5	5	6	5	Poor	<10	Major stem ripped from main trunk.	Remove	5	92	
T5	Cupressus macrocarpa (Monterey Cypress)	M	1000	13(0)	2	6	6	6	6	Fair	<10	Failed dominant stem on east side of tree. Poor structural forks in rest of crown.	Remove tree.	12	452	

G6	Prunus padus (Bird Cherry)	M	400	6(2)	2	5	5	5	5	Poor	10+	Unbalanced crowns due to competition. Limited scale trees.	Remove	5	72	
G7	Rhododendron	M	300	5(0)	0	3	3	3	3	Fair	10+	Mixed species minor scale or poor quality ornamental shrubs and small trees growing along either side of drive, including Rhododendron, Lawsons Cypress, Laurel, Camellia, Birch, Hydrangea, Eucalyptus, Olearia.	Remove if required. If retaining protect to canopy line of minor trees/shrubs.	4	41	
G8	X Cupressocyparis leylandii (Leyland Cyp	M	450	8(2)	0	4	4	4	4	Poor	<10	Lapsed hedge prone to stem failure.	Remove or retain as required.	5	92	

Table 1 from BS 5837:2012

Trees in relation to design, demolition & construction – Recommendations. Cascade chart for tree quality assessment

Category and 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 (e.g. 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.*			RED
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**	
Trees to be considered 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)	GREEN
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 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	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 150 mm	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

Trees outside the site/property

Every landowner and manager has a duty of care not to damage trees on the neighbouring land. The common causes of damage (root damage, compaction, physical damage and inexpert pruning) must be avoided through good planning and site management.

However, branches and roots from trees on adjacent properties that extend over boundaries can be pruned back to the boundary line without the permission of the owners. However, the branch material belongs to the tree owner and should be returned where appropriate.

Statutory wildlife obligations

The Wildlife and Countryside Act 1981 as amended by the Countryside and Rights of Way Act 2000 provides statutory protection to birds, bats and other species that inhabit trees. All wild birds are protected by law under the Wildlife & Countryside Act 1981, and it is an offence to disturb injure or kill a nesting bird intentionally or to take damage or destroy an occupied nest or egg. If nesting birds are discovered works on the trees should be deferred until the nests are abandoned. Care should be taken during any felling operation, or surgery works to trees to avoid damage or disturbance to birds during the nesting season.

Tree Preservation Orders

Advice can be found at:

http://planningguidance.communities.gov.uk/blog/guidance/tree-preservation-orders/tree-preservation-orders-general/

Conservation Areas

Advice can be found at:

http://planningguidance.communities.gov.uk/blog/guidance/tree- preservation-orders/protecting-trees-in-conservation-areas/

Important: Exceptions for tree work relating to planning permission and permitted development from the Planning Practice Guidance 15 April 2015 paragraph 36-083-20150415.

Under the heading "Is there an exception for tree work relating to planning permission and permitted development?", of the PPG states:

"The authority's consent is not required for carrying out work on trees subject to an Order so far as such work is necessary to implement a full planning permission. For example, the Order is overridden if a tree has to be removed to make way for a new building for which planning permission has been granted.

Conditions or information attached to the permission may clarify what work is exempt.

However, the authority's consent is required for works on trees subject to an Order if:

- development under a planning permission has not been commenced within the relevant time limit (i.e. the permission has 'expired'):
- only outline planning permission has been granted; and

- it is not necessary to carry out works on protected trees in order to implement a full planning permission."

Felling licence

In any calendar quarter*, you may fell up to 5 cubic metres on your property without a licence if no more than two cubic metres are sold. Contact your local Forestry Commission office if you are not certain whether these exemptions apply.

*1 Jan to 31 March, 1 April to 30 June, 1 July to 30 September and 1 October 31 December

Exemptions: Certain types of felling do not need permission from the Forestry Commission. The Forestry Act 1967, as amended, and related regulations give these exceptions in full. The main categories are listed below:

Lopping and topping (which usually includes tree surgery, pruning and pollarding).

Felling included in an approved dedication plan.

Felling fruit treed, or trees growing in a garden, orchard, churchyard or designated public open space (e.g. under the Commons Act 1899).

Felling trees which, when measured at the height of 1.3 metres from the ground:

- have a diameter of 8 centimetres or less; or if thinnings have a diameter of 10 centimetres or less; or
- if coppice (i.e. managed by cutting to promote multi-stemmed growth arising at or near ground level) or underwood, have a diameter of 15 centimetres or less.

