Tree Team, Shropshire Council
PO Box 4826, Shrewsbury SY1 9LJ
Tel: 01743 25 3333
Email: trees@shropshire.gov.uk



Application for tree works: works to trees subject to a tree preservation order (TPO) and/or notification of proposed works to trees in a conservation area.

Town and Country Planning Act 1990

You can complete and submit this form electronically via the Planning Portal by visiting www.planningportal.gov.uk/apply

Publication of applications on planning authority websites

Please note that the information provided on this application form and in supporting documents may be published on the Authority's website. If you require any further clarification, please contact the Authority's planning department.

Please complete using block capitals and black ink.

You must use this form if you are applying for work to trees protected by a tree preservation order (TPO). (You may also use it to give notice of works to trees in a conservation area).

It is important that you read the accompanying guidance notes before filling in the form. Without the correct information, your application / notice cannot proceed.

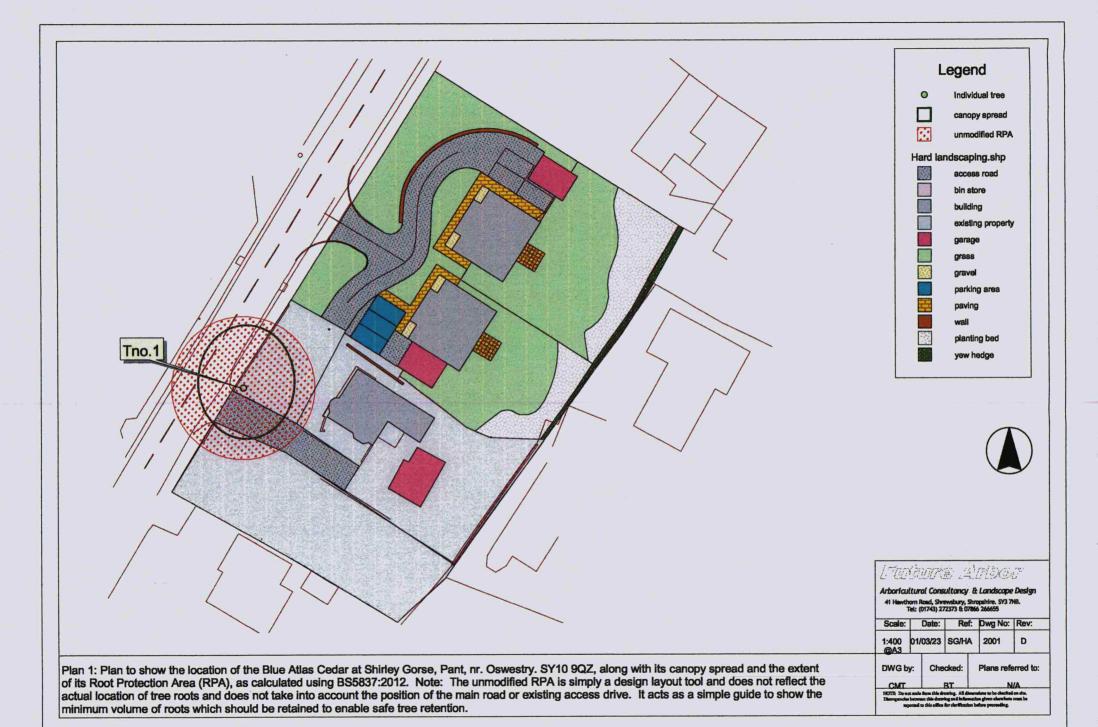
1. Applic	cant Name and Address	2. Agent Name and Address						
Title:	Mr First name: Robert	Title: First name:						
Last name:	Griffiths	Last name:						
Company (optional):	€	Company (optional):						
Unit:	House number: House suffix:	Unit: House number: House suffix:						
House name:	Shirley Gorse	House name:						
Address 1:	Pant	Address 1:						
Address 2:		Address 2:						
Address 3:		Address 3:						
Town:	Oswestry	Town:						
County:	Shropshire	County:						
Country:	England	Country:						
Postcode:	SY10 9QZ	Postcode:						

