

Alderwood
Consulting Limited



**Arboricultural
Impact Assessment
in connection with redevelopment
at 30 Valley Road, Chandlers Ford,
Eastleigh SO53 1GP**

Prepared by
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1 INTRODUCTION

- 1.1 **Brief:** I have been instructed by Graham Ash Architects for the applicant to inspect the significant trees (and see 3.1 below) close to the proposed redevelopment at 30 Valley Road, Chandlers Ford, Eastleigh SO53 1GP and to provide advice on the successful retention and incorporation of trees of amenity value within and closely adjacent to the site and the proposals. In addition this report includes the following information in connection with the planning application:-
- a schedule of the relevant trees giving dimension data and an assessment of their condition; and
 - an assessment of the layout proposal with appropriate suggestions for reducing any impact on amenity.
- 1.2 **Proposed development:** The development proposed is the demolition of the existing dwelling and detached garages and the construction of 3 new dwellings with parking on land of 30 Valley Road, with access as existing from Valley Road.
- 1.3 **Documents provided:** I have been provided with the following drawings and documents:
- 'Existing site plan / site survey' by Graham Ash Architects drawing number 22:040:02 dated 17th April 2023 indicating the positions of trees on and closely adjacent to the site.
 - Site layout plan (1:200@A1) by Graham Ash Architects, drawing no. 22:040:03 Revision B dated 22 - 5 - 23 based on the site survey and indicating the positions of trees on and adjacent to the site, with the proposed siting of the development. An annotated copy of this drawing with tree schedule numbering, tree root protection areas (RPAs) and indicating the location of special measures in respect of trees is attached as Plan AC1.
 - 'Pre-development Arboricultural Survey' by Arbor-Eco Consultancy report ref: MB220319-01 dated May 2022. This report includes a schedule of trees on and closely adjacent to the site to the BS5837:2012 recommendations (and see Section 2 below), a table giving root protection information and a 'Tree Constraints Plan' with tree numbering, BS5837 categories and indicating the extent of BS5837 RPAs. The tree schedule and RPA table have been extracted and attached at Appendix 2.
- 1.4 **Qualifications and experience:** I have based this report on my site observations and the provided information, and I have come to conclusions in the light of my experience. I have experience and qualifications in arboriculture, details of which are listed in Appendix 1.

- 1.5 **Tree constraints:** I have not myself seen specific tree preservation orders (TPOs) relating to this site. The Eastleigh Borough Council web pages suggest that trees on and closely adjacent to the site are protected by one or more TPOs, probably with a mix of area, group and individual tree designations. The site is not within a Conservation Area. The proposal is to retain the trees and consider them in the planning submissions as if they were formally protected. Where tree work is proposed for trees protected by TPO, this report serves as an application for consent, with a planning permission being deemed consent for the proposed works. In any event this arboricultural impact assessment has been prepared in acknowledgement of the general planning principle that trees are a material consideration in the planning process, and in tacit acknowledgment of the Council's relevant tree policies.
- 1.6 **Validation:** Typically, the Local Planning Authority requirement for a planning application for a site where trees are involved is for the submission of a tree schedule, a tree constraints plan and an arboricultural impact assessment report in line with the BS5837:2012 recommendations. This D2335AIA report has been prepared in line with the BS5837:2012 recommendations and should allow the planning application to be validated in respect of tree information.

2 SITE VISIT AND OBSERVATIONS

- 2.1 **Preliminary matters - 1:** The trees on and closely adjacent to the site have been comprehensively assessed and surveyed by Arbor-Eco Consultancy with the findings set out in their detailed 'Pre-development Arboricultural Survey' with tree schedule, report ref: MB220319-01 dated May 2022. The site visit by Marco Bartolini as tree assessor for Arbor-Eco Consultancy was carried out on 12th May 2022. The paragraphs 2.3-2.5 below refer to the Arbor-Eco Consultancy survey.
- 2.2 **Preliminary matters - 2:** I visited the site on 11th August 2023, to see the site for myself and look at the trees. I made sample measurements e.g., trunk diameters to check against the Arbor-Eco Consultancy survey and found that survey to be to the standard expected.
- 2.3 **Collection of data:** Each significant tree was inspected, and the tree schedule numbering is indicated on the annotated site layout attached as Plan AC1. For each tree, information as recommended in BS5837:2012 – *Trees in relation to design, demolition and construction - Recommendations* was collected. The tree information was recorded in the Arbor-Eco Consultancy tree schedule attached to this report at Appendix 2.
- 2.4 **Subjective assessment of trees:** The information collected at the site visit was used to prepare a tree schedule in line with the recommendations in BS5837:2012. Trees were categorised on the basis of their suitability for

retention on a development site, and brief details of the reasons for each category allocation were provided. There are four basic categories, which are summarised below:

Category A: Trees of high quality and value

Category B: Trees of moderate quality and value

Category C: Trees of low quality and value

Category U: Trees unsuitable for retention, usually to be removed

- 2.5 **The root protection areas and location of protective fencing:** BS5837:2012 gives recommendations for the areas of root protection to be equivalent to the area of a circle centred on the tree with a radius of least 12 times the trunk diameter. This distance is given for guidance in the RPA Table 3 for each tree in the tree schedule.

