

Arboricultural Impact Assessment

Land East of Tye Lane, Walberton. 5th February 2021

This short arboricultural impact assessment (AIA) has been prepared by Barton Hyett Associates on behalf of CSA Environmental for Vistry Southeast, in relation to the land to the east of Tye Lane, Walberton (hereafter the 'Site'). It considers the impacts to trees of the revised proposal to construct a new vehicular access point from Tye Lane (where an emergency access has already been approved) and a new emergency access to Avisford Park Road.

1. Introduction

- 1.1. Arun District Council have granted outline planning consent (ref: WA/44/17/OUT) for the construction of 175 new dwellings with associated car parking, access roads and areas of public open space on the land east of Tye Lane, Walberton (the 'site'). A reserved matters application (ref: WA/95/18/RES) for the detailed layout of the site was approved in April 2019.
- 1.2. The approved development proposal included the construction of a new vehicular access point off Tye Lane which would serve as the emergency access. Since that time it has been confirmed that the new A27 road alignment will cross the northern part of the site, thereby rendering the proposed main vehicle access point into the new site unsuitable.
- 1.3. Therefore, the approved emergency access point from Tye Lane is now proposed to be upgraded to form the principal vehicle access. Trees in this area have already been removed under the previous consent, but the widening of the access point will require some further tree removals. A new emergency access will now be provided on to Avisford Park Road.

2. The Amended Access Proposals

- 2.1. The updated access strategy involves a simple priority junction with Tye Lane on the west boundary. The design is shown on the submitted access plan 'ACE Drawing 183248-003 - Rev B'.
- 2.2. The proposed design incorporates a 5.5m wide carriageway and associated footway from Tye Lane and a 4m wide emergency access to Avisford Park Road.

- 2.3. A new footway is also incorporated, on the south side of the access and along the east side of Tye Lane. This footway will connect with at the southern end of Tye Lane and The Street.
- 2.4. In order to provide the new footway, the road is slightly narrowed to between 5-5.6m. The footway is 1.5m wide at the access, reducing to a minimum of 1m.
- 2.5. Visibility splays have been calculated as a 2.4m x 54m looking north, and 2.4m x 60m looking south.
- 2.6. In addition, an Emergency Access is required. The original Emergency Access was provided onto Tye Lane but this will now be provided onto Avisford Park Road in the south-east of the site. The alignment of the new Emergency Access will follow the alignment of the approved footpath between T38 and T39.

3. Impacts Of The Amended Access Proposal to Trees

- 3.1. The tree survey schedule and plan prepared in 2018 identified a high-quality oak tree (T23) and moderate quality mixed group of boundary trees (G11) on the western boundary of the site adjacent to Tye Lane.
- 3.2. G11 consists of mainly semi-mature holly, laurel, holm oak, elder and sycamore. Some of the trees within the group were showing signs of ill-health/stress during the survey so individually would be classified as category C trees, but the cohesive canopy and natural screen function that the linear belt provides led the surveyor to categorise the group as 'moderate' quality (category B) using the recommended approach described in BS5837.
- 3.3. The widening of the access will require the removal of some additional trees within G11. Reference to trees recorded in the topographic survey plan within the area of G11 suggests that approximately 6 additional trees will need to be removed.
- 3.4. The new footway will pass through the west side of the calculated circular RPA of oak T23, which has an area of 349 square metres. The area of the new path will pass through 25.5 square metres, so approximately 7% of the total RPA. However, more important than the overall level of incursion within the RPA is the consideration the existing and proposed ground conditions, and how they might affect tree roots and the quality of the soil environment.

- 3.5. A drainage ditch currently runs roughly north-south between the road edge and the trunk of T23. This ditch has recently been cleared of vegetation, as prescribed via an arboricultural method statement provided by BHA. The change in ground levels along the ditch may have had some influence on the distribution of oak tree roots, but this is not known for definite. It may be the case that the increased soil moisture around the ditch may have attracted tree roots. However, it may also be the case that cyclical de-silting and ditch maintenance works using an excavator may have severed tree roots in the bottom of the ditch.
- 3.6. In my opinion, it is likely that oak tree roots would be prevalent on the east side of the ditch, but much less so on the west (roadside) of the ditch where the footway is to be constructed
- 3.7. Drainage along the road edge is to be via an under-carriage piped culvert, so the ditch will no longer be required to function as a land-drainage feature. The ditch is therefore to be backfilled. This should be done using a mixture of rock, stone and sandy soil in order to maintain water percolation and oxygen availability in the soil. Topsoil should not be used as this can turn in to an anaerobic sludge at depth.
- 3.8. The low branches of the oak tree on the west side are currently 4 m above the ground level where the footway will be constructed. Therefore, no pruning is required to achieve the required visibility splay or allow pedestrian access.
- 3.9. The new Emergency Access to Avisford Park Road will avoid the RPAs of T38 and T39 so no arboricultural impacts are anticipated in this area. Where the new Emergency Access links to Avisford Park Road approximately 15 linear metres of low-quality trees and understorey within H4 (C2).

