



Arboricultural Impact Assessment

in Relation to Proposed Construction
of Car Park Extension at



**Shackleton's Garden Centre, Clitheroe
Road, Chatburn, Lancashire, BB7 4JY**

Prepared by:

Bowland 
Tree Consultancy Ltd

January 2018

**ARBORICULTURAL IMPACT ASSESSMENT
SHACKLETON'S GARDEN CENTRE, CHATBURN**

Control sheet

Project No.: BTC1483

Site: Shackleton's Garden Centre, Clitheroe Road, Chatburn, BB7 4JY

Agent for Client: Gary Hoerty Associates

Council: Ribble Valley Borough Council

Survey Date: 19 December 2017

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DISCLAIMER

Survey Limitations: Unless otherwise stated all trees are surveyed from ground level using non-invasive techniques, in sufficient detail to gather data for and inform the design of the current project only. The disclosure of hidden crown and stem defects, in particular where they may be above a reachable height or where trees are ivy clad or located in areas of restrictive ground vegetation, cannot therefore be expected. Detailed tree safety appraisals are only carried out under specific written instructions. Comments upon evident tree safety relate to the condition of said tree at the time of the survey only. Unless otherwise stated all trees should be re-inspected annually in order to appraise their on-going mechanical integrity and physiological condition. It should, however, be recognised that tree condition is subject to change, for example due to the effects of disease, decay, high winds, development works, etc. Changes in land use or site conditions (e.g. development that increases access frequency) and the occurrence of severe weather incidents are also significant considerations with regard to tree structural integrity, and trees should therefore be re-assessed in the context of such changes and/or incidents and inspected at intervals relative to identified and varying site conditions and associated risks.

Where trees are located wholly or partially on neighbouring private third-party land then said land is not accessed and our inspection is therefore restricted to what can reasonably be seen from within the site. Stem diameters and other measurements of trees located on such land are estimated. Any subsequent comments and judgments made in respect of such trees are based on these restrictions and are our preliminary opinion only. Recommendations for works to neighbouring third-party trees are only made where a potential risk to persons and/or property has been identified during our survey or, if applicable, where permissible works are required to implement a proposed development. Where significant structural defects of third-party trees are identified and associated management works are considered essential to negate any risk of harm and/or damage then we will inform the relevant Council of the matter. Where a more detailed assessment is considered necessary then appropriate recommendations are set out in the Tree Survey Schedule.

Where tree stem locations are not included on the plan(s) provided then they are plotted by the arboriculturist at the time of the survey using, where appropriate and/or practicable, a combination of measurement triangulation and GPS co-ordination. Where this is not possible then locations are estimated. Restrictions in these respects are detailed in the report.

This document is intended as a guide to identify key tree related constraints to site development only, and the potential influence of trees upon existing or proposed buildings or other structures resulting from the effects of their roots abstracting water from shrinkable load-bearing soils is not considered herein. The tree survey information in its current form should not therefore be considered sufficient to determine appropriate foundation depths for new buildings. Accordingly, an updated survey, with reference to the current NHBC Standards Chapter 4.2 - Building Near Trees, must therefore be prepared for the specific purpose of informing suitable foundation depths subsequent to planning approval being granted. The advice of a structural engineer must also be sought with regard to appropriate foundation depths for new buildings.

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**ARBORICULTURAL IMPACT ASSESSMENT
SHACKLETON'S GARDEN CENTRE, CHATBURN**

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1.0 INTRODUCTION

Terms of Reference

- 1.1 Bowland Tree Consultancy Ltd was instructed to:
- Survey, either as individuals or by group, all trees having reasonable potential to affect or to be affected by the proposed development of the site under consideration;
 - Prepare a tabulated Tree Survey Schedule based on guidance specified BS5837:2012 - Trees in Relation to Design, Demolition and Construction – Recommendations;
 - Evaluate the potential tree related impacts and design conflicts of the proposals;
 - Advise on removal, retention and management options for the trees in the current context and in the context of the proposed development;
 - Advise on suitable tree protection measures required during development;
 - Annotate the proposed site plan to produce a Tree Impact Plan, identifying tree retention categories, crown spreads, Root Protection Areas (RPAs), projected tree related impacts, trees to be retained, and any other pertinent information; and
 - Produce an Arboricultural Impact Assessment report outlining the main tree related issues and reasonably foreseeable tree impacts in relation to the proposed development and indicating suitable mitigation provisions and retained tree protection.

Scope and Purpose of Report

- 1.2 By detailing foreseeable tree related issues this report is intended to assist the Local Planning Authority (LPA), in this case Ribble Valley Borough Council, in their review of the proposed development and, as such, should be supplied to them in support of the planning application to which it pertains. Essentially, the report provides an initial analysis of the impacts that the proposed development is projected to have on trees located both within the site and, where practicable, on land immediately adjacent to its boundaries. It also offers guidance on suitable retained tree management and mitigation for projected losses, along with advice on appropriate tree protection measures in the context of the proposed development in accordance with current guidance.

Site Visit, Data Collection and Tree Plans

- 1.3 A tree survey was carried out, in accordance with the preceding disclaimer, on 19 December 2017, and all tree data collected on site is set out in the attached tabulated Tree Survey Schedule (TSS) at Appendix One which, for ease of interpretation, should be read alongside the associated BS5837:2012 Table 1 (as appended).
- 1.4 The survey identified seven individual trees (prefixed 'T'), seven groups of trees (prefixed 'G'), and one hedge (prefixed 'H'), as numbered on the appended Tree Impact Plan (TIP). The TIP details the existing site, with readily definable tree constraints, and an overlay of the development proposal detailing associated tree impacts, retention proposals, and other pertinent information. The TIP was based on a topographical survey based proposal plan, which was provided in electronic format by the project agents, Gary Hoerty Associates, and, for the purpose of this report, the provided plan's details are presumed to be accurate.
- 1.5 The purpose of the TIP is to give an initial indication of the impacts that the proposed development is projected to have on trees, as well as to highlight areas where special construction and/or protection considerations may be necessary. It should subsequently be used by the LPA's tree specialist to preliminarily assess if the proposed development can potentially be constructed in accordance with BS5837:2012 and, along with the information provided in this report, as a basis for the LPA to request further details regarding specific matters relating to trees at suitable stages in the planning process.

2.0 STATUTORY PROTECTION IN RESPECT OF TREES AND ASSOCIATED WILDLIFE

Tree Preservation Orders and Conservation Area Designations

- 2.1 The Town & Country Planning Act (1990) (the Act) and associated Regulations empower Local Planning Authorities (LPAs) to protect trees in the interests of amenity by making Tree Preservation Orders (TPOs). The Act also affords protection for trees of over 75 mm diameter that stand within the curtilage of a Conservation Area (CA). Subject to certain exemptions, an application must be made to the LPA in question to carry out works upon or to remove trees that are subject to a TPO, whilst six weeks' notice of intention must be given to carry out works upon or to remove trees within a CA that are not protected by a TPO.
- 2.2 According to Ribble Valley Borough Council's planning department website, the site does not stand within a CA. However, the website does not provide any detail with regard to trees afforded protection under TPO legislation. As such, it is therefore essential to contact the planning office at Ribble Valley Borough Council in order to check for the presence of any statutory tree protection (i.e. TPOs) prior to scheduling or carrying out any tree works that are not directly permitted in relation to the implementation of a detailed planning approval.

