

advanced:

progressive adj. forward-thinking forward-looking unconventional cutting edge innovative

higher adj. superior highly developed sophisticated complex

British Standard 5837:2012 Arboricultural Survey

Former Aldens Farm Land Alphington Exeter Devon



Tom Hurley, BSc (For) Hons, M Arbor A

7th August 2017



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Version Control and Document History

Date	Version	Details
07.02.2013	1.0	Initial report (reference TH/X872/0213)
07.08.2017	2.0	Fully updated report based on reinspection on 31.07.2017

Client: NPS South West Ltd

Venture House One Capital Court Sowton Industrial Estate

Exeter EX2 7FW

Ref no: TH/X1626/0817

Site details: Former Aldens Farm Land

Alphington Exeter Devon

Date of site inspection: 31st July 2017

Assessor & Report Author: Tom Hurley,

BSc(For)Hons, M Arbor A

Date report compiled: 7th August 2017

Method of Delivery: Electronic

7th August 2017 Signed Date

This report is valid for two years from the date of site inspection. The condition of trees can change following severe weather conditions or due to the effect of pests and diseases or other abiotic factors, and therefore may warrant re-inspection of affected trees at a shorter interval than recommended in this report.

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Executive Summary

The former Aldens Farm Land is located to the south of Alphington in Exeter. The site currently comprises as series of agricultural fields split across two separate parcels, divided by Chudleigh Road.

An evaluation of all trees and hedgerows on site has established some clear guidelines for areas suitable for development on site, as well as advising on potential links throughout any development for vehicles, pedestrians and cycles.

Overall, the site is considered to have significant development potential in arboricultural terms, and the relatively low numbers of trees on site restrict arboricultural constraints accordingly.

Further arboricultural advice will be required as the project progresses, but this document provides robust initial guidance to the project's design team.

1.0 Report Introduction

1.1 Purpose of Report

- 1.1.1 To re-inspect trees on the proposed development land in accordance with BS5837:2012, Trees in relation to design, demolition and construction – Recommendations. To comment on significant trees on the site or on neighbouring land adjacent to the development boundary where they may affect or be affected by development.
- 1.1.2 This report contains all the information required to enable a full and balanced evaluation of the trees on or adjacent to the proposed development land. Whilst this information should be readily comprehensible for the majority of architects and local planning authority officers, online guidance notes have been produced to provide additional information on British Standard 5837:2012, its methodologies and application. A hyperlink and password allowing access to these guidance notes will have been provided under separate cover and is also available on request from Advanced Arboriculture.
- 1.1.3 This document contains the following British Standard 5837:2012 components:
 - Tree Survey
 - Tree Constraints Plan
- 1.1.4 This document also contains a Potential Development Zones Plan which, whilst not a formal British Standard 5837:2012 component, is a valuable design tool for the project team.

2.0 Information Summary

2.1 Survey Information				
Survey Date	31 st July 2017			
Survey Weather	Dry and overcast			
Survey Staff	Tom Hurley			

2.2 Supplied Information									
Drawings	Source	Reference Number	Description						
	West Country Land Surveys Ltd	5829	Topographic survey						

All trees present on topographical survey?	No
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2.3 Site Information	
Site Access Location	The western parcel of land can be accessed from Shillingford Road, Chudleigh Road or Markham Lane. The eastern parcel of land can be accessed from Chudleigh Road only.
Site Access Ordnance Survey Grid Ref	SX 9187 8931
Site Topography	The site topography is undulating with the land sloping down to the north.
Site Altitude	The site ranges between approximately 17 and 37 metres above sea level.
Indicative Wind Exposure	Wind exposure is anticipated to range from low to moderate in the more sheltered lower areas of the site, to moderate to high at the higher levels of the site.
Soil Type	Freely draining slightly acid loamy soils.
Current Site Use	The land comprises agricultural fields. All the fields to the east of Chudleigh Road are clearly actively farmed while of the three fields to the west of Chudleigh Road, the easternmost field is used as a horse paddock and the central field is used as open space by the public.
Site Structures	There are no structures on any of the land,

2.3 Site Information	
	though there do appear to be some derelict building shells on the south-eastern boundary immediately to the east of Chudleigh Road.
Site Surfaces	The fields have either been ploughed or left as grassed paddock.
Surrounding Land Use	The land to the north and west features residential housing developments, while the land to the south and east is a continuation of the agricultural land.
Neighbouring Trees	Yes
Public Rights of Way	Shillingford Road, Chudleigh Road and Dawlish Road are all public rights of way. In addition, Markham Lane, running along the southern boundary of the western parcel of land, is a public footpath.
Overhead Services	Electricity lines cross both the eastern and western parcels of land.

2.4 Legal Constraints	Legal Constraints						
Local Planning Authority	Exeter City Council						
Tree Preservation Orders	Not known						
Conservation Area	None						

2.5 Survey Data	
Number of Trees	26
Number of Areas	7
Number of Groups	5
Number of Hedgerows	19
Number of Woodlands	0

3.0 Preliminary Tree Constraints Assessment

3.1 Root Protection Areas

- Root protection areas have been shown on the Tree Constraints Plan in Appendix
- Where trees are located in hedgerows immediately adjacent to ploughed fields (for example T1 through T4), root distribution is likely to be atypical due to repeated ground disturbance. Rooting in these cases may either be deeper or concentrated along the line of the hedgerow itself where there has been little or no ground disturbance.
- The trees adjacent to Markham Lane (T8 through T14) may also have an asymmetric rooting system due to the heavily compacted surface of this public footpath which is also used by agricultural traffic.

3.2 Landscape and Visual Amenity Value

- The combination of hedgerows and individual hedgerow trees dominate the local landscape and are typical of this agricultural setting.
- It is noted that none of the road frontages (Shillingford Road, Chudleigh Road or Dawlish Road) feature any significant individual trees. Markham Lane (a public footpath) does feature two smaller Oaks (T24 and T25) on its boundary with the westernmost field, and also several larger trees (T8 through T14) on its boundary with the easternmost field. As the footpath continues east between Chudleigh Road and Dawlish Road, it does not run adjacent to any hedgerow specimens, though there are views of trees T1 through T4 from this public right of way.

3.3 Veteran Trees

No veteran trees were noted on site.

3.4 Environmental Considerations

The trees and hedgerows on site offer ideal habitats for nesting birds and there
may be dormouse activity on site too. Some of the older broadleaves may also offer
suitable bat roosts. It will be necessary to establish the presence of any protected
species by means of an ecological survey undertaken by a suitably qualified expert.

3.5 Shading, Dominance and Nuisance

 Shading and perceived dominance are a potential issue on some of the field boundaries, particularly where there are larger trees, however, the shade paths shown on the Tree Constraints Plans clearly identify these and give guidance as to where occupied structures can be constructed.

- Shading, dominance and nuisance are not considered to be an issue for the hedgerows as these have been flailed to a set height.
- It is noted that the tongue of land to the west of hedgerow H11 is outside of the
 ownership of the proposed development land and does feature some large Poplars
 (areas A5 and A6). Whilst none of these trees are individually or collectively
 outstanding, their removal cannot be assumed and their shade paths have been
 marked on the Tree Constraints Plan accordingly.

3.6 British Standard 5837:2012 Categorisation

- The trees on the site follow a typical British Standard 5837:2012 categorisation distribution, with the majority of the trees and hedgerows falling within categories B and C. There are a limited number of category A and U trees.
- The relatively low categorisation of many of the hedgerows (category C) is a reflection of the high levels of Elm present. In many of these hedgerows, some or all of the Elms stems have already succumbed to Dutch Elm Disease.

3.7 Current Management Considerations

- The trees across the site appear to be managed on an ad hoc basis at the present time. In terms of public safety, the key trees are those overhanging Markham Lane as some of these do feature some significant sections of deadwood, and the lane appears to be relatively well used by dog walkers.
- The roadside boundaries do not feature any individual trees so traffic safety is not considered to be an issue.
- Where there are larger trees on the boundaries with private dwellings (area A1 and groups G2 and G3), these trees appear to be outside of the proposed development land ownership and thus remain within neighbouring ownership.

