

Arboricultural Impact Assessment (AIA) Version 1

Halsnead Lickers Lane
Prepared for: Your Housing

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Appendix

1 Tree Protection Plan

2 Survey sheets (updated as a result of AIA)

1.0 Introduction

1.1 Instruction, Scope, Methodology, Mitigation & Limitations

- 1.2 My name is Simon Brain, I am a chartered arboriculturist, with 25 years' experience holding the LANTRA Professional Tree Inspection certificate. I have been instructed by the client to prepare the following Arboricultural Impact Assessment for land at Halsnead – Lickers Lane.
- 1.3 This Arboricultural Implications Assessment (AIA) is based on the proposed developments as shown on the Feasibility layout 33678 MR M DWG 03L and incorporated into the Tree Protection Plans (TPP) in Appendix 1 of this report.
- 1.4 The assessment will be carried out in line with the recommendations in BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations* and will evaluate the direct and indirect impacts of the proposed design and where necessary recommend mitigation.
- 1.5 The AIA considers constraints posed above and below ground and where appropriate makes recommendations to mitigate impacts associated with development sites and retained trees.
- 1.6 Where specialist design, construction techniques or in areas where supervision of the works is required in Root Protection Areas (RPA) this has been shown on the survey sheets for the study areas and detailed in section 2.3.1 of this AIA.
- 1.7 Below ground constraints are influenced by the root protection area and are determined in line with the recommendations set out in BS 5837:2012. These recommendations quantify the root protection area based on a measured stem diameter in accordance with Annex C, and the root protection area determined from Annex D.
- 1.8 It is important to understand that when considering the Root Protection Area (RPA) with regards to the circular plot as delineated on the TPP

that a number of site factors can influence root morphology and disposition of tree roots.

- 1.9 Above ground constraints are considered above and below ground and in line with the recommendations in BS 5837:2012 to include; shade, dominance, current and future crown spread as well as the ultimate height of those retained trees.
- 1.10 Impacts associated with development sites and retained trees can be associated with single or multiple site operations that can subject trees to multiple impacts (*root severance, compaction, loss of photosynthetic material*), where this is applicable it will be highlighted in the AIA.
- 1.11 The mitigation measures proposed in this report are essential to ensure that trees marked for retention are adequately protected during the period of post/preconstruction and on site supervision of works and compliance reporting is needed for all works in RPA.

2.0 Arboricultural Impact Assessment

2.1 Area for proposed development

2.2 The proposed development has been embedded within the Tree Constraints Plan which indicates the following developments associated with this site to have an arboricultural impact:

- Installation of proposed development infrastructure requiring tree removal

2.3 The arboricultural impacts of these items have been identified below.

2.3.1 Installation of proposed development requires the removal of the following tree references:

- W2,G1,G2, G3(partially removed).

3.0 Tree Preservation Orders

3.1 I have checked with over Tree Preservation Order and if they apply to this site and they do not appear online.

4.0 Trees to be removed and retained

4.1 The following trees have been identified for removal due to their condition (Category U): None

4.2 A total of three tree references are identified to be removed for this development and one partially removed (G3).

4.3 The remaining trees (W1) are the principle arboricultural assets on this site and they are due to be retained and protected as outlined on the TPP and by methodology needed in an AMS.

4.4 Individual stem data is required to determine the extent of retentions across the eastern part of W1 near the access.

5.0 Root Protection Areas (RPA)-modifications

- 5.1 Root Protection Areas have been plotted in line with the guidance given in BS 5837: 2012 where ground constraints have had or are likely to affect the root morphology of trees e.g. where underground utilities or building foundations have obstructed root growth this shall require formal confirmation by excavation to establish presence or absence of significant rooting material. No RPA modifications have been shown for this scheme.

6.0 Post construction considerations

- 6.1 Not applicable due to set back distances from retained trees.

7.0 Tree pruning to facilitate development and future pruning

- 7.1 There are no requirements for minor levels of tree pruning to facilitate the proposed development.

8.0 New surfacing and ground level modifications

- 8.1 No new surfacing is required in RPA of trees.