Protected Species

- 2.3 Nesting birds are afforded statutory protection under the Wildlife & Countryside Act (1981) (as amended) and their potential presence should therefore be considered when clipping hedges, removing climbing plants and pruning and removing trees. The breeding period for woodlands runs from March to August inclusive. Hedges provide valuable nesting sites for many birds and clipping should therefore be avoided during March to July. Trees, hedges and ivy should be inspected for nests prior to pruning or removal and any work likely to destroy or disturb active nests should be avoided until the young have fledged.
- 2.4 All bat species, and their roosts, are protected under Schedule 5 of the Wildlife & Countryside Act (1981) (as amended) and under Schedule 2 of the Conservation of Habitats and Species Regulations 2010 (as amended). In this respect, it should be noted that it is possible that unidentified bat habitat features may be located high up in tree crowns and all personnel carrying out tree works at the site should therefore be vigilant and mindful of the possibility that roosting bats may be present in trees with such features. If bat roosts are identified, then it is essential that works are halted immediately and that a suitably qualified and experienced ecologist investigates and advises on appropriate action(s) prior to works continuing.

Felling Licences

- 2.5 Subject to certain exemptions the Forestry Act (1967) requires that a 'Felling Licence' be obtained to remove growing trees amounting to more than five cubic metres of timber in a calendar quarter. Felling Licences are administered by the Forestry Commission and contravention of the associated controls can incur substantial penalties.
- 2.6 A Felling Licence is, however, not required for the felling of trees immediately required for the purpose of carrying out development authorised by a full planning permission granted under the Town and Country Planning Act 1990.

3.0 THE SITE AND THE SURROUNDINGS

- 3.1 The site under consideration is located approximately 0.65 kilometres south-west of the centre of the village of Chatburn, Lancashire, and within the administrative boundaries of Ribbles Valley Borough Council. The site is an area of pastureland of approximately 86 metres x 82 metres at its widest points and tapering towards the south-west, which adjoins the southern boundary of Shackleton's Garden Centre.
- 3.2 The immediate area is bordered to the north by the garden centre, which precedes a large industrial estate, with the public highway Clitheroe Road running between them from east to west. Bordering the east, south and west is further pastureland, with the public highway Worston Road running adjacent to the south-west of the site.

4.0 THE TREE POPULATION

- 4.1 As noted previously, a total of seven individual trees, seven groups, and one hedge were surveyed for the purpose of this appraisal. They range from young to mature in age, with heights of up to 25 metres, maximum diametrical crown spreads of up to approximately 16 metres, and stem diameters of up to approximately 1240 millimetres. Detailed tree dimensions and other pertinent information, such as structural defects and physiological deficiencies, are included in the Tree Survey Schedule (TSS) at Appendix One.
- 4.2 In respect of the survey it should be noted that tree quality is categorised within the existing context without taking any site development proposals into account. However, recommendations for works included in the TSS take both current site usage into consideration and the proposed site development where there are definable development related issues with regard to specific trees.
- 4.3 Under the UK's planning system trees are a material consideration in the planning and development process. Nonetheless, only trees of a suitable quality and value should be considered a material constraint to development. In this respect, the TSS includes a column ('Cat. Grade') listing the trees' respective retention values, where they are rated either 'A', 'B', 'C' or 'U', as per BS5837:2012 Table 1 (Appendix One). 'A' category trees are those considered to be of 'high quality' and, accordingly, the most suitable for retention, whilst 'B' category trees are those considered to be of 'moderate quality', and 'C' category trees are those considered to be of 'low quality' with a correlated low retention value. In turn, 'U' category trees are those that are considered to be 'unsuitable for retention' regardless of any development proposals.
- 4.4 As detailed in Table A, below one tree was categorised as high quality ('A' category), one tree was categorised as moderate quality ('B' category) and five trees, seven groups, and one hedge were categorised as low quality ('C' category)

Table A: BS5837-2012 Retention Categories of the Surveyed Trees/Groups

	Ret. Cats.	Tree/Group/Hedge Numbers	Totals
Those of a moderate or high quality that should be afforded appropriate consideration in the context of development	'A'	T2	1 Tree
	'B'	T1	1 Tree
Those of a low quality that should not be considered a material constraint to development	'C'	T3, T4, T5, T6, T7, G1, G2, G3, G4, G5, G6, G7, H1	5 Trees 7 Groups 1 Hedge
Those that should be removed for sound management reasons regardless of site proposals	'U'	-	-
			= 7 Trees, 7 Groups and 1 Hedge in Total

5.0 THE DEVELOPMENT PROPOSAL AND ITS PROJECTED IMPACTS

The Development Proposal

- 5.1 As detailed on the TIP, the planning application is for the construction of a new 132 space car park extension, with access and egress via the existing garden centre's car park. It is understood, from information provided by the project agents, that the car park is to be constructed with minimal ground excavation work in order to ensure that the existing ground levels are to be retained where possible, with shale/gravel to be used as the surface material for drainage purposes, with stone sets installed to denote the separate spaces. For retention of surface material and protection of Root Protection Areas the entire car park is to be bordered with a kerbed boundary.

Projected Arboricultural Losses Relating to the Proposal

- 5.2 As detailed in Table B, below, it is projected that, from the information provided to date, construction of the proposed development will require the removal of two low quality groups, totalling five trees, as well as the partial removal of an approximately 7 metre length of one low quality group and an approximately 1 metre length of one low quality hedge.

Table B: Arboricultural Impacts of Proposed Development & Other Tree Removal Proposals

	Ret. Cats.	Removals necessary to implement development	Removals recommended regardless of development	Total no. of tree removals
Those of a high quality that should be afforded appropriate consideration in the context of development	'A'	-	-	-
Those of a moderate quality that should be afforded appropriate consideration in the context of development	'B'	-	-	-
Those of a low quality that should be afforded appropriate consideration in the context of development	'C'	G1, G3, part of G2, part of H1	-	2 Groups, 1 Partial Group, 1 Partial Hedge
Those that should be removed for sound management reasons regardless of plans	'U'	-	-	-
Totals		2 Groups, 1 Partial Group, 1 Partial Hedge	-	= 2 Groups, 1 Partial Group & 1 Partial Hedge in Total

Mitigation for Projected Arboricultural Losses Relating to the Proposal

- 5.3 From information provided by the project agents it is understood that the client owns an additional area of pastureland to the south-west of the proposed car park area. In turn, it is also understood that the client is supportive of new tree planting within this area. As such, it is proposed that up to ten replacement trees of appropriate moderate to large growing species be planted, in suitable locations, in mitigation of the loss of the low quality trees that are projected to require removal. In addition, it is also proposed that a native hedge line is to be planted along the southern border of the ownership boundary.
- 5.4 In turn, the provision of specific details regarding replacement tree and hedge planting, in the form of a landscape proposal plan, can be conditioned to a planning approval.

6.0 RECOMMENDATIONS FOR SUCCESSFUL TREE RETENTION IN THE CONTEXT OF DEVELOPMENT

Root Protection Areas and Construction Exclusion Zones

- 6.1 Adequate protection of the Root Protection Areas (RPAs) of retained trees during construction is essential if their long-term viability is to be assured. RPAs, which are calculated through a method provided in BS5837:2012, are ground areas that should be protected by temporary protective fencing as Construction Exclusion Zones (CEZs) throughout the development process, thereby keeping the trees' root zones free from disturbance. Consequently, the RPA distances, as detailed in the TSS (see 6.2) and on the TIP, give an idea of the on-site below-ground constraints in respect of tree roots and assist in planning for appropriate tree retention in relation to feasible development.
- 6.2 The TSS includes two columns listing the RPAs of the individually surveyed trees and, where applicable, the largest of the trees in any surveyed groups as overall areas in square metres and as radial distances. The radial RPAs are indicated as magenta coloured circles on the TIP. With regard to CEZs, the design, materials and construction of the fencing should be appropriate for the intensity and type of site construction works, should conform to at least section 6.2 of BS5837:2012, and should be secured by the imposition of a suitably worded planning condition. A default Temporary Protective Fencing Specification is included at Appendix Two.

