

BLACK HORSE  
TOWER,  
CHURCHWOOD  
HOUSE  
&  
HOLBROOK HOUSE  
(BOUNDARY TREATMENT)

ARBORICULTURAL  
IMPACT  
ASSESSMENT &  
METHOD  
STATEMENT

(Including Tree Survey Schedule)

for

CHASE  
NEW HOMES  
LTD



Ecology  
Archaeology  
Arboriculture  
Landscape Architecture

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## **1. Executive Summary**

- 1.1. For the Arboricultural Method Statement see section 4.
- 1.2. The proposed development is the demolition of the existing boundary wall along the southern boundary and construction of a new boundary treatment including gates and access points (with associated services).
- 1.3. The existing constituent groups of the beech hedge along the frontage of site is to be removed and replaced.
- 1.4. Low-impact methodology has been specified for proposed new hedging within retained RPAs.
- 1.5. Where the existing wall is located within the projected RPA of boundary trees, a sensitive demolition methodology has been specified. This includes that the existing foundation should be retained and re-used where feasible, or carefully removed where required with no additional excavation closer to the tree stems or into the underlying soil.
- 1.6. Areas of sensitive excavation have been specified where existing hard surfaces are located to provide service connection to the proposed sliding gate and associated safety features.
- 1.7. Given the size and location of the proposed development boundary, it is not possible to specify adequate alignment of Tree Protection Fencing for the works.
- 1.8. Given the relative low intensity of the proposed works, it is considered that adequate Ground Protection and suitable Sensitive Methodology will ensure adequate protection and consideration for the retained trees is given.
- 1.9. Where hard surfaces exist within the projected RPA of boundary trees, these will be utilised as adequate ground protection for the duration of the works.
- 1.10. The relationship between the proposed development and retained trees is comparable to that of the relationship between the trees and the existing boundary wall and is therefore not considered to be of a significant additional detriment to the retained trees.
- 1.11. The Arboricultural Method Statement (AMS) has been compiled in conjunction with the Tree Protection Plan (TPP) for the purpose of feasibility and planning, as per Figure 1 of BS5837:2012. These detail any mitigation which will be necessary to ensure the protection of retained trees throughout the development.

## 2. Introduction

- 2.1. ACD Environmental Ltd. (ACD) have been instructed to prepare the following Arboricultural Impact Assessment and Method Statement by Chase New Homes Ltd.
- 2.2. This report has been revised (rev A) on 18.03.2024 to reflect updated impacts from the removal/replacement of the boundary hedge planting, and the need to deliver service connections to the proposed sliding gate. It sees changes to sections 4.2, 4.9, 4.10, 5.6, 5.9, 5.10 and 5.11 of this report.
- 2.3. For details of trees to be retained, and locations and types of special protection methods, reference should be made to the latest revision of the corresponding Tree Protection Plan for the proposals, drawing reference: CHN23620-03 (Boundary)\_rev A.
- 2.4. This Method Statement is to be made available to all operatives on site during the construction process, so that they understand the scope and importance of the measures set out for tree protection. Implementation of the protection methods and other details within this report are integral to ensuring protection for the retained trees.
- 2.5. This report is based on the recommendations given in BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'.
- 2.6. The controlling authority is Enfield Council who can be contacted at:  
**Address:** Enfield Council, London Borough of Enfield, Planning and Growth, Development Management, PO Box 53, Civic Centre, Enfield, EN1 3XE  
**Email:** [planning.support@enfield.gov.uk](mailto:planning.support@enfield.gov.uk)  
**Telephone:** 02083794065
- 2.7. Any questions relating to the content of this report should be directed in the first instance to: ACD Environmental, Unit 7, Godalming Business Centre, Woolsack Way, Godalming, GU7 1XW, 01483 425714, quoting the site address and report reference number.
- 2.8. The following abbreviations have been used throughout this document:
  - Root Protection Area – RPA
  - Construction Exclusion Zone – CEZ
  - Tree Protection Plan – TPP
  - Tree Protection Fencing – TPF
  - Local Planning Authority – LPA

