27 March 2017

TC Ref: MS/43617/AC

Site: 4 St Leonards View, Bursledon, SO31 1AQ
Client: Mr & Mrs Deacon

Arboricultural Impact Assessment and Method Statement

Treecall Consulting is instructed by Anglian Group, on behalf of the client, to survey a cedar tree at the above site and produce an arboricultural impact assessment and method statement for development.

I visited the site and surveyed the tree on 20 March 2017. A cedar tree in the northeast corner of the rear garden was inspected from ground level and is plotted on plan TC1, Appendix 2. Full details of the tree are included in Appendix 3.

The proposed layout plan shows an extension at the rear of the property. The extension encroaches within approximately 2% of the notional root protection area of the tree. It is understood that there are existing services in the area where the extension is to be constructed, which will necessitate the use of piled foundations. Utilising this technique will also allow foundations to be installed with minimum damage to tree roots.

The crown should be pruned to allow 4m clearance above ground level, to improve use of the garden area, regardless of the development proposal, and this will also ensure that low branches are not damaged when the roof of the extension is being installed. This work will result in a few, small diameter pruning wounds and is unlikely to have a detrimental impact on tree health and amenity.

The proposed extension is located a reasonable distance from the canopy spread of the tree. The separation allows for future growth, which is unlikely to be significant given the life-stage of the tree. Future pressure to fell or prune the tree due to proximity or excessive shading is, therefore, not likely to be significant. In my experience applications from tree owners to fell or severely prune trees for these reasons are successfully defended by the local planning authority and rarely result in significant loss of public amenity.

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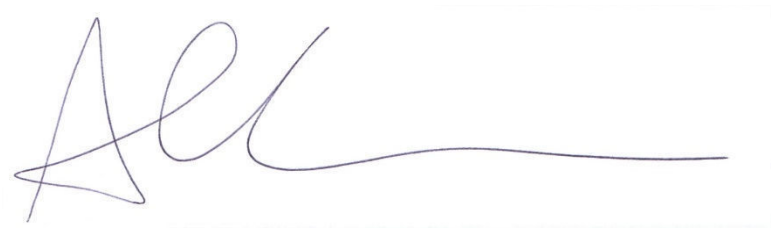
Construction of the proposed extension could result in root severance and affect tree health if not carried out carefully. Providing the arboricultural method statement included on plan TC1, Appendix 2 is closely adhered to throughout construction, damage to the tree can be reduced to acceptable levels and is unlikely to have a detrimental impact on amenity.



Andrew Cleaves
BA(Hons), Cert Arb (RFS), Tech Cert (ArborA), TechArborA

Arboricultural Consultant

Appendix 1: Qualifications and Experience

Andrew Cleaves
BA(Hons), Cert Arb (RFS), Tech Cert (ArborA), TechArborA

Andrew holds the Royal Forestry Society Certificate in Arboriculture and the Arboricultural Association Technician's Certificate in Arboriculture. He is a Technical member of the Arboricultural Association.

