



ARBORICULTURAL IMPACT ASSESSMENT

Land South of
Barrow Green Road,
Oxted

February 2025



Barton Hyett Associates
Arboricultural Consultants

Summary table		
Site Name:	Land South of Barrow Green Road, Oxted	
Project reference:	5527	
Site Address:	Barrow Green Road, Oxted, Surrey	
Nearest Postcode:	RH8 0LN	
Central Grid reference:	TQ 38788 53155	
Local Planning Authority:	Tandridge District Council	
Relevant planning policies:	Tandridge Local Plan, part 2: detailed policies (2014 - 2029, adopted version July 2014); DP7 (safeguarding assets, resources & the environment, 13 - Trees); DP19 (biodiversity, geological conservation & green infrastructure). Trees & soft landscaping, Supplementary Planning Document (SPD) - November 2017.	
Statutory Controls:	<p>Tree Preservation Order</p> <p>Yes - see report body and plans for further details.</p>	<p>Conservation Area</p> <p>No</p>
Soil Type: (Source: BGS online soils map © NERC 2024)	<p>Superficial/Drift</p> <p>Freely draining slightly acid loamy soils</p>	<p>Bedrock</p> <p>Folkestone Formation - Sandstone</p>
Topographical Survey:	Drawing No; ENC/220323/2699S1, dated: March 2023 (sheets 1 - 7)	
Notes:	Woodland feature W2 designated, in part, as ASNW.	
Report author:	David Holmes FdSc, MArborA	
Checked by:	Richard Hyett MSc, BSc (Hons), MICFor, MArborA	
Date of first issue:	16th December 2024	
Revisions:	Rev A - 26th Feb 2025 - updated layout	

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1. INSTRUCTION

- 1.1. Barton Hyett Associates Ltd. have been instructed by the applicants, Croudace Homes, to survey trees located on land south of Barrow Green Road, Oxted ('the site') in accordance with BS5837:2012 'Trees in relation to design, demolition and construction - recommendations'.
- 1.2. The scope of the instruction was to inspect trees relevant to an outline planning application at the site and provide written advice on how they inform feasibility and design options for the site. The instruction also required an outline assessment of the potential impact (the arboricultural impact assessment) of the proposed development on the site's arboricultural resource to be undertaken.

2. SITE DESCRIPTION

- 2.1. The site lies approximately half a mile northwest of the town of Oxted and is made up of agricultural land with field boundaries being defined by a mixture of ditches, hedgerows and fences. A small section of Court Farm Lane was also located within the original survey area (Figure 1).
- 2.2. The surrounding area is residential to the north, east and south with agricultural land and farms with outlying dwellings to the west. The village of Tandridge is located approximately 1.5 miles southwest of the site.
- 2.3. The main part of the survey area measures approximately 8.3 hectares and at the time of survey is currently used for arable crops. The site slopes gently uphill from southwest to northeast with the approximate height above mean sea level varying from 99m to 111m respectively.
- 2.4. Barrow Green Road runs east to west along the northern boundary of the site. Access to the site is possible from an existing gateway on Barrow Green Road with pedestrian access possible from Court Farm Lane. The Oxted Line Railway line runs along the northeast corner of the site.
- 2.5. A Public Right of Way (PRoW) cuts across the central part of the site, running diagonal northwest to southeast from Barrow Green Lane to the cemetery associated with St. Marys Church on Court Farm Lane.



Figure 1: Red line showing tree survey area (not application site boundary)

3. TREE SURVEY FINDINGS

- 3.1. A total of 41 trees, 18 group features, 3 woodlands and 16 hedgerows were surveyed. These are summarised in terms of their quality in accordance with the recommendations of BS5837 below, and shown in more detail in the Tree Survey and Constraints Plan (**Section 2**) and within the Tree Survey Schedule (**Section 3**).

	Total	A - High quality trees whose retention is most desirable.	B - Moderate quality trees whose retention is desirable.	C - Low quality trees which could be retained but should not significantly constrain the proposal.	U - Very poor quality trees that should be removed unless they have high conservation value.
Trees	41	6	32	3	0
Groups	18	0	11	7	0
Woodlands	3	2	1	0	0
Hedgerows	16	0	13	3	0
Total	78	8	57	13	0