### 3. Scope and Method of Survey

- 3.1. The tree survey data is based upon historical data taken from site for the adjacent development of the Black Horse Tower building, conducted in January 2022. This survey data was confirmed as being accurate and updated as required during a more recent site visit in January 2024. A copy of the updated survey schedule can be found at Appendix 2 of this report.
- 3.2. The survey has been carried out in accordance with BS5837:2012 Trees in Relation to design, demolition, and construction - Recommendations 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. An explanation of the categories can be found at appendix 1.
- 3.3. This report is based on the recommendations given in BS5837:2012 and is not a health and safety survey. Detailed tree inspection including decay mapping, aerial inspection, soil analysis, etc. was not undertaken.
- 3.4. No discussions took place between the surveyor and any other party.
- 3.5. The reference numbers of surveyed trees and groups of trees are shown on the Tree Survey Plan, which is based on the supplied survey drawing and appended to this report. The prefix 'G' has been used to indicate a group of trees, and 'H' for hedges. Stem locations within groups and hedges may be estimated, and indicative of canopy only.
- 3.6. The tree survey was carried out from ground level only.
- 3.7. Where trees are located on neighbouring land an estimated appraisal has been made of their quality and dimensions. Where stems or branches are obscured by Ivy or other materials a full assessment of those parts will not be possible.
- 3.8. Tree heights were measured with a clinometer or estimated in relation to those measured with the clinometer. If individual tree heights are of particular concern, for example in shading calculations, then they are measured using a clinometer.
- 3.9. Trunk diameters were measured or, where inaccessible, estimated. Single stemmed trees are measured at 1.5m from ground level. Multiple stemmed trees are measured according to section 4.6 of BS5837:2012. For groups of trees the diameter may be an estimated average or a maximum.
- 3.10. 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. The canopy of tree groups will be indicated by measuring the maximum canopy radius for each compass point (more complicated groups will have further notes taken and an accurate representation will be shown on the plan).
- 3.11. No soil assessment was carried out at the time of survey. According to the National Soil Resources Institute online mapping service at <http://www.landis.org.uk/soilscapes> the soil on site is expected to be: "*Slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils*".

#### **4. Arboricultural Impact Assessment**

- 4.1.1. The proposed development is the demolition of the existing boundary wall along the southern boundary and construction of a new boundary treatment including gates and access points.
- 4.1.2. This impact assessment is intended to evaluate the direct and indirect impacts on the trees on the site in relation to the proposed development. Any potential tree impacts are identified as per BS5837:2012 section 5.4, and details are given of proposed mitigation.
- 4.1.3. Any potentially damaging activities proposed in the vicinity of retained trees are identified, such that mitigation to significantly reduce or avoid this impact can be detailed in the Arboricultural Method Statement and Tree Protection Plan as recommended in BS5837:2012 section 5.4.2.
- 4.1.4. The development proposals are in accordance with BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'. Adequate protection can be provided to ensure all retained trees are protected throughout the development.
- 4.1.5. This assessment is based upon the supplied Block Plan by Chase New Homes Ltd., drawing reference: 23 0055-1904.

#### **4.2. Trees to be removed and pruned**

- 4.2.1. The existing group constituents of the front hedgerow (H20) are to be removed.
- 4.2.2. The hedging along the site frontage is to be replaced with evergreen 'Instant Hedging' within the existing strip of soil along the site frontage to give acute established screening value to the development.
- 4.2.3. Where planting within retained RPAs is proposed, bare-root stock is to be used instead to ensure a low-impact planting methodology can be delivered. The compromise of variation to the boundary planting has been made to ensure appropriate consideration has been given to the retained tree stock.
- 4.2.4. Should any further pruning or removal works become necessary in the future for whatever reason, they should comply with BS3998:2010 Tree Work (or more recently accepted arboricultural good practice) and be approved in writing by the Enfield Council prior to any commencement.

