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## Victoria Heights, Chudleigh Road, Alphington

## Arboricultural Impact Assessment

## May 2019

## A report on behalf of Barratt Homes

Ref: 0032-AIA-AE

## Site details

| Site Name | Victoria Heights, Chudleigh Road |
| :--- | :--- |
| Site Location | Alphington |
| Central OS Grid Reference | SX 918 889 |
| Client | Barratt Homes |

## Quality Assurance

| Report Title | Arboricultural Impact Assessment |
| :--- | :--- |
| Report Reference | 0032-AIA-AE |
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## Executive Summary

This report presents the results of an Arboricultural Impact Assessment of Victoria Heights, Chudleigh Road, Alphington (central OS grid reference: SX 918 889) in relation to the development of 175 residential units and associated infrastructure and landscaping.

The table below describes the likely impacts to the arboricultural features at the above site to facilitate the proposed development as shown on the Proposed Site Layout reference EX-01-11.

| Likely Impact | Arboricultural Feature |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Category A | Category B | Category C | Category U |
| Tree Removal | - | G10, G17 (in part), T30 | G11, G12, T22, G25, <br> G28, G29, T32, T34, T35 | G24 |
| Access Facilitation <br> Pruning | - | - | T14, G31 | - |
| Encroachment into <br> Root Protection Area <br> (\% encroachment) | - | - | - | - |

This report has been prepared and should be read in conjunction with the Arboricultural Method Statement (0032/AMS/AE).

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## 1 <br> INTRODUCTION

This report presents the results of an Arboricultural Impact Assessment at Victoria Heights, Chudleigh Road, Alphington (central OS grid reference: SX 918 889) in relation to the proposed planning applications. The area within the application boundary, hereafter referred to as the 'Site', is shown in Appendix 1. The survey was commissioned by Barratt Homes.

The Site is allocated for development under Policy SWE1 of the Teignbridge Local Plan 2013 - 2033 (Adopted May 2014) as part of the South West of Exeter Urban Expansion. It received planning consent from Teignbridge District Council (TDC) on 21 December 2018 for a hybrid application comprising: Full application for conversion of the existing threshing barn and associated linhay to form three dwellings and erection of 16 new dwellings with associated landscaping and access and outline application for dwellings including four gypsy and traveller pitches and public open space (approval sought for access) (application reference: 15/01331/MAJ).

The Reserved Matters Application comprises 168 dwellings with associated infrastructure and landscaping, accessed via Chudleigh Road on the eastern boundary. A separate application covers the conversion of buildings in the north-east corner of the Site.

This arboricultural survey report has been prepared in accordance with BS5837:2012 'Trees in relation to design, demolition and construction - Recommendations'. All trees located within the Site boundary have been surveyed as part of this assessment. Additionally, those trees located immediately adjacent to the Site boundary and that have the potential to constrain the development (either through above or below portions of the tree) have also been surveyed as part of this assessment.

An Arboricultural Constraints and Opportunities Plan (ACOP) including a tree survey schedule and tree constraints plan was prepared during the design stage to inform the scheme design.

In order to undertake the assessment, the following documentation was provided by the client:

武此 Topographical Survey reference DG13024-1-1
** Proposed Site Layout reference EX-01-11

## 2 STATUTORY PROTECTION

### 2.1 Legislation

Some trees receive legal protection within England through the following:
*) Tree Preservation Orders (TPOs);
\# ${ }^{2}$ b Conservation Areas;
*" Planning Conditions;
As part of this assessment, the relevant Local Planning Authority (LPA) has been contacted or online mapping systems accessed to establish if any arboricultural features surveyed as part of this report are subject to any legal protection.

Unauthorised work to protected trees could lead to prosecution, resulting in enforcement action such as fines or a criminal record.

### 2.2 Planning Policy

Chapter 118 of the National Planning Policy Framework (NPPF) states that 'planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss'

Policy EN12 Woodlands, Trees and Hedgerows of the Teignbridge Local Plan 2013-2033 states:
'Development should contribute to the protection and enhancement of woodlands, trees and hedgerows in the area. The loss of woodland, healthy trees and hedgerows with visual, historic or wildlife importance will be resisted. Particularly strong protection will be given to ancient woodland and aged or veteran trees.

Development proposals should:
a) incorporate important woodlands, trees and hedgerows into the overall design and landscape scheme wherever possible;
b) prevent damage to root systems and ensure a satisfactory spatial relationship between trees and hedgerows and new development, taking account of expected future growth;
c) where possible incorporate retained trees and hedgerows within public open space rather than private space to safeguard their long-term management;
d) ensure protection measures before and during the development process and appropriate management and protection thereafter; and
e) take opportunities for new planting consistent with landscape, wildlife and historic interests.

## 3 APPLICATION OF ARBORICULTURAL SURVEY INFORMATION

### 3.1 Root Protection Area (RPA)

The tree's stem diameter is used to calculate the root protection area and radius for each tree. In most instances this is represented as a circle at a set dimension from the tree stem. The RPAs are shown on the tree constraints plan in Appendix 1 and are colour coded to reflect the category of the arboricultural feature. Where existing site constraints are considered to cause restrictions to the tree's rooting morphology, the RPAs have been amended to form a polygon of equal size.