3. Trees Location of all trees stand at the 4. Otherwise, please where the tree(s) st	he address shown in	dress/location of the	he site	If 'No' please	cant the	owner of the	ss of the from the t	Yes trees location	ONo
Unit:	House number:	House suffix:		Last name:					
House Shirle	ey Gorse			Company (optional):					
Address 1: Pant				Unit:		House number		Hous	
Address 2:				House name:					
Address 3:					>-				
Town: Oswe	stry			Address 2:					
County: Shro	oshire			Address 3:					
Postcode (If known): SY10	9QZ			Town:					
If the location is un	clear or there is not	a full postal addres	ss, either	County:					
rear of 12 to 18 Hig	as possible where It h Street' or 'Woodla	nd adjoining Elm R	Road') or	Country:					
provide an Ordnan Description:	ice Survey grid refer	ence:		Postcode:					
5. What Are Yo	ou Applying For		No	1	ode: Mode: Mode: Freserv	Mobile number (cax	er (optiona optional): er Detai		Extension number:
subject to a TPO? Are you wishing to in a conservation a	o carry out works to area?	tree(s) OYes	● No	30/0017	0/13				
Please identify the necessary. You mig protected by a TPC your sketch plan (s Please provide the trees are protected planting replacem E.g. Oak (T3) - fell b	on Of Tree(s) And tree(s) and provide the ght find it useful to complete the ghost find it useful to complete the guidance notes) of following information at the second of the second o	a full and clear specontact an arborist tem as shown in the ion below: tree spectalso provide reason quantity, species, thading and low am	ecification of (tree surged e First Sched ecies (and thons for the w position and penity value.	on) for help Wi dule to the TPO ne number use vork and, whel d size) or reaso Replant with 1	owhere ed on the ere trees ons for a	ning appropre this is availa ne sketch pla are being fe not wanting i	n) and des lied, please o replant.	ne same num cription of wo	bers on orks. Where

7. Identification Of Tree(s) And Description Of Works continued	· · · · · · · · · · · · · · · · · · ·	
Propose felling of tree due to safety reasons.		
Planting of a replacent tree in a more suitable location		
8. Trees - Additional Information		
Additional information may be attached to electronic communications or provided separ	ately in paper	format.
For all trees A sketch plan clearly showing the position of trees listed in Question 7 must be provided when by a TPO. A sketch plan is also advised when notifying the LPA of works to trees in a conservation to the provided details of any advice given on site by an LPA officer.		
For works to trees covered by a TPO Please indicate whether the reasons for carrying out the proposed works include any of the folio must be accompanied by the necessary evidence to support your proposals. (See guidance not		
 Condition of the tree(s) - e.g. it is diseased or you have fears that it might break or fall: if YES, you are required to provide written arboricultural advice or other diagnostic information from an appropriate expert. 	Yes	ONO
 Alleged damage to property - e.g. subsidence or damage to drains or drives. If YES, you are required to provide for: 	Yes	No
Subsidence A report by an engineer or surveyor, to include a description of damage, vegetal and repair proposals. Also a report from an arboriculturist to support the tree w		ng data, soll, roots
Other structural damage (e.g. drains, walls and hard surfaces) Written technical evidence from an appropriate expert, including description of	damage and p	ossible solutions.
Documents and plans (for any tree) Are you providing separate information (e.g. an additional schedule of work for Question 7)?	Yes	No
If YES, please provide the reference numbers of plans, documents, professional reports, photogr If they are being provided separately from this form, please detail how they are being submitted		oport of your application.
as attachment files on line with this application		

9. Authority Employee / Member With respect to the Authority, I am: (a) a member of staff (b) an elected member (d) related to an elected member If Yes, please provide details of the name, relationship and role	Do any of these statements apply to you? Yes No
10. Application For Tree Works - Checklist Only one copy of the application form and additional information (Q make sure that this form has been completed correctly and that all re supply precise and detailed information may result in your application but it may help you to submit a valid form. Sketch Plan A sketch plan showing the location of all trees (see Question For all trees (see Question 7) Clear identification of the trees concerned A full and clear specification of the works to be carried out	elevant information is submitted. Please note that failure to on being rejected or delayed. You do not need to fill out this section,
 (see Question 7) Have you: stated reasons for the proposed works? provided evidence in support of the stated reasons? in parti if your reasons relate to the condition of the tree(s) - we appropriate expert if you are alleging subsidence damage - a report by an and one from an arboriculturist. in respect of other structural damage - written technical included all other information listed in Question 8? 	appropriate engineer or surveyor
11. Declaration - Trees I/we hereby apply for planning permission/consent as described in the information. I/we confirm that, to the best of my/our knowledge, any genuine opinions of the person(s) giving them. Signed Applicant: Date (DD/MIN/ NYYY): (This date must not be before the date of sending or hand-delivery of the form)	als form and the accompanying plans/drawings and additional facts stated are true and accurate and any opinions given are the Or signed - Agent:
12. Applicant Contact Details Telephone numbers Country code: National number: Country code: Mobile number (optional): +44 Country code: Fax number (optional): Email address	Telephone numbers Country code: National number: Country code: Mobile number (optional): Country code: Fax number (optional): Emall address

Electronic communication - If you submit this form by fax or e-mail the LPA may communicate with you in the same manner. (Please see guidance notes)



Protected Tree at Shirley Gorse - Engineer's Report

From:	Richard Harman	
To:		

Date: Friday, 15 September 2023 at 11:04 BST

Dear Sandra and Dave

I'm just writing to you following our recent site meeting on 7/09/23 to put my concerns in writing to you with regards to the protected cedar tree located adjacent to the access of Shirley Gorse with the A483, as shown in the attached photo.