#### 4.3. **Protection for retained trees**

4.3.1. BS5837:2012 section 6.2.1. states: 'All trees that are being retained on site should be protected by barriers and/or ground protection (see 5.5) before any materials or machinery are brought onto the site, and before any demolition, development or stripping of soil commences. Where all activity can be excluded from the RPA, vertical barriers should be erected to create a construction exclusion zone. Where, due to site constraints, construction activity cannot be fully or permanently excluded in this manner from all or part of a tree's RPA, appropriate ground protection should be installed (see 6.2.3).'

4.3.2. The existing wall is currently being used in part as site hording and Tree Protection Fencing as part of the adjacent development of the Black Horse Tower. Given the small size and location of this proposed development boundary, no Tree Protection Fencing has been specified for these works, however, the use of adequate Ground Protection and suitable Sensitive Methodology is considered suitable to deliver adequate protection for the tree during the proposed boundary treatment works.

#### 4.4. **Ground protection**

4.4.1. Where existing hard surfaces are located within the projected RPAs of retained trees, these shall be used as adequate ground protection for the duration of the boundary treatment works.

4.4.2. If these existing surfaces are to be removed for whatever reasons during the development, then adequate temporary Ground Protection must be installed immediately over any exposed soft ground within the Projected RPA until the development is completed or a new permanent surface is installed.

4.4.3. A specification for adequate ground protection can be found on the corresponding Tree Protection Plan and is also listed in the Method Statement below.

#### 4.5. **Demolition**

4.5.1. To ensure damage does not occur to trees highlighted for retention, sensitive demolition methodology has been specified for sections of the existing wall that is located within the projected RPAs of retained trees – See Method Statement below for further details.

4.5.2. Sections of the existing wall within projected RPAs should be demolished carefully using hand tools, ensuring the removed material is directed away from the stems and branches of the boundary trees.

4.5.3. Where possible, the existing foundation should be retained and re-used as part of the installation of the new boundary treatment. Where this is not suitable, the existing foundation should be carefully broken apart and removed using hand-tools (such as breakers and wheelbarrows).

4.5.4. As part of any demolition works, there should be no excavation closer to the trees than that of the existing foundation footprint, nor should there be any additional excavation into the underlying soil.

#### 4.6. **New Hard Surfaces within RPAs**

It is confirmed that no hard surfaces are proposed within the RPAs of retained trees as part of this development proposal.

#### **4.7. Construction within RPAs**

- 4.7.1. The construction of the new boundary treatment follows the footprint of the existing boundary wall and is considered to not be of a significant additional detriment to the ongoing vitality of the trees. Onsite finding showed that visible significant surface roots grew laterally along the boundary, utilising the soft ground along the strip of landscaped area outside of the footprint of the existing wall.
- 4.7.2. Construction of the new boundary treatment should not require additional excavation any closer to the retained boundary tree stock than that of the existing development footprint.
- 4.7.3. Where posts holes are required for excavation for new gates and associated features, a sensitive excavation methodology should be used to minimise and potential root disturbance. All excavation required will be in areas of existing hard surfaces.
- 4.7.4. All poured concrete casting should be lined with a non-permeable membrane to avoid harmful substances from the cement leeching into the surrounding soil and rooting structures, as this can change the chemical pH of the soil making certain nutrients unavailable to retained trees.

#### **4.8. Shade and future pressure to prune**

- 4.8.1. Given that the proposed development is for a boundary treatment, shading considerations from adjacent trees onto the new fence are not considered applicable for this impact assessment.

