

arboricultural impact assessment [AIA]

and tree protection strategy

for a proposed replacement dwelling at

High Ridge
Upper Warren Avenue
Caversham, RG4 7ED

On Behalf of: **Mr & Mrs S. Bartlett**

Reference: **MW.20.0613.AIA**

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executive summary

Trees are a material factor in this planning application. Therefore this report has been drafted to provide the required information to enable the local planning authority to meet the duty placed upon them by s.197 of the Town and Country Planning Act (1990).

Included, to support the proposals for a replacement dwelling at High Ridge, are:

- A BS5837:2012 compliant tree survey
- An arboricultural impact assessment
- A tree protection strategy including a method statement and protection plan

This revision (E) has been drafted to address a request from the LPA regarding removal of the existing palisade fence.

A historic Area Tree Preservation Order covers the site.

One small plum tree, one small yew and a section of the existing, unmanaged boundary hedge are to be removed to facilitate the proposals. Three others are to be removed due to their poor condition, regardless of this application.

The new building sits within the existing built form and disturbed site footprint. No excavation into sensitive RPA areas is proposed.

A section of the new drive passes into the RPA of the lime tree #12. To minimise impact, a no-dig style surface will be used. To be laid above the existing ground level.

Provided the tree protection strategy is implemented as outlined in the included method statement, it is my opinion that this application is of **low** arboricultural impact, and thus acceptable.

Correct adherence to the tree protection strategy proposed within this report is critical for ensuring the tree is successfully protected through the construction process. Should any of the protection measures prove incompatible with elements of the build program, please call 01730 239492.

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1. instructions and terms of reference

- 1.1. In June 2020, I was instructed by Mr & Mrs S. Bartlett to undertake a tree survey and subsequently to produce this report in support of a planning application for a replacement dwelling on the site known as High Ridge, within the administrative boundary of Reading Borough Council.
- 1.2. This revision (E) has been drafted to address comments from the LPA requesting a specification for the removal of the existing palisade fence where within RPAs.
- 1.3. Following the recommendations of the British Standard¹, this report includes the necessary information to enable the local planning authority to meet the duty placed upon them by s.197 of the Town and Country Planning Act (1990).
- 1.4. It demonstrates that the impact, both direct and indirect, of the proposal, has been assessed and where appropriate, mitigation, compensation and tree protection proposed.
- 1.5. Correct implementation of the tree protection specified within this report is critical for ensuring the retained trees are successfully protected throughout the construction process.
- 1.6. Documents supplied to assist this assessment included:
 - Proposed: 3685 - 256 - Site Plan.pdf
 - Site survey: 0909 - High Ridge.dwg
- 1.7. The assessment considers the impact of the proposal on the constraint presented by trees retained within the site, and those on adjacent land. Such impact can be caused directly through construction damage and indirectly from post development resentment and pressure to detrimentally prune or remove the trees. The latter is often due to a poor juxtaposition between the proposal and the trees.
- 1.8. The root protection area (RPA) for each tree represents a minimum area in m² that should be left undisturbed around each retained tree. This is initially represented by a circle but is fundamentally an area of rooting volume. This is often adjusted to account for constraints to root growth within the site (primarily highways and buildings). Recommendations are provided in the British Standard as to the protection of existing trees during the construction process.

¹BS5837:2012 Trees in relation to design, demolition and construction

2. [site description](#)

- 2.1. The site is derelict residential dwelling in a semi-rural location. The site drops acutely to the south. Historic clearance work has been carried out to the front of the site prior to the current owners purchase.
- 2.2. The site is centred at Ordnance Survey Grid Reference: SU 69711 75259. [Here](#) is a link to view the site's location online.



Site photograph. Aspect south

3. [statutory legislation](#)

- 3.1. According to Reading Borough Council's on-line list, Tree Preservation Order 319 ref: A3 covers the site. No hard copy of this order has been sought at this time.
- 3.2. As this is an area order, it covers all trees present at the time of its making. The date of which is not known. So, until a copy is acquired, all trees should be considered protected.

