

JB APPENDIX 4

Arboricultural Evidence

IN RESPECT OF:

“Mixed use development including: revised access to/from parsonage road between Weston group business centre and innovation centre buildings leading to: light industrial/flexible employment units (c.3568sqm) including health care medical facility/flexible employment building (use class e); 126 dwellings on Bulls Field, south of Prior's Wood: 24 dwellings west of and with access from Smiths Green Lane; 38 dwellings on land north of Jacks Lane, east of Smiths Green Lane including associated landscaping, woodland extension, public open space, pedestrian and cycle routes”

At

LAND AT WARISH HALL FARM, SMITHS GREEN, TAKELEY

PINS REF: APPEAL REF: APP/C1570/W/22/3291524

LPA: UTTLESFORD DISTRICT COUNCIL

LPA REF: **UTT/21/1987/FUL**

1.0 Introduction

1.1 My name is Graeme Drummond; I am a Director of Open Spaces Landscape and Arboricultural Consultants Limited (**Open Spaces**). I am also a Chartered Landscape Architect and the Principal Arboricultural Consultant for Open Spaces. I hold a BSc (Hons) in Landscape Design and Plant Sciences, a BSc (Hons) in Arboriculture and a Post-Graduate Diploma in Landscape Architecture. I was appointed at late notice by Uttlesford District Council to act as the Council's arboricultural expert in relation to this Public Inquiry.

1.2 I carried out a site familiarisation visit on Monday 30th May 2022 which involved; identifying the impacts of the proposed development on the Ancient and Semi-Natural Woodland (**ASNW**) known as Prior's Wood and referenced as W1 within the Barton Hyett Associates Arboricultural Impact Assessment

2.0 Prior's Wood

2.1 Prior's Wood, designated as an Ancient and Semi-Natural Woodland is approximately 7.9 Ha in size. It is included on the Priority Habitat Inventory as Deciduous woodland and has been designated as a Local Wildlife Site (**LWS**) on account of its ancient and semi natural woodland habitat.

2.2 Prior's Wood is generally isolated from other woodlands, however there are some biodiverse connections via farm native hedgerows which connect the northern, north-western and eastern edges of the woodland to the wider countryside. The woodland sits wholly within an agrarian setting, however the field, immediately to the west of the site (known as 7 Acres) has recently been laid to grass.

2.3 To the southern edge of the woodland runs a ditch approximately 1.5 metres wide and 1.0 metre deep. During my site visit, the ditch was dry. The trunks of numerous woodland trees are growing up to the edge of this ditch. There are no tree trunks growing on the field side of the ditch (except T63 as identified within the Barton Hyett Associates Arboricultural Impact Assessment), however the

crowns of the woodland edge trees are growing some 3.0-6.0 metres beyond the ditch.

- 2.4 The woodland edge, growing along the southern and western boundary of Prior's Wood comprises of native understory planting including Field maple. It is intact and dense with few gaps into the woodland, other than at obvious entrance points near the south-western and south-eastern corners of the woodland.
- 2.5 There is at least one dead mature tree and two trees with large dead branches situated near to the boundary of the woodland edge. Standing dead trees are vital to the long-term biodiversity of a woodland and should remain in-situ wherever possible. Standing dead trees and branches offer perches for owls and raptors as well as habitat for wood boring insects and wood decay fungi.
- 2.6 To the southern edge of the woodland is a stretch of rough semi-improved grassland sward grass some 4.0-5.0 metres wide, beyond this is situated a public footpath. This footpath runs adjacent to the southern boundary of the woodland and comprises of bare soil with areas of long grass. It appears to be generally well used by recreational walkers.
- 2.7 To the western edge of the woodland is situated a ditch, which was dry on the date of my site visit. As with the southern woodland edge, there are tree trunks growing up to the edge of the ditch with the tree's crowns growing some 3.0-6.0 metres beyond the ditch. An area of rough grass, wildflower and brambles extend some 3.0-6.0 metres beyond the ditch.
- 2.8 The outer edge of the woodland could be defined in different ways. The woodland could be defined as the extent of the footprint of tree trunks which make up the body of the woodland or be defined by the ditch to the edge of the woodland. It is my opinion that the extent of the woodland should be defined as the canopy edge. This would mean that the edge of the woodland is situated some 3.0-6.0 metres beyond the ditch. The rationale for this is that the tree's canopy is an integral part of the woodland and as the woodland is designated an ASNW, the canopy is clearly part of this ASNW.