The trunk of the tree is located less than 1m to an existing blockwork retaining wall, which is showing signs of deterioration from root growth and the wall appears to have been displaced by around 200mm to 300mm in the horizontal plane. The base of the tree is in an elevated position in relation to the adjacent narrow footway running along the eastern side of the A483. The deteriorating wall by itself is now presenting a hazard to the users of the adjacent highway, as this is showing signs of cracking and displacement of the coping stones. The cracking of the wall will also have the effect of reducing the structural stability of the ground above where the roots of the tree are located. Whilst localised pointing could be carried out to the wall, this will only provide a short-term 'sticking plaster' and this will do little to improve the structural condition of the wall due to vertical cracking noted.

To improve the long-term stability of the wall, this would ideally require to be reconstructed. However, the work required to reconstruct this and to meet the requirements of National Highways would be substantial and this would require significant encroachment into the root protection area of the tree. This would likely result in a significant deterioration of the health of the tree and also structurally destabilise it, as I would expect that its roots are presently anchored into the structure of the wall. It is therefore unlikely that consent (for work to a protected tree) would be given to carry out these works. Plus from an engineering perspective, I would comment that this would be unwise as the risk of the tree falling in high winds will be increased significantly.

I am aware that you've have recently had an Arboriculture Survey carried out on the tree for a recent planning app on the land adjacent to your house and this commented on the location of the tree in relation to it's position next to the trunk road. It appears that the grading of the tree was reduced due to its location, as this was taken as to significantly reduce the potential lifespan of the tree.

Overall, I am concerned over the stability of the tree and the impact this is having on the boundary wall. I am therefore concerned that these two issues pose a hazard to the users of the adjacent trunk road and unless action is taken, this could result in harm to members of the public and you could be found to be accountable should an incident occur. Whilst I appreciate that the tree is a prominent specimen, I am of the opinion that the risks posed by the tree at its present location cannot be mitigated and the best course of action is to fell the tree to prevent harm. A replacement specimen should be planted in a more sustainable location.

I would advise that you include this email within your application to the council to fell the protected tree on safety grounds.

Please let me know if you have any queries over the above.

Kind regards Richard

Richard Harman | IEng FIHE Partner and Head of Engineering

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Principal Consultant: BRENDAN TUER BSc.(Hons) MSc.Arb. M.Arbor.A www.futurearbor.co.uk Future Arbor Ltd. 41 Hawthorn Road, Shrewsbury, Shropshire. SY3 7NB. Tel: 01743 272373 Mob: 07866 266655 email: trees@futurearbor.co.uk Company No: 6510096

Arboricultural Assessment (Revised 1st March, 2023)

Prepared with reference to:

British Standard 5837:2012

"Trees in relation to design, demolition and construction –
Recommendations"

Survey site:

Development Site at Shirley Gorse, Pant, Nr. Oswestry, SY10 9QZ

(Ordnance Survey Grid Ref: 327325, 321965)

Inspection Commencing on:

30th April, 2022

1.0 Remit and Scope of Report:

- 1.1 Instructions to carry out an arboricultural assessment in respect of one Blue Atlas Cedar (*Cedrus atlantica* 'Glauca') at Shirley Gorse, Pant, nr. Oswestry, SY10 9QZ, were received from the landowner. We have been requested to review the condition of this tree at this site with regard to the requirements of British Standard 5837:2012 and with consideration for the re-submission for planning approval (Planning Ref: 22/01040/FUL).
- 1.2 This arboricultural assessment has been designed to facilitate the planning process with respect to the prominent Cedar at Shirley Gorse, that may be affected by proposals being put forward to develop the site. Information has been collected in respect of trees to comply with the requirements of British Standard 5837:2012 "Trees in relation to design, demolition and construction Recommendations." In this respect, we aim to provide guidance on the principles to be applied to achieve a satisfactory juxtaposition of trees in respect of development. While the Standard recognises the problems of development close to existing trees, it does not set out to put arguments for or against development, or for the removal or retention of trees. Rather it provides guidance on how to decide which trees are appropriate for retention, on the means for protecting these trees during construction work and also on the means for integrating trees into the landscape upon completion of the development.
- 1.3 It is appreciated that trees of good quality, well sited and appropriate to their surroundings, will greatly enhance any new development by providing an immediate appearance of maturity. After consideration of the arboricultural, landscape, conservation and cultural values, the British Standard provides a methodology for the determination of "Retention Categories," where Categories "A" and "B" represent trees which must be retained, whilst "C" and "U" identify less valuable trees. Subjectivity in the determination of Retention Categories is minimised within British Standard 5837:2012, which entrusts to those with a specialist and objective understanding of arboriculture. In this regard, this report has been prepared by Brendan Tuer M.Arbor.A, Professional Member of the Arboricultural Association (certificate PR.018).