3.8 Site Access Considerations

- Site access is currently limited to a number of agricultural gates, and there is no
 access at all from Dawlish Road at present. These offer very limited visibility splays
 and thus would not be acceptable for any residential development.
- It is acknowledged that there will be a need to provide full highways access on to Shillingford Road and Chudleigh Road, and possibly Dawlish Road. The only constraints on these road frontages are the continuous hedgerow stretches (H17, H10 and H1 respectively) and any detrimental impact on the breaching of these to facilitate highways access will need to be determined by the project ecologist; there are no further arboricultural constraints associated with these.
- It is noted that the junction of Markham Lane and Shillingford Road already offers an open visibility splay, and whilst there are some smaller trees present in this area

- (area A7), their removal is not considered to be an issue in arboricultural or landscape terms.
- There is already an existing pedestrian link through hedgerow H13 from the estate immediately to the north and this could be improved with negligible detrimental impact on the hedgerow itself. Given the proximity of this link to area A6 which is constrained by off-site trees, there is the potential for this strip, extending further past area A5 to form either an area of public open space or a footpath/cyclepath link. Clearly the removal of the trees within areas A5 and A6 by their owner would significantly increase design flexibility in this area of the proposed development.
- There is an existing gate between hedgerows H12 and H15 which could be
 enhanced to allow pedestrian or cycle access onto Markham Lane, and further
 access could be gained by removing the section of Devon bank which currently
 hosts area A4 as none of these trees are individually or collectively outstanding.
- Hedgerow H7 already features two links into adjacent fields, and both of these
 could be enhanced. It should be possible to design a scheme which does not
 require any further breach of this hedgerow for vehicular access as areas A2 and
 A3 are considered to be relatively poor quality and are not therefore site
 constraints.
- Vehicular and pedestrian access through hedgerow H6 are not considered to be an issue due to the poor quality of this vegetated strip.
- Any vehicular or pedestrian access through hedgerows H2, H4 or H5 should be
 possible as long as they remain outside of the root protection areas of any of the
 individual trees, and subject to the approval of the project ecologist.
- The longest continuous row of trees is located on the western section of the site
 and runs from Oak T14 to Ash T23. Ash T23 is a very poor quality specimen and its
 removal is recommended irrespective of development; the removal of this tree
 would allow for the installation of a footpath or cyclepath in this area.
- It is noted that the Ash stems which comprise group G4 and Oak T18 are poorer
 quality specimens. It is therefore recommended that any vehicular access between
 the two fields either side of this row of trees be located in the position of these
 trees, thus retaining the significantly better Oak T17 and Oak T19 either side with a
 road in between.

3.9 Tree Constraints Summary

- Whilst there are clearly some specific arboricultural constraints on the site, these
 are generally restricted to the trees within the hedgerows, or the hedgerows
 themselves which are considered worthy of retention.
- The open nature of the current agricultural land use has resulted in potential development land which has extensive open spaces; this should in turn allow for

- flexibility in design terms.
- Every effort has been made when drawing up the Potential Development Zones
 plan to recognise the need for pedestrian, cycle and vehicular links between the
 separate fields, and poorer quality areas of tree stock have been identified to
 enable this.
- It is noted that the vegetation between the existing public open space by Veitch Gardens and Royal Close, including the footpath link out to Shillingford Road, is relatively poor with the exception of hedgerow H13. It is recommended that any new development in this area takes the opportunity to improve and enhance hedgerows H18, H19 and group G5 so that it is in keeping with the needs and the character of the land on either side of this boundary.

3.10 Potential Development Zones – Occupied Structures

- The main areas which are suitable for occupied structures are located within the boundaries of the individual fields. In the case of the two westernmost fields, these have been incorporated into a single area as hedgerow H14 is not considered to be worthy of retention in the context of any new development.
- The area to the east of hedgerow H11 is relatively small but there is still considered
 to be the potential for the construction of dwellings in this parcel of land, subject to
 other inevitable site constraints.
- The smaller area of land shown as suitable for occupied structures adjacent to
 Dawlish Road could be incorporated into the significantly larger area to the southwest if the hedgerow H3 were removed, however, this is a good quality hedgerow
 and its retention is considered desirable if practicable.
- Whilst hedgerow H8 is a relatively good quality feature, its retention would
 potentially constrain a significant degree of design flexibility. Given the poor quality
 of areas A2 and A3 on either side, and the need to provide highway links
 throughout any development, this section of hedgerow will almost certainly lose any
 conservation corridor value; its removal can therefore be justified subject to the
 realisation of effective and flexible design which could be achieved accordingly.
- To maximise the potential of the site as a whole, it may be necessary to allow some occasional minor incursions into the infrastructure areas, these primarily enabling clearance from shade zones or from new or existing landscaping. Any incursion should be restricted to rooms such as utility rooms, bathrooms, and so on so as to allow for good levels of natural light within the main occupied rooms such as living rooms, kitchens, bedrooms, etc.

3.11 Potential Development Zones – Infrastructure

- The infrastructure zones are primarily located around the perimeter of occupied structure zones, and although they are not constrained by root protection areas, they are still either too close to existing or proposed landscaping for occupied structures, or they are within the existing or future predicted shade paths.
- Infrastructure zones may be utilised for public infrastructure such as roads, cyclepaths or footpaths, or for private infrastructure such as gardens, garages or driveways. Infrastructure zones may be utilised for gardens and open space, but extreme caution should be exercised before considering locating any sections of existing structures in an infrastructure zone; any incursion into the infrastructure zone by an occupied structure is likely to require justification to the local planning authority on a case by case basis.
- Infrastructure zones have also been shown in locations where there is the potential for links between the various sections of the development land. This includes the following:
 - a potential 19.5m gap for a pedestrian and vehicular link running between
 Oaks T17 and T19:
 - pedestrian/cycle links onto Markham Lane to the east of H15 and in the vicinity of area A4;
 - a 3.0m wide pedestrian/cycle link immediately to the north of Oak T22 (subject to the removal of Ash T23);
 - a link to the existing public open space to the north through the gate in the middle of hedgerow H13;
 - a 2.0m wide pedestrian link at the northern end of hedgerow H7;
 - a potential 10.0m or more gap for a pedestrian and vehicular link at the western end of hedgerow H3.
- It is acknowledged that there will be the need for further links into the proposed development land from Shillingford Road, Chudleigh Road, and potentially Dawlish Road; their positioning should be determined by highways requirements, and subject to any further observations by the project ecologist.
- Any further pedestrian, cycle or vehicular links throughout the development which
 necessarily have to breach existing hedgerows must be located outside of the root
 protection areas of any retained trees, and be subject to any further observations
 by the project ecologist.
- The removal of the neighbouring trees which comprise areas A5 and A6 would result in much of the infrastructure strip adjacent to this boundary being amended to allow for occupied structures.

3.12 Potential Development Zones - Gardens / Open Space

- Areas recommended for gardens and open space are shown around the boundaries of the fields, and within the root protection areas of trees which are considered worthy of protection.
- The areas shown for landscaping either already contain vegetation, including trees
 and hedgerows, or are recommended for the provision of new landscaping as part
 of the overall landscape scheme for the project. This is for the benefit of both
 existing neighbours, and for future residents.

3.13 Potential Development Zones – Summary

•	Occupied Structures	109,970m ²
•	Infrastructure	13,735m ²
•	Gardens / Open Space	18,170m ²

4.0 Conclusions and Recommendations

- 4.1 It is clear that this proposed development land offers significant potential construction.
- 4.2 The appraisal of the current tree stock has identified areas which are ideally suited to use for occupied dwellings, infrastructure and landscaping.
- 4.3 Any design proposals will require further arboricultural evaluation in the form of an Arboricultural Impact Assessment. On completion of an arboriculturally sound proposed scheme, a Tree Protection Statement will also be required to ensure that the potential for damage to retained trees is minimised.
- 4.4 Further advice will be required from the project ecologist as the design evolves to ensure that any further tree or hedgerow removals do not have an undue impact on protected species.