4. Conclusions

- 4.1. The amended access proposal from Tye Lane will require the removal of a small number of further trees from within G11. A gap in the linear belt of trees has already been created as per the approved emergency access, so the widening of that gap will have a minor impact on the visual aesthetic and character of the area.
- 4.2. The proposed footway is within a small portion of the RPA of the high-quality oak tree T23. It is my opinion that construction of the surface will have a minor impact due to its location on the far side of the ditch. Back-filling the ditch with free draining material will also provide some betterment of the overall rooting volume for the tree.
- 4.3. No pruning of the oak tree is required.

- 4.4. The loss of some low-quality tree within H4 can be mitigated by new tree and hedgerow planting within the wider site.
- 4.5. An amended tree protection plan (BHA_401_03 - TRR&P Access Arrangements) is provided below, showing the amended locations for vertical tree protection barriers to create exclusion zones around the trees to be retained. Provided these protection measures are implemented, I believe the proposals will have a minor impact only on the trees.

Paul Barton MSc, BSc (hons), MArborA, RCarborA

5th February 2021

Localised area of small trees an vegetation along east side of Tye Lane to be removed as necessary to allow maintenance and enhancement of drainage ditch - as required by Arun DC Drainage Officer.

Area of trees consented for removal for emergency access/cycle link.

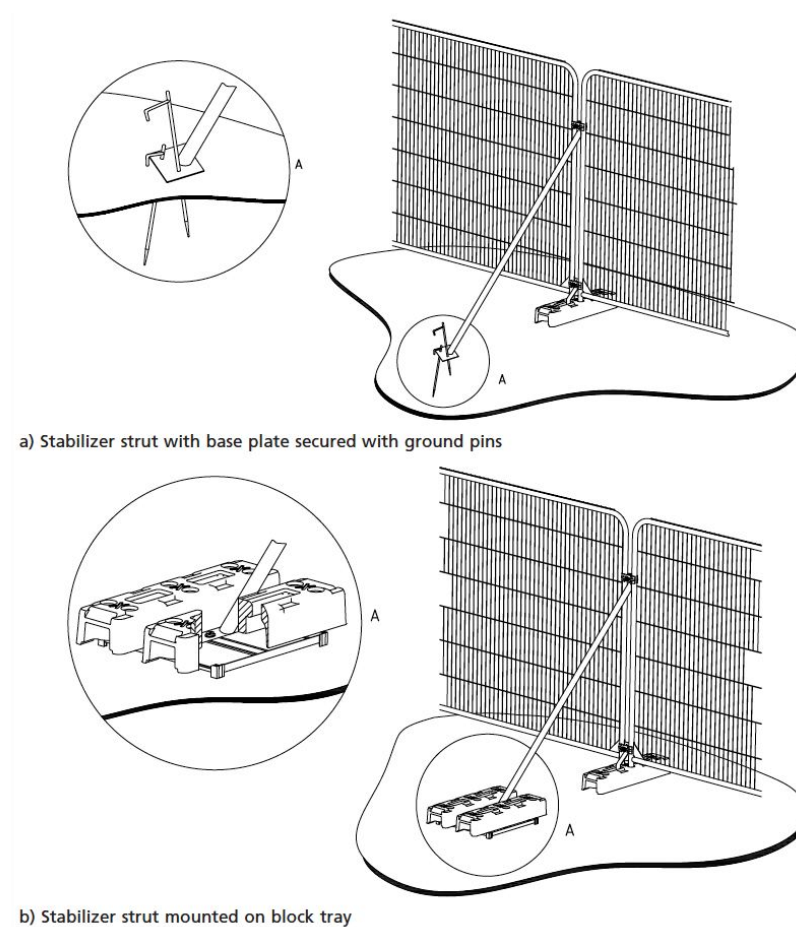
New footway constructed west of existing ditch, which will be backfilled as drainage altered via a piped culvert under the road.

Approx. area of additional trees to be removed for new permanent access.

Holm oak T23 has 4m clearance above new footway. No pruning required.