2.0 Introduction:

- 2.1 This arboricultural assessment was undertaken on 29th April, 2022 and revised on 1st March, 2023. The tree was inspected from ground level, in accordance with our Standard Terms and Conditions for Arboricultural Consultancy Work. The categories for the measurements used to determine the Retention Category for each tree have been taken from British Standard 5837:2012. Additional information has been provided to facilitate a greater understanding of the trees in relation to construction.
- 2.2 The assessment of trees has been based upon their appearance and condition at the time of inspection and does not take into account any alteration in site conditions that may entail from future site development. Whilst this report is designed to provide the necessary information for planning decisions to be made in relation to trees, this report is not intended for use as an arboricultural health and safety report.
- 2.3 Whilst every attempt has been made to survey and record all arboricultural information accurately, it may have been necessary to estimate the recording of some information where trees have been either obscured or are not easily accessible. This circumstance may arise with ivy covered trees, on uneven terrain, where trees are in dense groups, access is impaired or trees are located on private property etc. In such circumstances responsibility lies with the landowner or client to ensure free access and clear lines of visibility to all trees and tree parts to be included within the survey.
- 2.4 With regard for proposed future tree planting and landscaping works at this site, we draw the attention of the reader to the Shropshire Biodiversity Action Plan which promotes planting native species, preferably grown from locally sourced seed. We have included a Landscaping and Tree Replacement Scheme which supports planting a new avenue of oaks to the front of the site.
- 2.5 Prior to any tree removal, care should be taken to ensure that no planning constraints are affected, such as Conservation Area and Tree Preservation Order constraints. Proper checks should be undertaken through the local planning authority to identify whether these are applicable.

3.0 The Survey:

- 3.1 This report contains the records for 1 individual tree located at: Shirley Gorse, Pant, nr. Oswestry, SY10 9QZ.
- 3.2 For the purposes of this development, particular consideration is given to:
 - (i) The individual species, its age, height and condition. The diameter at breast height (DBH) and the crown spread have also been measured in accordance with BS 5837:2012.
 - (ii) Identified structural defects have been recorded for trees to facilitate the determination of each tree's Safe Useful Life Expectancy (SULE). Comments and specific notes regarding the condition of each tree are appended to the tables.
 - (iii) The location of each tree relative to existing site features, *e.g.* its value as a screen or as a skyline feature. The tree's relative suitability, within the context of the proposed site development.
 - (iv) The suitability of a tree's retention within the context of the proposed development.
- 3.3 In accordance with the British Standard, we have recorded trees as defined within Table 1: BS 5837:2012. All Retention Categories are colour-coded on the attached plans to ease the identification of those trees, which are most desirable to retain (green and blue).
- 3.4 Root Protection Areas (RPAs) are clearly shown on the attached Tree Constraints Plan. The RPA is defined as "[a] layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability and where the protection of the roots and soil structure is treated as a priority." We have shown the RPAs as they are calculated in BS5837:2012, in both modified and unmodified form. This report requires consideration for a modified Root Protection Area, which should remain undisturbed, throughout the period of construction, protected as shown within the Appendix of this report.
- 3.5 This report is not a health and safety report and is provided to accommodate requirements found within British Standard 5837:2012, for planning purposes only. Future Arbor Ltd do not accept liability for the condition or health of any tree included within this report which may be impacted by any proposed development.

4.0 Terms used within the Tree Schedule:

- 4.1 **NUMBERING:** Each tree (or close-growing group) has been given a Tree number, to enable it to be identified through reference to the appended Tree Plans.
- 4.2 DIAMETER at Breast Height ("DBH"), is derived from the circumference measured at approximately 1.5m above ground level and recorded in millimetres. Small diameter, multi-stemmed trees and those in close-growing groups may be given as ranges of DBH.
- 4.3 HEIGHT has been calculated through the use of a clinometer and is recorded in metres. Alternatively, in dense woodlands the following classification may be used: Very small (≤.4m); Small (4-8m.); Medium (8-14m.); Large (14-20m); V. large (≥20m).
- 4.4 CROWN SPREAD has been measured in metres at the four cardinal points. CROWN START refers to the height at which the crown begins to develop, estimated in metres.
- 4.5 AGE classifications are based on the life *expectancies* of the various species, as follows:

Y Young Newly planted or self-establishing trees

YM Young/Mature Trees of up to one third of their expected lifespans

M Mature Trees between one and two thirds of their life expectancy

LM Late Mature Trees in the last third of their expected lives

These classifications are estimated by reference to the appearance and stemgirth of each tree, subjectivity has been reduced through the provision of these age ranges. The life expectancy of the various species has been adapted from Helliwell & Coombes, *Amenity Valuation of Trees & Woodlands*: Arboricultural Association, 1994.

4.6 **CONDITION** provides an overall assessment of the health of the tree and is based, subjectively, on practical experience. BS5837:2012 suggests consideration of both structural and physiological condition and within this report, these have been combined. The condition value may be downgraded where it is recognised that the tree may have a reduced life expectancy due to its location, disposition or where local knowledge may have imparted historical information specific to the condition of a tree. The following descriptions provide some interpretation for each category:

Good: No attention required [special features may be noted.]

Fair: Generally in good health but attention is advised on grounds of health, safety, <u>significant</u> nuisance or problems concerning general amenity.

Moderate: Notable hazards, notable nuisance or low amenity value.

Poor: Trees with faults that represent a significant hazard, or a serious threat to general amenity.

Very Poor: Trees with serious faults where work is essential to remove or ameliorate a hazard.

- 4.7 **SAFE USEFUL LIFE EXPECTANCY (SULE)** has been determined through reference to "SULE Data Collection," Barrel, J; updated 01/04/2001 and "Tree AZ," Barrel, J; (updated 08/08/2003). These documents allow for the estimation of a tree's life expectancy based upon a consideration, principally, for location and condition, to reflect the number of years remaining that a tree could be perceived to have and therefore to provide guidance as to whether the tree could feasibly be retained through the course of development.
- 4.8 **RETENTION CATEGORY** ("Category") is allocated as **A**, **B**, **C** or **U**. These categories are intended to indicate the relative importance given to the retention of each tree and are defined, based upon BS 5837:2012, as provided overleaf.
- 4.9 **ROOT PROTECTION AREA (RPA)** In order to avoid damage to the roots or rooting area of retained trees, the RPA has been recorded for all Category A & B trees. This is a minimum area in m² which should be left undisturbed around each retained tree. For the purposes of the location and survey plans at the end of this document, the approximate extent of the RPA has been sketched as a modified polygon, the area of which is recorded within the Tree Schedule.

4.8: BS 5837: 2012 RETENTION CATEGORIES, described as follows:

Trees for removal

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.

- 1) Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse
- 2) Trees that are dead or are showing signs of significant, immediate and irreversible overall decline
- 3) Trees infected with pathogens of significance to the health and/or safety of other trees nearby (eg. DED)
- 4) Very low quality trees suppressing adjacent trees of better quality

Trees to be considered for retention

Category A: Those of high quality and value: in such a condition as to be able to make a substantial contribution (min. 40 yrs)

- 1) 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 (eg. The dominant or principal trees within an avenue
- 2) Trees, groups or woodlands which provide a definite screening or softening effect to the locality in relation to views into or out of the site, or those of particular visual importance (eg. Avenues or other arboricultural features assessed as groups)
- 3) Trees, groups or woodlands of significant conservation, historical, commemorative or other value (eg. Veteran trees or wood-pasture)

Category B: Those of moderate quality and value: those in such a condition as to make a significant contribution (min. 20 yrs)

- 1) Trees that might be included in the high category, but are downgraded because of impaired condition (eg. Presence of remediable defects including unsympathetic past management and minor storm damage)
- 2) Trees present in numbers, usually as groups or woodlands, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals but which are not, individually, essential components of formal or semi-formal arboricultural features (eg. trees of moderate quality within an avenue that includes better, A category specimens), or trees situated mainly internally to a site, therefore individually having little visual impact on the wider locality.
 - 3) Trees with clearly identifiable conservation or other cultural benefits

Category C: Trees of low quality with an estimated remaining life expectancy of at least 10 years, or younger trees with a stem diameter of below 150mm.

Also, trees which could easily be transplanted or replaced.

- 1) Trees not qualifying in higher categories
- 2) Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value, and/or trees offering low or only temporary screening benefit
 - 3) Trees with very limited conservation or other cultural benefits
 - 4) Young trees with a stem diameter below 150 mm.