The root protection area represents the minimum area of root growth required to support a tree. Therefore, any disturbance, damage or death of roots within this area can have a detrimental impact on the tree. Roots have many key functions including as a structural support for the tree, water and nutrient uptake and gaseous exchange, allowing the tree to respire. Therefore, any changes to the root protection area that may inhibit such functions (e.g. root severance, soil compaction, changes to hydrology through new surfacing and input of chemicals) can lead to the decline of the tree. Tree roots are more frequently found within the top 1 m of soil and therefore even shallow excavation can cause damage to tree roots and the available rooting medium

## 4 METHODOLOGY

### 4.1 Site Survey

The arboricultural survey was undertaken on the $22^{\text {nd }}$ June 2018 and $4^{\text {th }}$ April 2019. The visibility at the time of survey was adequate to undertake a thorough assessment of the trees from ground level. The trees were surveyed in the context of the existing land use

The trees were surveyed in accordance with BS5837:2012. The key information for each arboricultural feature can be found in the tree survey schedule in Appendix 2.

The key information for each arboricultural feature is used to calculate the root protection area, radius and to categorise the tree using an alphanumeric system. Table 1 below provides a brief overview of how each feature is categorised.

Table 1. Overview of tree categorisation process

|  | 1 - Mainly arboricultural qualities | 2 - Mainly landscape qualities | 3 - Mainly cultural/ conservation values |
| :---: | :---: | :---: | :---: |
| Category A <br> (Life <br> expectancy of <br> $40+$ years) | Features which are good examples of their species; or those that form an essential component to a wider feature. | Feature of particular visual importance as arboricultural and/or landscape feature. | Feature ofsignificant <br> conservation, <br> commemorative or <br> cotorical,(e.g. veteran trees). |
| Category B <br> (Life <br> expectancy of <br> 20+ years) | Features that may be included in category A but have been downgraded due to impaired condition such that they have a predicted lifespan of < 40 years. | Tree groups or woodland which collectively have a higher rating than the component individuals; or trees occuring 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 <br> (Life expectancy of 10+ years) | Unremarkable tree of 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 greater collective landscape value; and/or trees offering low or only temporary landscape benefits. | Trees with no material conservation or other cultural value. |
| Category U (Life expectancy of <10 years) | Features that are dead or show signs of significant, immediate decline or have serious, irremediable structural defects which could result in collapse. |  |  |

### 4.2 Survey Limitations

The survey was limited to a visual inspection from ground level. Where existing constraints are present e.g. dense vegetation around tree stems or where the tree is located on third party property, the dimensions have been estimated on site to the best of the surveyor's ability. Where an arboricultural feature has not been accurately plotted on the topographical survey or within the plans provided, the feature reference has been suffixed with PA to highlight its position as being approximate.

Due to the dynamism of living organisms and the potential for Site conditions to change, the recommendations provided in this report are only considered valid for two years of the date of the report. Furthermore, the recommendations provided in this report cannot account for detrimental impacts to trees through climatic extremes and/or physical damage.

Whilst every effort has been made to identify any physiological and structural defects of the trees surveyed, this report should not be considered a tree risk assessment. No tree can be considered absolutely safe with even 'sound' trees known to fail.

No soil investigation works have been undertaken as part of this assessment and as such this report does not address issues with regards to soil heave and shrinkage. This report cannot be used to assess risks with regards to subsidence, in relation to the existing trees or as a result of the recommendations provided in this report.

A structural engineer should be consulted in all matters relating to the design and construction of foundations near trees. NHBC provides guidance for 'Building near trees'.

## 5 RESULTS

### 5.1 Categorisation Summary

A summary of the arboricultural features and their categorisation can be found in table 2 below. Full details of each arboricultural feature can be found in the tree survey schedule in

## Appendix 2.

Table 2. Summary of arboricultural feature categorisation

| Categorisation | Arboricultural Feature |  |  |
| :---: | :---: | :---: | :---: |
|  | Tree | Tree Group | Hedgerow |
| A | 4 | - | - |
| B | 6 | 5 | - |
| C | 6 | 12 | 1 |
| U | - | 1 | - |

### 5.2 Appraisal of Arboricultural Features

The site supports a diverse tree stock including four category A oak trees (T2, T4, T9 and T21) of both high arboricultural and landscape value. Tree T2 has also been classified as a veteran tree and as such has been protected by a root protection radius of 15 times the stem diameter.

Further trees of higher quality can also be found along the eastern boundary of the site. Trees of note within this group include early mature Norway maple (G13) and tree T19 a mature weeping willow.

### 5.3 Statutory Protection

All trees on site are protected under an area tree preservation order reference E2/42/09 as confirmed by accessing the Teignbridge District Council online mapping system on the $23^{\text {rd }}$ May 2019.