3.0 **Ancient and Semi-Natural Woodland (ASNW)**

3.1 Natural England and Forestry Commission have produced standing advice (**Guidance**) for determining a planning application when there are ancient woodland, ancient trees and veteran trees present. Reference: Guidance; Ancient woodland, ancient trees and veteran trees: advice for making planning decisions and dated 14.1.2022. This standing advice is clear that ancient woodlands are a material planning consideration for local planning authorities.

3.2 The Guidance make clear that ancient woodland is defined as an irreplaceable habitat and is a valuable natural asset important for “inter alia” wildlife, soils, cultural, historical and landscape value.

3.3 The Guidance states “*You should make decisions in line with paragraph 180 (c) of the NPPF*”. The Guidance goes on to set out how direct and indirect effects of the development can also cause the loss or deterioration of ancient woodland.

3.4 The Guidance also states: “*Where a proposal involves the loss or deterioration of ancient woodland or ancient or veteran trees you should not take account of the existing condition of the ancient woodlands or ancient or veteran tree when you assess the merits of the development proposal. Its existing condition is not a reason to give permission for development. A woodland or tree in poor condition can be improved with good management*”.

3.5 The Guidance identifies that where planning permission is granted which leads to unavoidable loss or deterioration, planning conditions are used to make sure the Developer:

- Avoids damage
- Mitigates against damage
- Compensates for loss or damage (use as a last resort)

This is known as the mitigation hierarchy which should be in line with the NPPF paragraph 180 (a) to avoid significant harm to biodiversity.

3.6 The Guidance sets out a number of mitigation measures which includes:

- Measures to reduce noise or light

- Rerouting footpaths and managing vegetation to deflect trampling pressure away from sensitive locations
- Creating buffer zones

4.0 **Buffer Zones**

4.1 The Guidance states: “... *larger buffer zones are more likely to be needed if the surrounding area is*”:

- less densely wooded
- close to residential areas

4.2 The buffer zone should be at least 15 metres from the boundary of the woodland to avoid root damage and should contribute to wider ecological networks and be part of the green infrastructure of the area. The Guidance states that “*the buffer zone should consist of semi natural habitats such as*”;

- woodland
- a mix of scrub, grassland, heathland and wetland

The Guidance also makes clear that “*the proposal should include creating or establishing habitat with local and appropriate native species in the buffer zone*”. In addition, the Guidance states “*You should not approve development proposals, including gardens, within a buffer zone*”.

4.3 In my opinion, the rationale for introducing a buffer zone is to protect the integrity of the ASNW which also includes protecting the biodiversity contained within it. Detrimental effects on the ASNW can be caused by noise, light, vibration, human activity etc. and it is the intention of the buffer zone to protect the ASNW from these detrimental effects. Planting additional native woodland to the edge of the ASNW within the buffer zone may be considered to be a suitable method of mitigation.

4.4 I have requested the topographic plans for the site as a whole in dwg format to allow me to take accurate measurements to determine whether the buffer zone is a minimum of 15.0 metres deep and to determine the proximity of proposed development to the woodland. These plans were not forthcoming and therefore

I have made estimates to determine the dimensions of the buffer zone and proposed development.

4.5 The Barton Hyett Tree Retention Removal and Protection Plan (**TRRPP**) does not show the ditch to the southern or western edge of the ASNW. This omission of an important physical feature in relation to the ASNW makes it very difficult to determine the accuracy of this plan. In addition, the woodland area is identified by a “salmon” coloured graphic, but the woodland is also identified by a green coloured graphic bounded with a solid green line. The two graphics do not align, and it is my assumption that the salmon-coloured graphic refers to the wooded area within the ditch and the pale green graphic bounded with a solid green line identifies the woodland canopy. If this is the case, it appears that Barton Hyett is acknowledging that the full extent of the ASNW includes the canopy.