Report ends

Appendix A

Survey Data

- Tree Survey Data Schedule
- Arboricultural Works Specification

Tree Survey Data Schedule

The following section shows the results of the tree inspection. Abbreviations used in the survey are as follows:

Tree No Corresponding to plan

Species Common name

Ht Detailed in metres

Sprd Crown spread as measured at the four cardinal points of the compass

Stem Dia Diameter at breast height in mm (1.5 metres above ground level), or

measured in accordance with the prescribed British Standard protocol in the

case of multi-stemmed specimens (see Annex C of British Standard

5837:2012 for full details)

RPA Root Protection Area radius in metres (derived from the British Standard

5837:2012 formulae)

Ht to L/B Crown height, as measured to the height of the lowest branch

Dir Direction from which the lowest branch arises

Cr Ht Height of crown above ground level

Age Class Y Young (grown to less than one third of life expectancy)

MA Middle Aged (grown to between one to two-thirds of life expectancy)

M Mature (grown to over two thirds of normal life expectancy)

OM Over Mature

V Veteran

SULE Safe useful life expectancy range in years

Cond Condition, both physiological and structural:

G Good (trees with no significant defects)

F Fair (trees with some defects amenable to surgery)

P Poor (trees with significant defects)

BS Cat British Standard 5837:2012 Category (see Appendix D for further details)

m/s Denotes multistem tree

Denotes estimated value where access was not possible

Tree No.	Species	Tree Height	Crown Spread	Stem Dia (mm)	RPA Radius	RPA Area	LB Ht / Dir	Cr Ht	Age Cl	SULE	Cond Phys/Str	Observations	Recommendations	BS Cat
T1	Common Oak	13.0	N: 8.0 E: 8.0 S: 7.0 W: 4.0	720 m/s	n/a	n/a	3.5/N	3.5	Δ	<10		Dead twin-stemmed specimen Ivy present	Dismantle to near ground level	U
T2	Common Oak	10.0	N: 9.0 E: 6.5 S: 7.5 W: 9.0	770 m/s	9.30	272	3.0/W	3.0	М	>40	G/F	Attractive hedgerow specimen Secondary stem arises at ground level Ivy present Minor deadwood present	Sever ivy at base of tree	b1
Т3	Common Oak	7.0	N: 5.5 E: 6.0 S: 4.0 W: 4.5	550	6.60	137	2.0/N	2.5	MA	>40	E/E	Heavily suppressed specimen growing immediately adjacent to Pine T4 Ivy present	Sever ivy at base of tree	C1
Т4	Monterey Pine	15.0	N: 4.5 E: 4.0 S: 7.0 W: 8.0	670	8.10	206	2.5/\$	2.5	М	>40	F/F	Tree dominates Oak T3 immediately adjacent Some dieback within crown Ivy present	Sever ivy at base of tree Remove significant deadwood	B2
T5	Common Oak	12.0	N: 5.5 E: 6.5 S: 6.0 W: 6.5	850	10.20	327	3.0/W	3.5	М	>40		Hedgerow specimen Some deadwood present Ivy present Wound on western side of lower main stem occluding well	Sever ivy at base of tree Remove significant deadwood	B2

Data Ty	pe: Individual Trees	Site Reference: TH/X1626/0817	Location: Former Aldens Farm	Inspection Date: 31st July 2017	Lead Surveyor: Tom Hurley	
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Tree No.	Species	Tree Height	Crown Spread	Stem Dia (mm)	RPA Radius	RPA Area	LB Ht / Dir	Cr Ht	Age Cl	SULE	Cond Phys/Str	Observations	Recommendations	BS Cat
Т6	Elm	11.0	N: 6.0 E: 7.0 S: 5.0 W: 5.0	530 m/s #	6.30	125	0.0/S	2.5	МА	10-20	G/F	Multi-stemmed hedgerow specimen Tree likely to succumb to Dutch Elm Disease in due course	Monitor tree's condition Consider coppicing to incorporate stool into hedgerow	C1
Т7	Ash	10.0	N: 6.0 E: 5.5 S: 5.5 W: 5.0	400	4.80	72	3.0/S	3.0	MA	>40	G/G	Neighbouring tree located adjacent to road Ivy present		B1
Т8	Oak	15.0	N: 7.0 E: 9.0 S: 9.0 W: 6.0	850	10.20	327	4.0/E	2.0	М	>40	F/F	One sided hedgerow specimen Lowest limb on northern side of tree features lateral split	Remove lowest limb on northern side of main stem to source	B2
Т9	Common Oak	15.0	N: 8.5 E: 6.0 S: 8.0 W: 8.0	800	9.60	290	3.0/W	2.0	М	>40	F/F	Hedgerow specimen Minor deadwood present Early Ivy colonisation	Sever ivy at base of tree Remove significant deadwood	B2
T10	Common Oak	15.0	N: 8.5 E: 9.0 S: 8.0 W: 8.0	750	9.00	254	3.5/W	4.0	М	10-20	P/F	Hedgerow specimen Deadwood present throughout crown Tree clearly in decline	Remove significant deadwood if retained	C1

Tree No.	Species	Tree Height	Crown Spread	Stem Dia (mm)	RPA Radius	RPA Area	LB Ht / Dir	Cr Ht	Age CI	SULE	Cond Phys/Str	Observations	Recommendations	BS Cat
T11	Common Oak	15.0	N: 7.0 E: 6.0 S: 7.0 W: 7.0	750	9.00	254	4.0/E	2.0	Σ	>40	F/F	Hedgerow specimen Extensive Ivy present Some deadwood present	Sever ivy at base of tree Remove significant deadwood	B2
T12	Common Oak	13.0	N: 5.0 E: 8.0 S: 7.0 W: 4.0	750	9.00	254	4.0/E	3.0	М	10-20	F/F	Hedgerow specimen One sided specimen Early Ivy colonisation Extensive deadwood present	Sever ivy at base of tree Remove significant deadwood	C1
T13	Common Oak	15.0	N: 5.0 E: 8.0 S: 8.0 W: 8.0	1100	13.20	547	4.5/W	3.0	М	>40	F/F	Hedgerow specimen Some deadwood and snags present where limbs have failed in past	Remove significant deadwood Tidy snags	B2
T14	Common Oak	14.0	N: 6.5 E: 9.0 S: 8.0 W: 8.0	750	9.00	254	4.0/N	2.0	М	>40	G/F	Hedgerow specimen Occasional deadwood and hanging limbs	Remove significant deadwood and hanging limbs Tidy snags	B2
T15	Common Oak	16.0	N: 10.0 E: 10.0 S: 7.0 W: 10.0	850	10.20	327	3.0/N	1.5	М	>40	F/F	Hedgerow specimen Ivy present Lower limbs have snapped out on the northern and eastern sides of the crown Some deadwood present	Sever ivy at base of tree Remove significant deadwood Tidy snags	B2

Tree No.	Species	Tree Height	Crown Spread	Stem Dia (mm)	RPA Radius	RPA Area	LB Ht / Dir	Cr Ht	Age Cl	SULE	Cond Phys/Str	Observations	Recommendations	BS Cat
T16	Common Oak	13.0	N: 6.5 E: 6.0 S: 10.0 W: 10.0	800	9.60	290	3.0/W	2.0	М	>40	F/F	Hedgerow specimen Ivy present Number of snapped limbs in crown	Sever ivy at base of tree Remove significant deadwood Tidy snags	B2
T17	Common Oak	11.0	N: 6.0 E: 5.0 S: 5.0 W: 6.0	430	5.10	82	1.5/N	1.0	MA	>40	G/G	Relatively small hedgerow specimen Ivy present Tree has good future potential	Sever ivy at base of tree	A1
T18	Common Oak	14.0	N: 5.5 E: 9.0 S: 11.0 W: 7.0	1150	13.80	598	2.0/W	1.0	М	10-20	F/P	Significantly unbalanced hedgerow specimen Extensive lvy present Evidence of several larger branch failures in past Poor quality specimen with limited future potential	• Sever ivy at base of tree • Tidy snags • Reduce south-eastern side of the crown by ∼6.0m to rebalance	C1
T19	Common Oak	14.0	N: 6.0 E: 8.0 S: 8.5 W: 9.0	950	11.40	408	4.0/S	3.5	М	10-20	F/F	Hedgerow specimen Significant deadwood and snags present where limbs have failed in past Ivy present Tree in clear decline	Sever ivy at base of tree Remove significant deadwood Tidy snags	c1
Т20	Common Oak	13.0	N: 6.0 E: 5.0 S: 6.0 W: 8.0	520	6.30	125	2.5/S	2.0	МА	>40	F/F	Hedgerow specimen Ivy present Tree forms a single system with Oak T21 due to close proximity	• Sever ivy at base of tree	B2