Table 1: Summary of arboricultural features of each BS5837 quality category

4. KEY ARBORICULTURAL FEATURES

- 4.1. Due to the agricultural usage of the site, the recorded arboricultural resource is located along the site boundaries, with the exception of the in-field tree T16.
- 4.2. The in-field ash, T16 is a moderate-quality tree showing a loss in vigour and a visible basal cavity, despite these obvious defects the tree is still an important habitat feature. The tree has not been categorised as veteran and its identified as 'Notable' (as are a number of other trees on the periphery of the site) on the [Ancient Tree Inventory](#) hosted by the Woodland Trust. The oaks T1 and T24 and the goat willow T4 have been recorded as high-quality features, being a good example of the species with minimal obvious defects recorded. Two offsite oak T3 and T14 were also recorded as high-quality features although they were subject to a cursory inspection only from the nearest boundary, both trees showed good vigour throughout the crown.
- 4.3. The woodland plots W2 and W3 have been recorded as high-quality (Category A) features. Feature W3 provides a good amenity for the site, as evidenced by the desired lines running through the plot not to mention the screening benefits from the railway. The woodland provides a good habitat with a developing understorey and standing deadwood, the latter is recognised as an important habitat.
- 4.4. A desktop search of DEFRA's MAGIC online mapping database revealed the presence of ancient woodland adjacent the site. The feature W2 is designated as Ancient Semi-Natural Woodland (ASNW). The feature is also listed as deciduous woodland on the '2021 Priority Habitat Inventory' and as broadleaved woodland on the '2014 National Forestry Inventory'.

4.5. The National Planning Policy Framework December 2024 (NPPF paragraph 193(c)) states that:
'development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused unless there are wholly exceptional reasons and a suitable compensation strategy exists.'

4.6. The Forestry Commission and Natural England standing advice '*Ancient woodland, ancient trees and veteran trees: protecting them from development*' is a material planning consideration which is taken into account when making decisions on planning applications. In reaching a planning decision, the LPA should assess the potential impacts, and avoid, mitigate or compensate for identified impacts. A key method of mitigation is the use of a 'buffer zone'. So, in accordance with the Standing Advice an ancient woodland buffer of 15m from the '*boundary of the woodland*' has been applied and is shown on the Tree Survey and Constraints Plan in **Section 2**.

4.7. The Standing Advice also states that the buffers should, where possible, consist of semi-natural habitats such as woodland or a mix of scrub, grassland, heathland and wetland planting. The area within the buffer zone should be part of the green infrastructure of the area and contribute to wider ecological networks, and only be planted with local and appropriate native species. Access within a buffer should be appropriate and can be allowed if the habitat is not harmed by, for example, trampling. In this scenario, the agricultural land use at the site and the nature of the development must be taken into account with regard to impacts and buffer treatments.

4.8. The trees T7, T10, T16, T18 - T21 along with W2, W3 and G5 are covered by Tree Preservation Orders (TPOs).

4.9. The moderate-quality woodland plot W1 is an early-mature developing feature, with mostly willow and occasional oak and the understorey being of hazel, thorn and elder..

4.10. Group G6 is a moderate-quality boundary feature to the west of the site, which has a small watercourse running north to south through the plot. This feature is a mix of boundary trees and outgrown sections of hedgerow.

4.11. Offsite groups G1, G9 - G16 and T26 - T40 are on the adjacent church and cemetery sites, these features were recorded as they may have influence on the development proposals, or vice versa. The trees appear to be under good management with tree tags noted on several trees within the cemetery site and there is evidence of pruning to crown lift the canopies above existing ground levels.

5. PROPOSED DEVELOPMENT

5.1. Outline planning consent is sought for residential development at the site. The application description is as follows:

"Outline application for a residential development of up to 190 dwellings (including affordable homes) (Use Class C3), an extra care facility with up to 80 beds (Use Class C2), together with the formation of vehicular access, landscaping, parking, open space, green and blue infrastructure, and all other associated development works. All matters reserved except access"

5.2. Matters relating to appearance, landscaping, layout and scale are all reserved.

6. IMPACT ASSESSMENT (AIA)

6.1. The AIA considers the effects of any tree loss required to implement the indicative layout design as well as any reasonably foreseeable potentially damaging activities proposed in the vicinity of retained trees. This is undertaken with reference to BS5837:2012 and considering the outline nature of the proposals. This can include tree removal to facilitate design, demolition of buildings and removal of existing hard surfacing, soil compaction in close proximity to trees and direct impact damage to canopy and roots of retained trees from construction activities. A summary of anticipated impacts resulting from the proposed development is provided below.

6.2. A Land Use Parameter Plan has been prepared by Omega Architects (Drawing reference - Land Use Parameter Plan: 3129_A_1200_PL_B). Where relevant this plan has been prepared to respond to the key arboricultural constraints identified. It is this plan for which outline planning consent is sought.