3 ARBORICULTURAL IMPACT APPRAISAL - TREES

- 3.1 **Overview:** The significant trees relating to the proposed development are on and near the east and south boundaries of the main part of the site, the long leg of the 'L' from Valley Road running back to the south; and throughout the subsidiary short foot of the 'L' running back to the west. The trees on the east and south sides of the existing dwelling provide screening for the site from the adjacent properties. The trees in the foot of the 'L' give that part of the site a semi-wooded character. Tree species, sizes and conditions vary. Notwithstanding the TPO, few of the trees have particular individual amenity value because of their separation and distance from public view. The trees along the boundaries are useful for giving the site definition and a degree of seclusion and separation from the neighbouring properties. The proposal is for these trees to be retained and protected during development.
- 3.2 **Other trees:** The Arbor-Eco Consultancy survey recorded 21 trees and one hedge. Several of these trees are distant from the redevelopment proposals and are not shown on plan AC1 or referred to further in this report. This is because the protection and other measures proposed for the identified trees will be adequate and sufficient for those other trees.

4 ARBORICULTURAL IMPACT APPRAISAL - DEVELOPMENT

- 4.1 **Site access:** Site access will be by way of the existing vehicular access from Valley Road that runs along the west edge of the site and returns to the rear west site extension giving access to the existing detached garages. This access will be retained and extended to provide additional access and parking areas.

New surfacing will be installed early in the development process (and see 4.6 below).

- 4.2 **Demolition and removal of structures:** The existing dwelling and associated outbuildings including the detached garage block will be removed from the site. The existing dwelling is partly within the root protection area of tree T4 and close to other RPAs. The existing garage block is almost entirely within RPAs. The retained trees will be protected from the outset by temporary fencing, and ground protection installed between the fencing and the existing elevations where appropriate (and see paragraph 5.2 below). Demolition will be aided by mechanical means, although parts of the superstructures may be recovered and recycled, which requires manual handling and sorting. The removal of the superstructure to ground level may be carried out by this combination of mechanical and hand operations. For the foundations of the dwelling, the removal of these at the southwest corner elevations will be by hand, with the foundations broken up using hand operated tools that may include pneumatic chisels and the resulting debris removed by hand. This process will also apply to the garage block. There will be no fires in connection with the development activities including demolition within 10m of the canopy of any retained tree, and no storage or mixing of harmful materials e.g., DERV fuel, concrete within 10m of the trunk of any retained tree. The combination of these measures with the temporary ground protection, temporary tree protective fencing and the manual demolition and materials handling, will reduce the risk of harm to retained trees to an acceptable minimum.
- 4.3 **Existing surfaces:** There is an existing site access from Valley Road running to the south along the west side of the site and returning to the west across the front north elevation of the garages. This access will be retained and added to, to form additional access and parking for the new dwellings. Much of the existing surfacing south of the front north elevation of the existing dwelling is within RPAs of retained trees, and precautions in respect of changes to surfacing will be appropriate. These will generally be as set out in paragraph 4.6 below.
- 4.4 **Construction of new buildings:** The existing dwelling partly within RPAs and the garages almost completely within RPAs set a precedent for buildings in those places, with existing building footprints likely to have acted as constraints on the development of roots under the buildings. The proposed replacement dwelling on Plot 2 is partly within the RPAs of trees proposed for retention and the dwelling replacing the garages is almost entirely within RPAs. The foundations for these buildings will be designed to take account of trees e.g., using pile or pier and beam, pile and raft or similar. The principles will be that except for the localised piles or piers there should be no excavation into ground previously undisturbed. Piles should be sheathed to minimise the risk of ground contamination by concrete. Ground beams should sit on the piles with the underside of beams at or above ground levels. The use of special

foundations following the principles above will mean that the installation of the dwellings with appropriate temporary tree protection measures and special surfacing will not represent a significant risk of harm to retained trees.