#### **4.9. Services**

- 4.9.1. It is fundamental to tree protection that infrastructure design is sensitively approached, as trenching close to trees may damage roots and affect tree health and stability.
- 4.9.2. Service routes required to provide cable ducting for the new sliding gate and associated safety features will pass through the RPA of T15 and a single constituent of groups G11 and G13.
- 4.9.3. Visual assessment onsite showed that the growth habit of roots from boundary specimens of G11 was to grow laterally within the available soil. It is therefore considered that the areas of proposed ducting located in areas of hard surfacing with the existing boundary foundation in-between will not be of significant detriment to the boundary trees.
- 4.9.4. G13 and T15 both have areas of proposed ducting shown within their RPAs, however both trees/groups have the existing boundary wall between the proposed excavation and the stem, as well as ample additional rooting medium in the form of public open grassland located directly adjacent to their RPAs. It is therefore considered that the trees will have taken advantage of the more suitable rooting medium, and the proposed excavations are unlikely to have a significant impact to the roots of these trees.
- 4.9.5. Regardless of the above considerations, all excavations proposed in the projected RPAs have been specified to be carried out using a sensitive methodology to ensure that if any significant rooting structures of 25mm<sup>Ø</sup> and over are found, suitable review can be made by the project arboriculturist.



#### 4.10. **Levels and Landscaping**

- 4.10.1. With the exception of where new post holes may be required to be excavated for gated section of the boundary, no additional raising or reduction of existing ground levels are proposed to implement this development proposal.
- 4.10.2. New hedge planting is proposed as part of the development. For further details please refer to the latest revision of the associated Landscape Proposals drawing, reference: CNH23629-09 and the Low-impact planting methodology included in the Method Statement below.

#### 4.11. **Boundaries**

- 4.11.1. All plot boundaries will need to be designed, positioned, and installed to avoid damage to retained trees. When within RPAs, this will include hand excavation of all post holes, and the lining of any post holes and foundations with a non-porous membrane to stop leachates from the concrete damaging tree roots.

#### 4.12. **Supervision & monitoring**

- 4.12.1. The development process should be subject to input and monitoring by the project arboriculturist, including a pre-commencement toolbox talk, to ensure that all personnel involved are aware of the protections and special methodologies required to ensure the adequate retention and care for adjacent trees is given during the works.
- 4.12.2. If the task is to take a long period of time or involve repetitive works, subject to agreement with Enfield Council and provided the arboriculturist is satisfied with the prior conduct and attitude of all involved with the project, following an initial 'tool-box talk' the monitoring may be reduced to telephone contact between the site foreman/contractor and arboriculturist, with suitable photos supplied as requested, which can then be passed on to Enfield Council as proof of compliance.

## 5. Arboricultural Method Statement

### **TO BE READ IN CONJUNCTION WITH THE LATEST REVISION OF THE CORRESPONDING TREE PROTECTION PLAN DRAWING REFERENCE: CNH23629-03 (BOUNDARY)**

#### 5.1. Phasing of operations for tree protection

5.1.1. Implementation of tree protection measures on the site must be carried out in the following order:

- 1) Pre-commencement toolbox talk between project arboriculturist, Local Authority, site manager and groundworkers.
- 2) Site accessible to construction/demolition traffic.
- 3) Demolition/site clearance.
- 4) Construction.
- 5) Removal of tree protection fencing.
- 6) Remedial tree surgery (if required).

5.1.2. The above phasing must not be changed without approval from the project arboriculturist and agreement with the Council.

#### 5.2. Site supervision

5.2.1. The development process will be subject to arboricultural supervision where construction work inside the construction exclusion zone is required, and for the installation of any special detail (e.g., no-dig surface). Therefore, input and supervision from the project arboriculturist will be required at the following stages:

- 1) Tree removals and access facilitation pruning.
- 2) Accurate erection of tree protection measures.
- 3) Site meeting with project arboriculturist, Local Authority Tree Officer, site manager and groundworkers.
- 4) Site accessible to construction/demolition traffic.
- 5) Demolition/site clearance.