Data	Type: Individual Trees	Site Reference: TH/X1626/0817	Location: Former Aldens Farm	Inspection Date: 31st July 201	7 Lead Surveyor: Tom Hurley	
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Tree No.	Species	Tree Height	Crown Spread	Stem Dia (mm)	RPA Radius	RPA Area	LB Ht / Dir	Cr Ht	Age Cl	SULE	Cond Phys/Str	Observations	Recommendations	BS Cat
T21	Common Oak	13.0	N: 5.0 E: 5.0 S: 4.0 W: 9.0	460	5.40	92	3.5/W	2.0	МА	>40	F/F	Hedgerow specimen Ivy present Tree forms a single system with Oak T20 due to close proximity Minor deadwood present	Sever ivy at base of tree Remove significant deadwood	B2
T22	Common Oak	16.0	N: 5.0 E: 9.0 S: 9.0 W: 9.0	910	10.80	366	3.0/S	2.0	М	>40	F/F	Hedgerow specimen Ivy present Evidence of branch failures in past Some deadwood present Unbalanced crown due to proximity of former Ash T23	Sever ivy at base of tree Remove significant deadwood Tidy snags	B2
T23	Ash	18.0	N: 2.0 E: 9.0 S: 4.0 W: 9.0	800	n/a	n/a	4.0/W	4.0	М	<10	P/P	Tree has been removed due to poor condition	Tree has already been felled	U
T24	Common Oak	9.5	N: 7.0 E: 6.0 S: 6.0 W: 6.0	440	5.40	92	3.0/S	2.5	МА	>40	G/G	Hedgerow specimen Tree has good future potential Ivy present	• Sever ivy at base of tree	A1
T25	Common Oak	6.0	N: 4.5 E: 4.0 S: 4.0 W: 4.5	320 m/s	3.90	48	0.5/W	0.5	Y	>40	G/G	Scrubby hedgerow specimen with reasonable future potential Ivy present Minor deadwood present	Sever ivy at base of tree Remove significant deadwood	B1

Tree No.	Species	Tree Height	Crown Spread	Stem Dia (mm)	RPA Radius	RPA Area	LB Ht / Dir	Cr Ht	Age Cl	SULE	Cond Phys/Str	Observations	Recommendations	BS Cat
T26	Ash	8.5	N: 1.0 E: 2.5 S: 2.5 W: 2.0	190 m/s	2.40	18	1.0/S	0.0	Y	10-20	F/F	 Triple stemmed naturally regenerated specimen Ivy present Tree features one sided crown due to proximity of Ash T27 adjacent Tree has no future potential 	Dismantle to near ground level to facilitate development	C1
T27	Ash	8.5	N: 5.0 E: 4.0 S: 3.0 W: 3.0	310	3.60	41	1.0/S	0.0	Y	20-40	F/F	I ● Ivv nresent	Dismantle to near ground level to facilitate development	C1

Ref No.	Species	Tree Height	Crown Spread	Stem Dia (mm)	RPA Radius	RPA Area	LB Ht	Cr Ht	Age Cl	SULE	Cond Phys/Str	Observations	Recommendations	BS Cat
A1	Scots Pine Monterey Pine Red Oak Silver Birch Beech	<10	N: <4 E: <4 S: <4 W: <4	<250	<3.00	<28	>0	>0	Ү-МА	>40	G/G	Strip of trees located on neighbouring property boundary No individually or collectively outstanding specimens present		B1
A2	• Elm • Elder	<9	N: <3 E: <3 S: <3 W: <3	<250	n/a	n/a	>0	>0	Ү-МА	<10	Р/Р	Area of unmanaged naturally regenerated stems Extensive dead Elm present No stems worthy of retention	Dismantle to near ground level	U
А3	• Elm • Elder	<8	N: <3 E: <3 S: <3 W: <3	<250	n/a	n/a	>0	>0	Ү-МА	<10	P/P	Area of unmanaged naturally regenerated stems Occasional dead Elm present No stems worthy of retention	Dismantle to near ground level	U
Α4	• Elm • Holly	<8	N: <6 E: <6 S: <6 W: <6	<350	<4.20	<55	>0	>0	Y-MA	10-20	F/F	Line of Elm stems with an occasional Holly understorey Elm stems likely to succumb to Dutch Elm Disease in the short to medium term Trees do not comply with Highway Regulations which require a clearance of 2.5 metres over a footpath	Monitor trees' condition Crown lift to provide a clearance of at least 2.5m over the footpath	C1

Ref No.	Species	Tree Height	Crown Spread	Stem Dia (mm)	RPA Radius	RPA Area	LB Ht	Cr Ht	Age Cl	SULE	Cond Phys/Str	Observations	Recommendations	BS Cat
A5	Hybrid Black Poplar Ash Beech Cotoneaster	<23.5	N: <8 E: <8 S: <8 W: <8	<700	<8.40	<222	>0	>0	MA-M	20-40	P-G/P-G	Area of mixed trees on neighbouring property Hybrid Black Poplars are very large with relatively low safe useful life expectancies No individually or collectively outstanding stems Ivy present	Consider negotiating removal to maximise development design flexibility	C1
A6	Willow Lime Hybrid Black Poplar	<22	N: <7 E: <7 S: <7 W: <7	<600	<7.20	<163	>0	>0	МА	20-40	F-G/F-G	Area of mixed trees primarily on neighbouring property Hybrid Black Poplars are very large with relatively low safe useful life expectancies and have the potential to become very dominant Hybrid Black Poplar stems within proposed development plot probably arise from suckers	Consider negotiating removal to maximise development design flexibility Clear all stems located on proposed development plot	C1
A7	Field Maple Apple Hawthorn Holly	< 5	N: <3 E: <3 S: <3 W: <3	<200	<2.40	<18	>0	>0	Y-MA	20-40	F/F	 Area of low density mixed plantings on bank Occasional lvy present Electricity lines run above trees 	• Sever ivy at base of trees	C1

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Data Type: Groups	Site Reference: TH/X1626/0817	Location: Former Aldens Farm	Inspection Date: 31st July 2017	Lead Surveyor: Tom Hurley

Ref No.	Species	Tree Height	Crown Spread	Stem Dia (mm)	RPA Radius	RPA Area	LB Ht	Cr Ht	Age Cl	SULE	Cond Phys/Str	Observations	Recommendations	BS Cat
G1	• Common Oak	<18	N: <11 E: <11 S: <11 W: <11	<850	<10.20	<327	>2.5	>2.5	Μ	>40	F/F	Group of five stems which may be in neighbouring ownership Some deadwood present probably as a consequence of deep agricultural ploughing Ivy present	Remove significant deadwood Sever ivy at base of trees	B2
G2	• Red Oak • Cherry x2 • Plum	<10	N: <5 E: <5 S: <5 W: <5	<350	<4.20	<55	>1	>1	МА	20-40	G/G	Line comprising 1 no. Red Oak, 2 no. Cherries and 1 no. Plum Ornamental specimens located in back gardens of adjacent properties Cherries have been significantly reduced in height		B2
G3	• Monterey Pine x6	<8	N: <5 E: <5 S: <5 W: <5	<300	<3.60	<41	>2.5	>3	МА	>40	G/G	Group of six stems on neighbouring property Maximum crown encroachment into field 2.5m		B2
G4	• Ash x3	<14	N: <8.5 E: <5 S: <9 W: <8	<300	<3.60	<41	>0	>0	МА	10-20	F/F		Dismantle to near ground level to facilitate flexibility of development design	C1

Ref No.	Species	Tree Height	Crown Spread	Stem Dia (mm)	RPA Radius	RPA Area	LB Ht	Cr Ht	Age Cl	SULE	Cond Phys/Str	Observations	Recommendations	BS Cat
G5	• Hybrid Black Poplar x3	<11	N: <4 E: <4 S: <4 W: <4	<350	<4.20	<55	>0	>0	MA	10-20	F/F	Poor quality stems in inappropriate location Maximum crown encroachment into field 2.0m None of the stems are worthy of long term retention		C1