Felling trees immediately required for carrying out development authorised by planning permission (granted under the Town and Country Planning Act 1990) or for work carried out by certain providers of gas, electricity and water services and which is essential for the provision of these services.

Felling necessary for the prevention of danger or the prevention or abatement of a nuisance (e.g. which may involve the threat of danger to a third party). This exemption will only apply if there is a real rather than a perceived danger. We may be able to give you advice that would minimise the danger without felling the trees. We strongly recommend that you contact us if you are considering felling a tree or trees in these circumstances. You may be prosecuted for illegal felling if it is shown that the tree did not present a real or immediate danger.

Felling necessary to prevent the spread of a quarantine pest or disease and done in accordance with a notice served by a Forestry Commission Plant Health Officer (under the Plant Health (Forestry) (Great Britain) Order 1993, as amended.

The felling is done in compliance with any obligation imposed by or under an Act of Parliament.

More advice can be found at

http://www.forestry.gov.uk/pdf/treefellingaugust.pdf/$FILE/treefellingaugust.pdf

APPENDIX D
TREE PROTECTION BARRIERS

No equipment, machinery or materials shall be brought onto the site for the purposes of the development until fencing has been erected in accordance with the plans and particulars which shall have been previously approved by the local planning authority in writing.

The areas forming the Construction Exclusion Zone are to be protected by Tree Protection Barriers as per the recommendations in BS 5837:2012 (Figure 2) or as specified below at Appendix H.

This fencing is to be erected before any work commences on site and is to remain in place undamaged for the duration of all work or each phase. It will only to be removed once all work is completed and if required by planning condition, with the formal consent of the local planning authority.

If the fencing be broken or removed during the course of carrying out the development, it shall be promptly repaired or replaced to the satisfaction of the local planning authority.

Within any area fenced in accordance with this condition, nothing shall be stored, placed or disposed of on the above or below ground, the ground level shall not be altered, no excavations shall be made, nor shall any fires be lit, without the prior written consent of the local planning authority.

Other than works detailed within this method statement or approved in writing by the local planning authority, no works at all (including storage or dumping of materials) shall take place within the exclusion zones defined by the protective fencing.

The fencing is to carry waterproof warning notices denying access within the RPA. The following signs or similar will be attached to the fence panels.

PROTECTIVE FENCING. THIS FENCING MUST BE MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND DRAWINGS FOR THIS DEVELOPMENT.

TREE PROTECTION AREA

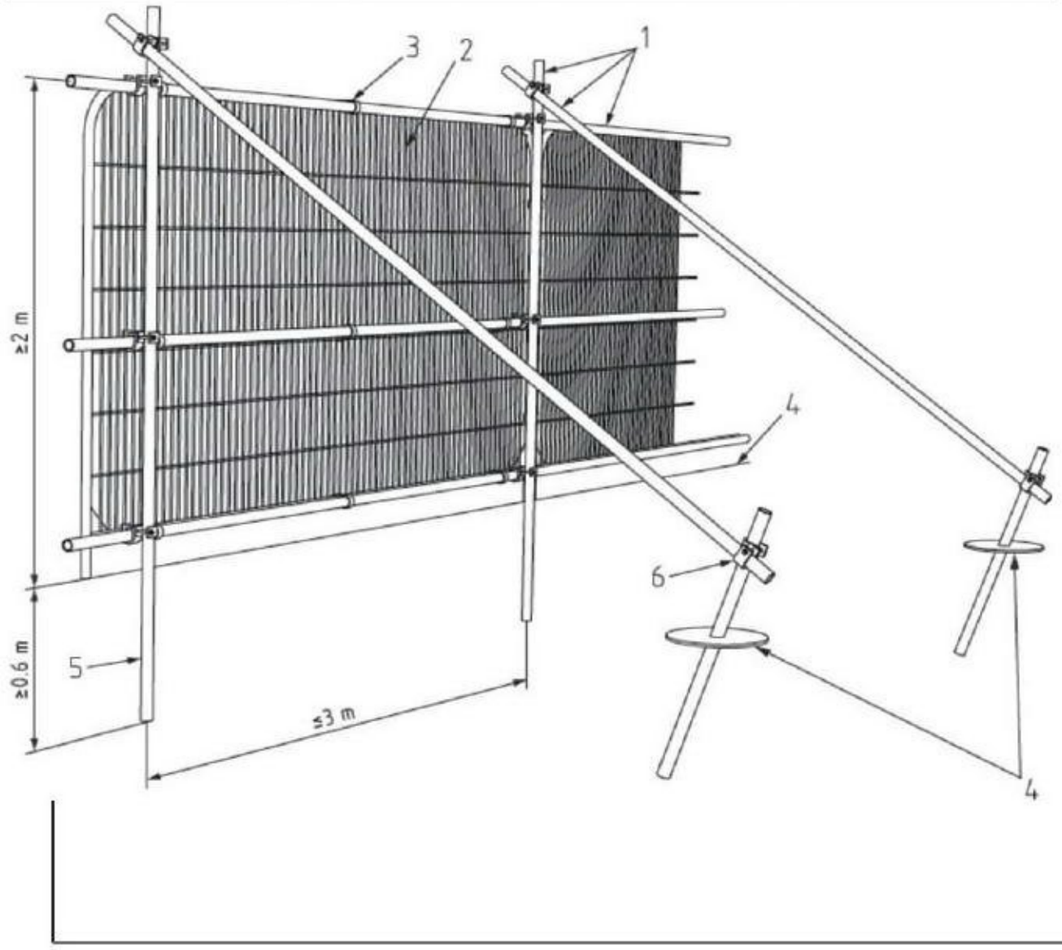
KEEP OUT!