- 4.5 **Retaining walls:** An existing retaining wall across part of the rear of the site to the south of the rear south elevation of the existing dwelling will be replaced and is within RPAs. This replacement of an existing wall will not require significant additional excavation. This wall will have an additional element running along the south part of the east boundary. This is effectively radial from the nearest trees and the installation of this new element is not likely to cause significant harm to the retained trees. For the retaining wall to the south of the dwelling on Plot 3, there is already a significant change in levels on the east side of the garages and along the rear south side of the garages. The proposed retaining wall is needed to stabilise the management of the levels, as there is already minor land slip on these sides of the garages. With the change of levels to the south appearing to be up to 2m from the floor level of the existing garages to the top of the bank to the south, it seems unlikely that there will be significant roots spreading north under the existing garage. However, the design and installation of the retaining structure will take account as far as reasonably practicable of the presence of trees, consistent with the reasonable effects of stabilising the existing poor situation. Installation using piles as the main structural elements with facings not requiring additional excavation is a potential acceptable installation process. It would be reasonable for details to be provided as a condition of consent.
- 4.6 **Installation of new surfaces:** Parts of the proposed access and parking and paving round the dwelling on Plot 3 are within RPAs. Where surfaces are proposed within RPAs, they will be installed using a 'no-dig' specification. Excavation into areas previously unsurfaced will be limited to the removal of the vegetation layer, a nominal 10cm, to be carried out by hand. Areas already surfaced will have the existing wearing course removed, again by hand. In both cases, there will be no excavation into previously undisturbed ground. The levels allow surfacing to be installed using a no-dig form of construction and will allow the use of a cellular confinement system. For the avoidance of doubt, this method of construction will be used for all the areas indicated on plan AC1 by diamond hatching i.e. within the RPAs. Where new surfacing is proposed in these areas, a geotextile membrane will be installed over the previously undisturbed ground level, with the cellular confinement system laid over the membrane. The replacement surface laid over the filled cellular material will be retained by an edging of wooden boards secured by driven wooden pegs. The small change of levels from the new access surface past the edging to the existing ground levels will be managed by a batter formed from good quality topsoil. The restrictions on excavation and the use of a geotextile membrane and cellular confinement system in accordance with the guidelines in Section 7.4 of BS 5837 will limit the risk of damage to tree roots to an acceptable level. The special surfacing will be supplemented by temporary tree protective

fencing (see 5.1 below). The plan AC1 assumes the installation of the base course of the vehicular access and parking with a temporary capping early in the development process, to allow site access during construction.

- 4.7 **Services:** The site is already serviced, and this establishes the principle of services to the site and their maintenance and repair, and it is likely that the new occupation will use the existing services as far as is reasonably practicable. At present services are understood to run out to Valley Road and the proposal is for all replacement and new services to do the same. The RPAs of retained trees extend across much of the south part of the access. The presence of a TPO means that the Council will expect any activities within the RPAs of retained trees to be in accordance with the latest guidelines and recommendations. For services where there is the need to run pipework within tree protection zones, such pipework will be installed in trenching in accordance with the recommendations in NJUG Publication: Volume 4: Issue 2: 16/11/2007: *Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees*. Within the root protection areas for trees, trenches will be dug by hand and any roots over 2.5cm in diameter will be retained undamaged. The trench backfill round the roots shall be a granular material that can be compacted to the point where it can bear the new surfacing without subsiding but without abrasion of tree roots and without raising the soil bulk density to the point where root growth cannot take place. A reasonable alternative is to use trenchless technology e.g., thrust or augur boring. The Council may reasonably require details of service routes to be provided as a condition of consent. The same principles apply to the disposal of surface water, where soakaways can be located outside RPAs.
- 4.8 **Construction access:** Construction access within RPAs will be managed by a combination of temporary fencing, temporary ground protection and special surfacing. Provided that these measures are taken with proper installation and retention as appropriate, there will be no significant adverse effects on trees from construction access.
- 4.9 **Storage and movement of materials:** The nature of the site and the available space suggest that materials will be delivered to the site using the existing access which can take deliveries all the way down to Plot 3. There is space on the east side of the main access between Plots 1 and 2 outside RPAs for materials storage, and materials can be moved from here using small plant e.g. a light low ground-effect forwarder to the footprints of Plots 2 and 3. Provided that the precautions set out above are taken i.e. temporary fencing and ground protection, there will be no significant adverse effects on trees from materials storage and handling. No storage or mixing of harmful materials e.g., DERV fuel, concrete will take place within 10m of the trunk of any retained tree.

5 PROTECTIVE MEASURES

- 5.1 **Protective fencing:** Temporary tree protective fencing is proposed for the retained trees. This will be erected at the locations shown on plan AC1. It will be to the BS5837:2012 section 6.2 recommendations i.e., preformed galvanised steel mesh panels ('Heras' or similar) facings on a braced scaffold pole or timber framework. It will be installed prior to the commencement of any development-related activity including demolition and ground works and will be retained at the locations shown until construction is completed. It may be moved or removed only with notice to and consent from the Council. Provided that the fencing and ground protection are properly specified, installed and maintained, there will be no significant adverse effects on the health or amenity value of the retained trees. Tree protection will be additionally effected by special surfacing (see 4.6 above) and temporary ground protection (see 5.2 below).
- 5.2 **Ground protection:** Temporary ground protection is proposed as an adjunct to the temporary fencing and special surfacing. It will be installed at the locations indicated on plan AC1. This temporary ground protection will allow pedestrian access for construction and the movement of small amounts of building materials. The ground protection will also act as a base for scaffolding if such access is required. The ground protection shall be as recommended in BS5837 i.e., it shall be scaffold planks, or plywood sheets at least 15mm thick, laid butt-jointed over a geotextile membrane installed on a layer of pulverised bark or similar laid on the existing ground surface i.e. with no significant excavation. The minimum areas where these measures apply are the protection zones as indicated on the attached plan AC1 by diamond hatching with a 'G' in the hatching.