Ref No.	Species	Tree Height	Crown Spread	Stem Dia (mm)	RPA Radius	RPA Area	LB Ht	Cr Ht	Age Cl	SULE	Cond Phys/Str	Observations	Recommendations	BS Cat
Н1	Hawthorn Elm Field Maple	<2	N: <1 E: <1 S: <1 W: <1	<100	<1.20	<5	>0	>0	М	>40		• Flailed roadside hedge	Continue to manage by flailing	В3
Н2	Holly Elder Elm Field Maple Hawthorn	<2.5	N: <1.5 E: <1.5 S: <1.5 W: <1.5	<150	<1.80	<10	>0	>0	М	>40	F/F	• Flailed hedgerow	Continue to manage by flailing	В3
Н3	• Elm • Hawthorn • Elder • Holly	<3	N: <1.5 E: <1.5 S: <1.5 W: <1.5	<100	<1.20	<5	>0	>0	MA	>40	F/F	Roughly flailed mixed hedgerow Relatively large Holly plus some Elm stems present at south-eastern end of hedgerow though none outstanding	Continue to manage by flailing	В3
Н4	• Elder • Elm • Sycamore • Field Maple	<9	N: <2.5 E: <2.5 S: <2.5 W: <2.5	<200	<2.40	<18	>0	>0	МА	10-20		Poor quality mixed hedgerow on boundary of neighbour's garden Some Elms have already succumbed to Dutch Elm Disease	• Clear dead Elms	C2

Data Type	Hedges	Site Reference: TH/X1626/0817	Location: Former Aldens Farm	Inspection Date: 31st July	2017 Lead Surv	veyor: Tom Hurley
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Ref No.	Species	Tree Height	Crown Spread	Stem Dia (mm)	RPA Radius	RPA Area	LB Ht	Cr Ht	Age Cl	SULE	Cond Phys/Str	Observations	Recommendations	BS Cat
Н5	Elm Hawthorn Hazel Blackthorn	<2	N: <1 E: <1 S: <1 W: <1	<150	<1.80	<10	>0	>0	Μ	>40		 Flailed hedgerow Extensive Bramble and Ivy present 	Continue to manage by flailing	В3
Н6	• Hawthorn	<1	N: <1 E: <1 S: <1 W: <1	<75	<0.90	<3	>0	>0	М	10-20	P/P	 Poor quality heavily flailed hedgerow Extensive Bramble dominates hedgerow Hedgerow not worthy of retention 		C2
Н7	• Elm	<2.5	N: <1.5 E: <1.5 S: <1.5 W: <1.5	<250	<3.00	<28	>0	>0	MA	>40	F-G/F-G	 Flailed hedgerow Extensive Bramble and Ivy present 	Continue to manage by flailing	В3
Н8	• Elm • Elder	<2.5	N: <1.5 E: <1.5 S: <1.5 W: <1.5	<200	<2.40	<18	>0	>0	МА	>40	F/F	 Flailed hedgerow Extensive Bramble and Ivy present 	Continue to manage by flailing	В3

Data Type: Hedges Site Reference: TH/X1626/0817	Location: Former Aldens Farm	Inspection Date: 31st July 2017	Lead Surveyor: Tom Hurley
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Ref No.	Species	Tree Height	Crown Spread	Stem Dia (mm)	RPA Radius	RPA Area	LB Ht	Cr Ht	Age Cl	SULE	Cond Phys/Str	Observations	Recommendations	BS Cat
Н9	• Elm • Elder • Hawthorn	<8	N: <3 E: <3 S: <3 W: <3	<250	<3.00	<28	>0	>0	Y-MA	10-20	P/P	Area of overgrown stems No stems individually or collectively outstanding Some stems have already succumbed to Dutch Elm Disease Hedgerow may be in neighbouring ownership	• Clear dead Elms	C2
H10	Sweet Chestnut Ash Hawthorn	<2	N: <1 E: <1 S: <1 W: <1	<200	<2.40	<18	>0	>0	МА	>40	F/F	Mixed flailed hedgerow Extensive Bramble and Ivy present	Continue to manage by flailing	В3
H11	• Elm • Hazel • Elder • Holly	<8	N: <1.5 E: <1.5 S: <1.5 W: <1.5	<200	n/a	n/a	>0	>0	MA	<10	P/P	Poor quality hedgerow dominated by dead Elm No stems individually or collectively outstanding	Fell and allow to recoppice to restore hedgerow	U
H12	Hawthorn Holly Elm	<10	N: <2.5 E: <2.5 S: <2.5 W: <2.5	<200	<2.40	<18	>0	>0	МА	10-20	P-F/P-F	Neglected hedgerow stems	Recoppice to encourage restructuring of hedgerow	C1

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Data Type: Hedges	Site Reference: TH/X1626/0817	Location: Former Aldens Farm	Inspection Date: 31st July 2017	Lead Surveyor: Tom Hurley

Ref No.	Species	Tree Height	Crown Spread	Stem Dia (mm)	RPA Radius	RPA Area	LB Ht	Cr Ht	Age Cl	SULE	Cond Phys/Str	Observations	Recommendations	BS Cat
H13	• Hawthorn • Ash • Oak	<10	N: <3.5 E: <3.5 S: <3.5 W: <3.5	<300	<3.60	<41	>0	>0	Y-MA	>40	F-G/F-G	Primarily Hawthorn hedgerow with 2 no. Ash stems and 1 no. Oak Oak and Ash have significant growth potential and are likely to develop into high quality specimens Keep development clear of hedgerow to allow maiden stems to grow to their full potential		B2
H14	• Elm • Hazel • Elder	<9	N: <2 E: <2 S: <2 W: <2	<150	n/a	n/a	>0	>0	Ү-МА	<10	P/P	Hedgerow with limited future potential Extensive Bramble and Ivy present Hedgerow not worthy of long term retention Significant number of Elms have already succumbed to Dutch Elm Disease		U
H15	• Elm • Hazel • Ash	<9	N: <2 E: <2 S: <2 W: <2	<150	<1.80	<10	>0	>0	Y-MA	10-20	P-F/P-F	Primarily Elm hedgerow with occasional Ash stems present towards eastern end Extensive Bramble and Ivy present Some Dutch Elm Disease present Hedgerow has limited future potential	Recoppice to encourage restructuring of hedgerow	C1
H16	• Elm • Hawthorn • Blackthorn	<2	N: <1 E: <1 S: <1 W: <1	<100	<1.20	<5	>0	>0	МА	>40	F/F	Flailed hedgerow located on Devon bank Extensive Bramble and Ivy present	Continue to manage by flailing	В3

Data Type: Hedges	Site Reference: TH/X1626/0817	Location: Former Aldens Farm	Inspection Date: 31st July 2017	Lead Surveyor: Tom Hurley

Ref No.	Species	Tree Height	Crown Spread	Stem Dia (mm)	RPA Radius	RPA Area	LB Ht	Cr Ht	Age Cl	SULE	Cond Phys/Str	Observations	Recommendations	BS Cat
Н17	• Hawthorn	<2	N: <1 E: <1 S: <1 W: <1	<150	<1.80	<10	>0	>0	МА	>40	E/E	Flailed hedgerow Extensive Bramble and Ivy present	Continue to manage by flailing	В3
Н18	• Elm • Hawthorn • Elder	<3	N: <1.5 E: <1.5 S: <1.5 W: <1.5	<100	<1.20	<5	>0	>0	Y-MA	>40	F/F	Scruffy hedgerow located between field and public footpath Hedgerow would benefit from flailing Early signs of Dutch Elm Disease noted	Initiate management by flailing	C1
H19	Elder Hawthorn Elm Holly	<6	N: <2 E: <2 S: <2 W: <2	<250	<3.00	<28	>0	>0	Y-MA	>40	F/F	Scruffy unmanaged hedgerow between field and public open space Hedgerow would benefit from being cleared and reestablished with new plantings Some Dutch Elm Disease noted	Consider clearance and establishment of new hedgerow as part of development opportunities	C1

Arboricultural Works Specification

General Considerations

- The appointed tree work contractor must ensure that all tree works comply with British Standard 3998:2010 (Tree Works – Recommendations).
- It is strongly advised that the appointed tree contractor is Arboricultural Association Approved to ensure high standards and a consistency of work.
- Unless otherwise stated, the method of stump removal is at the discretion of the client. If stumps are not to remain in situ, options for removal include grinding or mechanical extraction. Stump grinding will not remove all roots but does substantially reduce the bulk of any arisings. Mechanical extraction will require large mechanical plant and any stumps will require disposal, and this can potentially be expensive. If mechanical extraction is the preferred option then it will generally be prudent for the client to request that the appointed tree contractor leave all stumps at a height of 1.0 to 1.5 metres above ground level to increase the leverage which can be applied to them.
- Advanced Arboriculture are able to assist in the preparation of tender documentation if required at the request of the client.