Underground Utilities and Drainage

- 6.3 The installation of underground utilities, including drainage, in close proximity to trees can cause serious damage to their roots. As such, it is essential that utilities be routed outside RPAs unless there is no other available option. Where RPAs cannot be avoided then guidelines set out in the National Joint Utilities Group publication 'Volume 4: NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (Issue 2) – Operatives Handbook' should be followed (e.g. trenches of a very limited width to be hand dug or the use of directional drilling).
- 6.4 To date no proposed service or drainage routing plans have been provided for the development under consideration, upon which to base an assessment of potential tree related impacts. However, the provision of a service plan, with all service and drainage runs routed outside retained tree RPAs, can be conditioned to a planning approval.

Arboricultural Method Statement and Tree Protection Plan

- 6.5 Government guidance recommends that, where considered expedient by the LPA, an Arboricultural Method Statement (AMS) and a Tree Protection Plan (TPP) be prepared detailing special mitigation construction issues in relation to the development under consideration. Essentially, the AMS and TPP describe and detail the procedures, working methods and protective measures to be used in relation to retained trees in order to ensure that they are adequately protected during the construction process.
- 6.6 In order to ensure that the retained trees are adequately protected throughout the development process, the production of and adherence to an AMS and TPP can be conditioned to a planning approval.

7.0 OTHER RECOMMENDATIONS

Non-Development Related Tree Works and Recommendations

- 7.1 Any general management pruning works for retained trees that are stated to be non-development related, as detailed in the TSS, are recommended in accordance with prudent arboricultural management and should therefore be carried out regardless of any site development proposals and potential changes in land usage. All tree works should be carried out in accordance with BS3998:2010 - Tree Work – Recommendations.

Tree Work Related Consents

- 7.2 No tree pruning or removal works should commence on site until necessary consents have been obtained from the LPA as part of a planning approval or in respect of any statutory tree protection (e.g. TPOs).

Arboricultural Contractors

- 7.3 All tree works should be carried out by suitably qualified and experienced arboricultural contractors carrying appropriate public liability insurance cover and be implemented to the minimum current CE and UK industry standards and in accordance with industry codes of practice. Only certificated personnel should, in accordance with The Control of Pesticides Regulations, apply any pesticides.

Contractors and Subsequently Identified Tree Defects

- 7.4 Tree contractors should be made aware that, should any significant tree defects become apparent during operations that would not have been immediately obvious to the surveyor, then such defects should be notified immediately to the client and subsequently confirmed to the consultant within five working days.

New Tree Planting

- 7.5 All tree planting at the site should be carried out in accordance with BS8545:2014 Trees: from nursery to independence in the landscape – Recommendations.

Retained Tree Management

- 7.6 Any tree risk management appraisals and subsequent recommendations made in this report were based on observations and site circumstances at the time of our survey. Trees are dynamic living organisms whose structure is constantly changing and even those evidently in good condition can succumb to damage and/or stress.
- 7.7 In this respect, we would note that, under the Occupiers' Liability Act (1957 & 1984), site occupants have a duty of care to take reasonable steps to prevent or minimise the risk of personal injury and/or damage to property from any tree located within the curtilage of the land they occupy. It is accepted that these steps should normally include commissioning a qualified and experienced arboriculturist to survey their trees in order to identify any risk of harm to persons or damage to property that they may present and, where unacceptable risks are identified, taking suitable remedial action to negate those risks.

8.0 SUMMARY AND CONCLUSIONS

- 8.1 Seven individual trees, seven groups of trees and one hedge were surveyed in respect of a proposal to construct a car park extension at the site under consideration.
- 8.2 One tree was categorised as high quality, one tree was categorised as moderate quality, and five trees, seven groups and one hedge were categorised as low quality.
- 8.3 Based on the information provided to date the appraisal identified that construction of the car park extension as proposed will require the removal of two low quality groups, which total five trees, as well as the removal of part of one low quality group and part of one low quality hedge.
- 8.4 Nonetheless, the wider ownership site can accommodate approximately ten replacement trees of moderate to large growing species, as well as a native hedge to be planted along the southern boundary, the provision of which is projected to sufficiently mitigate for the necessary low quality removals.
- 8.5 In this respect the provision of specific details regarding replacement tree and hedge planting, in the form of a landscape proposal plan, can be conditioned to a planning approval.
- 8.6 With regard to retained trees it is concluded that ,in order to ensure successful existing tree preservation over the long-term, it is essential that they are protected in strict accordance with current Government guidance and the recommendations included herein.
- 8.7 Accordingly, the provision of and adherence to a suitably detailed Arboricultural Method Statement and Tree Protection Plan, with specific reference to the construction of the car park in close proximity to trees, can be conditioned to a planning permission in order to ensure the protection of retained trees.

REFERENCES

- BS8545:2014 - Trees: From Nursery to Independence in the Landscape – Recommendations. BSI British Standards, London.
- BS3998:2010 - Tree Work - Recommendations. BSI British Standards, London.
- BS5837:2012 - Trees in Relation to Design, Demolition and Construction – Recommendations. BSI British Standards, London.
- National House Building Council (2017). NHBC Standards Chapter 4.2 - Building Near Trees. NHBC, Amersham.
- National Joint Utilities Group (2007). Volume 4: NJUG Guidelines For The Planning, Installation And Maintenance Of Utility Apparatus In Proximity To Trees (Issue 2) – Operatives Handbook.

APPENDICES



TREE SURVEY SCHEDULE FOR ARBORICULTURAL CONSTRAINTS APPRAISAL	
Site:	Shackleton's Garden Centre, Clitheroe Road, Chatburn, Lancashire, BB7 4JY
Agent for Client:	Gary Hoerty Associates

Surveyor:	Ryan Gledhill FdSc MArborA
Survey Date:	19 December 2017
Job Ref:	BTC1483

No.	Species	Height	Stem Diam.	Branch Spread	Branch & Canopy Clearances	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m ²)	RPA Radius (m)
T1	Common Oak	16.5	880	N 5 E 8.5 S 7 W 6	3.5-E 4	M	G	<ul style="list-style-type: none"> Frequent instances of deadwood to a diameter of 300mm. Partially occluded cavity at a height of approximately 7m, to a diameter of 200mm, with a 1m bark strip from previously failed branch evidently still attached. 	<ul style="list-style-type: none"> Retain in context of proposed development. Protect Root Protection Area (RPA) throughout development using Temporary Protective Fencing (specification appended) to form a Construction Exclusion Zone (CEZ). 	20+	B1/2	350	10.56
T2	Sycamore	25	1240	N 6 E 7.5 S 8.5 W 8	4-W 2	M	G	<ul style="list-style-type: none"> Substantial basal flaring with circumferential reactive growth ribs running up stem to a height of 8m, characteristic of adaptive growth for trees of similar age and size. Several partially occluded cavities to a diameter of 300mm. Small instances of deadwood to a diameter of 150mm. 	<ul style="list-style-type: none"> Retain in context of proposed development. Protect RPA throughout development using Temporary Protective Fencing to form a CEZ. 	40+	A1/2	696	14.88
T3	Ash	17	750	N 6 E 7 S 9 W 5	3.5-S 2	M	P	<ul style="list-style-type: none"> Primary branch exhibiting severe bark necrosis at branch bark collar south side of stem, at a height of 4m and to a diameter of 300mm. Frequent instances of deadwood to a diameter of 150mm. Signs of a significant reduction in vitality and a late stage of progressive decline. 	<ul style="list-style-type: none"> Retain in context of proposed development. Protect RPA throughout development using Temporary Protective Fencing to form a CEZ. 	10+	C1	254	9
T4	Hawthorn	5	2x200 (ts)	N 3 E 3 S 3.5 W 3.5	0-S 1	M	G	<ul style="list-style-type: none"> Evident adaptive growth to compensate for basal stem decay has formed 'stilts' at the stem base. Multiple crossed and partially included branches to a diameter of approximately 60mm, with natural bracing evident at a height of 2m. Small instances of deadwood to a diameter of 50mm. 	<ul style="list-style-type: none"> Retain in context of proposed development. No projected impacts due to tree's location, therefore protection considered unnecessary. 	20+	C1	41	3.6