TREES INSIDE THIS AREA ARE PROTECTED BY PLANNING LAW

ANY ENTRY TO THIS AREA MUST BE WITH THE WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY ONLY.

APPENDIX E
SPECIFICATION FOR TREE PROTECTION BARRIERS

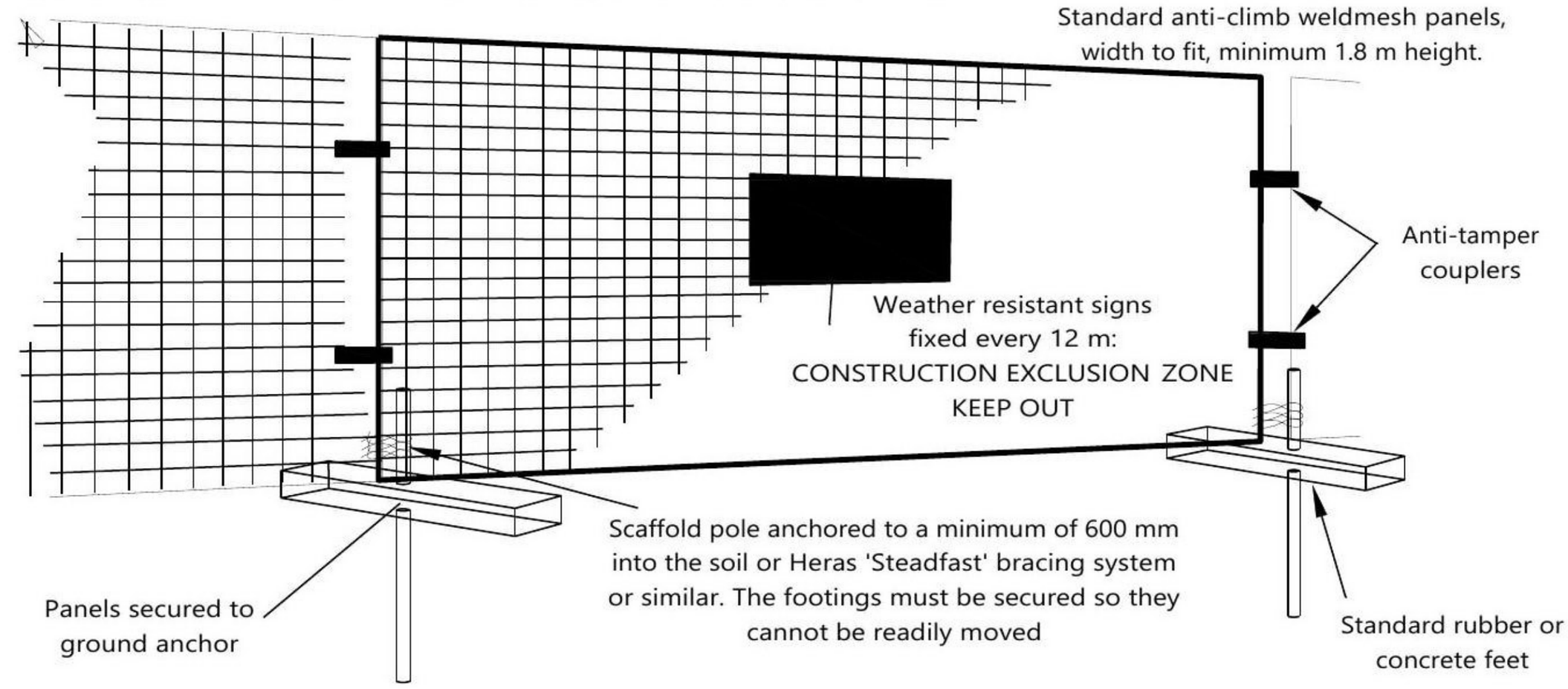
Below is the fencing specification reproduced from BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations.



