A47 DUALLING – NORTH TUDDENHAM TO EASTON

Scheme no. TR010038

WOODLAND APPRAISAL FOR Mr A

IP reference 2002/8353



Infrastructure Planning

Planning Act 2008

The Infrastructure Planning

(Applications : Prescribed Forms and

Procedure) Regulations 2009

The A47 North Tuddenham to Easton Development Consent Order 202[x]

WOODLAND APPRAISAL By Andrew Coombes

For

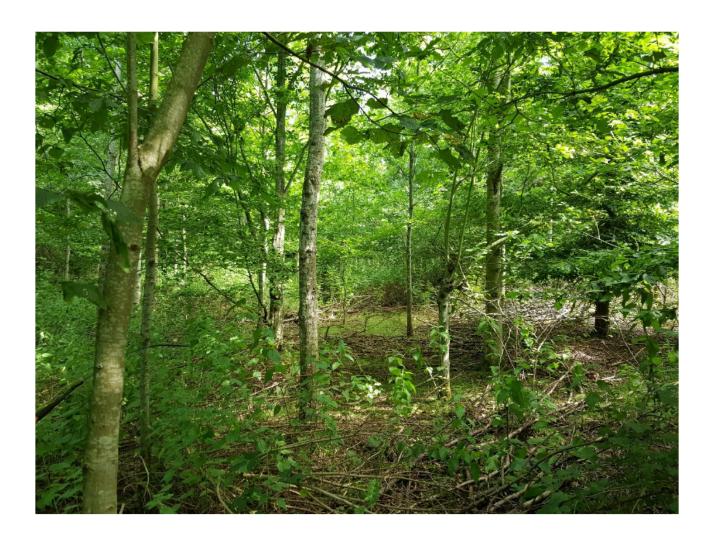
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Date: August 2021

WOODLAND APPRAISAL AT , HONNINGHAM NR9 5AX



Prepared for

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1. Terms of Reference

- 1.1 Our client has been notified by Highways England that two small two small woodlands edging the A47 at Honingham will be compulsorily purchased to facilitate the dualling of the road. Our client contests the need to remove these woodlands and has prepared a detailed response that demonstrates an alternative road layout is feasible that allows the woods to be retained.
- 1.2 Our clients' instructions were to prepare an appraisal of the woodlands with particular reference to their potential, longevity and importance in the landscape.
- 1.3 A note of the comments by the arboriculturist employed by Highways England was provided together with historical information including planting dates and species included in the original planting were supplied by our Client

2. Methodology

2.1 The site was visited on the 19 July 2021. Both woods were inspected. No field measurements were taken but the size and quality of trees and stocking rates were assessed by eye based on personal experience.

3. General Site Description

- 3.1 The two woodlands which form the subject of this report are located on the attached site plan which forms Appendix 1. They have been designated W1 and W2. The woods are called respectively Ten Acre and Nine Acre. However, this does not reflect the actual areas of the proposed compulsory purchase. Both were planted with support from Forestry Commission Grant schemes. They were established on former pasture and carefully set out to form a wooded northern boundary to the estate and provide screening and noise attenuation from the busy A47 for the trees in both woods were planted at 1100 per ha or 3m x 3m spacing to meet the required standard for grant aid.
- 3.2 The trees in both areas have been well maintained and skilfully managed. Work has included weed control, formative pruning, high pruning of key timber species and some thinning of conifers to favour broadleaves. The stocking in both areas is high at around 90%. Based on experience of auditing around 900 grant aided woodlands on a contract basis for the Forestry Commission, in silvicultural terms these woods are of exceptional quality in comparison to many other grant aided woods of this type.
- 3.3 All the estate woodlands are managed on a continuous cover basis and work in both the woodland in question is ongoing to improve the size, diversity and structure of the woodland.

4. W1- Ten Acre

4.1 Planted in 1998 a with broadleaved conifer mixture. Species include holly, hawthorn, Blackthorn, field maple, crab apple, rowan, Silver birch, sweet chestnut, western red cedar, European larch,



sycamore, Corsican pine and ash. In addition, the plantation contains wild cherry cultivars which are the result of a breeding programme at NIAB Horticultural Research East Malling. These trees were bred from outstanding wild cherry trees, vigorous, straight stemmed with light branching, to produce superior timber trees. The oak in this wood is from naturally re-generated specimens carefully nurtured by the owner and are particularly important in terms of conservation and landscape continuity.

4.2 Figure 1 below shows the pruned and well-spaced trees manged on a tree-by-tree basis with a range sizes present. Figure 2 shows the well-stocked nature of the woodland.