Headings and Abbreviations:

No. Allocated sequential reference number - Tree ('T'), Group ('G'), Woodland ('W') or Hedge ('H') reference number - refer to plan and to numbered tags where applicable

Species: Common name

Height: In metres, to nearest half metre - where possible approximately 80% are measured using an electronic clinometer and the remainder estimated against the measured trees. In the case of Groups and Woodlands the measurement listed is that of the highest tree

Stem Diam.: Stem diameter in millimetres, to nearest 10mm - measured and calculated as per Annex C of BS5837:2012. MS = multi-stemmed, TS = twin-stemmed

Branch Spread: Crown radius measured (or estimated where considered appropriate) from the four cardinal points (north, east, south and west) to give an accurate visual representation of the crown

Branch & Canopy Clearances: Existing height above ground level, in metres, of first significant branch and direction of growth (e.g. 2.5-N) and of canopy at lowest point - to inform on crown to height ratio, potential for shading, etc.

Life Stage: Estimated age class - Y = young, SM = semi-mature, EM = early-mature, M = mature, PM = post-mature

PC: Physiological Condition - a measure of the tree(s)' overall vitality, i.e. D = Dead, MD = Moribund, P = Poor, M = Moderate, G = Good

General Observations and Comments: Comments relating to the tree(s)' overall condition and any other pertinent factors including structural defects, current and potential direct structural damage, physiological decline, poor form, etc.

Management Recommendations: Either Preliminary or In Consideration of the Proposal - In the case of Arboricultural Constraints Surveys the recommended management works only take existing site and tree circumstances and conditions into account and not proposed developments. Arboricultural Impact Assessment and Method Statement related Surveys take the proposed development into consideration with recommendations made accordingly. More than one option may be given if considered appropriate

ERC: Estimated Remaining Contribution - in years as per BS5837:2012 (i.e. <10, 10+, 20+, 40+)

Cat. Grade: Category Grading - tree retention value listed as U, A, B or C - in accordance with BS5837:2012 Table 1

RPA m²: Root Protection Area in m² - calculated area around the tree that must be appropriately protected throughout the development process in order avoid root damage

RPA Radius (m): Root Protection Area Radius - in metres measured from the centre of the stem to the line of tree protection

(Estimated Dimensions): Where trees are located off-site, or are inaccessible for any other reason, and accurate measurements or other information cannot be taken then the information provided is estimated and is duly suffixed with a "#" symbol

TREE SURVEY SCHEDULE FOR ARBORICULTURAL CONSTRAINTS APPRAISAL	
Site:	Shackleton's Garden Centre, Clitheroe Road, Chatburn, Lancashire, BB7 4JY
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No.	Species	Height	Stem Diam.	Branch Spread	Branch & Canopy Clearances	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m ²)	RPA Radius (m)
T5	Ash	20	850	N 9 E 6 S 6 W 6	4-S 2.5	M	M	<ul style="list-style-type: none"> 100mm diameter basal cavity probed to a depth of 100mm; residual wood evidently solid with no decay present. Moderate stem lean north. Substantial reactive basal growth evident on the south stem base to a height of 1.25m to compensate for lean. Frequent deadwood to a diameter of 150mm. Signs of a significant reduction in vitality and early stage of progressive decline. 	<ul style="list-style-type: none"> Retain in context of proposed development. Protect RPA throughout development using Temporary Protective Fencing to form a CEZ. 	10+	C1	327	10.2
T6	Ash	20	800	N 10 E 7 S 6 W 5	3.5-S 2	M	M	<ul style="list-style-type: none"> Slight stem lean north. Evident failed limb south, at a height of approximately 6m, to a diameter of 350mm leaving a 2.5m long torn branch peg. Frequent instances of deadwood to a diameter of 200mm. Signs of a significant reduction in vitality and early stage of progressive decline. 	<ul style="list-style-type: none"> Retain in context of proposed development. Protect RPA throughout development using Temporary Protective Fencing to form a CEZ. 	10+	C1	290	9.6
T7	Ash	23	1100	N 9 E 6 S 6 W 9	6-N 2	M	M	<ul style="list-style-type: none"> Stem bifurcates at a height of 4m with black exudate running down north stem side from the stem junction. Frequent instances of deadwood to a diameter of approximately 350mm, with numerous branches with <i>Daldinia concentrica</i> (saprophytic decay fungus) colonisation evident exhibiting substantial residual deadwood. Primary branch at a height of 5m, to a diameter of approximately 400mm with substantial partially occluded lateral tear on the branch underside, approximately 3m long exhibiting severe decay. Evidently in a mid-stage of progressive decline. 	<ul style="list-style-type: none"> Retain in context of proposed development. Protect RPA throughout development using Temporary Protective Fencing to form a CEZ. 	10+	C1	547	13.2
G1	2no. Ash, 1no. Rowan	≤ 7	≤ 120	N ≤ 2 E ≤ 2 S ≤ 2 W ≤ 2	1-N ≥ 1	Y	P-G	<ul style="list-style-type: none"> Loosely spaced linear group. Central Ash tree exhibiting frequent instances of deadwood to a diameter of approximately 50mm and signs of a significant reduction in vitality. 	<ul style="list-style-type: none"> Remove to facilitate car park construction. 	20+	C2	≤ 7	≤ 1.44

TREE SURVEY SCHEDULE FOR ARBORICULTURAL CONSTRAINTS APPRAISAL
Site: Shackleton's Garden Centre, Clitheroe Road, Chatburn, Lancashire, BB7 4JY
Agent for Client: Gary Hoerty Associates

Surveyor: Ryan Gledhill FdSc MArborA
Survey Date: 19 December 2017
Job Ref: BTC1483