Tree Schedule

Data collected in accordance with BS5837:2012

					Cro	Crown Spread (m)									
Tree No.	Species	DBH (cm)	Age	Height (m)	N	S	E	W	Crown start (m)	Condition (Physio/ structural)	SULE (years)	Category	RPA (m²)	Distance to CEZ (m)	Notes, comments and recommendations
1	Blue Atlas Cedar	88	M	17	9.5	7.2	7.3	7.5	2	F	10-20 yrs	B/C	346.3	10.5	Prominent roadside specimen located atop retaining wall, approx. 1.5m above road level. Canopy extends out over road. This cultivar is renowned for branch failure and evidence from within the canopy shows an on-going history of branch failure. Damage to retaining wall at base also noted. Whilst this specimen is visually prominent due to its location next to a busy highway, consideration must be given to the
						5									nature of this cultivar and the potential for further branch failure. In this instance it may be better to fell this specimen and replant with an avenue of trees. The proposed landscaping scheme allows for a new avenue of oaks to be planted between the new service road and existing main road.

5.0 Discussion

- 5.1 Shirley Gorse is a detached property located next to the A483, Oswestry to Welshpool Road. In 2013, planing was approved for the "erection of three dwellings and one detached domestic garage along with alterations to the existing driveway." This planning approval allowed for the existing retaining wall to the front of the site to be dismantled and rebuilt further back, to allow for improved visibility splays although Condition 5 of the 2013 approval notice states "the protected Cedar shall be retained." A method statement was required for the re-building of the wall to the front of the site to allow for this tree retention.
- 5.2 In 2018, an application to discharge conditions 3, 4, 5 & 6 of the above was refused because Condition 1 required commencement of works within three years of the decision notice. No commencement of works had taken place.
- 5.3 I have been contacted to provide an arboricultural report which includes the Blue Atlas Cedar (Tno.1) which, I understand, is subject to Tree Preservation Order. This arboricultural report supports the current planning application (Ref: 22/01040/FUL) for the "Erection of 2No. residential dwellings and 1No. garage." I note that the third new house included within the original 2013 application, to the south of Shirley Gorse, has been removed from this planning application, although the original service road layout from the 2013 application has been retained.
- 5.4 In accordance with comments provided by Woodsyde Developments Ltd and National Highways, we have modified our plans to show the existing access to Shirley Gorse permanently stopped up to ensure that there is only one access from the main road to all properties. This new access road extends all the way to Shirley Gorse and we have shown the need to construct the portion of driveway within the Shirley Gorse curtilage using a ""no-dig" driveway methodology (see Appendix). Remedial works to the existing footpath and existing wall next to the A483 fall outside the scope of this report as this is routine maintenance to existing structures. Tno.1 is unlikely to be impacted by their upkeep.
- 5.5 I have revised my Tree Constraints Plans and Tree Protection Plans to suit this modification to the design layout. Subject to the above, we are happy to support this planning application.

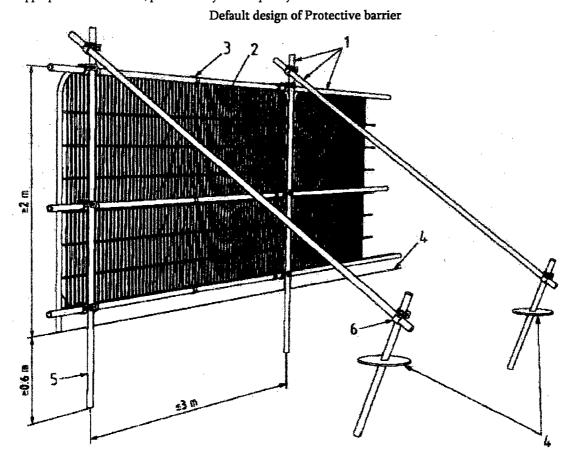
Report written by: Brendan Tuer MSC.Arb. M.Arbor.A

Site Plans

A construction exclusion zone should be established around all trees intended for retention, based upon the Root Protection Areas (RPAs) of those trees. These zones should be adequately protected by appropriately designed protective barriers & ground protection throughout the entire development process.