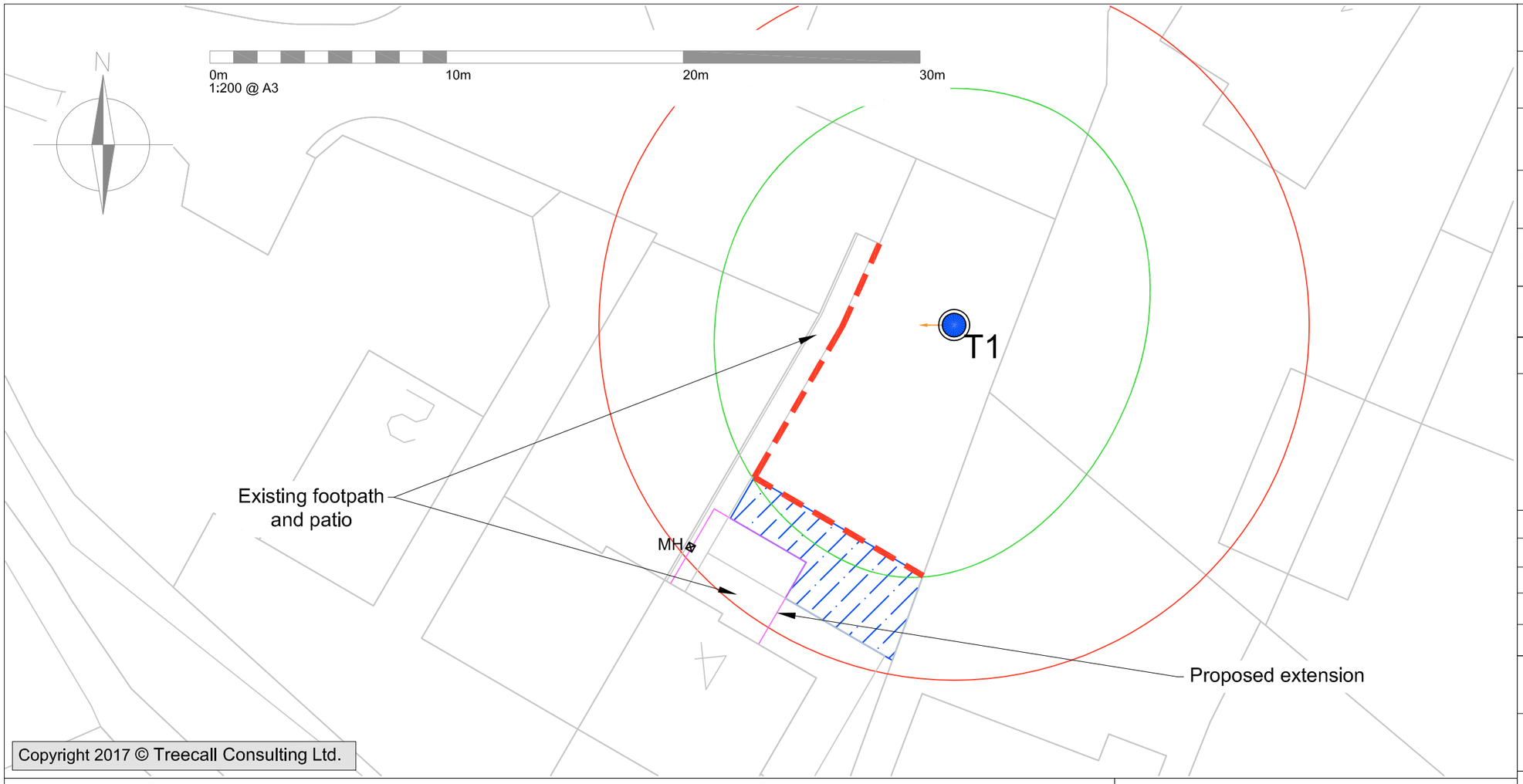
He has worked in the arboricultural industry for nine years, beginning in 2007 at Bournemouth Borough Council where he was part of the development management team providing advice and guidance regarding trees and construction and dealing with all aspects of the management of protected trees.

In 2015 Andrew joined Treecall Consulting as an Arboricultural Consultant, bringing his public-sector planning and enforcement expertise to the private sector, and is currently working to achieve the Level 6 Diploma in Arboriculture.

The information presented in this report is based on the information provided and site observations. Conclusions and recommendations are the result of experience within the arboricultural industry.