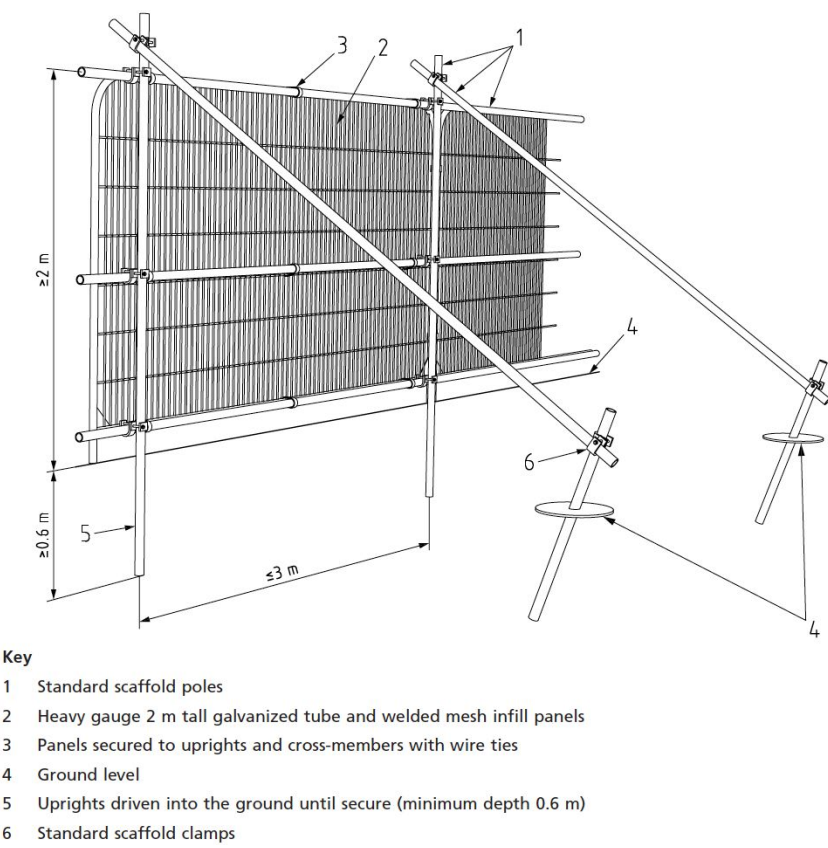
Removal of trees within the hedgerow 1m either side of the pipeline will be required. Works to be carried out under an arboricultural watching brief. Trees to be re-stocked with similar species after completion of the works.

BS:5837:2012 Figure 3 Examples of above-ground stabilizing systems



For more details refer to BS:5837:2012 'Trees in relation to design, demolition and construction - Recommendations' §21

BS:5837:2012 Figure 2 Default specification for protective barrier



For more details refer to BS:5837:2012 'Trees in relation to design, demolition and construction - Recommendations' §20

Tree No	Species	RPA Radius	RPA Area	M	Category
T1	Hornbeam	3.5	45	B2	
T2	Sugar maple	2	12	C2	
T3	Rowan	1.8	10	C2	
T4	Red Oak	4.3	59	B1	
T5	Poplar	5.4	92	C2	
T6	Poplar	4.2	55	C2	
T7	Red oak	4.5	65	B1	
T8	Cypress	1.3	5	B2	
T9	Lime	4.7	69	B2	
T10	Cherry plum (purple leaf)	2.4	18	B2	
T11	Cherry	2.4	18	B2	
T12	Sweet chestnut	4.2	55	B1	
T13	Cherry	2.6	22	B2	
T14	Pin oak	2.2	15	B1	
T15	Whitebeam	2.3	16	B2	
T16	Norway maple	2.4	18	B2	
T17	Larch	2	13	B2	
T18	Poplar	4.8	72	C2	
T19	English oak	7.8	191	B1	
T20	Field maple	8	113	B1	
T21	Field maple	4.8	72	B2	
T22	Sycamore	4.2	55	B2	
T23	Holm oak	10.6	350	A1	
T24	Monterey Pine	9	255	A2	
T25	Lime	7.8	191	A1	
T26	English oak	2.3	16	C2	
T27	Field maple	2.3	16	C2	
T28	English oak	14	619	A2	
T29	Copper beech	4.8	72	B2	
T30	Grey poplar	6.6	137	C2	
T31	Lombardy poplar	3.8	46	C2	
T32	Norway maple	4.8	72	B2	
T33	English oak	2.4	18	B1	
T34	Grey Poplar	3.6	41	C1	
T35	Grey poplar	4.2	55	C2	
T36	English oak	3	28	B2	
T37	Lombardy poplar	5.4	92	B2	
T38	Horse chestnut	12.8	518	A1	
T39	English oak	1.7	9	A2	
T40	English oak	15	707	A2	
T41	Weeping willow	2.4	18	C2	
T42	Silver birch	4.2	55	B1	
G1	Cypress, oak, maple	2.4	18	C2	
G2	Sycamore, ash	4.5	65	B2	
G3	Hawthorn, hazel, elder	1.8	10	B2	
G4	Sycamore	4.3	59	B2	
G5	Sycamore	4.5	65	B2	
G6	Hawthorn, elder	1.8	10	C2	
G7	Lombardy poplar	4.8	72	B2	
G8	Cypress	1.8	10	C2	
G9	White willow	7.2	183	B2	
G10	Poplar	4.2	55	C2	
G11	Holly, laurel, holm oak, elder, sycamore	3.6	41	B2	
G12	Sycamore, ash, hawthorn	4.2	55	B2	
G13	Poplar, goat willow, holly	5.4	92	C2	
G14	English elm	3	28	C2	
G15	Field maple	3.3	35	B2	
G16	Lombardy poplar	3.5	41	B2	
G17	Lime, oak	4.2	55	B2	
G18	Hawthorn, elm	2.2	15	C2	
G19	Grey Poplar, hybrid poplar, lombardy poplar	8.2	209	C2	
G20	Lombardy poplar	3.8	46	C2	
G21	Cherry	3	28	C2	
G22	Norway maple, sycamore, poplar, ash, rowan	4.8	72	B2	
G23	English elm, hawthorn	1.3	5	C2	
H1	English elm, hawthorn	1.3	5	C2	
H2	Holly	1.5	7	B2	
H3	Hawthorn	0.6	1	B2	
H4	Hawthorn, ash, elder	1.1	4	C2	