No.	Species	Height	Stem Diam.	Branch Spread	Branch & Canopy Clearances	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m²)	RPA Radius (m)
G2	Beech	≤ 4	≤ 90	N ≤ 1 E ≤ 1 S ≤ 2 W ≤ 1	N/A ≥ 0	Y	G	<ul style="list-style-type: none"> Very closely spaced linear screening group, evidently formed from outgrown hedge. Frequent canopy conflicts with adjacent palisade fencing. 	<ul style="list-style-type: none"> Remove approximately 7m length of group from eastern end to allow construction of vehicular access/egress. Prune to reduce lateral spread of canopies towards site by approximately 800mm where applicable, in order to accommodate construction of proposed car park (note: tree contractor should be required to provide a detailed pruning works specification in accordance with BS3998:2010 - Tree Work Recommendations). Retain remainder of group and protect sections in close proximity to proposed works throughout development using Temporary Protective Fencing to form a CEZ. 	10+	C2	≤ 4	≤ 1.08
G3	2no. Ash	≤ 9	≤ 220	N ≤ 3 E ≤ 3 S ≤ 3 W ≤ 2	1-S ≥ 1	SM	M	<ul style="list-style-type: none"> Loosely spaced group growing out of group G2. Both showing a reduction in vitality and early stage of progressive decline. 	<ul style="list-style-type: none"> Remove to facilitate car park construction. 	10+	C2	≤ 22	≤ 2.64
G4	2no. Austrian Pine, 2no. Horse Chestnut, 1no. Weeping Willow, 1no. Field Maple, 1no. Pear, 1no. Wild Crab	≤ 6	≤ 220#	N ≤ 2 E ≤ 2 S ≤ 2 W ≤ 2	1-N ≥ 0	Y	M-G	<ul style="list-style-type: none"> Located on neighbouring land, therefore not inspected in detail. Loosely spaced group linear. Post and board boundary frames around each tree with 'H' support stakes within protected area. 	<ul style="list-style-type: none"> Retain in context of proposed development. No projected impacts due to group's location and existing boundary fence line, therefore protection considered unnecessary. 	20+	C2	≤ 22	≤ 2.64
G5	2no. Goat Willow	≤ 6	≤ 220	N ≤ 3 E ≤ 3 S ≤ 2.5 W ≤ 3	2-W ≥ 2	SM	G	<ul style="list-style-type: none"> Evidently part of previous laid hedge since removed. Twisted stem forms with moderate stem leans north. Small instances of deadwood to a diameter of 50mm. Previous adjacent willow tree now a dead stem and supported by the west tree of the group. 	<ul style="list-style-type: none"> Retain in context of proposed development. Protect RPA throughout development using Temporary Protective Fencing to form a CEZ. 	10+	C1	≤ 22	≤ 2.64

TREE SURVEY SCHEDULE FOR ARBORICULTURAL CONSTRAINTS APPRAISAL
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No.	Species	Height	Stem Diam.	Branch Spread	Branch & Canopy Clearances	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m ²)	RPA Radius (m)
G6	3no. Hawthorn	≤ 8	≤ 290	N ≤ 2 E ≤ 2 S ≤ 2 W ≤ 2	1-N ≥ 1	EM-M	P-M	<ul style="list-style-type: none"> Close to moderate spaced group. Substantial bark necrosis on the lower stems of all group, exhibiting progressive decay. Canopy conflicts between group and T6. 	<ul style="list-style-type: none"> Retain in context of proposed development. Protect RPA throughout development using Temporary Protective Fencing to form a CEZ. 	10+	C2	≤ 38	≤ 3.48
G7	Hawthorn, Hazel, Silver Birch, Norway Maple	≤ 6	≤ 190	N ≤ 3 E ≤ 2 S ≤ 3 W ≤ 2	N/A ≥ 0	Y-EM	M-G	<ul style="list-style-type: none"> Very closely spaced screening group. Frequent conflicts between north canopy spread and post and board boundary fence line. 	<ul style="list-style-type: none"> Retain in context of proposed development. No projected impacts due to group's location, therefore protection considered unnecessary. 	10+	C2	≤ 16	≤ 2.28
H1	Beech	≤ 1	≤ 50	≤ 1 Wide	N/A ≥ 0	Y	G	<ul style="list-style-type: none"> Managed, young linear hedge. Tree guards evident throughout hedge stems. 	<ul style="list-style-type: none"> Remove approximately 1m length of hedge from western end to allow construction of vehicular access/egress. Retain remainder of hedge and protect sections in close proximity to proposed works throughout development using Temporary Protective Fencing to form a CEZ. 	20+	C2	N/A	≤ 0.6

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

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
<p>Category U</p> <p>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</p>	<ul style="list-style-type: none"> ▪ 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 <p><i>Note: Category U trees can have existing or potential conservation value which it might be desirable to preserve; see BS5837:2012 paragraph 4.5.7.</i></p>			Red
1. Mainly arboricultural qualities		2. Mainly landscape qualities	3. Mainly cultural values, including conservation	
Trees to be considered for retention				
<p>Category A</p> <p>Trees of high quality with an estimated remaining life expectancy of at least 40 years</p>	<p>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)</p>	<p>Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features</p>	<p>Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)</p>	Green
<p>Category B</p> <p>Those of moderate quality and value: those in such a condition as to make a significant contribution. A minimum of 20 years is suggested.</p>	<p>Trees that might be included in the high category, but are downgraded because of impaired condition. Examples include the presence of remediable defects including unsympathetic past management and minor storm damage</p>	<p>Trees present in numbers, usually as groups or woodlands, so they form distinct landscape features which attract a higher collective rating than they might as individuals. But which are not, individually, essential components of formal or semi-formal arboricultural features. For example, trees of moderate quality within an avenue that includes better, A category specimens. Or trees which are internal to the site, therefore individually having little visual impact on the wider locality</p>	<p>Trees with clearly identifiable conservation or other cultural benefits</p>	Blue
<p>Category C</p> <p>Those trees of low quality and value: currently in adequate condition to remain until new planting could be established - a minimum of 10 years is suggested - or young trees with a stem diameter below 150 mm</p>	<p>Trees not qualifying in higher categories</p>	<p>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</p>	<p>Trees with very limited conservation or other cultural benefits</p>	Grey
<p>Note – Whilst C category trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150mm should be considered for relocation</p>				

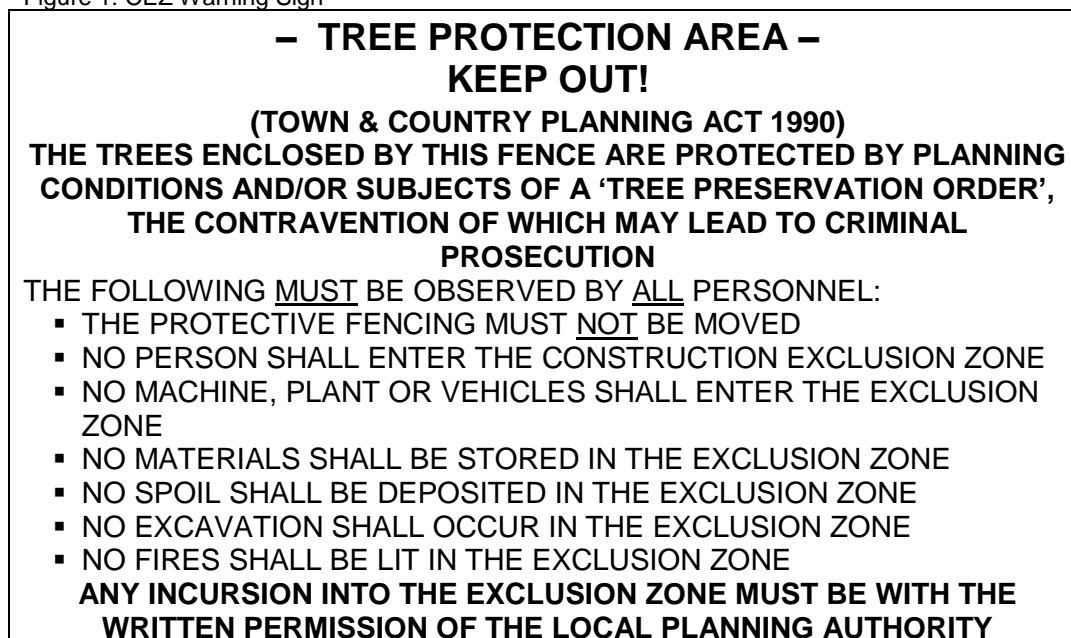
- TEMPORARY PROTECTIVE FENCING & GROUND PROTECTION SPECIFICATION -

Construction Exclusion Zones (CEZs), shall be enclosed by **Temporary Protective Fencing** and/or, where necessary, **Temporary Ground Protection Measures**. The fencing/ground protection Type(s), locations, and extents shall be agreed, in writing, with the Local Planning Authority (LPA). In turn, the **Temporary Protective Fencing** and/or **Temporary Ground Protection Measures** shall:

1. be constructed as in accordance with the Type 1, Type 2 or Type 3 'Temporary Protective Fencing Construction' sections and, where applicable the 'Temporary Ground Protection Measures' section, as detailed herein and agreed, in advance with the LPA;
1. be retained in place throughout the development process until completion of the project, and only removed following receipt of written permission from the LPA;
2. be sited in the area(s) defined by the Root Protection Areas on the associated Tree Impact Plan, or as the CEZs on the Tree Protection Plan;
3. be erected prior to any construction, demolition or excavation works and remain in place for the duration of the project;
4. preclude any delivery of site accommodation and/or materials and/or plant machinery;
5. preclude all construction related activity, with the sole exception of specified arboricultural works and any other works to be carried out under supervision that have been agreed by all parties;
6. preclude the storage of all development related materials and substances including fuels, oils, additives, cement and/or any other deleterious substance; and
7. be affixed with a 600mm x 300mm warning sign reading "TREE PROTECTION AREA KEEP OUT" (see Figure 1, below), at every 10.0 metre length of protective fencing.

Important: Any incursion into CEZs must be by prior arrangement, following consultation with the LPA.

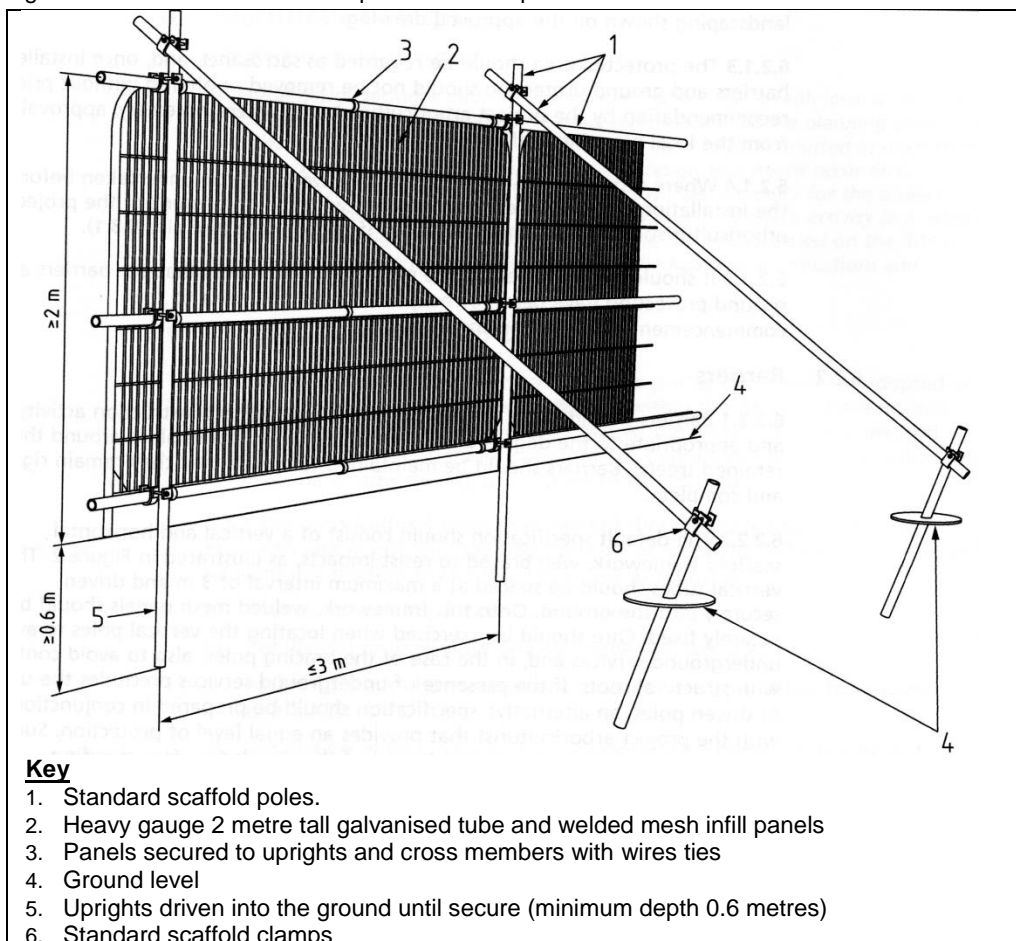
Figure 1: CEZ Warning Sign



Type 1 (i.e. 'Default') Temporary Protective Fencing Construction (see Figure 2, below)

1. Temporary protective fencing panels shall be weldmesh "Heras" panels of at least 2.0 metres in height.
2. The panels shall butt together and be securely fixed to a scaffold framework, as per points 3 to 5 of Figure 2, overleaf.
3. The scaffold framework shall comprise of upright poles of at least 3.0 metres in length driven no less than 0.6 metres into the ground at maximum 3.0 metre centres with horizontal and diagonal poles fixed to the uprights, as per points 4 to 5.
4. The two horizontal rail poles shall be attached to the uprights at heights of 0.6 and 1.8 metres with 3 no. clamps to each joint.
5. The diagonal scaffold pole struts be clamped to the top rail of the scaffold framework at a 45° angle and extend back into the CEZ and clamped to a 0.7 metre length of scaffold tube that shall be driven no less than 0.5m into the ground.
6. No fixing shall be made to any tree and all possible precautions shall be taken to prevent damage to tree roots when locating posts.
7. A 600mm x 300mm warning sign reading "TREE PROTECTION AREA KEEP OUT" (see Figure 1) shall be fixed to every 10.0 metre length of protective fencing.
8. On completion of erection, and prior to any demolition or construction works, site preparation, excavation or delivery of plant and materials, the Consulting Arboriculturist or the LPA Tree Officer, as agreed, shall inspect the Temporary Protective Fencing.

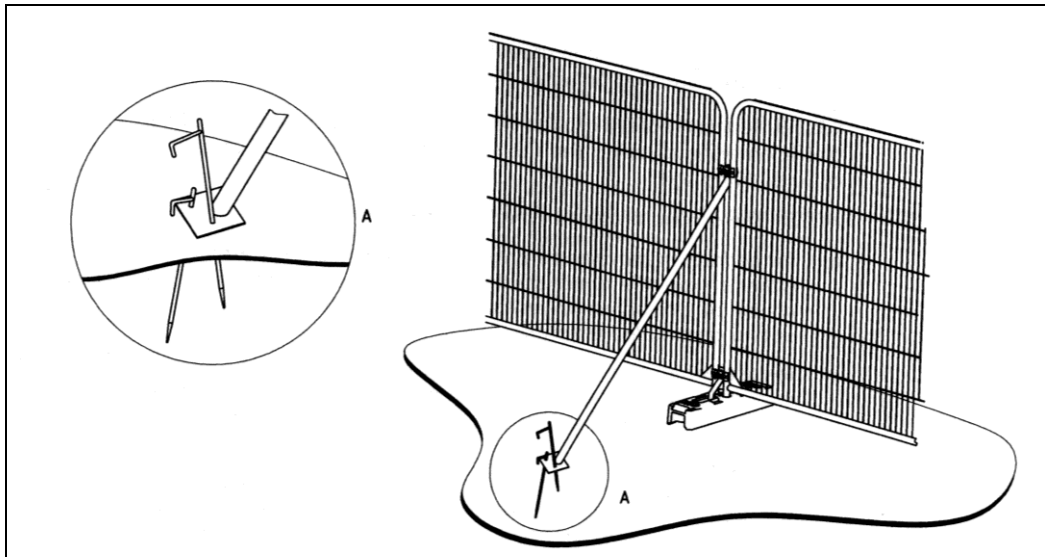
Figure 2: BS5837:2012 Default specification for protective barrier