4. tree survey - scope and methodology

- 4.1. Tree survey data can be found on the appended plan.
- 4.2. The tree survey has been carried out following the recommendations of The British Standard and the trees are assessed objectively and without reference to any site layout proposals. Categories are based on each tree's health and condition, together with an assessment of its life expectancy if its surroundings were to be unchanged.
- 4.3. The reference numbers of surveyed trees and groups of trees are shown on the tree reference plan, which is appended to this report and based on the supplied survey drawing. Stem locations within groups may be estimated, and indicative of canopy only.
- 4.4. The tree survey was carried out from ground level only, with the aid of binoculars as necessary, following the Visual Tree Assessment² (VTA) method.
- 4.5. Where trees are located on neighbouring land an estimated appraisal has been made of their quality and dimensions.
- 4.6. Where stems or branches are obscured by ivy or other materials a full assessment of those parts will not be possible.
- 4.7. Tree heights were measured with a clinometer or estimated in relation to those measured.
- 4.8. Trunk diameters are measured at 1.5m above ground level, where this is not possible, then Figure C.1 of the British Standard is followed.
- 4.9. Tree canopies, where markedly asymmetrical, were measured (or estimated by pacing) in four directions using a laser measure. Symmetrical canopies are measured in one direction only, with dimensions in the remaining directions assumed to be similar. For the canopies of groups of trees, the maximum radius for each compass point is measured (more complicated groups will have further notes taken and an accurate representation will be shown on the plan).
- 4.10. All estimated dimensions are noted in the data.

² Mattheck, C. & Breloer, H., 1998. The Body Language of Trees: A Handbook for Failure Analysis.

London:H.M.S.O.

5. arboricultural impact assessment

- 5.1. It is proposed to replace the existing structure with a new residential dwelling. The location and layout of which can be seen on the appended plan.

Tree Removals

- 5.2. One small plum tree (20), one small yew (18) and a section of the boundary hedge (19) are to be removed to facilitate this proposal.
- 5.3. Three other trees are to be removed as good arboricultural practice, regardless of this proposed development: a dead plum (21) a declining ash (22) and a dead pine within group 26.
- 5.4. TPO Note: the removal of tree 20 will be covered within the consent, should it be granted. Given the fact that the other three trees (21, 22 and 1no. From within group 26) are all dead or in terminal decline, the LPA should consider this report notice that they will be duly removed. As is required by the TPO, replacement trees will be planted. This can be within any landscape proposals that accompany this application, or detailed via a planning condition.



Copper beech(17) with the excavated bank and retained ground. Tree protection to be sited atop this bank.

Tree Surgery

- 5.5. The trees have been unmanaged for many years.
- 5.6. Prescribed work is limited to removal of ivy and lifting crowns to provide adequate ground clearance for construction and overall management.

Construction Impact

- 5.7. The existing drive is to be retained and reused.
- 5.8. A section of the drive is to be extended and will pass within the RPA for the lime #12. To minimise impact upon it, a no-dig style geogrid will be used as a sub-base. This will be installed above existing ground levels following the principles laid out in the method statement section of this document.
- 5.9. The historic site clearance has reduced levels somewhat within the northern section of the site. This allows for the proposal to be built without impact on the retained trees.
- 5.10. The protection barriers are to be located aside the drive and around the top of the retained ground to the north and east of the front of the site.
- 5.11. No protection is proposed for the trees further down the garden as, due to the acute slope, construction impact is highly unlikely. No work is currently proposed in that area.

Service & Utility Provisions

- 5.12. The existing utility feeds and service provisions will be reused.

Summary

- 5.13. Provided the tree protection strategy is implemented as outlined in the following AMS, it is my opinion that this application is of **low** arboricultural impact, and thus acceptable.
- 5.14. Should the council wish to see more onerous tree protection methods, this can be ensured via an appropriately worded planning condition and should not be the basis for a reason for refusal.