Key
1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

Tree Protection Barriers (derived & amended from BS5837:2012 Figure 2) where there is insufficient space to install bracing.

Weldmesh panels (or similar) on blocks secured by poles driven into the ground.



Examples of configurations for steel mesh perimeter fencing systems are given in BS 1722-18

APPENDIX G
ARBORICULTURAL METHOD STATEMENT

No work may commence onsite and especially soil movement, stripping or stock piling may occur until the Construction Exclusion Zones have been established and protection measures implemented. This will remain in place and undisturbed until all construction activity has been finished.

Pre-commencement: A pre-commencement meeting shall be held on site prior to any construction works being undertaken. The methods of tree protection outlined in this statement shall be fully discussed at this meeting, so that all aspects of their implementation and sequencing are made clear to all parties. Any clarifications or modifications to this statement shall be recorded and circulated to all parties in writing. If appropriate, the tree surgery contractor will also attend this meeting.

The following Arboricultural Method Statement will provide the required protection for trees onsite and therefore meet the requirements or conditions imposed by the (LPA). The following sequence will be followed:

- Pre-commencement meeting.
- Tree removal.
- Erection of Tree Protection / Installation of Ground Protection Measures.
- Commencement of ground works / demolition.
- Repositioning of tree protection.
- Construction.
- Hard & soft landscaping (authorised access to Construction Exclusion Zones (CEZ)).
- Authorised removal of tree protection.
- Remedial tree surgery.

A copy of this Method Statement shall be supplied to all relevant site personnel who are working in proximity to retained trees and a register maintained in the site office to verify receipt.

Any variation to the method statement will need to be agreed with the local planning authority before commencing work.

This document is to be read in conjunction with the survey report. Any queries are to be referred to the arboriculturist.

The contractor will provide adequate training on the above for all relevant staff. This training will be carried out by or to the approval of a qualified arboricultural consultant. Any operatives undertaking work in the RPA/CEZ must be briefed using the method statement and supervised at all time by an arborist or supervisor experienced in working within the RPA.
All reasonable steps must be taken to ensure that no damage is done to the trunks or lower branches when using mechanical equipment such as excavators, cranes or aerial access platforms in the proximity of trees.

Tree Protection: The Construction Exclusion Zones shall be marked out by an Arboricultural Consultant and enforced by the erection of protective fencing. This protective fencing will be in compliance with the specification recommended in the British Standard 5837:2012 Figure 2 attached**.**

Once erected the Construction Exclusion Zone must be considered sacrosanct and off limits for any access or construction activity without the written consent of the designated arboricultural consultant. Affixed to every other panel or at 6 m centres will be all weather signs stating 'CONSTRUCTION EXCLUSION ZONE' --- KEEP OUT.

Timing of Fencing Operations: The TPF will need to be varied for the demolition and construction phases of the indicative plan.

The RPA will be fenced at its extremity until the day that the driveway is constructed and then specify that vehicles will not pass over the RPA until after the fill has been spread.

or;

The driveway construction will be complete prior to any other development upon the site and that the unprotected RPA should not be used for any activity associated with the development.

Tree surgery: Work in accordance with the recommendations for individual trees (as recorded in the Tree Survey Schedule) shall be undertaken either prior to all demolition/construction operations being started or at the post development stage. Prior to this surgery an updated Visual Tree Assessment will be made on the condition of the retained trees. Any amendments to the original recommendations to be recorded in a report and agreed with the manager or agent and the LPA tree officer.

Implementation of works: All tree works will be carried out to BS 3998 *Recommendations for Tree Work* and current best practice as modified by research.

Tree Removal: All Category 'U' trees and other trees agreed for removal will be felled. Shrubs and other plants will be cut back or removed as desired. Removal of trees shall be done with care to prevent damage to other specimens to be retained. Where necessary, trees will be removed in sections rather than felled from the ground to prevent them falling into and damaging the crowns of other trees.