## 6 ARBORICULTURAL IMPACT ASSESSMENT

### 6.1 Description of Proposed Development

The development proposals include 168 dwellings with associated infrastructure and landscaping, accessed via Chudleigh Road on the eastern boundary. A separate application covers the conversion of buildings in the north-east corner of the Site as shown in the Proposed Site Layout reference EX-01-11.

The project design team were provided with an Arboricultural Constraints and Opportunities Plan (ACOP) which provides an overview of the existing tree stock and details any constraints they may pose to development on a tree constraints plan.

Green Ecology, as the project arboriculturalist, has been involved in the development of the scheme design, providing advice to the design team on arboricultural related matters and ensuring the existing arboricultural features are retained and protected where possible.

### 6.2 Removal of Arboricultural Features

Those trees that require removal to facilitate the proposed development are detailed in table 3 below and are shown on the Tree Retention Plan in Appendix 1.

Table 3. Summary of removal of arboricultural features

| Reason | Arboricultural Feature(s) to be Removed |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Category A | Category B | Category C | Category U |
| To facilitate construction of <br> dwellings | - | G10, T30 | G11, T22, G25, G28, <br> G29, T32, T34, G35 | - |
| To facilitate construction of <br> LEAP | - | - | G12 | - |
| To create access and <br> adequate visibility splay | - | G17 (in part) | - | - |
| In interests of sound <br> arboricultural management | - | - | - | G24 |

The removal of the above trees is unlikely to have a significant effect upon the amenity value of the site. Those trees to be removed are largely located within the centre of the Site with their visibility buffered by boundary trees. However, their removal will be compensated by the implementation of a tree replacement strategy (see Landscape Strategy Plan reference 8497-L-01 prepared by FPCR) during the soft landscape phase of the development. The strategy will create a net gain in tree cover across the Site as well as enhancing the green infrastructure along Matford Brook. Planting along the eastern boundary will also help to improve the screening from Chudleigh Road.

When selecting new planting, consideration will be given to the future growth of the tree (including root systems, stem and canopy). Where possible, the tree will have sufficient space to reach maturity without causing physical contact with nearby structures or causing excessive shading.

### 6.3 Pruning of Arboricultural Features

Those trees that require pruning to facilitate access or construction are detailed in table 4 below.

Table 4. Summary of pruning of arboricultural features

| Arboricultural <br> Feature | Species | Works Required | Reason |
| :--- | :--- | :--- | :--- |
| T14 | Whitebeam | Reduce crown to west by 2 m. | To allow for adequate working <br> room around pump station for <br> installation of scaffolding. |
| G26, G31 | Elm | Reduce crown to south by 1.5 m. | To allow for installation of <br> boundary fencing and <br> construction of dwelling. |

All pruning works should be carried out in accordance with BS3998:2010 'Tree works recommendations'. Any further pruning works that cannot be predicted at this stage (based on the information currently available) should be discussed during the pre-commencement meeting with the project arboriculturalist and agreed with the local planning authority arboricultural officer.

### 6.4 Encroachment into the Root Protection Areas of Arboricultural Features

The development has been designed so to avoid the root protection areas of the retained trees.

### 6.5 Routing of Services and Utilities

Further details of the routing of services have not been provided at this stage. When details of the routing of services become available, they will be reviewed by the project arboriculturalist. The arboriculturalist shall then confirm to the local authority arboricultural officer either that no works will be carried out within root protection areas, or provide details of the methodology required to ensure the works are carried out in accordance with NJUG Vol. 4 'Guidelines For The Planning, Installation And Maintenance Of Utility Apparatus In Proximity To Trees' and BS5837: 2012.

### 6.6 Shade created by Arboricultural Features

The development has been designed so to avoid the shading constraint posed by retained trees.

### 6.7 Seasonal Nuisance caused by Arboricultural Features

The development has been designed to ensure buildings and parking bays are not located beneath the canopies of retained trees. A footpath is to be constructed beneath the canopy of G27. The path will therefore be subject to seasonal leaf drop, which if allowed to build-up could develop into a slippery surface. Clearance of leaves from the path should be included as a responsibility of the management company.

## 7 FURTHER CONSIDERATIONS

### 7.1 Protected Species

All trees should be checked for protected species e.g. roosting bats and nesting birds prior to any works being undertaken. Failure to undertake adequate inspections that result in the disturbance of protected species may result in the contravention of EU and national wildlife legislation and the committing of a criminal offence.

## Appendix 1 - Tree Constraints Plan and Tree Retention Plan



Key:


Location of trees
estimated on site.

I

## Tree Constraints Plan

| Client: Barratt David Wilson Homes |  |
| :--- | :--- |
| Project: Chudleigh Road, Alphington |  |
| Date: 08/04/2019 | Ref: 0032/TCP |
| Revision: - | Drawn: AE |
| Scale (A3): 1:1000 | Sheet: 1 of 2 |
|  |  |

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Indicative Tree Shadow Extent Tree CanopyCategory A coolur codedectito indicate tree
$\square$ Category BCategory C

Location of tres
stimated on site.


Dawing should be viewed in colour.