6. [arboricultural method statement \(ams\)](#)

- 6.1. The tree protection on this site is subject to implementation as detailed in the following sections.
- 6.2. The recommendations of the British Standard have been applied where viable. Where deviations from the preferred approach are required, impact on any retained trees is minimised through a combination of supervision from an Arboricultural Clerk of Works and adherence to the associated method statement.
- 6.3. It is imperative that the strategy is followed to avoid not only impact upon the trees, but to adhere to any planning conditions, should consent be granted.
- 6.4. The information from this section forward must be passed to the site foreman and cascaded to all relevant personnel involved in the project.
- 6.5. Any questions about the content or its implementation should be directed to **Mark Welby on 01730 239492**, before action is taken.
- 6.6. A plan showing the types of tree protection and their locations is appended. It includes the tree survey data, existing site features along with the proposed construction, drainage changes in level and other factors that could impact trees.
- 6.7. The plan must be read in conjunction with this method statement.

[Timing of Operations](#)

- 6.8. It is essential that the following phasing is followed if trees are to be effectively protected throughout construction.

1	Tree removals/surgery
2	Erection of protection barriers
3	Demolition of existing building
3.1	Removal of existing palisade fence in RPAs
4	Excavation for any groundworks & service trenches
5	Construction phase
6	Installation of no-dig drive surface extension
7	Removal of barriers after all external construction work has been completed
8	Soft landscaping (if required)

- 6.9. The above has been drafted at planning stage. Should any of the protection measures prove incompatible with elements of the build program, please call 01730 239 492 to discuss options.

Arboricultural Clerk of Works (ACoW)

- 6.10. Where works have the potential to impact retained trees, supervision may be specified within the method statement.
- 6.11. This is typically the project arboriculturist, who will document the process and provide an auditable record of the operation.
- 6.12. See subsections for requirements.

Construction Exclusion Zone (CEZ)

- 6.13. It is the responsibility of everyone engaged in the construction process to respect the tree protection measures and observe the necessary precautions within and adjacent to them.
- 6.14. Inside the exclusion zone, the following shall apply:
- No mechanical excavation whatsoever;
 - No excavation by any other means without arboricultural site supervision;
 - No hand digging without a written method statement having first been approved by the project arboriculturist;
 - No lowering of levels for any purpose (except removal of grass sward using hand tools);
 - No storage of plant or materials;
 - No storage or handling of any chemical including cement washings;
 - No vehicular access;
 - No fire lighting.
- 6.15. In addition to the above, further precautions are necessary adjacent to trees:
- No substances injurious to tree health, including fuels, oil, bitumen, cement (including cement washings), builder's sand, concrete mixing and other chemicals shall be stored or used within or directly adjacent to the protection area of retained trees;
 - No fire shall be lit such that flames come within 5m of tree foliage.
- 6.16. Variation from the above may be specified in the following sections of this method statement. This is only acceptable where detailed and will typically be subject to supervision by the ACoW.

Protection Barriers

- 6.17. Given the simplicity of this project, the installation of barriers as shown on the appended plan will be more than adequate to protect the subject trees throughout construction.
- 6.18. Barriers must 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). Barriers should be maintained to ensure that they remain rigid and complete.



Typical tree protection barrier construction

6.19. The default specification comprises a vertical and horizontal scaffold framework, well braced to resist impacts, as illustrated on the tree protection plan (TPP). The vertical tubes should be spaced at a maximum interval of 3 m and driven securely into the ground. Onto this framework, welded mesh panels should be securely fixed. Care should be exercised when locating the vertical poles to avoid underground services and, in the case of the bracing poles, also to avoid contact with structural roots. If the presence of underground services precludes the use of driven poles, an alternative specification should be prepared in conjunction with the project arboriculturist that provides an equal level of protection. Such alternatives could include the attachment of the panels to a free-standing scaffold support framework.