5.2.2. Arboricultural supervision is to be carried out at all crucial stages throughout the development process to ensure detailed tasks are carried out as per the approved methodology, and during any other, unplanned incursions into protection areas, for whatever reason.

5.2.3. This supervision will require the arboriculturist to be present throughout the task, to ensure all the arboricultural objectives are met.

5.2.4. If the task is to take a long period of time, provided the arboriculturist is satisfied, and after an initial 'toolbox talk', the supervision may be reduced to telephone contact between the site foreman/contractor and arboriculturist.

### 5.3. **Tree protection areas**

5.3.1. Based on tree survey data, tree protection areas have been determined for every retained tree. These areas are designed to protect at least a functional minimum of tree root mass in order to ensure that the trees survive the construction process.

5.3.2. 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.

### 5.4. **Restrictions within tree protection areas and RPAs**

5.4.1. Inside the exclusion area of the fencing, the following shall apply unless otherwise approved by Enfield Council:

- 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.

5.4.2. 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), builders' 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.

### 5.5. **Avoiding damage to stems and branches**

5.5.1. Care shall be taken when planning site operations in proximity of retained trees to ensure that wide or tall loads, or plant with booms, jibs, and counterweights, can operate without coming into contact with retained trees. Such contact can result in serious injury to them and might make their safe retention impossible.

5.5.2. Consequently, any transit or traverse of plant in proximity of trees shall be conducted under the supervision of a banksman, to ensure that adequate clearance from trees is at all times maintained. In some circumstances, it may be impossible to achieve this without pruning works known as 'access facilitation pruning'.

5.5.3. Access facilitation pruning shall be kept to the barest minimum necessary to facilitate development and shall be carried out in strict accordance with the guidance below (Tree Surgery). Under no circumstances shall construction personnel undertake any tree pruning operations.

## 5.6. Ground protection

5.6.1. Specifications for temporary or replacement Ground Protection is shown on the Tree Protection Plan and detailed below. Any alternative specification to be installed must be capable of supporting the expected loads and avoiding rutting, compaction, and damage to the soil. As advised in BS5837:2012 section 6.2.3:

5.6.2. Temporary/replacement ground protection should be capable of supporting any traffic entering or using the site without being distorted or causing compaction of underlying soil. The ground protection might comprise one of the following:

**a)** for pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold frame, so as to form a suspended walkway, or on top of a compression-resistant layer (e.g., 100 mm depth of woodchip), laid onto a geotextile membrane.

**b)** for pedestrian-operated plant up to a gross weight of 2 t, proprietary, inter-linked ground protection boards placed on top of a compression-resistant layer (e.g., 150 mm depth of woodchip), laid onto a geotextile membrane:

**c)** for wheeled or tracked construction traffic exceeding 2 t gross weight, an alternative system (e.g., proprietary systems or pre-cast reinforced concrete slabs) to an engineering specification designed in conjunction with arboricultural advice, to accommodate the likely loading to which it will be subjected.

5.6.3. Stages for ground protection installation<sup>1</sup>:

No plant machinery to be used within soft ground of retained RPAs for whatever reason

- 1) Discuss procedure with project arboriculturist.
- 2) Dismantle primary TPF and re-erect in secondary location as shown on TPP.
- 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.

5.6.4. To ensure accuracy and avoid future costly adjustments, the Ground Protection must be set out by a surveyor with all node points being marked clearly on site for the fencing contractor to work to.

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<sup>1</sup>For protection from foot traffic only

## 5.7. **Site storage, parking, welfare facilities**

- 5.7.1. The site will require provision for; site storage, contractor parking, welfare facilities, temporary services/drainage, material drop of points, etc.
- 5.7.2. The use of the associated adjacent development will allow provision of adequate material and tool storage required for this boundary development proposal.
- 5.7.3. None of the above provisions will be sited within RPAs of retained trees without the input or the project arboriculturist and the consent of the Local Authority.