Tree Constraints Plan

| Client: Barratt David Wilson Homes |  |
| :--- | :--- |
| Project: Chudleigh Road, Alphington |  |
| Date: 08/04/2019 | Ref: 0032/TCP |
| Revision: - | Drawn: AE |
| Scale (A3): 1:1000 | Sheet: 2 of 2 |

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## Appendix 2 - Tree Survey Schedule

Tree Survey Schedule
$\begin{array}{ll}\text { Client: } & \text { Barratt Homes } \\ \text { Site: } & \text { Chudleigh Road, Alphington }\end{array}$

| Feature Number | Species | Height (m) | $\begin{gathered} \text { Stem } \\ \varnothing \\ (\mathrm{mm}) \end{gathered}$ | Crown Spread (m) | Height above ground (m) | Life Stage | Physiological Condition | Structural Condition | Comments | Management Recommendations | Root Protection Area ( $\mathrm{m}^{2}$ ) | Root Protection Radius (m) | Feature Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| G1 | Holm Oak, Turkey Oak, Sycamore | Up to 5 | $\begin{array}{\|c\|} \hline \text { Up to } \\ 300 \end{array}$ | $\begin{array}{ll} \hline \mathrm{N}: & 3 \\ \mathrm{E}: & 3 \\ \mathrm{~S}: & 3 \\ \mathrm{~W}: & 3 \\ \hline \end{array}$ | Canopy <br> 1.5 N <br> Branch <br> 0 Av | SemiMature | Good | Good | Third party tree group. Part of highways planting scheme. | No recommendations on date of survey. | 40.7 | 3.6 | C2 |
| T2 | Sessile Oak (Quercus petrea) | 11 | 1030 | $\begin{array}{\|cc\|} \hline \mathrm{N}: & 10 \\ \mathrm{E}: & 9 \\ \mathrm{~S}: & 7.5 \\ \mathrm{~W}: & 7 \\ \hline \end{array}$ | Canopy <br> 0.5 Av <br> Branch <br> 2 SW | Veteran | Good | Good | Cavity at base to west. Sheep grazed to 1 m . Good example of species. | RPA 15 times stem diameter. No construction within RPA. | 749.5 | 15.5 | A3 |
| G3 | Ash, Field Maple, Hawthorn, Sycamore, Turkey Oak, Scot's Pine | Up to 8 | $\begin{array}{\|c\|} \hline \text { Up to } \\ 400 \end{array}$ | $\begin{array}{\|ll\|} \hline \mathrm{N}: & 3.5 \\ \mathrm{E}: & 3.5 \\ \mathrm{~S}: & 3.5 \\ \mathrm{~W}: & 3.5 \\ \hline \end{array}$ | Canopy <br> 0 Av <br> Branch <br> 2 Av | Semi- Mature to Early Mature | Good | Good | Third party tree group. Part of highways planting scheme. Dense tree stock. Provides traffic noise attenuation. | No recommendations on date of survey. | 72.3 | 4.8 | B2 |
| T4 | Sessile Oak (Quercus petrea) | 10 | $\begin{gathered} 890 \\ \text { Comb. } \end{gathered}$ | $\begin{array}{\|cc\|} \hline \mathrm{N}: & 9.5 \\ \mathrm{E}: & 9 \\ \mathrm{~S}: & 9 \\ \mathrm{~W}: & 9 \\ \hline \end{array}$ | Canopy <br> 0.5 E <br> Branch <br> 1 N | Over Mature | Good | Good | Open grown form. Good example of species. Minor deadwood in crown. | No recommendations on date of survey. | 358.2 | 10.7 | A1/2 |
| T5 | Alder (Alnus glutinosa) | 8 | 400 | $\begin{array}{\|ll\|} \hline \mathrm{N}: & 3.5 \\ \mathrm{E}: & 3.5 \\ \mathrm{~S}: & 3.5 \\ \mathrm{~W}: & 3.5 \\ \hline \end{array}$ | Canopy <br> 0.5 Av <br> Branch <br> 3 E | Early Mature | Good | Good | $20^{\circ}$ lean to east. No visible major defects. | No recommendations on date of survey. | 72.3 | 4.8 | B2 |
| G6 | Hawthorn (Crataegus monogyna), Crack Willow (Salix fragilis) | Up to 5 | $\begin{array}{\|c\|} \hline \text { Up to } \\ 200 \end{array}$ | $\begin{array}{ll} \hline \mathrm{N}: & 3 \\ \mathrm{E}: & 3 \\ \mathrm{~S}: & 3 \\ \mathrm{~W}: & 3 \\ \hline \end{array}$ | Canopy <br> 0 Av <br> Branch <br> 0 Av | Early <br> Mature | Good | Good | Scrub like growth along watercourse. | No recommendations on date of survey. | 18.1 | 2.4 | C2 |