Wildlife & Countryside Act 1981 & Countryside & Rights of Way Act 2000

- Under the above acts it is an offence to recklessly damage or destroy the nest of a wild bird whilst in use or being built.
- Planning consent does not provide a defence against prosecution under these Acts.
- Trees and shrubs on this site may contain nesting birds between 1st March and 31st August.
- It is advisable to undertake a survey of the site before commencing any tree or shrub removal between these dates, to ensure that no nesting birds are present.
- Advanced Arboriculture are able to undertake a survey to identify the presence of bats or nesting birds if required at the request of the client.

Tree No.	Species Preliminary management recommendations				
T1	Common Oak	Dismantle to near ground level			
T2	Common Oak	Sever ivy at base of tree			
Т3	Common Oak	Sever ivy at base of tree			
T4	Monterey Pine	Sever ivy at base of treeRemove significant deadwood			
T5	Common Oak	Sever ivy at base of treeRemove significant deadwood			
Т6	Elm	 Monitor tree's condition Consider coppicing to incorporate stool into hedgerow 			

Tree No.	Species	Preliminary management recommendations
Т8	Oak	Remove lowest limb on northern side of main stem to source
Т9	Common Oak	Sever ivy at base of treeRemove significant deadwood
T10	Common Oak	Remove significant deadwood if retained
T11	Common Oak	Sever ivy at base of treeRemove significant deadwood
T12	Common Oak	Sever ivy at base of treeRemove significant deadwood
T13	Common Oak	Remove significant deadwood Tidy snags
T14	Common Oak	Remove significant deadwood and hanging limbsTidy snags
T15	Common Oak	Sever ivy at base of treeRemove significant deadwoodTidy snags
T16	Common Oak	Sever ivy at base of treeRemove significant deadwoodTidy snags
T17	Common Oak	Sever ivy at base of tree
T18	Common Oak	 Sever ivy at base of tree Tidy snags Reduce south-eastern side of the crown by ~6.0m to rebalance
T19	Common Oak	Sever ivy at base of treeRemove significant deadwoodTidy snags
T20	Common Oak	Sever ivy at base of tree
T21	Common Oak	Sever ivy at base of treeRemove significant deadwood
T22	Common Oak	Sever ivy at base of treeRemove significant deadwoodTidy snags
T23	Ash	Dismantle to near ground level
T24	Common Oak	Sever ivy at base of tree
T25	Common Oak	Sever ivy at base of treeRemove significant deadwood
T26	Ash	Tree has already been removed
T27	Ash	Dismantle to near ground level to facilitate development
A2	Elm Elder	Dismantle to near ground level

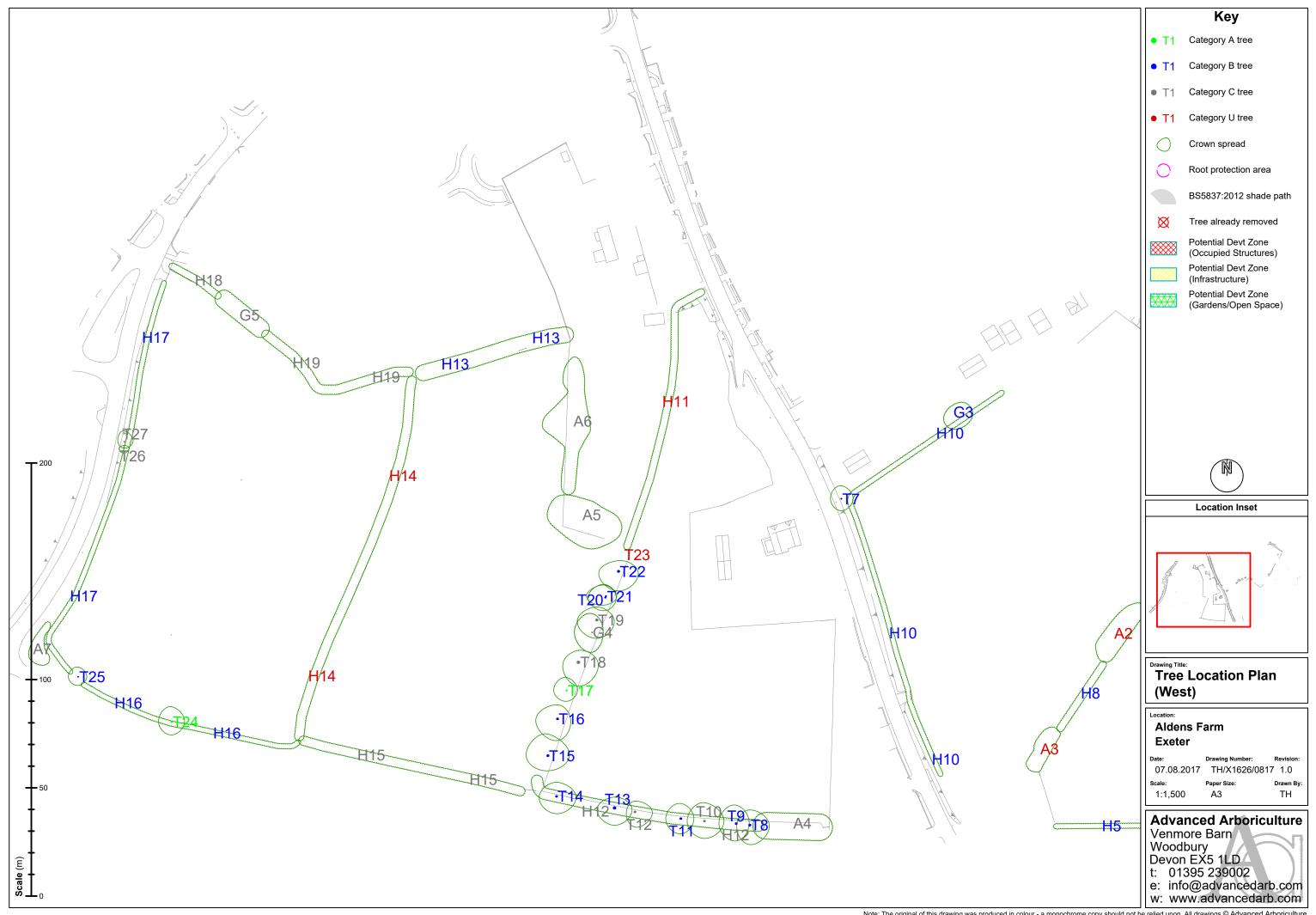
Tree No.	Species	Preliminary management recommendations
А3	Elm Elder	Dismantle to near ground level
A4	Elm Holly	 Monitor trees' condition Crown lift to provide a clearance of at least 2.5m over the footpath
A5	Hybrid Black Poplar Ash Beech Cotoneaster	Consider negotiating removal to maximise development design flexibility
A6	Willow Lime Hybrid Black Poplar	 Consider negotiating removal to maximise development design flexibility Clear all stems located on proposed development plot
A7	Field Maple Apple Hawthorn Holly	Sever ivy at base of trees
G1	Common Oak	Remove significant deadwoodSever ivy at base of trees
G4	Ash x3	Dismantle to near ground level to facilitate flexibility of development design
G5	Hybrid Black Poplar x3	No works required
H1	Hawthorn Elm Field Maple	Continue to manage by flailing
H2	Holly Elder Elm Field Maple Hawthorn	Continue to manage by flailing
Н3	Elm Hawthorn Elder	Continue to manage by flailing
H5	Elm Hawthorn	Continue to manage by flailing
H6	Hawthorn	No works required
H7	Elm	Continue to manage by flailing
H8	Elm Elder	Continue to manage by flailing
H10	Sweet Chestnut Ash Hawthorn	Continue to manage by flailing
H11	Elm Hazel Elder Holly	Fell and allow to recoppice to restore hedgerow