Appendix 2: Plan TC1

Title: **Plan TC1, Tree Protection Plan**
Date: **27 March 2017**
Scale: **1:200 @ A3**



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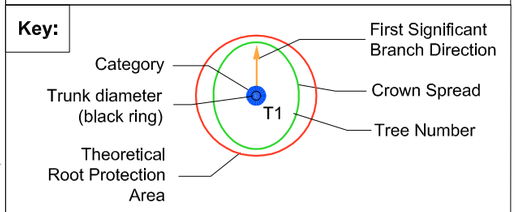
Site:	4 St Leonards View, Bursledon
TC Ref:	MS/43617/AC
Title:	Plan TC1, Tree Protection Plan and Arboricultural Method Statement
Date:	27 March 2017
Scale:	1:200 @ A3

Plan TC1

Trees to be removed:
None

Key:



British Standard 5837:2012 Categories

	'A' category trees are those of high quality.
	'B' category trees are those of moderate quality.
	'C' category trees are those of low quality or young trees with a stem diameter below 150mm.
	'U' category trees are those that are unsuitable for retention

Tree protection fencing to be erected prior to the commencement of any works on the site.	
Temporary ground protection to be installed prior to the commencement of any works on the site.	

Limitations of Use

This plan is based on OS data, measurements taken on site and the layout plans provided. All measurements must be checked with these plans and appropriate documents.

This plan has been prepared in colour. If printed in black and white some details may be obscured.

Arboricultural Method Statement

Phasing of Arboricultural Operations

1. Prune low branches of T1 to give 4m clearance above ground level.
2. Install tree protection fencing and temporary ground protection (see illustrations).
3. Hold pre-commencement site meeting, if required by local planning authority (LPA). If not required, issue photographs of tree protection measures.
4. Construct approved extension.
5. Remove tree protection fencing and temporary ground protection.

General Arboricultural Issues

There must be no changes in soil levels within tree root protection areas.

Storage areas for materials must be located outside of tree root protection areas.

Fires must not be set anywhere within the site.

No cement mixing is allowed within 10m of trees to be retained. If cement mixing is unavoidable within 10m of any retained tree it must be contained in a bunded area.

If any new underground services are to be installed within tree root protection areas, the work should be carried out in accordance with NJUG guidelines, included as Appendix 4 of report.

Tree Protection Measures

Tree protection fencing, complying with British Standard 5837:2012 'Trees in relation to design, demolition and construction - Recommendations', must be erected along the dashed red line. Temporary ground protection must be installed in the area hatched in blue. Both measures must be installed prior to commencement of works on site and remain in position until the end of the construction phase or the project arboriculturist, or local planning authority, provides written authority for its removal. Photographs of the fencing and temporary ground protection must be issued to the local planning authority prior to the commencement of any works on site, if they have not been seen by the tree officer.

Installation of Specialist Foundations and Floors

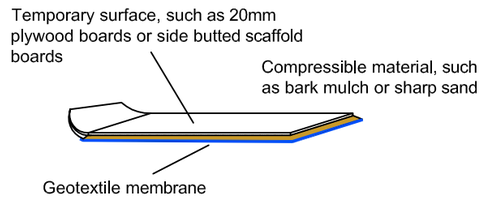
The final foundation and internal floor specification must be provided by a qualified structural engineer and therefore is beyond the remit of this report.

Prior to the installation of foundation for the extension an exploratory hole must be hand dug to establish the presence of roots before each pile or pad is installed. The exploratory hole must be repositioned if significant roots (diameter >25mm) are encountered. The final hole must be lined with heavy duty polythene sheeting to minimise soil contamination before cement is poured. The underside of the supporting beams for the internal floor must be suspended above existing ground levels and across the piles or pads to avoid damage to tree roots.

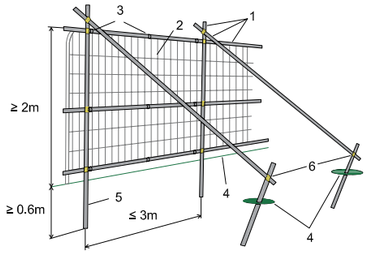
Any root severance that is necessary as part of this operation must be carried out in accordance with BS 3998:2010 'Tree work - Recommendations'. Roots must be cut cleanly, to minimise the exposed root surface, and covered with a minimum of 50mm of soil and heavy duty polythene sheeting prior to backfilling to avoid any direct contact with building materials that could affect tree health.

Irrigation tubes must be used where practicable to redirect rainwater. This can be done by using a 60mm perforated pipe coiled beneath the suspended structure and bedded into gravel to help preserve underlying roots.