Tree Survey Schedule


| Feature Number | Species | Height (m) | $\begin{gathered} \text { Stem } \\ \varnothing \\ (\mathrm{mm}) \end{gathered}$ | Crown <br> Spread <br> (m) | Height above ground (m) | Life Stage | Physiological Condition | Structural Condition | Comments | Management Recommendations | Root Protection Area ( $\mathrm{m}^{2}$ ) | Root <br> Protection <br> Radius (m) | Feature Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| G7 | Hawthorn (Crataegus monogyna) | 4 | Up to 320 | N: 4 <br> E: 4 <br> S: 4 <br> W: 4 | Canopy | Mature | Good | Good | Open grown form. No visible major defects. Crown grazed to 1 m . | No recommendations on date of survey. | 46.3 | 3.8 | C2 |
|  |  |  |  |  | 0.5 Av |  |  |  |  |  |  |  |  |
|  |  |  |  |  | Branch |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 1 Av |  |  |  |  |  |  |  |  |
| H8 | Elm, Pedunculate Oak, Blackthorn, Field Maple | 3 | Up to 150 | N: 1.5 <br> E: 1.5 <br> S: 1.5 <br> W: 1.5 | Canopy | Mature | Good | Good | Managed as formal hedgerow. Screening benefit. | No recommendations on date of survey. | 10.2 | 1.8 | C2 |
|  |  |  |  |  | 0 Av |  |  |  |  |  |  |  |  |
|  |  |  |  |  | Branch |  |  |  |  |  |  |  |  |
|  |  |  |  |  | NA |  |  |  |  |  |  |  |  |
| T9 | Pedunculate Oak (Quercus robur) | 22 | 1420 | N: 9 <br> E: 11 <br> S: 8.5 <br> W: 11 | Canopy | Over Mature | Good | Good | Open grown form. Good example of species. | No recommendations on date of survey. | 706.5 | 15.0 Capped | A1/2 |
|  |  |  |  |  | 1 E |  |  |  |  |  |  |  |  |
|  |  |  |  |  | Branch |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 3 W |  |  |  |  |  |  |  |  |
| G10 | Sycamore (Acer pseudoplatanus) | Up to 16 | $\begin{array}{\|c\|} \hline \text { Up to } \\ 600 \\ \text { Comb. } \\ \text { Est. } \end{array}$ | N: 7 <br> E: 7 <br> S: 7 <br> W: 7 | Canopy | Mature | Good | Fair | Multistem from base. Dense tree stock. Ivy clad stems. | Fell to ground level. | 162.8 | 7.2 | B2 |
|  |  |  |  |  | 1 S |  |  |  |  |  |  |  |  |
|  |  |  |  |  | Branch |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 3 S |  |  |  |  |  |  |  |  |
| G11 | Elm (Ulmus sp.) | Up to 10 | $\begin{gathered} \text { Up to } \\ 250 \end{gathered}$ | N: 4 <br> E: 4 <br> S: 4 <br> W: 4 | Canopy | SemiMature to Early Mature | Good | Fair | Limited life span due to presence of Dutch Elm Disease in group. | Fell to ground level. | 28.3 | 3.0 | C2 |
|  |  |  |  |  | 0.5 S |  |  |  |  |  |  |  |  |
|  |  |  |  |  | Branch |  |  |  |  |  |  |  |  |
|  |  |  |  |  | NA |  |  |  |  |  |  |  |  |
| G12 | Goat Willow, Elm, Hawthorn, Apple | Up to 8 | $\begin{array}{\|c\|} \hline \text { Up to } \\ 350 \\ \text { Comb. } \end{array}$ | $\mathrm{N}:$ 8 <br> $\mathrm{E}:$ 8 <br> $\mathrm{~S}:$ 5 <br> $\mathrm{~W}:$ 5 | Canopy | Early Mature | Good | Fair | Some willow have failed at base and re-established. | Fell to ground level. | 55.4 | 4.2 | C2 |
|  |  |  |  |  | 0 Av |  |  |  |  |  |  |  |  |
|  |  |  |  |  | Branch |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 0 Av |  |  |  |  |  |  |  |  |

Tree Survey Schedule
$\begin{array}{ll}\text { Client: } & \text { Barratt Homes } \\ \text { Site: } & \text { Chudleigh Road, Alphington }\end{array}$