9.0 Construction Exclusion Zones and Special Measure Areas

- 9.1 The Construction Exclusion Zone has been shown as a black fenced polyline on the TPP in Appendix 1 and shall be constructed using heras panels and rubber feet securely staked to the ground.
- 9.2 The CEZ must be installed as signed off as fit for purpose before any other works commence on site.

10.0 Site supervision and monitoring

- 10.1 Where a tree has been delineated on the TPP as requiring retention there will be a requirement to oversee construction operations in these areas to ensure that no damage occurs to the retained tree.
- 10.2 To ensure that there is an auditable system of site monitoring, reports will be compiled by an appointed arborist and following site visits they issued to the site manager and design team, copies of which will be always available on site for inspection by a Council planning/Tree officer.

11.0 Installation of below ground infrastructure

- 11.1 No detailed plans have been provided specifying the location of site utilities.
- 11.2 Specialist advice with regards to the position of utilities will need to be sought from engineers and must be reviewed by the consulting arboriculturist prior to commencement on site.
- 11.3 The usual construction techniques for installing site utilities within an RPA will be unacceptable due to the level of root severance that would occur. The impact of root severance will have a detrimental effect on tree health as trees require a healthy root system in order to maintain water and mineral uptake from the soil. Trees need to maintain a balance between shoot and root growth to ensure that the resources supplied by each can meet the demand of the other. Severance of tree roots caused by trenching can lead to reduced water uptake which in turn impacts on the trees ability to supply water to the canopy, resulting in desiccation. A further complication associated with root severance can be problems associated with tree stability. The tree relies on an intact root system in order to maintain stability; this stability will be compromised by root severance.

- 11.4 The use of trenchless techniques can be acceptable provided the depth of service run that is excavated is below the anticipated root depth.

12.0 Design change requirements

- 12.1 Design change requirements have been suggested.

13.0 Amenity Value

The retention of the significant arboricultural assets has been achieved by the design and principal assets protected by CEZ are retained.

14.0 Concluding statement

- 14.1 The proposed scheme was assessed in line with guidance provided in BS 5837:2012 *Trees in relation to design demolition and construction – Recommendations* with the aim to achieve a harmonious relationship between trees and structures that can be sustained in the long term.
- 14.2 Whilst it is my professional opinion as an arboriculturist that this design has achieved a harmonious balance of retained and removed trees the site requires an AMS to demonstrate to the LPA that no damage to retained trees will occur and to guide the developer how to achieve this.
- 14.4 It is considered that a significant improvement in the longer-term visual amenity associated with the site will materialise through the proposed re plantings within landscape planning.
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Appendix 1 Tree Protection Plan

Tree No.	Common Name	Life Stage	Diameter(mm)	Stems	Height(m)	Crown Height(m)	North(m)	South(m)	East(m)	West(m)	Category	Estimated Remaining Life Expectancy (yrs)	Comments	Recommendations	RPA R
W1	Sycamore, Alder, Holly, Ash,	M	350	1	13	0	4	4	4	4	A2	40+	High canopy woodland	Retained within CEZ to west of access. Some retentions within CEZ to east of access, refer to TPP	4.2
W2	Sycamore, Alder, Holly, Ash, Lime, Willow	M	300	1	13	0	4	4	4	4	B2	40+	High canopy woodland, located to rear of road frontage	Lost for access, replace within landscape planning	5.2
G1	Sycamore, Alder, Holly, Ash, Willow	M	200	1	10	0	3	3	3	3	C2	40+	Regeneration forming woodland, lower quaility specimens	Lost for access, replace within landscape planning	2.4
G2	Sycamore, Alder, Holly, Ash, Willow	M	200	1	10	0	3	3	3	3	C2	40+	Regeneration forming woodland, lower quaility specimens	Lost for access, replace within landscape planning	2.4
G3	Sycamore, Willow	M	320	1	10	0	4	4	4	4	C2	40+	Regeneration off site mainly and occasional tree on site	Partially removed, install CEZ as shown	3.8