Type 2 Temporary Protective Fencing Construction (see Figure 3(a), below)

1. Temporary protective fencing panels shall be weldmesh "Heras" panels of at least 2.0 metres in height.
2. The panels shall stand on rubber or concrete feet.
3. The panels shall butt together, and be joined together using a minimum of two anti-tamper couplers, installed so that they can only be removed from inside the fence.
4. The distance between the fence couplers shall be at least 1.0 metre, and shall be uniform throughout the fence.
5. The panels shall be supported on the inner side by stabiliser struts, which shall be clamped to the scaffold framework at a 45° angle and extend back into the CEZ and shall be attached to a base plate, which shall be secured to the ground with pins (Figure 3a).
6. No fixing shall be made to any tree and all possible precautions shall be taken to prevent damage to tree roots when locating posts.
7. A 600mm x 300mm warning sign reading "TREE PROTECTION AREA KEEP OUT" (see Figure 1) shall be fixed to every 10.0 metre length of protective fencing.
8. On completion of erection, and prior to any demolition or construction works, site preparation, excavation or delivery of plant and materials, the Consulting Arboriculturist or the LPA Tree Officer, as agreed, shall inspect the Temporary Protective Fencing.

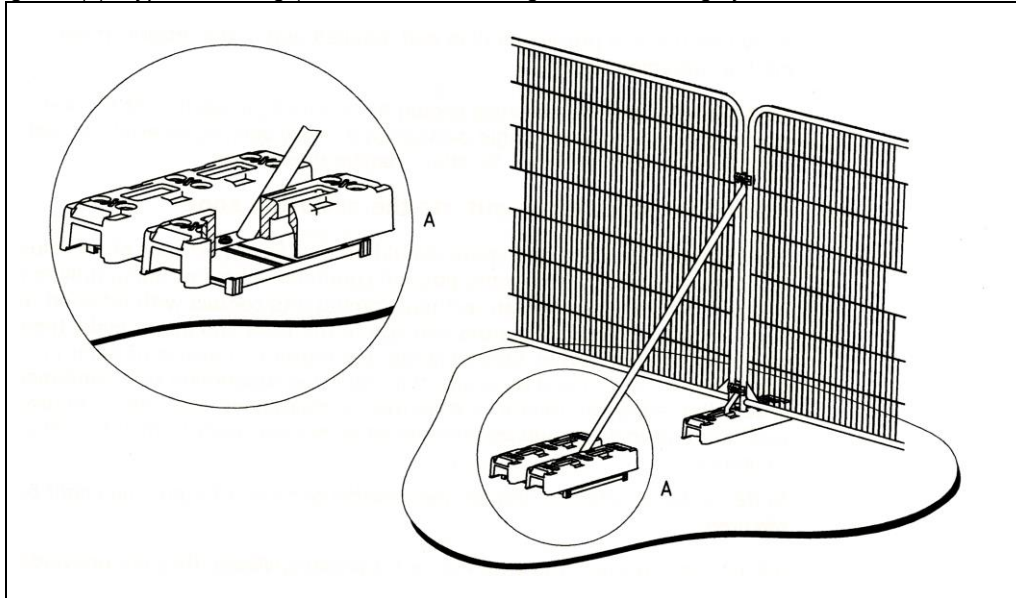
Figure 3(a): Type 2 Fencing (BS5837:2012 above-ground strut stabilising system with ground pins)



Type 3 Temporary Protective Fencing Construction (see Figure 3(b), overleaf)

1. Temporary protective fencing panels shall be weldmesh "Heras" panels of at least 2.0 metres in height.
2. The panels shall stand on rubber or concrete feet.
3. The panels shall butt together, and be joined together using a minimum of two anti-tamper couplers, installed so that they can only be removed from inside the fence.
4. The distance between the fence couplers shall be at least 1.0 metre, and shall be uniform throughout the fence.
5. The panels shall be supported on the inner side by stabiliser struts, which shall be clamped to the scaffold framework at a 45° angle and extend back into the CEZ and shall be attached to a block tray base (Figure 3b).
6. No fixing shall be made to any tree and all possible precautions shall be taken to prevent damage to tree roots when locating posts.
7. A 600mm x 300mm warning sign reading "TREE PROTECTION AREA KEEP OUT" (see Figure 1) shall be fixed to every 10.0 metre length of protective fencing.
8. On completion of erection, and prior to any demolition or construction works, site preparation, excavation or delivery of plant and materials, the Consulting Arboriculturist or the LPA Tree Officer, as agreed, shall inspect the Temporary Protective Fencing.

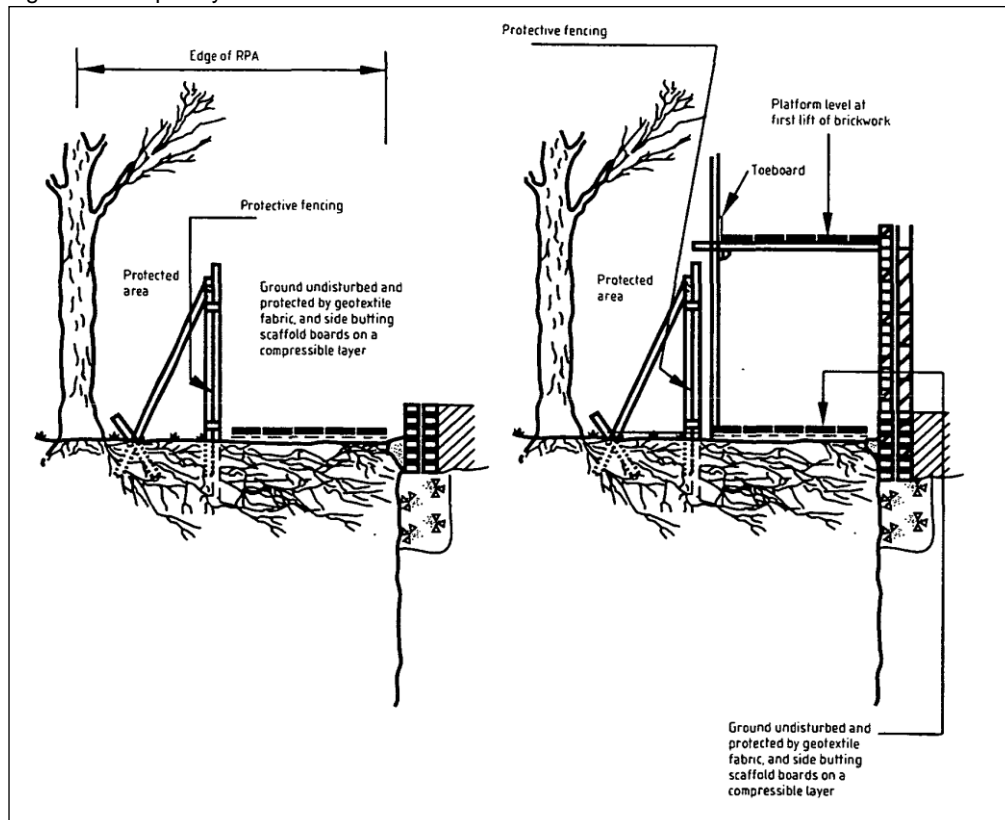
Figure 3(b): Type 3 Fencing (BS5837:2012 above-ground stabilising system with strut on block tray)