| Feature Number | Species | Height (m) | $\begin{gathered} \text { Stem } \\ \varnothing \\ (\mathrm{mm}) \end{gathered}$ | Crown Spread (m) | Height above ground (m) | Life Stage | Physiological Condition | Structural Condition | Comments | Management Recommendations | Root <br> Protection Area ( $\mathrm{m}^{2}$ ) | Root <br> Protection Radius (m) | Feature Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| G13 | Norway Maple (Acer platanoides) | Up to 14 | $\begin{gathered} \hline \text { Up to } \\ 590 \end{gathered}$ | $\begin{array}{ll} \mathrm{N}: & 7.5 \\ \mathrm{E}: & 7.5 \\ \mathrm{~S}: & 7.5 \\ \mathrm{~W}: & 7.5 \end{array}$ | Canopy <br> 0.5 W <br> Branch <br> 2 Av | Mature | Good | Good | Some suppression of crown to east due to proximity to G17. | No recommendations on date of survey. | 157.4 | 7.1 | B2 |
| T14 | Whitebeam (Sorbus aria) | 9 | 390 | $\begin{array}{ll} \hline \mathrm{N}: & 5 \\ \mathrm{E}: & 6 \\ \mathrm{~S}: & 5 \\ \mathrm{~W}: & 5 \\ \hline \end{array}$ | Canopy <br> 1 W <br> Branch <br> 1 E | Mature | Fair | Fair | Helical wound from first significant limb to east to stem. Dense ivy cladding. | Reduce crown to west by 2 m . | 68.8 | 4.7 | C2 |
| T15 | Sycamore (Acer pseudoplatanus) | 15 | 570 | $\begin{array}{\|lc\|} \hline \mathrm{N}: & 5.5 \\ \mathrm{E}: & 4 \\ \mathrm{~S}: & 6 \\ \mathrm{~W}: & 5 \\ \hline \end{array}$ | Canopy <br> 2 W <br> Branch <br> 7.5 S | Mature | Good | Fair | Wound on stem at base to 1.5 m . Unlikely to fully occlude. Crown suppressed by G17 to east. | No recommendations on date of survey. | 146.9 | 6.8 | C2 |
| T16 | Norway Spruce (Picea abies) | 15 | 340 | $\begin{array}{ll} \hline \text { N: } & 4 \\ \text { E: } & 4 \\ \text { S: } & 4 \\ \text { W: } & 4 \\ \hline \end{array}$ | Canopy <br> 6 Av <br> Branch <br> NA | Mature | Fair | Fair | Lower crown heavily shaded and absent of foliage. | No recommendations on date of survey. | 52.3 | 4.1 | C2 |
| G17 | Beech (Fagus sylvatica), Ash (Fraxinus excelsior) | Up to 16 | $\square$ | $\begin{array}{ll} \mathrm{N}: & 6 \\ \mathrm{E}: & 6 \\ \mathrm{~S}: & 6 \\ \mathrm{~W}: & 6 \\ \hline \end{array}$ | Canopy <br> 0 E <br> Branch <br> 1.5 Av | Mature | Good | Fair | Multistem and single stem trees. Pruned back from highway to east. Partially screens site from highway. | Remove northern section as per TRP. | 83.6 | 5.2 | B2 |
| G18 | Lawson Cypress (Chamaecyparis lawsonii) | Up to 15 | $\begin{gathered} \hline \text { Up to } \\ 720 \end{gathered}$ | $\begin{array}{ll} \hline \text { N: } & 6.5 \\ \mathrm{E}: & 6.5 \\ \mathrm{~S}: & 6.5 \\ \mathrm{~W}: & 6.5 \end{array}$ | Canopy <br> 0.5 E <br> Branch <br> 0 Av | Over Mature | Fair | Fair | Previously failed limbs to east. Rope girdling stem at 1 m . Lower crown suppressed to west. | Remove rope from stem. Maintain highways clearance. | 234.4 | 8.6 | C2 |

Tree Survey Schedule
$\begin{array}{ll}\text { Client: } & \text { Barratt Homes } \\ \text { Site: } & \text { Chudleigh Road, Alphington }\end{array}$