4.3 Fig. 1 Showing how the trees are managed individual basis quality and diversity



Fig. 2 Showing the well-stocked nature of the woodland

5. W2-Nine Acre

5.1 Planted in 2008 with a similar broadleaved conifer mixture to W1. Species include western red cedar, hornbeam, ash, oak, field maple, hawthorn, willow, silver birch and crab apple, The long-term intention is to for the woodland to contain only native broadleaved species and the conifer nurse crop to be reduced to favour native species in thinning. The trees have made good growth and many of a comparable size to those in W1.



Fig. 3- A dense and diverse wood with a good stocking of high pruned trees



Fig 4. The conifers shown will be gradually reduced to favour the broadleaves



6. Comments on the Highways England Arboricultural Assessment

6.1 Details of the comments from the Highways England Arboriculturist were provided and it appears the basis used for assessment of the woodlands was BS5837:2012. W 1 was graded as B1 with an ERC of 20yrs plus. W2 was graded as C1 with an ERC (Expected Remaining Contribution?) of 10 years plus and If BS5837:2012, was the basis, the grading of W2, in particular, seems inaccurate. The Quality assessment cascade chart has been attached for reference and working through the system I would rate both woods as a minimum of B2 which according to the chart are "Trees present in numbers usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals". The British standard states that trees with a stem diameter of under 15 cm at 1.5 m are automatic C category. However, there are trees with a diameter greater than 15 cm in both woods. It is normal practice to base the stem diameters of groups or woodlands on the largest trees to ensure proper protection. The minimum contribution associated with grade B is 20 yrs. However, it must be recognised, that this is this is a fraction of the life expectancy of the all the species contained in the woods for example the oak could have a safe life expectancy of at least 350 years. In terms of BS5837, B category trees and woods are deemed worthy of retention and are normally retained and protected at the design stage and throughout construction.

7. Other Factors When Considering the Value and Importance of the Woodlands

- 7.1 BS 5837: 2012 recommendations are designed for use on development sites where they work well. However, the BS5837 recommendations are less effective in the context of large civil engineering projects where the position of roads and other infrastructure are often determined on other criteria than arboricultural considerations.
- 7.2 Other systems of amenity evaluation are available such as the Helliwell system which takes additional factors into consideration such as compatibility, composition and structure, relation to other woodlands and viewing population prominence. The woods in question would score highly on this system. Other systems for amenity valuation such as CTLA, which takes into account the cost of establishment, and CAVAT, which is focused on public benefit, offer a more holistic evaluation system.
- 7.3 The woods are part of the Forestry business on the Estate and have been managed for long term timber production but on a continuous cover system that ensures that the woodlands will be a permanent feature of the landscape thus providing long term ecological and environment benefits. A considerable investment in time and money has already been made in the care and establishment of these woods. It is very much a heritage and conservation approach to trees and woodland as contrasted with highway tree management where tree cover and hedge cover is often temporary and transient.



7.4 The woods provide both screening and noise reduction for Berry Hall and other dwellings, in the event of them being compulsory purchased and removed it would open up the view of the road and have a deleterious impact on the lives and wellbeing of the residents. Any replanting would take at least ten years to establish and be unlikely to provide the same landscape and conservation benefits as the current woodland.