6 POST OCCUPANCY PRESSURES ON TREES

- 6.1 **Effects on trees post occupancy:** The location and character of the proposal has been achieved in consideration of all the site factors including the presence of trees. The proposed dwelling on Plot 1 does not have its elevations, internal amenity spaces or external amenity space unduly dominated or shaded by trees. The 'replacement' dwelling on Plot 2 has a relationship with trees similar to that of the existing dwelling, albeit with improvements in the design and layout of internal amenity space and fenestration and the design pulling the rear south elevation further from trees. At these distances the trees will be no more significant in blocking sunlight to the rear elevation or in obstructing skylight or in being unduly dominant than for the existing dwelling, and likely less. The dwelling on Plot 3 effectively sits in a clearing in a wood. There is no reasonable expectation of unobstructed daylight and anyone moving into this dwelling will acknowledge its relationship with trees, which gives this plot its particular and special character. The plot overall is comparatively spacious

partly in acknowledgement of the presence of trees and their potential effects on the use of the external amenity space. The trees give this plot a secluded and semi-rural character contrasting with the suburban character of dwellings elsewhere in the street. Trees and vegetation to the south, east, north and west will continue to provide useful screening between the dwelling and the adjacent properties. It will be in the interests of new occupants to retain the trees and particularly the boundary trees and vegetation in order to retain seclusion and privacy. The redevelopment will not bring new pressures on trees and where formal tree protection measures apply, the Council will be able to resist unreasonable applications for tree work, with such decisions likely to be supported at appeal.

7 CONSENT CONDITIONS

7.1 **Conditions:** In tree terms the proposals include elements that have the potential to affect retained trees e.g. the installation of services, the installation of surfaces, the installation of piled foundations, the installation of temporary tree protection measures. In these circumstances it would be reasonable for any additional details that the Council requires to be submitted post-consent, as determined by the Council and defined in appropriate conditions.

7.2 **Arboricultural method statement heads of terms:** The recommendation in BS5837:2012 is that where details might need to be submitted to allow for changes that might occur after planning permission has been granted, heads of terms for an arboricultural method statement (AMS) would be appropriate. That is appropriate for sites with a range of arboricultural protection measures and methods to be determined. Here the protection during demolition may to be slightly different from the protection appropriate during the construction phase. Suggested heads of terms include:

- Removal of existing structures (and hard surfacing where applicable)
- Installation of temporary tree protective measures including fencing and ground protection
- Installation of replacement/new hard surfacing where applicable
- Installation of services
- Installation of structures/foundations
- System of arboricultural site monitoring

8 SUMMARIES

8.1 **Summary of control during development:** In order to minimise any adverse effects on the retained trees identified, I advise that:-

- Temporary tree protective fencing is installed at appropriate locations before commencement of development and is retained until the completion of development
- Tree protective fencing may be moved only with the consent of the Council
- Temporary ground protection is installed at appropriate locations before commencement of development and is retained until the completion of development
- Ground protection may be moved only with the consent of the Council
- New surfacing within RPAs shall be installed with a 'no-dig' specification
- Existing surfacing within RPAs shall be broken up by hand and there shall be no excavation into previously undisturbed ground
- Existing structures within RPAs shall have their foundations broken up by hand and there shall be no excavation into previously undisturbed ground
- New/replacement structures within RPAs shall be installed/ constructed using appropriate special design and installation measures
- There will be no fires within 10m of the canopy of any retained tree, and no storage or mixing of harmful materials e.g. DERV fuel, concrete within 10m of the trunk of any retained tree

8.2 **Summary of the impact on local amenity:** This layout retains the significant trees on and adjacent to the site, with scope for proper provisions for their protection during development, and their subsequent management, where they lie within the site. If adequate precautions to protect the retained trees are implemented as recommended in this report and as may reasonably be required by consent conditions, the overall impact of the proposal on local amenity will be low and limited to the short term only. The proposals also take proper account of potential pressures for pruning and felling post-occupancy. Where formal tree protection measures apply, the Council could properly refuse consent for inappropriate works and could expect to be supported in such decisions at appeal. These submissions demonstrate that it is reasonably practicable to redevelop in accordance with the proposals for the submitted scheme without significant harm to retained trees. Any additional information required for reassurance can reasonably be required by way of conditions attached to the planning permission. There are therefore no supportable or reasonable grounds for refusing permission in terms of trees.