Temporary Ground Protection Specification



Tree Protection Fencing Specification



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

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Appendix 3: Tree Schedule & Key

Key:

Tree no.	Number assigned to tree from survey. Refer to plan for tree location.
Species	Identifies the tree species as clearly as possible according to common or botanical name.
Stem diameters	Stem diameter and number of stems, taken at 1.5m above ground level, measured in millimetres unless indicated otherwise within 'Note'.
Canopy spread	Extent of crown spread in the four cardinal directions, estimated to the nearest half metre.
C Ht	Canopy height estimated above ground level to the nearest half metre.
FSB	Height of the first significant branch, estimated in metres.
FSB dir.	Direction of growth of the first significant branch.
Ht	Height estimated to the nearest half metre.
Life Stage	Estimated age of the tree. Chosen from the following categories;
	Young: Tree only recently planted or established.
	Semi Mature: Established tree, still young and in the first third of its safe useful life.
	Early Mature: Tree in second third of its safe useful life, still with significant capacity for future growth.
	Mature: Tree in the last third of its safe useful life and with no significant capacity for future growth.
	Over Mature: Tree nearing the end of its safe useful life expectancy.
Condition	Assessment of physiological (Phys.) and structural (Struct.) condition according to the following classes:
	Good: Healthy full crown, long life expectancy with no significant defects.
	Fair: Generally healthy, some defects of low significance, limited life expectancy.
	Poor: Low vitality, limited safe useful life expectancy, declining canopy, significant structural defects.
	Dead/dangerous: Urgent removal required.
Observations	Tree issues and general comments along with any appropriate management requirements.
BS Cat.	Relates to Table 1 of BS5837:2012 'Trees in relation to design, demolition and construction - Recommendations'
	A: Trees of high quality with an estimated remaining life expectancy of at least 40 years.
	B: Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.
	C: Trees of low quality with an estimated remaining life expectancy of at least 10 years.
	U: Trees that have an expected safe useful life of less than 10 years regardless of any development proposals.
	1, 2, 3: Sub-categories relating to tree, landscape or cultural values.
RPA	Minimum root protection radius in metres.
Site Visit	20 March 2017
Weather	Clear, dry and calm. Visibility was reasonable.