| Feature Number | Species | Height (m) | $\begin{gathered} \text { Stem } \\ \varnothing \\ (\mathrm{mm}) \end{gathered}$ | Crown Spread (m) | Height above ground (m) | Life Stage | Physiological Condition | Structural Condition | Comments | Management Recommendations | Root <br> Protection Area ( $\mathrm{m}^{2}$ ) | Root <br> Protection <br> Radius (m) | Feature Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| T19 | Weeping Willow (Salix babylonica) | 15 | 880 | $\mathrm{N}:$ 8 <br> $\mathrm{E}:$ 9 <br> $\mathrm{~S}:$ 8.5 <br> $\mathrm{~W}:$ 7.5 | Canopy <br> 0 Av <br> Branch <br> 2 N | Mature | Good | Good | Significant deadwood in lower crown. Large limb loss to east at 2 m and 8 m . | No recommendations on date of survey. | 350.2 | 10.6 | B1/2 |
| T20 | Ash (Fraxinus excelsior) | 18 | $\left.\begin{gathered} 670 \\ \text { Comb. } \\ \text { Est. } \end{gathered} \right\rvert\,$ | $\begin{array}{ll} \hline \mathrm{N}: & 8 \\ \mathrm{E}: & 8 \\ \mathrm{~S}: & 8 \\ \mathrm{~W}: & 8 \end{array}$ | Canopy <br> 2 W <br> Branch <br> 3 W | Mature | Good | Fair | Multistem from base. Dense ivy inhibits thorough inspection. | Sever ivy and re-inspect due to proximity to highway. Maintain highways clearance. | 203.0 | 8.0 | B2 |
| T21 | Pedunculate Oak (Quercus robur) | 16 | $\begin{aligned} & 750 \\ & \text { Est. } \end{aligned}$ | $\begin{array}{ll} \hline \mathrm{N}: & 8 \\ \mathrm{E}: & 8 \\ \mathrm{~S}: & 8 \\ \mathrm{~W}: & 8 \end{array}$ | Canopy <br> 2 W <br> Branch <br> 1.5 W | Mature | Good | Good | Open grown form. Dense ivy inhibits thorough inspection. | Sever ivy and re-inspect due to proximity to highway. Maintain highways clearance. | 254.3 | 9.0 | A1/2 |
| T22 | Ash (Fraxinus excelsior) | 5 | $\left.\begin{gathered} 350 \\ \text { Comb. } \end{gathered} \right\rvert\,$ | $\begin{array}{ll} \hline \mathrm{N}: & 5 \\ \mathrm{E}: & 4 \\ \mathrm{~S}: & 5 \\ \mathrm{~W}: & 4 \end{array}$ | Canopy <br> 0.5 W <br> Branch <br> 1 N | Early Mature | Good | Fair | Open grown form. Grazed to west to 1 m . Dense ivy cladding. | Sever ivy and re-inspect due to proximity to highway. Maintain highways clearance. | 55.4 | 4.2 | C2 |
| T23 | Turkey Oak (Quercus cerris) | 14 | 640 | $\begin{array}{\|ll} \hline \mathrm{N}: & 7 \\ \mathrm{E}: & 7 \\ \mathrm{~S}: & 7 \\ \mathrm{~W}: & 7 \end{array}$ | Canopy <br> 0 E <br> Branch <br> 1.5 W | Early Mature | Good | Good | Railings being occluded into stem. Grazed to west to 1 m . | Remove railings to allow future growth. Maintain highways clearance. | 185.2 | 7.7 | B1/2 |
| G24 | Sycamore (Acer pseudoplatanus) | 12 | $\left.\begin{gathered} 550 \\ \text { Comb. } \end{gathered} \right\rvert\,$ | $\begin{array}{ll} \mathrm{N}: & 5 \\ \mathrm{E}: & 5 \\ \mathrm{~S}: & 5 \\ \mathrm{~W}: & 5 \\ \hline \end{array}$ | Canopy <br> 3 N <br> Branch <br> 3 N | Early Mature | Fair | Poor | Individuals with significant burn scars and chainsaw wounds on base. Adjacent to metal barn. | Fell | 136.8 | 6.6 | U |

Tree Survey Schedule
$\begin{array}{ll}\text { Client: Barratt Homes } \\ \text { Site: } & \text { Chudleigh Road, Alphington }\end{array}$

| Feature Number | Species | Height (m) | $\begin{gathered} \text { Stem } \\ \varnothing \\ (\mathrm{mm}) \end{gathered}$ | Crown Spread (m) | Height above ground (m) | $\begin{aligned} & \text { Life } \\ & \text { Stage } \end{aligned}$ | Physiological Condition | Structural Condition | Comments | Management Recommendations | Root <br> Protection Area ( $\mathrm{m}^{2}$ ) | Root <br> Protection Radius (m) | Feature Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| G25 | Sycamore (Acer pseudoplatanus) | 12 | $\begin{gathered} 320 \\ \text { Comb. } \end{gathered}$ | N: 5.5 | Canopy | Semi- <br> Mature | Fair | Fair | Extensive debris in RPA. Multistem individuals. | Fell to ground level. | 46.3 | 3.8 | C2 |
|  |  |  |  | E: 5.5 | 2 Av |  |  |  |  |  |  |  |  |
|  |  |  |  | S: 5.5 | Branch |  |  |  |  |  |  |  |  |
|  |  |  |  | W: 5.5 | 2 Av |  |  |  |  |  |  |  |  |
| G26 | Elm (Ulmus sp.) | 6 | $\begin{array}{\|c\|} \hline \text { Up to } \\ 120 \\ \hline \end{array}$ | $\begin{array}{\|ll\|} \hline \mathrm{N}: & 3 \\ \mathrm{E}: & 3 \\ \mathrm{~S}: & 3 \\ \mathrm{~W}: & 3 \\ \hline \end{array}$ | Canopy | Semi- <br> Mature | Fair | Fair | Linear group on bank. Dutch Elm Disease present in group limited long term viability of remainder. | Remove dead elm from group. | 6.5 | 1.4 | C2 |
|  |  |  |  |  | 2 Av |  |  |  |  |  |  |  |  |
|  |  |  |  |  | Branch |  |  |  |  |  |  |  |  |
|  |  |  |  |  | NA |  |  |  |  |  |  |  |  |
| G27 | Sycamore (Acer pseudoplatanus), Elm (Ulmus sp.) | 13 | $\begin{gathered} 520 \\ \text { Comb. } \end{gathered}$ | N: 5.5 | Canopy | Early Mature | Good | Good | Multistem tree. Growing from face of bank. Compacted ground in RPA to south and east. | No recommendations on date of survey. | 122.3 | 6.2 | B2 |
|  |  |  |  | E: 5.5 | 4 Av |  |  |  |  |  |  |  |  |
|  |  |  |  | S: 5.5 | Branch |  |  |  |  |  |  |  |  |
|  |  |  |  | W: 5.5 | 4 Av |  |  |  |  |  |  |  |  |
| G28 | Sycamore (Acer pseudoplatanus) | 10 | $\begin{gathered} 450 \\ \text { Comb. } \end{gathered}$ | $\mathrm{N}: 4.5$ | Canopy | Semi- <br> Mature | Good | Good | Extensive debris in RPA. Multistem individuals. | Fell to ground level. | 91.6 | 5.4 | C2 |
|  |  |  |  | E: 4.5 | 3 Av |  |  |  |  |  |  |  |  |
|  |  |  |  | S: 4.5 | Branch |  |  |  |  |  |  |  |  |
|  |  |  |  | W: 4.5 | 6 Av |  |  |  |  |  |  |  |  |
| G29 | Sycamore, Elm, Horse Chestnut | 8 | $\begin{array}{\|c} \hline \text { Up to } \\ 200 \end{array}$ | N: 4 | Canopy | Semi- <br> Mature | Good | Fair | Extensive debris in RPA. Multiand single stem self-set individuals. | Fell to ground level. | 18.1 | 2.4 | C2 |
|  |  |  |  | E: | 1 Av |  |  |  |  |  |  |  |  |
|  |  |  |  | S: | Branch |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 2 Av |  |  |  |  |  |  |  |  |
| T30 | Norway Spruce (Picea abies) | 12 | 330 | N: 4 | Canopy | Early Mature | Good | Good | No visible major defects. | Fell to ground level. | 49.2 | 4.0 | B2 |
|  |  |  |  | E: | 0.5 Av |  |  |  |  |  |  |  |  |
|  |  |  |  | s: | Branch |  |  |  |  |  |  |  |  |
|  |  |  |  |  | NA |  |  |  |  |  |  |  |  |