Jonathan Fulcher DipArb FArborA

Brief qualifications and experience of Jonathan Fulcher

1. **Qualifications:** I hold the City and Guilds Certificate in Arboriculture, and the Royal Forestry Society's Professional Diploma in Arboriculture, which is one of the premier qualifications within the Arboricultural Profession. I am also a Registered Consultant of the Arboricultural Association.
2. **Practical experience:** I have worked in local government tree management for over twenty years. After cutting my teeth as an arborist at London Borough of Redbridge, I moved to London Borough of Islington where I supervised direct works for three years. I joined New Forest District Council in 1987, where I made and administered Tree Preservation Orders and advised on arboricultural issues relating to planning applications. In 1991, I moved to Poole Borough Council as Senior Arboricultural Officer, leading a small professional team providing a comprehensive arboricultural service to the Council. Duties included arboricultural consultancy on major development proposals, acting as arboricultural witness at Public Inquiries and setting and running tree work contracts. I joined Barrell Treecare as a self-employed arboricultural consultant in March 1998, leaving in early 2003 to become a fully independent consultant. My clients include local and national development companies, schools, public utilities and Local Planning Authorities. From 2003-2008 I was also one of a small number of arboricultural consultants appointed by the Department for Communities and Local Government (DCLG) for the determination of Tree Preservation Order application appeals. This function was transferred to the Planning Inspectorate in 2008, when I was appointed as a contracted Inspector for Tree Preservation Order application and High Hedge appeals, serving until 2016.
3. **Continuing professional development:** I am a Fellow of the Arboricultural Association by examination, and have served the Association as a member of their Local Authority Committee, including one year as committee chair. I have been co-organiser of national seminars on Tree Strategies and Tree Preservation Order Enforcement, and given papers and chaired sessions at the Association's annual conferences. I have been a member of the Association's Consultants Working Party, interim lead assessor for the Association's Registered Consultant scheme and am currently an assessor for that scheme. I keep professionally current through professional reading, subscription to professional journals and by regular attendance at seminars and conferences.

Tree No.	Species	No. Stems	Diam (mm)	H't (m)	Ht 1 st Band (m)	Branch Spread (m)				Crown Clearance (m)				Age	Phys Cond	Struc Cond	Est. Remain Contrib (Years)	Cat	Comments	Preliminary Management Recommendations
						N	E	S	W	N	E	S	W							
1	Oak	1	<u>570</u>	19.0	5.0 W	4.0	<u>8.0</u>	8.0	8.0	<u>7.0</u>	<u>6.0</u>	<u>5.0</u>	<u>5.0</u>	M	G	G	20+	B1 Int	- Ivy on stem and in crown limited access to survey. - Artificial structures within RPA. - Major deadwood in crown.	Crown clean deadwood. Sever and remove ivy to facilitate next inspection.
2	Oak	1	<u>550</u>	22.0	2.0 W	<u>8.0</u>	<u>6.0</u>	<u>5.0</u>	<u>5.0</u>	<u>8.0</u>	<u>5.0</u>	<u>2.0</u>	<u>6.0</u>	M	G	G	20+	B1,2,3 Int	- Off-site tree. - Restricted access prevented detailed assessment. - Ivy on stem and in crown limited access to survey. - Major deadwood in crown. - Detritus around rootplate. - Growing on elevated ground 2.0 m above ground level of the property. - Artificial structures within RPA.	Crown clean deadwood. Sever and remove ivy to facilitate next inspection.
3	Scots Pine	1	590	23.0	5.0 N	7.0	<u>5.0</u>	4.0	6.0	5.0	15.0	14.0	12.0	M	G	G	20+	B1	- Artificial structures within RPA. - Major deadwood in crown. - Off-site tree. - Growing on elevated ground 2.0 m above ground level of the property.	-
4	Oak	1	<u>1150</u>	28.0	8.0 E	11.0	9.0	6.0	10.0	2.0	4.0	8.0	6.0	M	G	G	40+	A2 Int	- Notable landscape and historical tree. - Ivy on stem and in crown limited access to survey. - Growing on elevated ground 3.0 m above ground level of the property. - Artificial structures within RPA.	Crown clean deadwood. Sever and remove ivy to facilitate next inspection.
5	Scots Pine	1	<u>500</u>	22.0	10.0 E	8.0	<u>6.0</u>	3.0	2.0	17.0	12.0	12.0	14.0	M	G	G	20+	B1,2,3 Int	- Artificial structures within RPA. - Undermined by badger -possible sett. - Companion tree with T6. - Ivy on stem and in crown limited access to survey.	Sever and remove ivy to facilitate next inspection.
6	Scots Pine	1	510	22.0	12.0 E	<u>3.0</u>	<u>4.0</u>	2.0	3.0	<u>15.0</u>	<u>16.0</u>	<u>16.0</u>	<u>14.0</u>	M	G	G	20+	B1,2,3	- Artificial structures within RPA. - Undermined by badger -possible sett. - Companion tree with T5.	-
7	Oak	1	850	24.0	2.0 S	7.0	6.0	8.0	7.0	<u>2.0</u>	<u>2.0</u>	<u>2.0</u>	<u>2.0</u>	M	G	G	20+	A2	- Notable landscape and historical tree. - Artificial structures within RPA. - Growing on elevated ground 3.0 m above ground level of the property. - Landscape position on bank and dense understorey restricted access to survey. - Major deadwood in crown.	Crown clean deadwood.