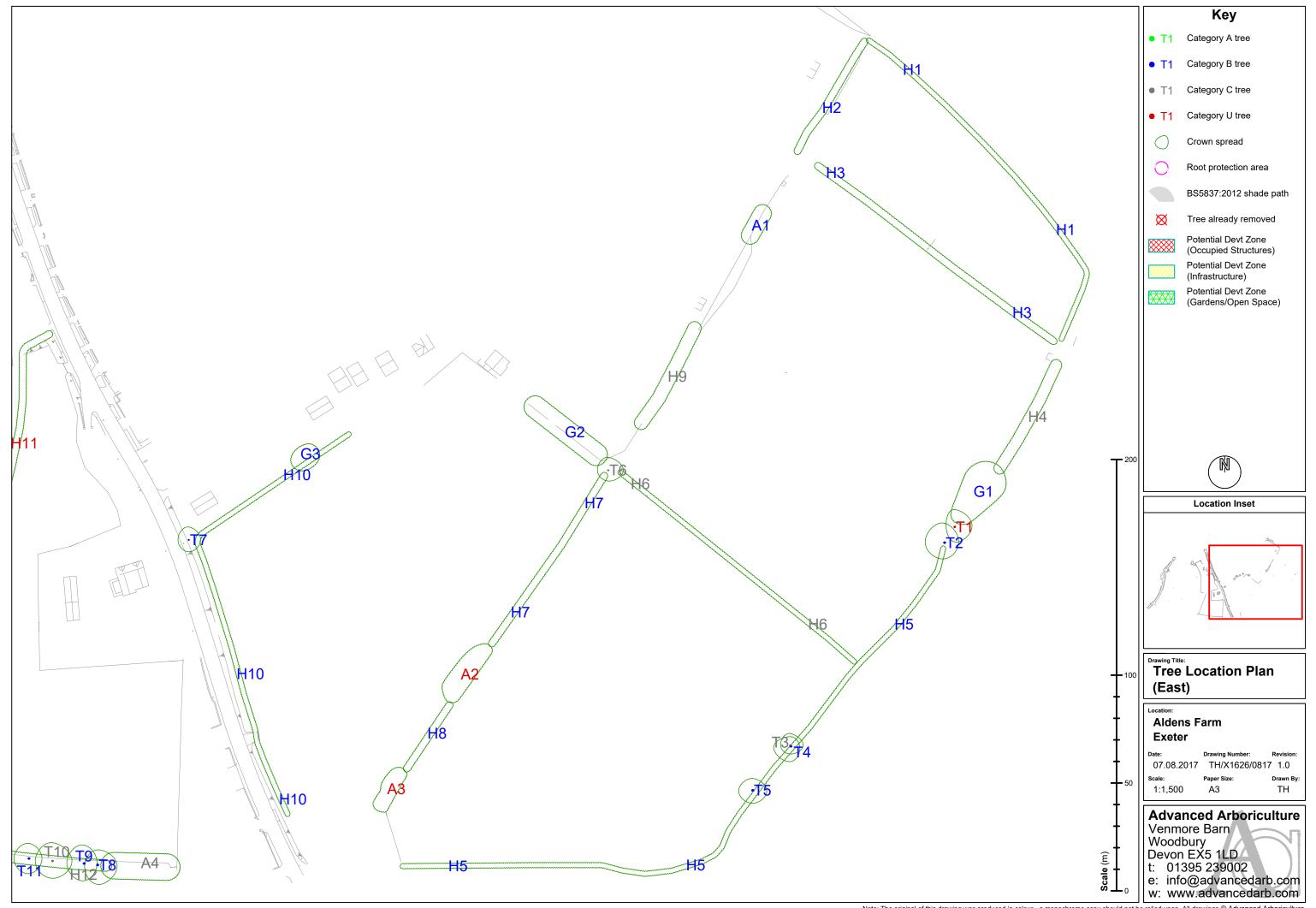
Tree No.	Species	Preliminary management recommendations
H12	Hawthorn Holly Elm	Recoppice to encourage restructuring of hedgerow
H15	Elm Hazel	Recoppice to encourage restructuring of hedgerow
H16	Elm Hawthorn	Continue to manage by flailing
H17	Hawthorn	Continue to manage by flailing
H18	Elm Hawthorn Elder	Initiate management by flailing
H19	Elder Hawthorn Elm Holly	Consider clearance and establishment of new hedgerow as part of development opportunities