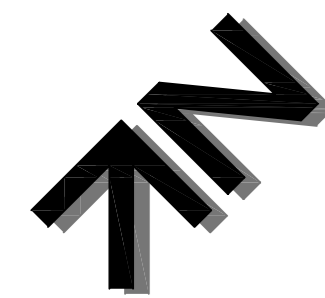


Temporary Ground Protection

1. Any necessary Temporary Ground Protection areas shall conform to Figure 4, below, unless otherwise agreed with the LPA.
2. The Ground Protection Area shall be left undisturbed and covered by a semi-permeable geotextile membrane which shall, in turn, be covered by a compressible layer consisting of a material such as woodchip.
3. Side-butting scaffold boards shall then be fitted to cover the Ground Protection Area.
4. On completion of installation, and prior to any demolition or construction works, site preparation, excavation or delivery of plant and materials, the Consulting Arboriculturist or the LPA Tree Officer, as agreed, shall inspect the Temporary Ground Protection.
5. The Temporary Ground Protection shall remain in place until completion of the project and only removed following receipt of written permission from the LPA.

Figure 4: Temporary Ground Protection – Recommended Construction



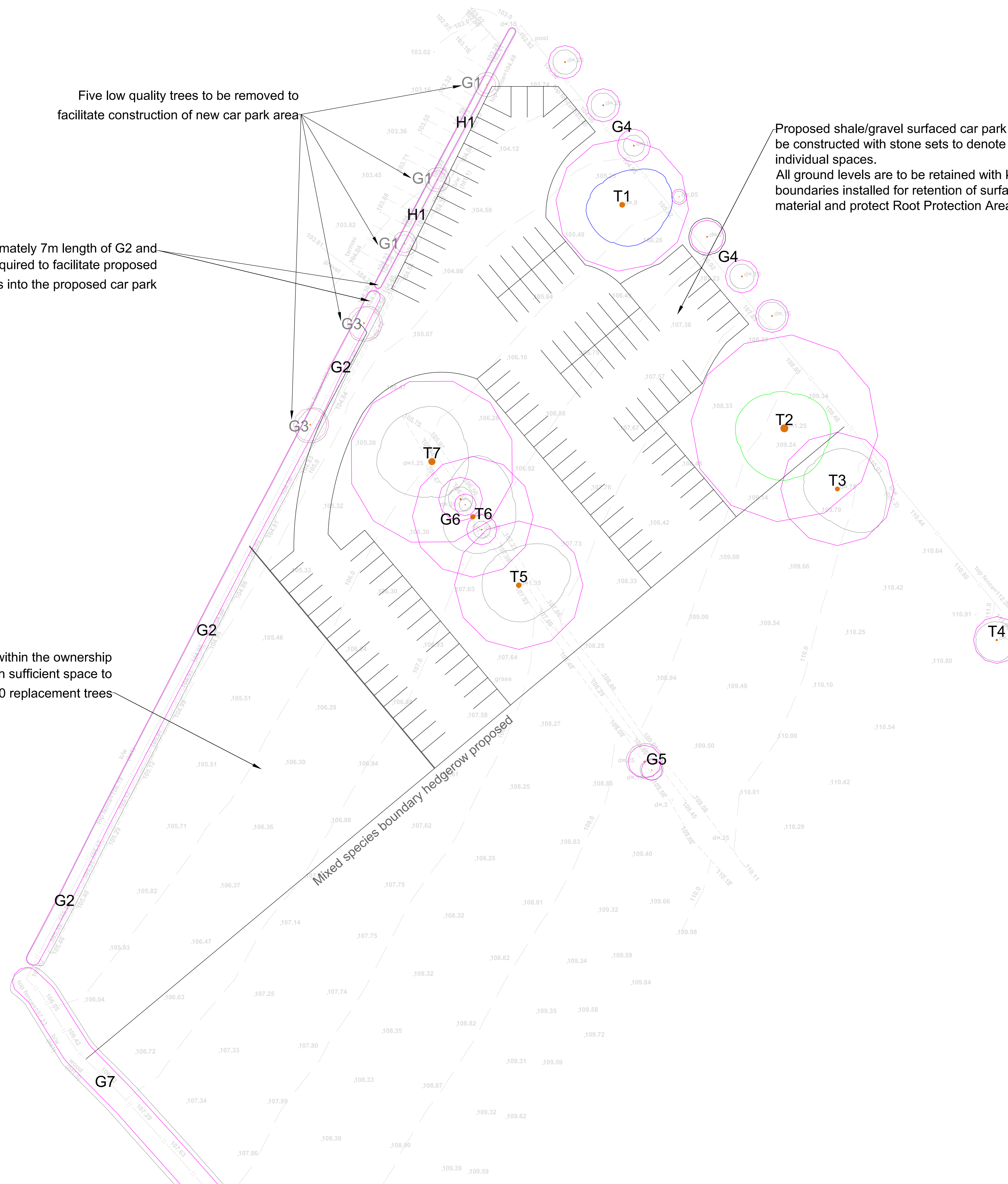


Five low quality trees to be removed to facilitate construction of new car park area

Removal of approximately 7m length of G2 and 1m length of H1 is required to facilitate proposed access/egress into the proposed car park

Identified area within the ownership boundary with sufficient space to accommodate 10 replacement trees

Proposed shale/gravel surfaced car park area to be constructed with stone sets to denote individual spaces.
All ground levels are to be retained with kerbed boundaries installed for retention of surface material and protect Root Protection Areas.



KEY

- T = Individual Tree
 - G = Group of Trees
- Please refer to associated Arboricultural Impact Assessment for specific details in respect of items below:
- Tree Categories/Status:**
- Those to be Considered for Retention:
 - Category A Tree/Group: Those of a high quality with an Estimated Remaining Life Expectancy of at least 40 Years
 - Category B Tree/Group: Those of a Moderate Quality with an Estimated Remaining Life Expectancy of at least 20 Years
 - Category C Tree/Group: Those of Low Quality with an Estimated Remaining Life Expectancy of at least 10 Years or Young Trees
 - Those Considered Unusable for Retention:
 - Category D Tree/Group: Those in such a Condition that they Cannot Reasonably be Retained or Living Trees in the Context of the Current Land Use for longer than 10 Years
- Root Protection Areas (RPAs):**
- RPAs: Areas of Ground Around Trees that Should be Protected Through Development Works with Protective Fencing to form a Constructive Exclusion Zone - see Temporary Protective Fencing Specification

Note: The stem locations of group G3 and part of group G5 and G6 were not located on the topographical survey data provided, and were subsequently added to the arboricultural surveyor at the time of the survey using GPS survey and, where possible, measurement from existing features. As such, the plotted locations of these trees cannot therefore be considered to be wholly accurate.

Project:
SHACKLETON'S GARDEN CENTRE
CLITHEROE ROAD
CHATBURN
LANCASHIRE
BB7 4JY

Agent for Client:
GARY HOERTY ASSOCIATES

Title:
TREE IMPACT PLAN
In Relation to Proposed Construction of Car Park Extension

Scale: 1:250@A0
Date: January 2018
Drawn by: RG
Checked by: PH



Ref: BT1483-TIP Rev:

NOTES: The original version of this plan was produced in 2016, which is amended to the above specification and used by all such, in accordance with the current planning application.