Table 3.3: Results of Arboricultural Survey (continues)

Tree No.	Species	No. Stems	Diam (mm)	H't (m)	Ht 1 st Band (m)	Branch Spread (m)				Crown Clearance (m)				Age	Phys Cond	Struc Cond	Est. Remain Contrib (Years)	Cat	Comments	Preliminary Management Recommendations
						N	E	S	W	N	E	S	W							
8	Oak	2	520	24.0	8.0 S	3.0	8.0	6.0	7.0	4.0	4.0	5.0	6.0	M	G	F	20+	B1,2,3	- Artificial structures within RPA. - Bifurcated with fused stems. - Tall and etiolated due to group pressure. - Ivy on stem and in crown limited access to survey. - Asymmetrical crown. - Growing on embankment.	Sever and remove ivy to facilitate next inspection.
9	Oak	1	750	29.0	2.0 S	9.0	10.0	7.0	9.0	2.0	2.0	2.0	2.0	M	G	G	40+	A2	- Notable landscape and historical tree. - Suspended branches from adjacent tree suspended in crown. - Growing on embankment. - Ivy on stem and in crown limited access to survey. - Major deadwood in crown. - Artificial structures within RPA.	Remove suspended branches immediately. Crown clean deadwood. Sever and remove ivy to facilitate next inspection.
10	Oak	1	450	19.0	8.0 N	5.0	1.0	4.0	6.0	6.0	6.0	6.0	6.0	EM	F	G	10+	C1	- Apical stem snapped out and suspended in adjacent tree. - Artificial structures within RPA. - Ivy on stem and in crown limited access to survey. - Growing on embankment.	Sever and remove ivy to facilitate next inspection.
11	Oak	1	210	11.0	6.0 W	1.0	1.0	3.0	5.0	6.0	6.0	6.0	6.0	EM	F	F	10+	C1	- Crown weighted to west due to group pressure. - Artificial structures within RPA. - Growing on embankment. - Ivy on stem.	-
12	Oak	1	650	23.0	6.0 S	6.0	6.0	5.0	6.0	8.0	6.0	6.0	7.0	M	G	G	20+	B1,2,3	- Ivy on stem. - Artificial structures within RPA. - Tall and etiolated due to group pressure. - Major deadwood in crown.	Crown clean deadwood.
13	Beech	2	310	15.0	4.0 S	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	EM	F	F	10+	C1,2 Int	- Off-site tree. - Artificial structures within RPA. - Stem occluded to boundary wall. - Restricted access prevented detailed assessment. - Ivy on stem and in crown limited access to survey.	Sever and remove ivy to facilitate next inspection.
14	Oak	1	620	26.0	6.0 E	5.0	6.0	6.0	7.0	4.0	8.0	3.0	5.0	M	G	G	20+	B1,2,3	- Major deadwood in crown. - Tall and etiolated due to group pressure. - Artificial structures within RPA.	Crown clean deadwood.

Table 3.3: (cont'd) Results of Arboricultural Survey (continues)