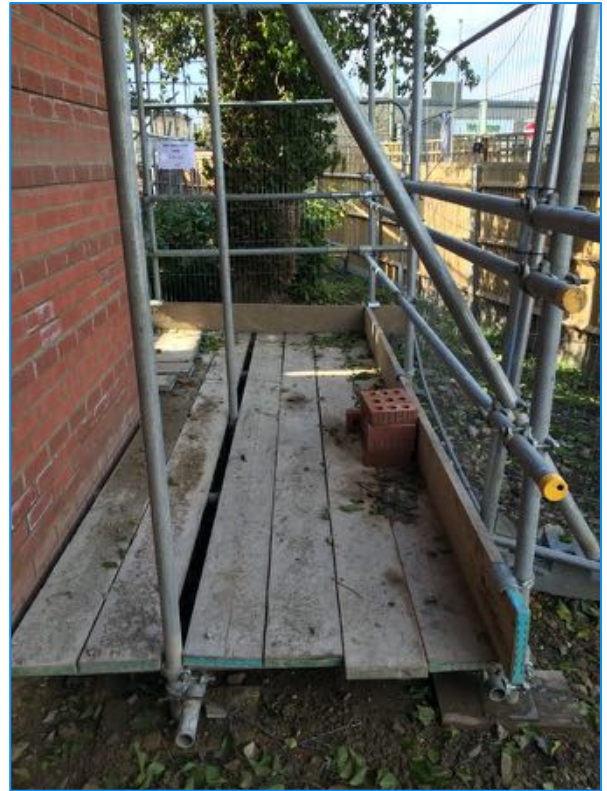
Ground Protection

6.20. If required (or as shown on the appended tree protection plan), ground protection is to be installed as follows. It must be capable of supporting the expected loads and avoiding rutting, compaction and damage to the soil: as advised in section 6.2.3 of the British Standard.

6.21. Stages of ground protection installation:

1. No plant machinery to be used in the area of ground protection for whatever reason;
2. Dismantle primary TPF and re-erect in secondary location as shown on TPP (if required) OR erect fencing to protect any newly exposed CEZ not to be covered by ground protection;
3. Any shrubs, saplings or trees to be removed, are to be cut or ground out to just below ground level rather than grubbed or winched out, which can damage roots of retained trees;
4. Lay woven geotextile over existing ground surface by hand;
5. Cover the area with compressible layer, woodchip, for example, using hand tools only;

6. Cover compressible layer with side butting scaffold boards or plywood boards;
7. Confirm surface is acceptable for use with project arboriculturist;
8. Area ready for construction access;
9. Any scaffolding required within the area will be erected with the uprights placed on spreader boards;
10. The boarding will be left in place until the construction works are finished.



Scaffold ground protection

- 6.22. A single thickness of boarding laid on the soil surface will provide sufficient protection for pedestrian loads. However, for wheeled or tracked construction traffic movements within the RPA, ground protection will involve the use of temporary cellular confinement systems, reinforced concrete slabs or track-board systems details of which are to be specified by the project engineer and approved for use by the project arboriculturist and local authority before construction commences.
- 6.23. Track-boards can be sourced from Trakmats Europe Ltd, 0845 6435388, www.trakmatseurope.com, or groundguards.com
- 6.24. There is to be no excavation within ground protection area whatsoever. This includes installation of services and associated utilities.

Tree Surgery

- 6.25. Should any pruning work be required, the following must be adhered to once any requisite consents are obtained.
- 6.26. Tree surgery work is listed in the schedule on the appended plan, along with all trees to be removed.
- 6.27. All work will be carried out in accordance with BS3998³ industry best practice and in line with any works already agreed with the council.
- 6.28. The statutory protection^{4 5} will be adhered to. If further advice is required, particularly if bats are discovered during tree work, it will be obtained from Natural England or other competent persons and recommendations adhered to.
- 6.29. The stumps of any trees removed from within the Construction Exclusion Zone or the RPAs of retained trees will be either cut flush to ground level and left in situ or ground out using a stump grinder. They will not be winched out.
- 6.30. All operations shall be carefully carried out to avoid damage to the trees being treated or neighbouring trees. No trees to be retained shall be used for anchorage or winching purposes.

Removal of Existing Palisade Fence

- 6.31. Where within RPAs, the existing green palisade fence will be removed as follows:
1. No plant to be sited within RPAs.
 2. Unbolt and remove all fence panels,
 3. Using plant standing within the development area (i.e. a digger reaching into the RPA), strop the support posts and gently lift them and any surrounding concrete, out of the ground.
 4. Remove arisings from the RPA using the digger arm.
 5. Erect any tree protection barriers in their final location, as per the approved plan.

³ BS3998:2010- *Recommendations for Tree Work*. London: British Standards Institute

⁴ *Wildlife and Countryside Act*. (1981) London: HMSO.