KEY BS 5837 : 2012 Categories

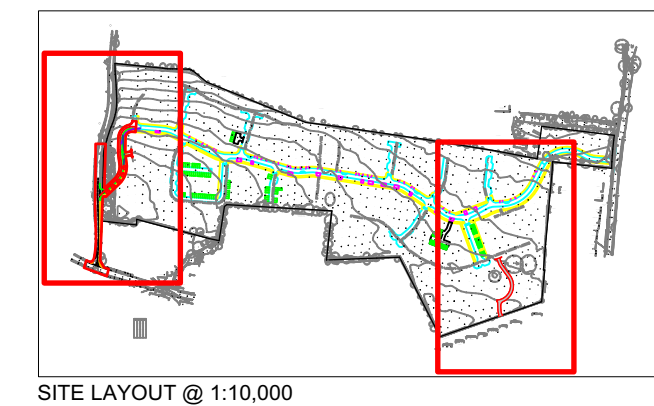
- Tree Category A - High Quality
- A Category - Hedgerow, Group, Woodland
- Tree Category B - Moderate Quality
- B Category - Hedgerow, Group, Woodland
- Tree Category C - Low Quality
- C Category - Hedgerow, Group, Woodland
- Tree Category U - Unsuitable for Retention
- U Category - Hedgerow, Group, Woodland
- Root Protection Area to BS 5837:2012
- Shrub Mass / Offside Tree / OOS (Out of scope)
- Tree Preservation Order (TPO)
- Tree / Hedgerow to be removed
- Primary Tree Protection Secondary Barrier to BS 5837:2012 (FIGURE 2)
- Secondary Tree Protection Secondary Barrier to BS 5837:2012 (FIGURE 2)
- Tree Protection Barrier to BS 5837:2012 (FIGURE 3)

Where trees are considered to be subject to Tree Preservation Order more detailed checks will be required in some instances in order to confirm exact boundaries for the areas covered by each TPO

PROTECTIVE FENCING. THIS FENCING MUST BE MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND DRAWINGS FOR THIS DEVELOPMENT.

TREE PROTECTION AREA
KEEP OFF! - Unless a written plan is approved by the Local Planning Authority, no person shall enter the Tree Protection Area without the written permission of the Local Planning Authority.

Tree Protection Barrier - Barrier to be erected prior to the commencement of works on site and not to be altered or removed until works are complete (cross check with specific requirements of any relevant planning conditions)



PROJECT TITLE
Land East of Tye Lane, Walberton (C.2686)

DRAWING TITLE
Combined Tree Retention/Removal & Protection Plan - Access Arrangements

DRAWING NUMBER
BHA_401_03

SCALE
1:500 @ A1

DRAWN BY
SD

APPROVED BY
RH

REVISION
-

SHEET
-

DATE
04/02/2021

CLIENT
Linden Homes South

COORDINATE SYSTEM / DATUM
British National Grid / Newlyn Datum (AOD)

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