Tree No.	Species	No. Stems	Diam (mm)	H't (m)	Ht 1 st Band (m)	Branch Spread (m)				Crown Clearance (m)				Age	Phys Cond	Struc Cond	Est. Remain Contrib (Years)	Cat	Comments	Preliminary Management Recommendations
						N	E	S	W	N	E	S	W							
15	Oak	1	<u>1000</u>	28.0	3.0 S	<u>6.0</u>	<u>5.0</u>	<u>7.0</u>	<u>6.0</u>	<u>5.0</u>	<u>6.0</u>	<u>3.0</u>	<u>2.0</u>	M	G	G	40+	A2 Int	- Off-site tree. - Notable landscape and historical tree. - Artificial structures within RPA. - Restricted access prevented detailed assessment.	-
16	Beech	1	<u>400</u>	18.0	3.0 N	<u>5.0</u>	<u>5.0</u>	<u>5.0</u>	<u>5.0</u>	<u>2.0</u>	<u>2.0</u>	<u>2.0</u>	<u>2.0</u>	EM	G	G	20+	B1,2,3 Int	- Off-site tree. - Artificial structures within RPA. - Restricted access prevented detailed assessment.	-
17	Oak	1	<u>450</u>	24.0	8.0 S	<u>2.0</u>	<u>1.0</u>	<u>3.0</u>	<u>5.0</u>	<u>10.0</u>	<u>10.0</u>	<u>10.0</u>	<u>10.0</u>	EM	F	F	10+	C1 Int	- Off-site tree. - Stunted and suppressed. - Major deadwood in crown. - Artificial structures within RPA. - Restricted access prevented detailed assessment.	Crown clean deadwood.
18	Oak	1	<u>750</u>	26.0	6.0 S	<u>7.0</u>	<u>6.0</u>	<u>10.0</u>	<u>9.0</u>	<u>7.0</u>	<u>6.0</u>	<u>6.0</u>	<u>14.0</u>	M	G	G	20+	B1 Int	- Off-site tree. - Artificial structures within RPA. - Restricted access prevented detailed assessment. - Ivy on stem and in crown limited access to survey. - Major deadwood in crown.	Crown clean deadwood. Sever and remove ivy to facilitate next inspection.
19	Lawson Cypress	1	<u>280</u>	12.0	6.0 S	<u>3.0</u>	<u>3.0</u>	<u>3.0</u>	<u>3.0</u>	<u>4.0</u>	<u>4.0</u>	<u>4.0</u>	<u>4.0</u>	EM	F	F	10+	C1	- Off-site tree. - Artificial structures within RPA. - Restricted access prevented detailed assessment.	-
20	Ash	1	<u>280</u>	11.0	6.0 S	<u>5.0</u>	<u>4.0</u>	<u>3.0</u>	<u>1.0</u>	6.0	2.0	2.0	6.0	EM	P	P	<10	U Int	- Off-site tree. - Artificial structures within RPA. - Ash dieback evident. - Poor form – possibly self-set. - Restricted access prevented detailed assessment.	-
21	Ash	1	<u>110</u>	6.0	2.0 S	<u>0.5</u>	<u>5.0</u>	<u>4.0</u>	<u>1.0</u>	-	2.0	2.0	2.0	EM	P	P	<10	U	- Off-site tree. - Artificial structures within RPA. - Ash dieback evident. - Poor form – possibly self-set. - Restricted access prevented detailed assessment.	-

Table 3.3: (cont'd) Results of Arboricultural Survey (continues)

Tree No.	Species	No. Stems	Diam (mm)	H't (m)	Ht 1 st Band (m)	Branch Spread (m)				Crown Clearance (m)				Age	Phys Cond	Struc Cond	Est. Remain Contrib (Years)	Cat	Comments	Preliminary Management Recommendations
						N	E	S	W	N	E	S	W							
H1	Leyland Cypress	1	50	2.0	0.0 W	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	EM	F	F	10+	C2	- Artificial structures within RPA. - Managed hedgerow. - Dieback in crown due to excessive pruning.	-
Key Age Class Y: Young = tree within first third of average life expectancy EM: Early mature = tree within second third of average life expectancy M: Mature = tree within final third of average life expectancy OM: Over mature = tree beyond average life expectancy Physiological Condition G: Good = no health problems F: Fair = symptoms of ill health that may be remedied P: Poor = poor health D: Dead Structural Condition G: Good = no structural defects F: Fair = remedial structural defects P: Poor = significant structural defects D: Dead 000: Estimated measurement due to access restrictions RPA: Root Protection Area Major deadwood: branches in excess of 50 mm diameter Minor deadwood: branches/twigs less than 50 mm diameter Trees are the subject of a Tree Preservation Order																				

Table 3.3: (cont'd) Results of Arboricultural Survey

3.4 ROOT PROTECTION AREA (RPA)

Table 3.4 provides details of the Root Protection Area (RPA) of all trees surveyed. This table also gives an approximate root protection radius for these trees.