## 5.8. **Soft landscaping within RPA**

- 5.8.1. All landscaping and associated ground preparation within exclusion zones will be carried out sensitively to ensure root damage is mitigated as much as is practicable. At no time is any heavy plant to be used within any protected area. Removal of existing vegetation will be carried out by hand; turf may be removed using a mechanical turf stripper or by hand.

## 5.9. **Planting**

- 5.9.1. Should the soil be compacted or have a poor structure which may hinder the development of any new planting, soil decompaction techniques may be used upon consultation with the project arboriculturist.
- 5.9.2. Planting of "Instant hedging to be carried out as per the product specification. Where excavating close to trees, care should be taken to avoid damage to any roots over 25mm<sup>Ø</sup>, which should be retained and incorporated into the planting trench where possible.
- 5.9.3. Where planting of bare-root stock within RPAs is to be carried out, the following methodology will apply:

### No plant machinery to be used in the area for whatever reason

- 1) Remove TPF to allow access to area (if required).
  - 2) Remove existing vegetation (including roots from previous hedgerow under 25mm<sup>Ø</sup>) by hand, turf may be removed using a mechanical turf stripper.
  - 3) Small planting spade to be pushed gently into the soil with the flat of the foot applying a consistent pressure rather than repetitive impact. (do not try to force the spade through any obstruction).
  - 4) At full depth, maneuver the spade be back-and-forth to create a 'split' in the soil.
  - 5) Remove spade and insert bareroot tree stock into the resulting void, manipulating the rooting structure as required to fit. Include planting compost as required.
  - 6) Gently firm the surrounding soil closed with a boot heel.
  - 7) Apply a layer of mulch by hand approximately 2" deep, and avoid smothering stem directly.
  - 8) Apply water until mulch is adequately saturated.
- 5.9.4. No works will be carried out within any protected areas if the soil moisture is of a level likely to allow compaction to occur.

## 5.10. Installation of underground services

5.10.1. If for whatever reason installation within RPAs is required, the project arboriculturist and local authority must be notified prior to any tree protection barrier removal and the following details adhered to.

5.10.2. Stages for installing services within tree protection areas:

### No plant machinery to be located on soft ground within RPAs for whatever reason

- 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) Excavate the trench using a sensitive methodology (see below), keeping to minimum dimensions required.
- 5) If roots over 25mm<sup>Ø</sup> are encountered, they will be retained and kept damp by covering with hessian (re-wetted as required).
- 6) Feed in services between retained roots.
- 7) Back fill trench with 200-300mm depth of excavated soil, or a mixture of excavated and imported top-soil (to BS3882:1984), firming down with heels.
- 8) Repeat step 7 until trench is filled.
- 9) Re-erect tree protection fencing as per approved plan.

5.10.3. An alternative to the method of excavation above, for trenching within RPA's, is by using an 'air-spade' or similar. This tool utilises compressed air to remove soil from around tree roots causing minimal damage and can be run off a typical site compressor. ACD can provide details of contractors supplying air-spade services if required.

5.10.4. 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.

5.10.5. Reference can be made to National Joint Utilities Group Publication Volume 4 (NJUG Vol 4) for guidance, but any approach must be approved by the project arboriculturist and brought to the attention of the local authority tree officer.

## 5.11. Sensitive Excavation within RPAs

5.11.1. All areas of required sensitive excavation (including an allowance for working room) are indicated on the corresponding Tree Protection Plan