4.6 The Guidance has recommended that a buffer zone should be a minimum of 15 metres from the boundary of the woodland and that this distance may be increased where assessment shows other impacts are likely to extend beyond this distance refer to paragraph 4.1 of this report.

4.7 I have previously made the point that the crown of a tree which is growing within the ASNW should be considered as part of the ASNW. If this is agreed by the Inspector, the buffer zone would extend a minimum of 15 metres beyond the canopy line of the woodland and therefore approximately 20 metres from the tree’s trunk, in my opinion, and taking into account the proximity of proposed development, this would be a suitable distance for a buffer zone, providing that development is not allowed within the buffer zone and that suitable mitigation includes woodland planting.

4.8 Towards the south-west corner of the ASNW there is confusion with the TRRPP. The individual tree’s canopies are shown, however, the (possible) canopy line for the woodland is also shown bounded with a solid green line. The canopies do not align.

5.0 **Protected Species**

5.1 The Ecological Assessment, reference Ecology Solutions October 2021 suggests in paragraph 4.2 that there may be bat roosts within Prior's Wood. The same document acknowledges bat foraging and commuting in close proximity to the woodland.

5.2 The Assessment, within paragraph 4.8 of the Ecological Assessment identified the presence of reptiles, including grass snakes and common lizards along the field margin to the southern edge of Prior's Wood.

6.0 **Woodland Management**

6.1 A Woodland Management Plan (**WMP**) has been produced by Ecology Solutions and dated October 2021.

6.2 I take no issue with the proposals set out within the WMP for the management of the woodland itself, but I take issue with the following:

Paragraph 4.2.11 of the WMP states:

“Alongside the Public Right of Way to the south of the woodland, which is to be improved as part of the development, the Landscape Strategy includes the establishment of a semi-natural habitat using native woodland shrub and tree species to provide a varied and graded margin to Prior's Wood (and microclimates and niche habitats such planting can deliver) as well as providing an appropriate buffer to the proposed development beyond. The same is proposed along the western margin of Prior's Wood”.

I can see no evidence within the Appellants supplied documentation that this native planting and habitat creation has been proposed.

Paragraph 5.2.4 of the WMP states:

“The existing entrances will be announced by distinct gateway landscapes. These will include a widened, circular or curvilinear area of self-bound gravel space including a woodland name totem in routed timber, a wayfinding map on a timber tabernacle and timber bench. Simple timber bridges will cross the ditch”.

It is my opinion that creating such entranceway statements by widening the entrance and creating a stone surface will serve no benefit to the ASNW and is more likely to have a negative impact on the woodland.

7.0 Buffer Zones and Root Protection Areas

7.1 The purpose of the buffer zone is to protect, not only the roots of the trees growing within the ASNW but, in my opinion to also to protect the integrity of the ASNW which includes, trees and all other flora and fauna as well as habitats and wildlife communities. Within the Natural England Guidance, it is recommended that the buffer zone extends a minimum of 15 metres from the edge of the woodland and that no development should be allowed within the buffer zone.

7.2 The Natural England Guidance suggests the minimum depth of a buffer zone to be 15 metres which accords with the maximum extent of a Root Protection Area (**RPA**) as set out within the British Standard – BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations. The Natural England Guidance also makes clear that the buffer zone should be increased in depth where it is shown that other impacts are likely to extend beyond this distance – refer to Paragraph 4.1.

7.3 The requirements for tree root protection are set out within the Natural England Guidance, however the protection of the ASNW as a whole is also set out and therefore, in my opinion, it is not a case of just protecting the RPA of trees growing within the ASNW but to protect the woodland as a whole including its biodiversity.

8.0 Proposed Development

8.1 There are two areas of concern when assessing the proposed development with the ASNW. Firstly, the proposed development within the buffer zone situated along the southern edge of Prior's Wood and secondly, the road access at the south-west corner of Prior's Wood.