Tree No.	Species	Diam (mm)	Approximate Root Protection Radius (m)	Root Protection Area (m ²)
1	Oak	<u>570</u>	6.9	150
2	Oak	<u>550</u>	6.6	137
3	Scots Pine	590	7.2	163
4	Oak	<u>1150</u>	13.8	598
5	Scots Pine	<u>500</u>	6.0	113
6	Scots Pine	510	6.3	124
7	Oak	850	10.2	327
8	Oak	<u>520</u>	6.3	124
9	Oak	<u>750</u>	9.0	255
10	Oak	450	5.4	92
11	Oak	210	2.7	23
12	Oak	650	7.8	191
13	Beech	310	3.9	48
14	Oak	620	7.5	177
15	Oak	<u>1000</u>	12.0	452
16	Beech	<u>400</u>	4.8	72
17	Oak	<u>450</u>	5.4	92
18	Oak	<u>750</u>	9.0	255
19	Lawson Cypress	<u>280</u>	3.6	41
20	Ash	<u>280</u>	3.6	41
21	Ash	<u>110</u>	1.5	7
H1	Leyland Cypress	<u>50</u>	0.9	3
Key: <u>000</u> : estimated dimensions due to access restrictions *: Average measurement taken around centre of group				

Table 3.4: RPA and Approximate Root Protection Radius of Trees Surveyed

**TO BE READ IN CONJUNCTION WITH
HAMPSHIRE ECOLOGICAL SERVICES LTD
ECOLOGICAL APPRAISAL REPORT,
APRIL 2023**

SWIFT BO

- Either incorporate into the build structure (E.g. brood box) or mounted on a building.
- Position out of direct sunlight (below eaves on the north elevation)
- away from windows and in a straight line.
- Should be in an open area so that it is less accessible to predators and birds are not obstructed as they leave the nest.

INTEGRATED BAT BOX

It is proposed that an integrated bat box/ink (e.g. a Habitatat Bat Box or an Inbuck Enlarged Bat Box, a Schweigebat Bat Tube or similar) is incorporated into at least one of the new dwellings. This will provide cavities that are incorporated into the external build structure to offer roosting space for bats. The bat features should be located on elevations near to related vegetation. This will optimise potential roosting opportunities.

Refer to ecological report section 3.5.2 for details on lighting to bat roost locations.

BAT BO

in addition, at least one bat box (e.g., Vavara Pro WoodStone Bat Box, Beaumans Woodstone or similar) should be erected on a suitable mature tree within the site boundary, prior to the commencement of works. Refer to ecological report section 5.6.2 for details of flying to bat roost locations.

28MM BIRD BOX

Vivara Pro Seville 28mm Woodstone Nest Box
Position on a building or tree, angled north-east (away from prevailing winds) and tilt forward slightly.
Chances of occupation can be increased by positioning boxes near vegetation.

32MM BIRD BOX

Ivira Pro Seattle 32mm Woodstone Nest Box
Position on a building or tree, angled north-east (away from prevailing winds) and tilt forward slightly.
Chances of occupation can be increased by positioning boxes near vegetation.

CLOSE BOARDED FENCING 1.8m HIGH

(INDICATED ON PLAN AS C,B,F - over retaining walls where required)
Closeboard fending Consisting of posts, rails, gravel boards and featheredge boards

(for an 1800mm or 6' fence). The distance between the post centres should ideally not exceed 3m (10ft).

Rails fixed horizontally either between or across the face of the posts; Two rails are needed on 1.8m High Fences

board overlapping the thinnest

15cm gaps beneath to allow wildlife such as reptiles, amphibians and hedgehogs to access the landscaping. This could be achieved by removing part of the baseboard/ gravelboard.

PROPOSED LAWN

Refer to ecological report section 12.1 & table 12.1.1 for details of lawn seed mix composition.

PROPOSED HEDGEROWS

New hedges To Be Planted Around The Edges Of The Site / Plots Indicated In Green On The Site Plan.

- Consisting of a mixture of native species:
- Acer campestre - (Field Maple)
 - Carpinus betulus - (Hornbeam)
 - Cornus sanguinea - (Dogwood)
 - Corylus avellana - (Hazel)
 - Crataegus monogyna - (Hawthorn)
 - Fagus sylvatica - (Beech)
 - Fraxinus excelsior - (Ash)
 - Prunus spinosa - (Blackthorn)
 - Quercus robur - (Pedunculate Oak)
 - Viburnum lantana - (Wayfaring-tree)
 - Viburnum opulus - (Guelder-rose)
- In addition, the hedges will contain *Ilex aquifolium* (Holly) and *Taxus baccata* (Yew) to provide an evergreen component for the winter months and provide a contrast to the colours of the other plants during the spring, summer and autumn.
- Under-sowing new hedges with Emsayes seed mix EH1 Hedgeow mixture (or equivalent) provides cover for wildlife and new hedges as well as providing an attractive feature while the new hedges become established. Seed mixes suitable for steds are given in Table 5.5.3.4.



PROPOSED SITE PLAN
@ 1:200 SCALE

@ 1:200 SCALE



GRAHAM ASH
ARCHITECTS

TITLE:
PROPOSED SITE PLAN
PLOTS 1-3

PROJECT:
3 NEW DWELLINGS
AT 30 VALLEY ROAD
CHANDLERS FORD

1:200 @ A1	22-5-23	B
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☒ information
 ☐ approval
 ☐ tender
 ☐ construction

DWG. NO. **22-040-03B**