5.11.2. Stages of excavation within RPAs:

- 1) Contact project arboriculturist to hold pre-start site meeting, 'toolbox talk' and supervise the operation.
- 2) Remove TPF or Ground Protection to allow access to area (if required).
- 3) Identify sensitive area to be excavated and mark out with spay or pegs.
- 4) Where realistically feasible excavated using hand-tools only with additional use of an air-spade as required.
- 5) For more significant excavations or dense soils, use of a digger with a no-tines bucket may be used under close supervision from the project arboriculturist.
- 6) If roots 25mm<sup>Ø</sup> or over are found during excavation, clear by hand around them, ensuring they are not damaged, and cover with damp material (e.g. hessian) and keep moist until backfilled.
- 7) Roots under 25mm<sup>Ø</sup> may be severed as required to implement the required excavation.
- 8) Significant roots may only be severed following assessment and approval by the project arboriculturist - including a photographic record made of roots prior to pruning to be used for reference if required at a later date.
- 9) Roots severance should proceed as below:
  - Cleanly sever roots with bypass secateurs, loppers or pull cut saw at right angles to root.
  - Avoid tearing or ripping the root.
  - Backfill as soon as possible to cover cut root ends.

5.11.3. If for whatever reason, the project arboriculturist feels that a tree's stability has been compromised during the excavation operation, then the LPA shall be contacted, and the arboricultural officer (or appropriate landscape officer) notified. A decision can then be made as to the best way forward.

## 5.12. Demolition close to trees

5.12.1. All tree protection measure are to be confirmed as installed as per approved Tree Protection Plan prior to any plant arriving on site.

5.12.2. Stages for demolition within tree protection areas:

### No plant machinery to be sited on any exposed rooting area for whatever reason

- 1) Contact project arboriculturist to hold pre-start 'toolbox' talk before starting work.
- 2) Dismantle any fencing to allow work to proceed.
- 3) Sections of above ground wall to be removed with debris directed away from retained trees.
- 4) Removal debris to be conducted by hand or with use plant machinery not located on any exposed rooting area and under supervision of a banksman.
- 5) Foundation to be retained and re-used where feasible. Where not feasible the foundation is to be broken up with had held breaker and pieces removed by hand.
- 6) Underlying ground levels to be retained. No excavation to occur into underlying soil or any closer to retained trees.

7) Any exposed roots and surrounding newly exposed areas to be covered with up to 100mm of topsoil, from elsewhere on site, or imported topsoil (to BS3882:1984). Soil may be placed in area by plant but must be spread by hand.

5.12.3. No reduction in levels of the underlying soil surface or excavation closer to the stems or retained trees will occur.

5.12.4. At no point are any heavy machinery permitted within the RPA unless sited on suitable ground protection and under direct supervision of a banksman.

5.12.5. Contamination of the soil by fuel and lubricant leaks must be avoided at all costs. If such a situation arises the project arboriculturist must be notified to assess the situation and prescribe remedial measures.

### 5.13. **Installation of boundary fencing within protected areas**

5.13.1. Stages for installing wooden fence posts:

#### No plant machinery to be used in the area for whatever reason

- 1) Contact project arboriculturist to hold pre-start site meeting and 'toolbox' talk before starting work.
- 2) Remove TPF to allow access to area.
- 3) Dig post holes using hand tools, avoiding damage to the protective bark covering larger roots. Roots smaller than 25mm diameter may be pruned back using either secateurs or a hand saw, leaving a clean cut.
- 4) Damage or severance of roots above 25mm diameter must be avoided. If roots of this size are discovered, the hole should be relocated. If there are a large number of such roots it may be necessary to relocate the hole by half a fence panels length and adjust the fence panels accordingly.
- 5) Line hole with non-porous lining, for example durable polythene bag.
- 6) Insert post and fill post hole with concrete to ground level.
- 7) Trim polythene to ground level.

Henry Pinn *Arb L4 (ABC)*  
*LANTRA qualified Professional Tree Inspector*  
Senior Arboriculturist

30 January 2024

Revised (rev A) 18.03.2024 – Henry Pinn

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## Appendix 1: Summary of Categories BS5837:2012