Stumps: Stumps of any felled trees shall be removed/retained. Those that lie within the RPAs of trees to be retained shall be removed by grinding out; the remainder may be either ground or dug out.

Location of Site Office, Compound and Parking: The exact location of the office, compound and parking will be agreed in writing with the Local Planning Authority prior to commencement of any permitted development works.

Any proposed re-location of these items through the various phases of development will be agreed prior to re-siting with the Local Planning Authority.

On Site Storage of Spoil and Building Materials: Prior to and during all construction works on site, no spoil or construction materials will be stored within the RPA of any tree on, or adjacent to the site, even if the proposed development is to be within the RPA.

Levels: Other than for any specific exception as detailed at paragraph XX in Evolve TPP DATE & Reference, no alterations to soil levels within the RPA of retained trees will take place. However, if it is necessary for these to occur the consultant arborist must be contacted to assess and provide further advice as to how this may be achieved.

Storage: Areas for the storage of materials shall be outside the fenced Construction Exclusion Zones and be clearly marked. Oil, bitumen, diesel, and cement shall not be stored, mixed or discharged within 10 m of any trees. Areas for the storage or mixing of such materials shall be agreed at the pre-contract meeting and be clearly marked.

There will be no harmful works e.g. machinery movement, storage, cement mixing, cement washings etc within the RPA other than those specified in the method statement.

No notice boards or power or telephone cables shall be attached to any of the trees.

Fires will not be lit in a position where flames can extend WITHIN 5 m of foliage or branches and must take account of the size of the fire and the wind direction including changes in that direction.

As a matter of course all arboricultural matters will be resolved in consultation with and subject to the approval of the planning authority through their Arboricultural Officer.

Only once all construction works are completed can the protective fencing can be removed.

Method statement for removal of hard surfacing and buildings near to trees

An arboricultural consultant shall directly supervise all demolition and construction of building foundations and hard surfaces within Root Protection Areas.

Weather conditions will be assessed to ensure soil smearing or compaction does not occur. Wet weather conditions must be avoided when carrying out this work.

Under no circumstances is any machinery to drive into the RPA or the area identified as the CEZ.
The uptake of the existing surfacing and buildings should be carried out from outside the RPA and from within the footprint of the existing surfacing or building where within the RPA of a tree.

Hard surfacing areas near trees that require removal must be removed manually using appropriate tools and the debris removed from the excavated area. This must be planned so that the debris is not transported back over the recently excavated area. No vehicular equipment is to encroach within the recently excavated area.

OR

The bitumen surface will be broken up by a 360° Excavator no larger than 5 tons or a tractor mounted backhoe. A toothed bucket can be used to break up and lift the wearing course. Care must be taken not to disturb the underlying soils.

All vehicles will remain on the existing hard surface that is to be retained. The vehicle may need to be repositioned regularly in order to avoid damage to the existing soil structure.

The excavation of the material must not extend into the soil underneath. In practical terms the bucket of the excavator must be used so that the teeth are horizontal so that any disturbance of the underlying soil is kept to an absolute minimum. Where the surfacing is very thin and/or roots are very near the surface, the digging should be done manually.

The rubble must not be stockpiled within the RPA of the tree and must be exported without crossing the RPA.

Due care and planning must be taken to ensure that the operational arcs of excavators do not damage the retained trees.

Where new surfacing is to be installed, if the depth of the old surface is insufficient, the wearing surface may need to be higher than existing in order to accommodate the appropriate thickness. There may be a requirement for a geo-textile membrane to be laid on the soil surface, but this is an engineering matter dependent upon soil type. The separation is beneficial for root development.

Where the old surface is taken up and not replaced, the infill should be of good quality topsoil laid without compaction.

Once the hard surfacing is removed, suitable protective fencing is to be erected at the boundary of the Construction Exclusion Zone (CEZ).

After removal of the hard-surfacing Digging will proceed with hand tools only. Great care must be taken not to damage any roots that are encountered.

Any cuts to roots must be made perpendicular to the root leaving the smallest wound. Cuts are to be made with a sharp tool such as a pruning saw or secateurs to leave a clean surface with no ragged edges. The wounds are not to be treated with anti-wound product.

All roots greater than 25 millimetre in diameter are to be retained and worked around. Where clumps of smaller roots are encountered they are to be retained. No roots greater than 25 millimetres in diameter are to be severed without the consent of the supervising arboriculturist.

Where excavations containing retained roots are to be left open clean hessian sacking is to be wrapped around the roots and kept moist.