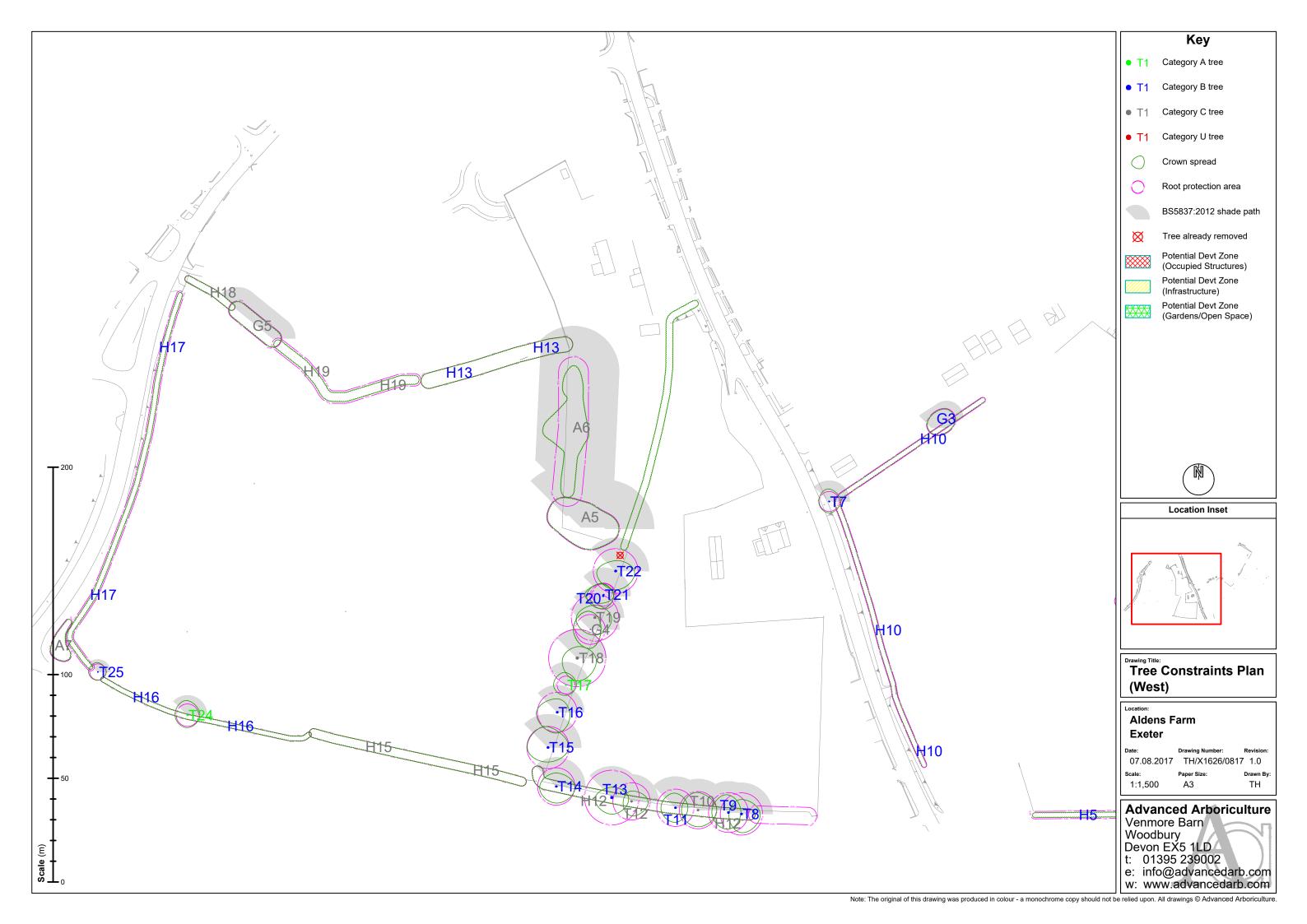
Appendix B

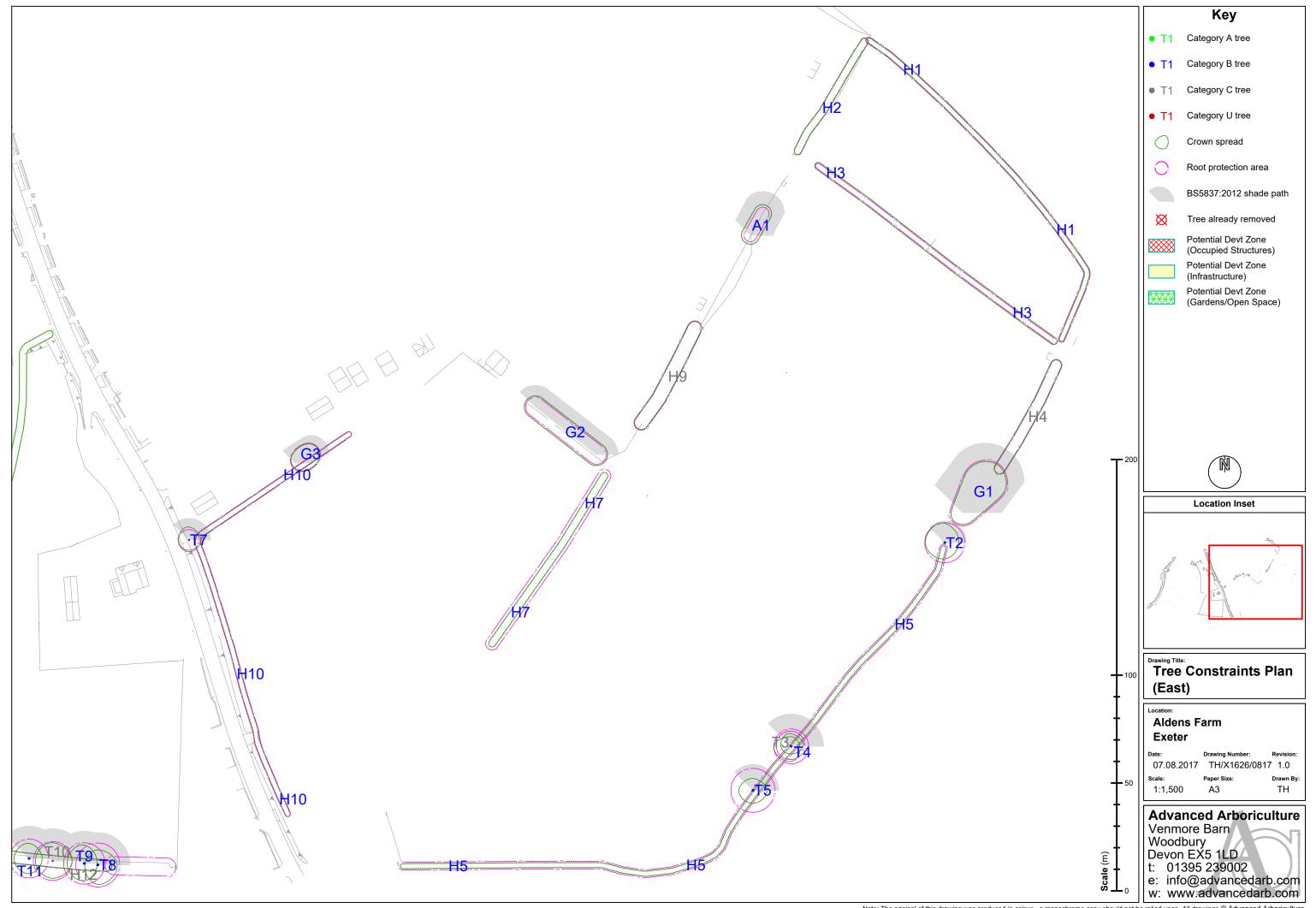
Arboricultural Drawings

- British Standard 5837:2012 Tree Location Plans
- British Standard 5837:2012 Tree Constraints Plans
- Potential Development Zones Plans

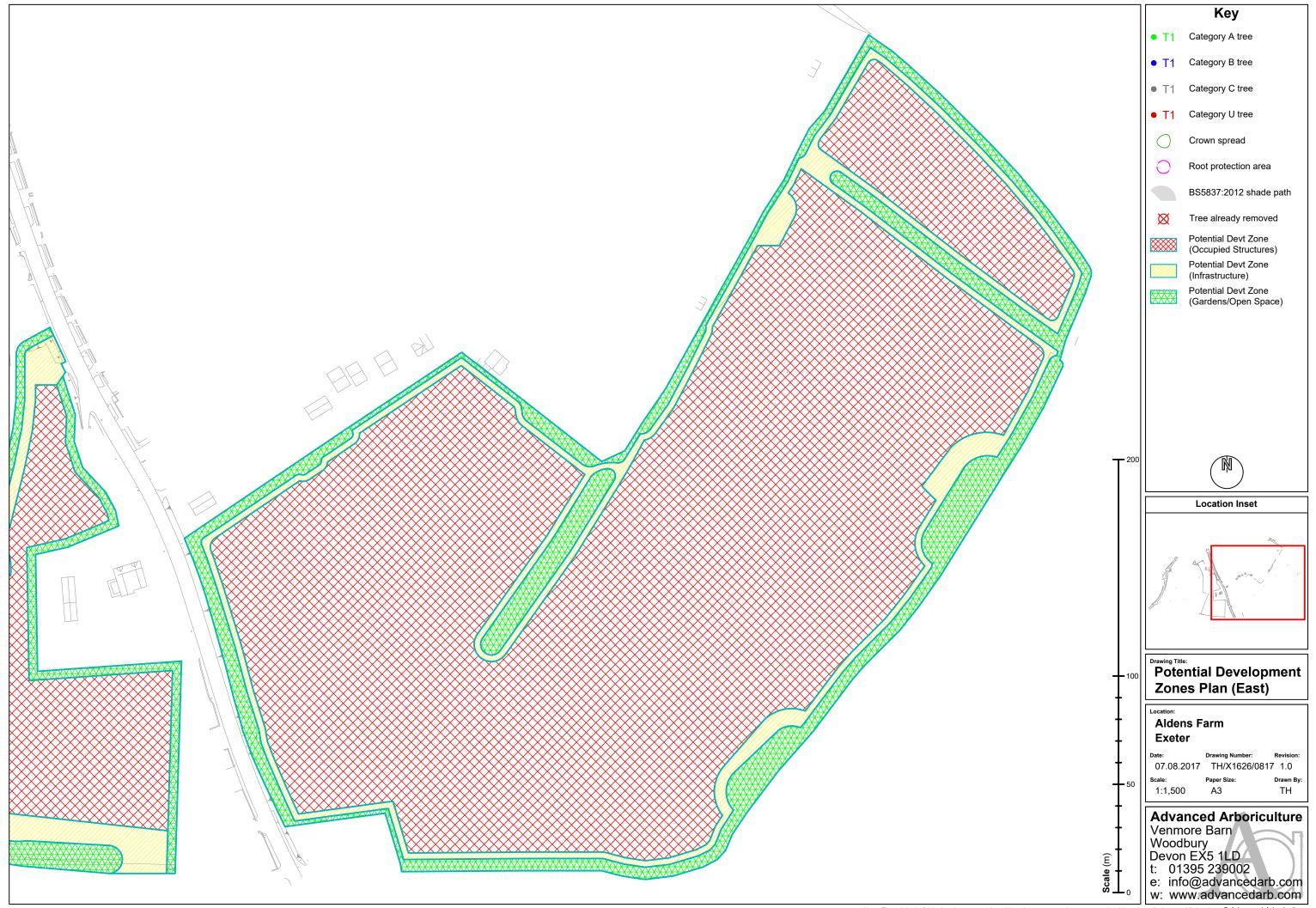














Venmore Barn ● Woodbury ● Exeter ● Devon ● EX5 1LD t: 01395 239002 e: info@advancedarb.com w: www.advancedarb.com