PROTECTIVE BARRIERS

- Vertical barriers should be erected and ground protection installed before any materials or machinery are brought onto
 the site and before any demolition, development or stripping of soil commences. Areas of new or retained structure
 planting should be similarly protected, based on the extent of the soft landscaping as shown on the approved drawings.
- Once erected, barriers and ground protection should be regarded as sacrosanct, and should not be removed or altered
 without prior recommendation by an arboriculturist and approval of the local planning authority.
- In the case of particularly vulnerable trees or trees sited close to the construction access, the owner or developer should
 make arrangements for an arboriculturist to supervise necessary works and the erection of protection before the handover
 of land to the contractor.
- Pre development tree work may be undertaken before the installation of tree protection, where required, with the
 agreement of the local planning authority.
- Barriers should be fit for the purpose of excluding construction activity and appropriate to the degree and proximity of
 work taking place around the retained tree(s). On all sites, special attention should be paid to ensuring that barriers
 remain rigid and complete.
- The default specification should consist of a scaffold framework in accordance with the illustration below, comprising a vertical and horizontal framework, well braced to resist impacts, with vertical tubes spaced at a maximum interval of 3m. Onto this, weldmesh panels should be securely fixed with wore or scaffold clamps. Plywood or similar panels may be appropriate in some cases, provided they are adequately secured in a manner similar to that illustrated.

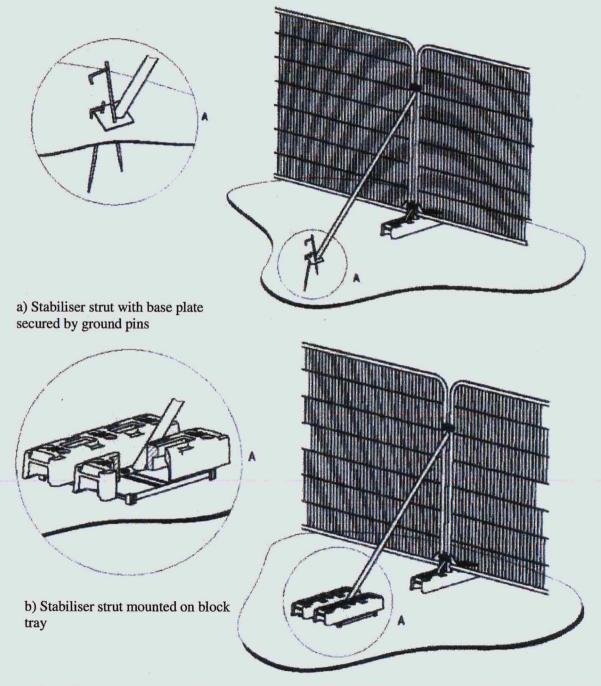


- 1 Standard scaffold poles
- 2 Heavy gauge 2m galvanised tube and welded mesh infill panels
- 3 Panels secured to uprights and cross members with wire ties
- 4 Ground level
- 5 Uprights driven into the ground until secure
- 6 Standard scaffold clamps

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• Note that weldmesh panels on rubber or concrete feet might provide an adequate level of protection depending on agreement with project arboriculturist and, where relevant, agreed with the LPA. In such cases the fence panels should be joined together using a minimum of two anti-tamper couplers, installed so that they can only be removed from inside of the fence. The panels should be supported on the inner side by stabiliser struts which should normally be attached to a base plate secured with ground pins, see Fig 3a. Where the fencing is to be erected on retained hard surfacing or it is otherwise unfeasible to use ground pins e.g. due to the presence of underground services, the stabiliser struts should be mounted on a block tray, see Fig 3b

Example of an above-ground stabilising system (BS5837;2012, Fig 3)



- It may be appropriate on some sites to use temporary site office buildings as components of the tree protection barriers.
- All-weather notices should be attached to the barrier with words such as:
 "CONSTRUCTION ZONE NO ACCESS"

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Notes on the Construction of Roads, Paths, Driveways etc. near Trees.

[See also BS5837:2012 (Trees in Relation to construction – Recommendations) & the Arboricultural Practice Note APN12 "Through the Trees to Development", published by the Arboricultural Advisory & Information Service]

Tree roots are concentrated in the upper metre of the soil, with the great majority 300-600 mm below the soil surface. Beyond 3 or 4 metres from the trunk most of the roots are small in diameter and not readily apparent as originating from trees. They are nevertheless vital to the tree's well-being, as well as being very easily damaged by even rather shallow soil disturbance, such as may be required in establishing a path or driveway.

Wherever possible paths etc should be routed well outside the Root Protection Area (RPA), when problems should not arise. Note, however, that the position of a path or road on a layout plan may indicate the surface only: Allowance must be made for any kerbing, and the footing into which kerbs will be set, when considering possible conflicts between trees and nearby paths, roadways etc.

Where there is no alternative other than for such a route to impinge upon the RPA of a tree, the possibility of damage can be significantly reduced through the use of No-Dig techniques, where an adequately load-bearing and hard-wearing surface is established over existing roots without them being damaged.