BS5837:2012 Table 1 - Cascade chart for tree quality assessment			
Category and definition	Criteria (including subcategories where appropriate)		
<b>Trees unsuitable for retention</b> (see Note)			
<b>Category U</b> 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  <i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i>		
	<b>1 Mainly arboricultural qualities</b>	<b>2 Mainly landscape qualities</b>	<b>3 Mainly cultural values, including conservation</b>
<b>Trees to be considered for retention</b>			
<b>Category A</b>  <b>Trees of high quality</b> 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)
<b>Category B</b>  <b>Trees of moderate quality</b> 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
<b>Category C</b>  <b>Trees of low quality</b> 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

**SITE:** Black Horse Tower, Churchwood House & Holbrook House  
**CLIENT:** Chase New Homes Ltd.  
**DATE:** 19/01/2022 & 19/01/2024

**SURVEYOR:** Henry Pinn

**TAGGED?** No

**Appendix 2: Tree Survey Schedule**

No.	Name	Ht (crown)	Dia (stems)	Canopy spread N   E   S   W				Life stage	ERC	Comments	BS Cat
T4	Fraxinus excelsior (Ash)	10.5(2.5)	170(6)	6	5.2	6.5	6.7	EM	20+	Offsite group. Multi-stemmed from base. Chain link fence occluded into stems. Some lower stem compression. Minor deadwood.	C2
T10	Acer platanoides (Norway Maple)	8.7(2)	250(1)	4	3.5	3.5	3.5	EM	20+	Boundary tree located in verge. Good form. No significant damage or defects observed. Some historic pruning. Not on topographical survey - location estimated.	C2
G11	Acer platanoides (Norway Maple)	6.5(2.5)	190(1)	3	2.5	2.5	2.5	EM	40+	Group of similar specimens located on boundary verge. Some surface roots visible. Average group dimensions recorded. Minor historical pruning of Northeastern canopies.	C2
G13	Quercus robur (Common Oak)	8(1)	170(1)	3	6.2	4.2	1	SM	40+	Similar Offsite trees on ownership boundary. Suppressed canopies due to adjacent competition. Average group dimensions recorded. Poor form. No significant defects noted.	C2
T14	Quercus robur (Common Oak)	16.5(2)	930(1)	11	11	11	11	M	40+	Large Oak specimen located in POS. Historic branch removal. Canopy grows over PRoW. High amenity value. Deadwood visible throughout.	A1
T15	Quercus robur (Common Oak)	20.5(6)	390,420,470,320,980(5)	11	13.5	11	11	M	40+	Large Oak located in POS. Multi-stemmed from 0.5m. Some historical wounding on stem mostly occluded. Some stem compression throughout. Historic stem occlusion has left helical scarring on stem. Canopy grows over site access road. Deadwood over access road and PRoW visible. High amenity value.	A1
T16	Sorbus intermedia (Swedish Whitebeam)	8.5(3.5)	445(1)	4	4.2	4.2	4.2	M	20+	Tree located in POS. Good form. Not on topographical survey - all dimensions estimated.	B1
H20	Fagus sylvatica (Beech)	1(0.1)	90(1)	0.5	0.5	0.5	0.5	SM	10+	Intermittent sections of formally maintained hedgerow along boundary frontage. Average hedge dimensions recorded.	C2

**Notes:** **Dia (stems):** trunk diameter in mm at 1.5m above ground level (number of stems) | **HT (crown):** Tree height (crown clearance) | **Life stage:** **Y:** Young (obviously planted within the last three years (unless as a heavy or extra-heavy standard)). **SM:** Semi mature (recently planted and yet to attain mature stature; up to 25% of attainable age.). **EM:** Early mature (almost full height, crown still developing and seed bearing; up to 50% of attainable age.). **M:** Mature (full height, crown spread, seed bearing; over 50% of attainable age.). **OM:** Over mature (full size, die-back, small leaf size, poor growth extension.) | **FSB:** First significant branch (& compass bearing) | **ERC:** Expected remaining contribution in years- <10, 10+, 20+, 40+ (assuming that there will be no physical changes to its immediate environment | **BS Category:** Refer to appendix 1 of this report or BS5837:2012 Table 1 for detailed descriptions.



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