APPENDIX H
TREE PROTECTION SITE NOTICE

Arboricultural Site Considerations – To be displayed in a prominent place.

Tree Protective Barriers must be regarded as sacrosanct and must not be removed or altered without prior consultation with either the Local Planning Authority (LPA) or the arboricultural consultant responsible for the site supervision.
Ground protection must not be lifted or removed without prior consultation with either the LPA or the arboricultural consultant responsible for the site supervision.
Damage caused to protective fencing or ground protection must be reported to the site supervisor immediately to ensure efficient repair.
No materials, chemicals, machinery or vehicles must be stored within the Construction Exclusion Zone as defined on the Tree Protection Plan (TPP) and identified on site by fencing and above ground root protection.
No materials must be rested against a tree's trunk or machinery chained to it.
No pruning of trees may be undertaken by anyone other than an arborist, and all work must be approved by the supervising arboricultural consultant.
Any physical damage caused to a tree retained on site must be reported to the site manager so remedial work can be undertaken without delay.
Builder's sand, which contains salt, must not be used to back fill excavation within or in close proximity to tree roots, as this can have a toxic affect. Sharp sand can be used instead.
Material that will contaminate the soil, e.g. concrete mixings, diesel oil and vehicle washings, must not be discharged within 10 metres of a tree stem.
Fires must not be lit in a position where their flames can extend to within 5 m of foliage, branches or trunk. This will depend on the size of the fire and wind direction.
Notice boards, telephone cables or other services must not be attached to any part of a tree.

evolve TREE CONSULTANCY plan • develop • grow

Evolve Tree Consultancy

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Important: Please note that this plan is to be viewed in colour and at the scale and size presented. It is likely to be difficult to read if presented in a smaller format. Important features of the plan are colour coded and the data processed, and conclusions drawn, may be difficult to assess if presented in black and white.

We have undertaken the survey in accordance with the recommendations in British Standard 5837:2012 Trees in relation to design, demolition & construction - Recommendations (BS 5837). The dimensions, spreads and root protection areas of groups are based on the largest trees within any group surveyed.

Trees have been surveyed as groups where they form cohesive features either aerodynamically (i.e. they form a discrete group feature providing companion), culturally (i.e. they are composed of trees of a similar size, age and species subject to the same management) or visually (i.e. where the value of the trees within the group is as a whole rather than individually). The dimensions, spreads and root protection areas of groups are based on the largest trees within any group surveyed.

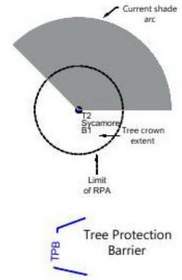
Only trees over 75 millimetres diameter at breast height (at 1.5 metres above ground level) have been included in the survey unless I have assessed them as being of particularly high value in terms of amenity. Other shrub vegetation on the site that has not been specifically included in this report is not relevant in terms of planning assessment.

Any incursion into the RPA will be unfavourably viewed by the LPA and will need to be supported by a strong argument. The closer to the stem the greater the risk to the trees and the greater the likelihood of the proposals being deemed unacceptable.

Sufficient room must be left for working and access space. This must be outside the RPA.

Legend

- U Grade trees
- A Grade trees
- B Grade trees
- C Grade trees
- Trees to be removed
- Trees to be pruned



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Revision	Description	Date

Client Mark Clyndes

Project Tregoddick Farm

Drawing Title
Tree Constraints Plan

Date 15.11.2018. Scale 1:500000 at A3

Drawn by MN Job Ref 3227

Drawing Number
EV- 1

Group 7
Rhododendron
C2

Group 8
Leylandii
C2

Group 6
Prunus Kanzan
C2

Tree 5
Monterey Cypress
C1

Tree 4
Monterey Cypress
C1

Tree 3
Eucalptus
U

Remove all trees
and groups
circled in red.

Construction
Exclusion Zone
5 metres from
boundary fence
No construction
activity within
this area.

Group 1
Monterey Pine
C2

Group 2
Sycamore
C2

G-C2
G7-C2
G6-C2
T5-C1
T4-C1
T3-U
G10-C2
G1-C2
G2-C2

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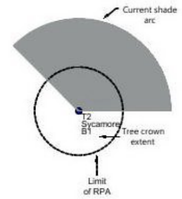

TPB Tree Protection Barrier

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Revision	Description	Date

Client Mark Clyndes

Project Tregoddick Farm

Drawing Title
Tree Protection Plan

Date 15.11.2018. Scale 1:500000 at A3

Drawn by MN Job Ref 3227

Drawing Number
EV- 2