8. Conclusions

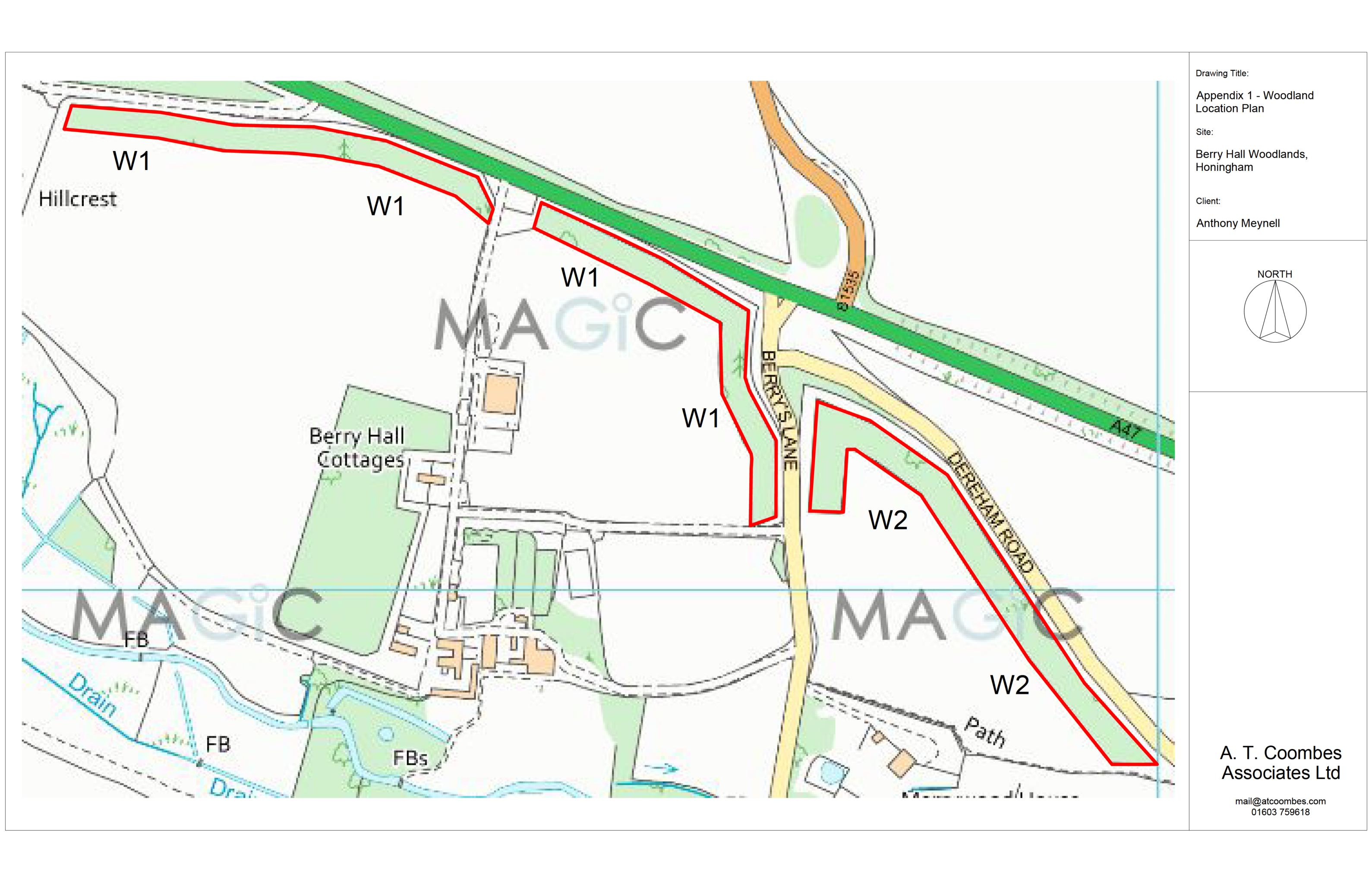
8.1 The key finding of this brief report is that the two woodland areas are eminently worthy of preservation and should be graded as B2 in terms of BS5837. They contain a range of species including sufficient native broadleaves to form mature native woodland with many of the features of ancient woodland. They have been very well managed and are some of the best examples of grant aided woodlands in the area.

9. References

- 9.1 BS5837:2012 "Trees in Relation to design Demolition and Construction Recommendations"
- 9.2 Helliwell R Guidance Note 4 Visual Amenity Valuation of Trees and Woodlands The Helliwell System 2008 Arboricultural Association -June 2008

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04 August 2021





Appendix 2 - BS5837:2012 Cascade Chart

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Table 1 Cascade chart for tree quality assessm
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Category and definition	Criteria (Including subcategories where appropriate)			
Trees unsultable for retention	(see Note)			
Category U				See Table 2
Those in such a condition that they cannot realistically				
be retained as living trees in				
the context of the current land use for longer than 10 years				
io years	NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.			
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
Trees to be considered for ret	ention		=	
Category A	Trees that are particularly good	Trees, groups or woodlands of particular	Trees, groups or woodlands	See Table 2
Trees of high quality with an estimated remaining life expectancy of at least 40 years	examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	visual importance as arboricultural and/or landscape features	of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	
Category B	Trees that might be included in	Trees present in numbers, usually growing	Trees with material	See Table 2
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	conservation or other cultural value	
Category C	Unremarkable trees of very limited	Trees present in groups or woodlands, but	Trees with no material	See Table 2
Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	merit or such impaired condition that they do not qualify in higher categories	without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	conservation or other cultural value	

APPENDIX 3 - Andrew Coombes Qualifications and Experience

Qualifications

Andrew holds the following Qualifications in Forestry and Arboriculture

National Diploma in Forestry

The Professional Diploma in Arboriculture

MSc Arboriculture and Urban Forestry

Fellow of The Institute of Chartered Foresters

Professional Member of the Arboricultural Association

Registered ICF Forestry Consultant

Experience

Andrew has over fifty years' experience in Forestry and Arboriculture working for the Forestry Commission, Fountain Forestry, Eastern Woodlands Association and Bowater Paper Company.

He started his own consultancy practice in 1986, the Business was incorporated 2014.

Work undertaken includes pre-development surveys, tree health and safety, forestry management, Mortgage and subsidence work. Litigation report and expert witness, woodland valuation and investment.

Work of particular relevance to this case includes completion of an AIA for the Norwich Northern Distributor route 14 mile major road project in conjunction with Mott MacDonald. Inspection of over 900 forestry grant sites working on contract for the Forestry Commission