⁵ *Countryside and Rights of Way Act*. (2000) London: HMSO.

Installation of Underground Services

- 6.47. Mechanical trenching for the installation of underground apparatus and drainage severs any roots present and can change the local soil hydrology in a way that adversely affects the health of the tree. For this reason, particular care must be taken in the routeing and methods of installation of all underground apparatus. Wherever possible, apparatus must be routed outside RPAs. Where this is not possible, it is preferable to keep apparatus together in common ducts. Inspection chambers should be sited outside the RPA.
- 6.48. Where underground apparatus is to pass within the RPA, detailed plans showing the proposed routeing must be drawn up in conjunction with the project arboriculturist. In such cases, trenchless insertion methods should be used: Microtunnelling, Surface-launched directional drilling, Pipe ramming or Impact moling (see BS5837:2012 Table 3), with entry and retrieval pits being sited outside the RPA. Provided that roots can be retained and protected, excavation using hand-held tools might be acceptable for shallow service runs. If this is the case, the following methodology must be followed:

6.49. Stages for installing services:

1. Contact project arboriculturist to hold pre-start site meeting and 'toolbox' talk before starting work.
 2. Remove just enough tree protection fencing to allow access to area and facilitate trenching.
 3. Remove any surface vegetation or existing hard surfaces using hand tools.
 4. Using an air-pick excavate the trench, keeping to minimum dimensions required.
 5. Roots occurring in clumps of 25 mm diameter and over are encountered they will be retained and kept damp by covering with hessian (re-wetted as required). If required, these should be severed only following consultation with an arboriculturist; as such roots might be essential to the tree's health and stability.
 6. Feed in services.
 7. Backfill trench with 200-300mm depth of excavated soil, or a mixture of excavated and imported topsoil to BS3882: 2015, firming down with heels.
 8. Repeat step 7 until trench is filled.
 9. Re-erect tree protection fencing as per approved plan.
- 6.50. The method of excavation above, for trenching within RPAs, is using air excavation. This tool utilises compressed air to remove soil from around tree roots causing minimal damage and can be

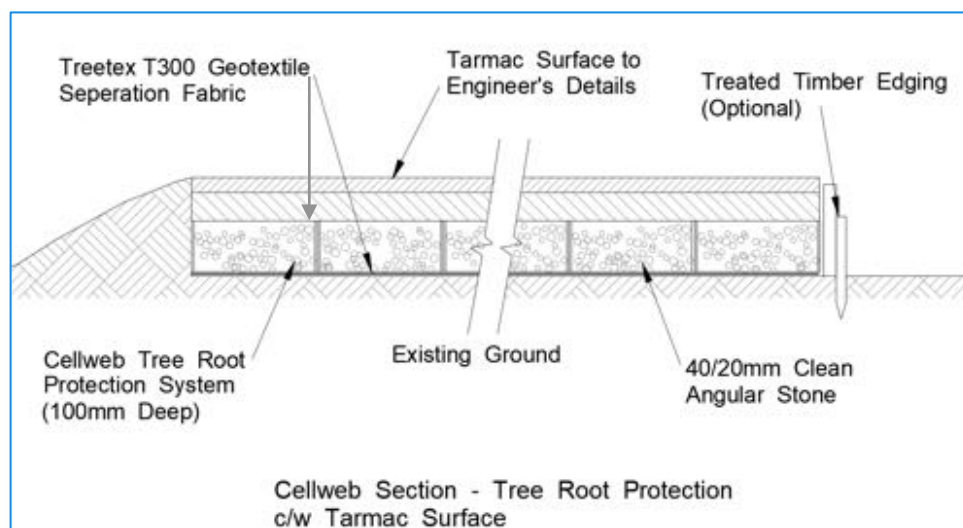
run off a typical site compressor. I can provide details of contractors supplying air excavation services if required.

- 6.51. Alternatively, trenchless technology, such as thrust boring can be used in some instances and is particularly effective as it can pass directly under the tree, at a depth which is likely to avoid almost all impact on roots of the subject tree. As no access/thrust pits will be located within the RPAs of the subject trees, the need for arboricultural supervision is limited.
- 6.52. Reference can be made to NJUG Vol 4⁶ for guidance, but any approach must be approved by the project arboriculturist and brought to the attention of the local authority tree officer.