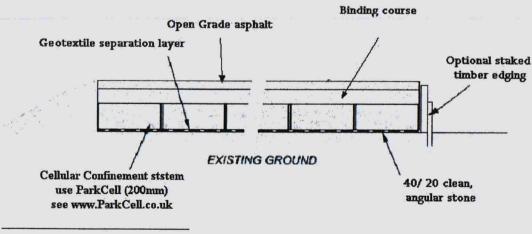
If necessary, existing surface vegetation should be killed using an <u>appropriate herbicide</u> that will not leach into the soil and will not affect tree roots. All herbicides must be applied strictly in accordance with the manufacturer's instructions.

Loose organic matter and/or turf should be removed carefully, using hand tools. If the surface needs to be levelled this should be achieved using a suitable granular fill material (e.g. no-fines gravel, washed aggregate etc.)

Roots must not be severed; soil surfaces should not be skimmed and the soil must not be compacted

Treatments must allow for the free diffusion of gases through the soil. Impermeable surfaces should not be applied to an area greater than 20% of the RPA; they should be restricted to a maximum width of 3m and situated tangentially to one side of the tree only.

Where load-bearing surfaces are required it is likely that a 'load suspension layer' will need to be installed. Proprietary systems are available that involve the use of a load-bearing, 'cellular confinement' systems, designed to support roads on soft ground. Examples of such products include "ParkCell" marketed by Parkcell Ltd.¹, and "Geocell", distributed by Terram Ltd.² and "Geoweb" marketed by Buildbase Ltd.³ A range of high tensile synthetic 'geogrid' products is also manufactured by Tensar International⁴. Such products, if necessary used in combination with an appropriate aggregate sub-base or fill, can permit a suitable bearing surfaces to be created, lying over <u>undisturbed</u> root-bearing land. A sectional drawing of a typical construction is given below.



1 Website:-

www.parkcell.co.uk

² Website:- <u>www.terram.com</u>

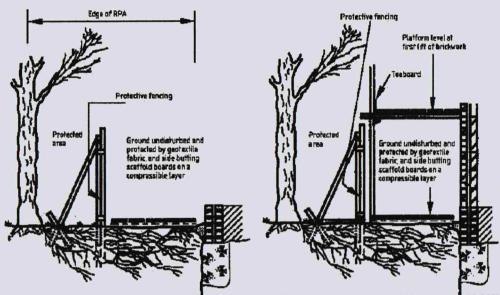
³ Website:-

http://tinyurl.com/yoyab4

GROUND PROTECTION

- Where it has been agreed during the design stage, and shown on the tree protection plan, that vehicular or pedestrian access for the construction operation may take place within the root protection area (RPA), the possible effects of construction activity should be addressed by a combination of barriers and ground protection. The position of the barrier may be shown within the RPA at the edge of the agreed working zone but the soil structure beyond the barrier to the edge of the RPA should be protected with ground protection.
- For pedestrian movements within the RPA the installation of ground protection in the form of a single thickness of scaffold boards on top of a compressible layer laid onto a geotextile, or supported by scaffold, may be acceptable

Scaffolding within the RPA:



ror wheeled or tracked construction trains movements within the KrA the ground protection should be designed by an engineer to accommodate the likely loading and may involve the use of reinforced concrete slabs or proprietary systems (such as those utilizing cellular confinement 'geogrid' materials, e.g. CellWeb" marketed by Geosynthetics Ltd; "Geocell" distributed by Terram Ltd. and "Geoweb" marketed by Buildbase Ltd.

ADDITIONAL PRECAUTIONS OUTSIDE THE EXCLUSION ZONE

Once the exclusion zone has been protected by barriers and/or ground protection, construction work can commence. All
weather notices should be erected on the barrier with words such as:

Construction exclusion zone - Keep out

In addition the following should be addressed or avoided.

- Care should be taken when planning site operations to ensure that wide or tall loads, or plant with booms, jibs and counterweights can operate without coming into contact with retained trees. Such contact can result in serious damage to them and might make their safe retention impossible. Consequently, any transit or traverse of plant in close proximity to trees should be conducted under the supervision of a banksman to ensure that adequate clearance from trees is maintained at all times. In some circumstances it may be impossible to maintain adequate clearance thus necessitating access facilitation pruning.
- Material which will contaminate the soil, e.g. concrete mixings, diesel oil and vehicle washings, should not be discharged within 10 m of the tree stem.
- Fires should not be lit in a position where their flames can extend to within 5 m of foliage, branches of trunk. This will
 depend on the size of the fire and the wind direction.
- Notice boards, telephone cables or other services should not be attached to any part of the tree.
- It is essential that allowance should be made for the slope of the ground so that damaging materials such as concrete washings, mortar or diesel oil cannot run towards trees..

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PLANNING SERVICES -TREE TEAM SHROPSHIRE COUNCIL P.O. Box 4826 SHREWSBURY 341 9 LJ.