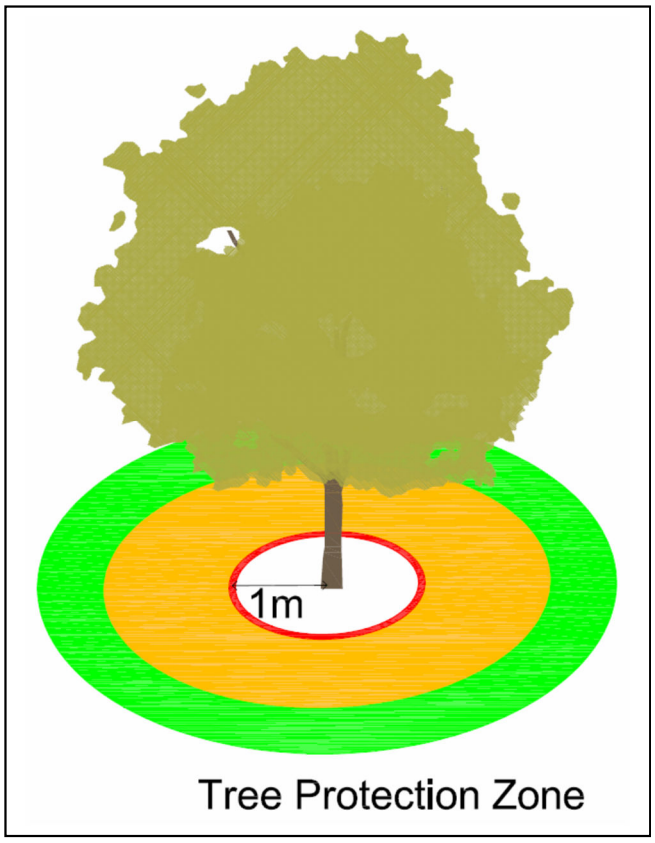
Tree Schedule Key

Tree Schedule

Tree no.	Species	Stem diameters (mm)			Canopy spread (m)				C Ht (m)	FSB (m)	FSB dir.	Ht (m)	Life stage	Condition		Observations	BS Cat	RPA (m)
		(mm)	No of Stems	Note	N	E	S	W						Phys.	Struct.			
1	Atlas cedar *Cedrus atlantica*	1310	1	@ 1.5m	10	8	11	10	3	3	W	21	Mature	Fair	Fair	Some pruning carried out throughout crown, small number of tear wounds. Wide-spreading crown, flattened top.	B1	15.0

Appendix 4: NJUG Volume 4, Summary Guidelines

NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees – Issue 2



PROHIBITED ZONE – 1m from trunk.
Excavations of any kind must not be undertaken within this zone unless full consultation with Local Authority Tree Officer is undertaken. Materials, plant and spoil must not be stored within this zone.

PRECAUTIONARY ZONE – 4 x tree circumference.
Where excavations must be undertaken within this zone the use of mechanical excavation plant should be prohibited. Precautions should be undertaken to protect any exposed roots. Materials, plant and spoil should not be stored within this zone. Consult with local authority tree officer if in any doubt.

PERMITTED ZONE – outside of precautionary zone. Excavation works may be undertaken within this zone however caution must be applied and the use of mechanical plant limited. Any exposed roots should be protected.

NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees – Issue 2

DAMAGE TO TREES

Tree roots keep a tree healthy and upright. Most roots are found in the top 600mm of soil and often grow out further than the tree's height. The majority of these roots are very fine; even close to a tree few will be thicker than a pencil. Most street tree roots grow under the footway but may also extend under the carriageway. If roots are damaged the tree may suffer irreversible harm and eventually die.

PROTECTING ROOTS - DO'S and DON'TS

There are three designated zones around a tree each of which has its own criteria for working practices.

THE PROHIBITED ZONE

Don't excavate within this zone.

Don't use any form of mechanical plant within this zone

Don't store materials, plant or equipment within this zone.

Don't move plant or vehicles within this zone.

Don't lean materials against, or chain plant to, the trunk.

Do contact the local authority tree officer or owner of the tree if excavation within this zone is unavoidable.

Do protect any exposed roots uncovered within this zone with dry sacking.

Do backfill with a suitable inert granular and top soil material mix as soon as possible on completion of works.

Do notify the local authority tree officer or the tree's owner of any damage.

THE PRECAUTIONARY ZONE

Don't excavate with machinery. Where excavation is unavoidable within this zone excavate only by hand or use trenchless techniques.

Don't cut roots over 25mm in diameter, unless advice has been sought from the local authority tree officer.

Don't repeatedly move / use heavy mechanical plant except on hard standing.

Don't store spoil or building material, including chemicals and fuels, within this zone.

Do prune roots which have to be removed using a sharp tool (e.g. secateurs or handsaw). Make a clean cut and leave as small a wound as possible.

Do backfill the trench with an inert granular material and top soil mix. Compact the backfill with care around the retained roots. On non highway sites backfill only with excavated soil.

Do protect any exposed roots with dry sacking ensuring this is removed before backfilling.

Do notify the local authority tree officer or the tree's owner of any damage.

THE PERMITTED ZONE

Don't cut roots over 25mm in diameter, unless advice has been sought from the local authority tree officer.

Do use caution if it is absolutely necessary to operate mechanical plant within this zone.

Do prune roots which have to be removed using a sharp tool (e.g. secateurs or handsaw). Make a clean cut and leave as small a wound as possible.

Do protect any exposed roots with dry sacking ensuring this is removed before backfilling.

Do notify the local authority tree officer or the tree's owner of any damage.

V1. 27.3 AL
V2. 27.3 AC
V3.

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