⁶ National Joint Utilities Group. (2010). Volume 4: NJUG Guidelines For The Planning, Installation And Maintenance Of Utility Apparatus In Proximity To Trees (Issue 2) – Operatives Handbook. NJUG.

Installation of 'No-Dig' geogrid Surface

- 6.53. To ensure that tree roots, within the ground under this proposed surface, continue to survive during and after construction a geogrid/cellular confinement system (CCS) such as ProtectaWeb of 100mm depth is to be used. The following is a guide to installation, not an engineering specification. It is critical that an engineer design this surface to ensure long-term durability.
- 6.54. The above example CCS specification is courtesy of Geosynthetics and shows an asphalt finish. Other surfaces can be used, and similar CCS are available from other suppliers.



Section of 100mm deep CCS with Tarmac surface. ©Geosynthetics

6.27. Stages for Installation of the cellular confinement surface:

1. Contact project arboriculturist to hold pre-start site meeting, a 'toolbox' talk before starting work and provide Arboricultural Clerk of Works (ACoW) supervision throughout the process;
2. Dismantle TPF and re-erect in secondary location as shown on TPP;
3. Remove existing grass sward to 50mm with hand tools or turf stripper only;
4. Remove existing vegetation by using a specific herbicide (as advised by a specialist) or manual removal with hand tools only. Agreed removal of shrubs, saplings or trees, within the protected areas of retained trees are to be cut or ground out to just below ground level rather than grubbed or winched out, which can damage roots of retained trees;
5. Retain all original ground levels after vegetation removal. No further excavation whatsoever within RPAs;

6. Remove any existing hard surfaces (paving, tarmac etc.) Hand tools should be used if possible. If machinery is required for this operation, it must be used only on existing surfaces or outside the protection areas and tree canopies (approval from project arboriculturist must be sought before using machinery). The sub base of existing surfaces or foundations should be left in situ where possible to avoid unnecessary root disturbance and provide a base for the new surface;
7. Install a non-woven geotextile (such as Root-tex 30/Treetex T300) directly over soil grade level (levelled where necessary, by non-compacted washed sand) and fix in place;
8. Lay the cellular system over the geotextile, which is secured open under tension during the infill process with steel staples or wooden pegs;
9. Install kerbs and edgings directly on top of existing soil grade level. For light structures, a treated peg and board may be acceptable. For more substantial structures, railway sleepers, haunched concrete with road pins, drilled kerbstones, gabions or cast in situ kerbs will be appropriate;
10. Fill the cellular system ensuring any machinery works only on already filled areas. Typical infill consists of no fines angular granular material 20-40mm, which will remain uncompacted;
11. Cover with a non-woven geotextile (Root-tex 30/Treetex T300 or similar).
12. Install porous wearing surface.

6.28. Any variation to the above specification must meet the following design criteria for low-invasive surfaces to provide the conditions for continued tree survival and growth:

- Maintain oxygen diffusion through new surface to rooting area (5-12% by volume)
- Maintain sufficient passage of water to the rooting area (12-40% by volume)
- Avoid compaction by maintaining a soil structure sufficient to sustain root growth (soil bulk density below 1.4g/cc).

6.29. Site analysis of the soil type and its structural characteristics will be required prior to determining the specific depth of products to be adopted for example, footpaths normally require a depth of 75mm and, 100mm to 200mm depths are used for residential driveways, while greater depths may be required for the passage of heavier traffic such as for construction access and delivery vehicles.

6.30.If ground levels are to be raised more than 150mm this should be achieved by the use of a granular material, which does not inhibit vertical gaseous diffusion. For example, no-fines gravel, washed aggregate, structural soil (min. 20% sand content) or cobbles.