8.2 Southern edge of Prior's Wood

It is proposed to construct a 3.5-metre-wide cycle path through the central area of the buffer zone along with children's play features. To the southern edge of the buffer zone, it is proposed to construct sections of the main vehicle access road. The proposed development described above sits within the buffer zone as described by the Appellant, should the Inspector agree that the buffer zone identified in accordance with my opinion, i.e. increased to 15 metres from the woodland canopy, it is likely that the whole of the vehicle access road will be situated within the buffer zone.

8.2.1 The cycle path is proposed to be constructed using a no-dig methodology, however this construction methodology will require the cycle path to be constructed possibly in the region of 200-250 mm above the existing soil surface. This will require soil infill to the outer edges to create a gentle slope to reduce impact should anyone cycle or fall off the cycle path. It is therefore likely that the cycle path and additional contoured edges will be in the region of 5.0 metres wide. This is likely to be a considerable impact on the RPA's of nearby trees. In addition, children's play facilities will be incorporated along the buffer zone which is likely to lead to soil compaction and therefore harm to tree roots.

8.2.2 The Appellant has carried out tree root investigation trenches, however, it is my opinion that these trenches are inadequate to determine the extent of tree root spread. A more suitable option would have been to use ground penetration radar which would provide a clearer understanding of tree root spread.

8.2.3 Sections of the vehicle access road will be situated within the Appellants buffer zone (15 metres from tree trunks not the canopy edge) which, in my opinion, clearly shows that the Appellant is ignoring Natural England guidance. The vehicle access road will require substantial excavation and will change the character of the buffer zone.

8.2.4 As set out with Paragraph 4.2 and 4.3 of this report, the buffer zone is an area to mitigate the effect of the proposed development on the ASNW. It is set out within the Natural England guidance that development should not be approved within the buffer zone. The construction of a major features i.e. the 3.5 metre wide cycle path and vehicle access road, together with the activity these features will

encourage will go against standing advice. It is clear within the Guidance that the buffer zone is to be wooded or a mix of scrub or grassland. It is my view that the buffer zone for Prior's Wood should comprise of native trees. This will provide a screen from light pollution, human and vehicle activity, all of which will have indirect effects on the ASNW. The tree mitigation planting should be to the outside (development side) of the woodland canopy. If this was the case, the existing PROW would be left intact.

8.2.5 Should it be agreed that the buffer zone starts from the edge of the woodland canopy, it is highly likely that all of the vehicle access road along with the associated activities i.e., vehicle movements etc. would be contrary to the guidance.

8.3 South-west corner of Prior's Wood

It is clear within the Barton Hyett TRRPP that the proposed hard surfaced access road (vehicle entranceway) sits wholly within the buffer zone. This intrusion into the buffer zone is exacerbated further should the 15-metre-deep buffer zone be considered from the woodland canopy.

8.3.1 It is highly likely that the busiest part of the proposed development will be at the entranceway adjacent to the south-west corner of Prior's Wood. This will likely result in the greatest effect and therefore harm on the woodland. In addition, at this same place, it is proposed to create a feature entrance into the wood with a stone surface. Together, there is likely to be, not only, harm to the woodland but also the protected species within it. I can see no mitigation measures which will prevent this harm.

8.4 In my opinion, there are two different elements to consider. One is the effect of the proposed development on the ASNW and the biodiversity within it. This is concerned with the insufficient depth of the buffer zone, the lack of positive mitigation and the harm caused by the proposed development within the buffer zone and resulting activities. The second element to consider is the harm the proposed development may have on tree roots. This is addressed within the British Standard – BS 5837: In essence, BS 5837 recommends that there are no construction activities with a tree's Root Protection Area (RPA) but where this cannot be avoided, suitable methodology is proposed to minimise any harm. In my opinion, the potential harm to the ASNW by compromising the buffer zone

cannot be mitigated by complying with BS 5837:2012. The requirements for BS 5837:2012 should be seen in addition to the requirements for a suitable buffer zone to protect the ASNW.