Tree Survey Schedule

Client: Barratt David Wilson Homes
Site: Chudleigh Road, Alphington

Survey Date:
Surveyor:

22nd June 2018
Adam Earl

| Feature Number | Species | Height (m) | Stem $\varnothing$ $(\mathrm{mm})$ | Crown Spread (m) | Height above ground <br> (m) | Life Stage | Physiological Condition | Structural Condition | Comments | Management Recommendations | Root Protection Area ( $\mathrm{m}^{2}$ ) | Root Protection Radius (m) | Feature Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| G31 | Elm (Ulmus sp.) | 6 | $\begin{gathered} \hline \text { Up to } \\ 120 \end{gathered}$ | $\begin{array}{ll} \hline \mathrm{N}: & 3 \\ \mathrm{E}: & 3 \\ \mathrm{~S}: & 3 \\ \mathrm{~W}: & 3 \end{array}$ | Canopy <br> 2 Av <br> Branch <br> NA | Semi- <br> Mature | Fair | Fair | Linear group on bank. Dutch Elm Disease present in group limited long term viability of remainder. | Remove dead elm from group. Reduce crown by 1.5 m to south. | 6.5 | 1.4 | C2 |
| T32 | Eucalyptus sp. | 8 | 360 | $\begin{array}{cc} \mathrm{N}: & 6.5 \\ \mathrm{E}: & 7 \\ \mathrm{~S}: & 4 \\ \mathrm{~W}: & 4.5 \end{array}$ | Canopy <br> 1 W <br> Branch <br> 1 W | SemiMature | Good | Fair | Immediately below power line. Crown bias to north and east. | Fell to ground level. | 58.6 | 4.3 | C2 |
| T33 | Hazel (Corylus avellana) | 6 | $\begin{gathered} 400 \\ \text { Comb. } \end{gathered}$ | $\begin{array}{ll} \hline \mathrm{N}: & 6 \\ \mathrm{E}: & 6 \\ \mathrm{~S}: & 6 \\ \mathrm{~W}: & 6 \\ \hline \end{array}$ | Canopy <br> 2 W <br> Branch <br> 0 Av | Mature | Good | Good | On bank. Coppice stool. Overhanging carriageway. | Maintain highways clearance. | 72.3 | 4.8 | B2 |
| T34 | Hawthorn (Crataegus monogyna) | 5 | $\begin{aligned} & 250 \\ & \text { Est. } \end{aligned}$ | $\begin{array}{ll} \mathrm{N}: & 4 \\ \text { E: } & 4 \\ \text { S: } & 4 \\ \text { W: } & 4 \end{array}$ | Canopy <br> 2 W <br> Branch <br> 2 W | Mature | Good | Good | Open grown form. Sparse ivy on stem. | Fell to ground level. | 28.3 | 3.0 | C2 |
| G35 | Hawthorn (Crataegus monogyna), Elm (Ulmus sp.) | 6 | $\begin{gathered} \hline \text { Up to } \\ 200 \end{gathered}$ | $\begin{array}{ll} \hline \mathrm{N}: & 4 \\ \mathrm{E}: & 4 \\ \mathrm{~S}: & 4 \\ \mathrm{~W}: & 4 \end{array}$ | Canopy <br> 1 W <br> Branch <br> 1 W | SemiMature to Mature | Good | Fair | Crossing/rubbing limbs. Previous elm failure in group. | Fell to ground level. | 18.1 | 2.4 | C2 |