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[appendices](#)

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I.

tree categories explained

BS5837:2012 Table 1 -Cascade chart for tree quality assessment			
Category and definition	Criteria (including subcategories where appropriate)		
Trees unsuitable for retention (see Note)			
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	*Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) *Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline *Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.		
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation
Trees to be considered for retention			
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value

II.

protection plan

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Trees for Removal and Retention			
Retained Trees			
Ref	Species	Common Name	Category
1	<i>Tilia x europaea</i>	European Lime	A2
2	<i>Tilia x europaea</i>	European Lime	A2
3	<i>Prunus laestracia</i>	Portuguese Laurel	C1
4	<i>Chamaecyparis lawsoniana</i>	Lawson Cypress	C1
5	<i>Betula pendula</i>	Silver Birch	B1
6	<i>Tilia x europaea</i>	European Lime	A2
7	Group, mixed species	Mixed Species Group	C2
8	<i>Fraxinus excelsior</i>	Common Ash	B1
9	<i>Acer pseudoplatanus</i>	Sycamore	B1
10	<i>Quercus robur</i>	Pedunculated Oak	B2
11	<i>Fagus sylvatica</i>	Common Beech	B2
12	<i>Tilia x europaea</i>	European Lime	A1
13	<i>Quercus cerris</i>	Turkey Oak	A1
14	<i>Platanus x hispanica</i>	London Plane	A1
15	<i>Taxus baccata</i>	English Yew	C1
16	<i>Pinus sylvestris</i>	Scots Pine	C1
17	<i>Fagus sylvatica purpurea</i>	Copper Beech	B1
19	Group, mixed species	Mixed Species Group	C2
23	<i>Fraxinus excelsior</i>	Common Ash	C1
24	<i>Fraxinus excelsior</i>	Common Ash	C1
25	<i>Fraxinus excelsior</i>	Common Ash	B2
26	Group, mixed species	Mixed Species Group	A2

Where dimensions are not listed please refer to the plan graphics for an indicative representation (typically for groups).

Default specification for protective barriers

Piercing covered to uprights and cross members with steel ties

Standard scaffold poles

Heavy duty steel toe rail, galvanized tube and welded main (x1/2) plate

Approx. 2mm

Approx. 2mm

Approx. 2mm

Light duty wire net (2mm mesh, depth 2.0mm)

GI

Ground Protection

Protective barriers

CEZ

Foot traffic

CEZ

Scaffolding

Platform load in full lift of maximum

Protective barriers

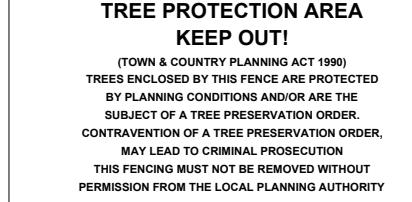
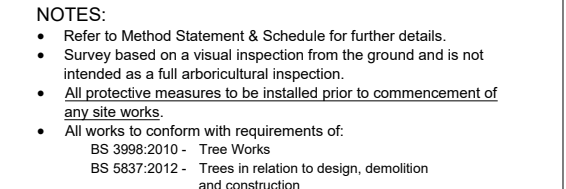
CEZ

Ground undisturbed and protected by protective fabric, woodchip and steel-bolting scaffold boards

For pedestrian movements only, a single thickness of scaffold boards should be placed above on top of a woven scaffold fabric as set to form a suspended walkway, or on top of a compression-resistant layer (e.g. 100 mm depth of woodchip), laid over a gentillite.

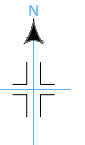
For pedestrian, loaded plant up to a gross weight of 2 t temporarily, inter-linked ground protection boards should be placed on top of a compression-resistant layer (e.g. 100 mm depth of woodchip), laid over a gentillite.

For loaded or tracked construction traffic exceeding 2 t gross weight, an alternative system (e.g. pre-cast reinforced concrete slabs) should be employed to an engineering specification designed in conjunction with individualised advice to accommodate the likely loading to which it will be subjected.



This plan has been drafted in colour. A monochrome version must not be relied upon

Date	Notes	Rev
08.09.2021	Layout update	A
22.10.2021	Layout update	B
24.01.2022	Artifact removed	C



Tree Protection

High Ridge
Upper Warren Avenue
Caversham, RG4 7ED

Date: 16/07/2020 Scale: 1:250 @

DWG Ref: MW.20.0613.TPP.RevC