6.3. To assist in the assessment of the proposed development an Illustrative Masterplan drawing has also been produced (Omega Architects - Drawing reference: 3129_C_1006_PL_B). An Illustrative Landscape Strategy (Drawing reference: CSA Environmental - CSA/6514/100) has also been prepared. The Illustrative Masterplan demonstrates one way the site could be developed within the parameters set out on the Land Use Parameter Plan. The following impact assessment provides a preliminary assessment of the anticipated arboricultural impacts and is based on the current site conditions and the layout details shown on the Illustrative Masterplan that has been prepared.

Anticipated Tree losses

6.4. No individual trees or groups of trees will require removal in order for the proposed development to be implemented. All trees protected by TPO, and the area of ASNW, will be retained.

6.5. Only three sections of hedgerow will require removal in order to achieve suitable, safe highway accesses into the site. The northern access from Barrow Green Road will require the removal of circa 15 linear metres of H7 (Category B2 - moderate quality) and circa 5 linear metres of H6 (Category B2 - moderate quality). The

southern access from Wheeler Avenue will require the removal of circa 7 linear metres of H1 (Category C2 - low quality). This assessment is based on site access drawings: 107491-PEF-XX-XX-D-H-0300-P01 and 107491-PEF-XX-XX-DR-H-0200-P01 respectively.

6.6. In summary, the anticipated arboricultural losses will be minimal and will have, in my opinion, negligible impact on the arboricultural resource associated to the site. The anticipated losses can be appropriately mitigated. Due to the quality of the vegetation likely to be removed, an overall enhancement in the arboricultural resource at the site could be easily provided.

Anticipated impacts to retained trees

6.7. *Demolition and site clearance* - No demolition or site clearance will be required in order to allow the proposed development to be implemented. No top soil stripping shall occur in RPA's of retained trees or within the ASNW buffer.

6.8. *Facilitation pruning* - Based on the Illustrative Masterplan it is not anticipated that any facilitation pruning will be required to retained trees.

6.9. *Ground level changes* - Due to the relatively flat nature of the site, no significant changes in ground level are anticipated. All existing ground levels within the RPA's of retained trees will be maintained as will levels within the ASNW buffer for W2.

6.10. *Foundations* - The Illustrative Masterplan demonstrates that the site can accommodate the proposed number of dwellings without the need for any foundations to be constructed within, or close to, the RPAs or buffers of retained trees and woodland. All of the built form (dwellings) are shown to be located outside of the 15m ASNW buffer and the majority set back a further 40m from the edge of the buffer. The closest built from, a single dwelling, is currently shown at circa 2.5m outside of the buffer.

6.11. *Hard surfacing* - The Illustrative Masterplan demonstrates that no extensive areas of hard surfacing are required within the RPAs of retained trees. However, the Illustrative Landscape Strategy shows that some recreational paths are currently shown within the RPAs of retained trees. The final alignment of these paths can be refined and agreed at Reserved Matters stage as can the final path construction (e.g 'No dig' if required) in order to avoid or mitigate arboricultural impacts to an acceptable level. When assessing the potential impact of these paths it will be necessary to consider the past agricultural land use of the site which has involved the regular ploughing of most of the the site area. It is expected the fields will have been ploughed to a depth of 300-400mm and the impact this may have had on root distribution and depth should be considered. The Illustrative Masterplan shows a recreational path at the periphery of the ASNW buffer (north of T11 and T12). The buffer incursion is very minor and the path is located within previously disturbed/ploughed land. If necessary, the alignment of this path could be adjusted at the detailed design/Reserved Matters planning stage.

6.12. *Services* - The details of the locations of required services are not available at this stage in the planning and design process, however, the site contains extensive space out side of the RPAs of retained trees within which all services could be located without any arboricultural impacts.

6.13. *Surface water drainage and outfall* - the installation of a drainage outfall with a piped connection from the attenuation basin (in the south west corner of the site) to an adjacent water course to the west of the site is required. The proposed basin is located outside of the ASNW and the ASNW buffer.

6.14. The pipe route between basin is also outside of ASNW so no loss of ASNW will be required to install the piped connection. The piped connection will be a 150mmØ pipe that will be installed just below the ground surface. The route of the pipe connection will not require the removal of any trees (as shown in Figure 2 below) which shows the location of tree stems relative to the pipe route; as taken from the topographical survey. The width of the trench to install the pipe will be kept to a minimum to avoid ground disturbance and the trench will be hand dug to avoid the need to take plant machinery into the ASNW buffer.

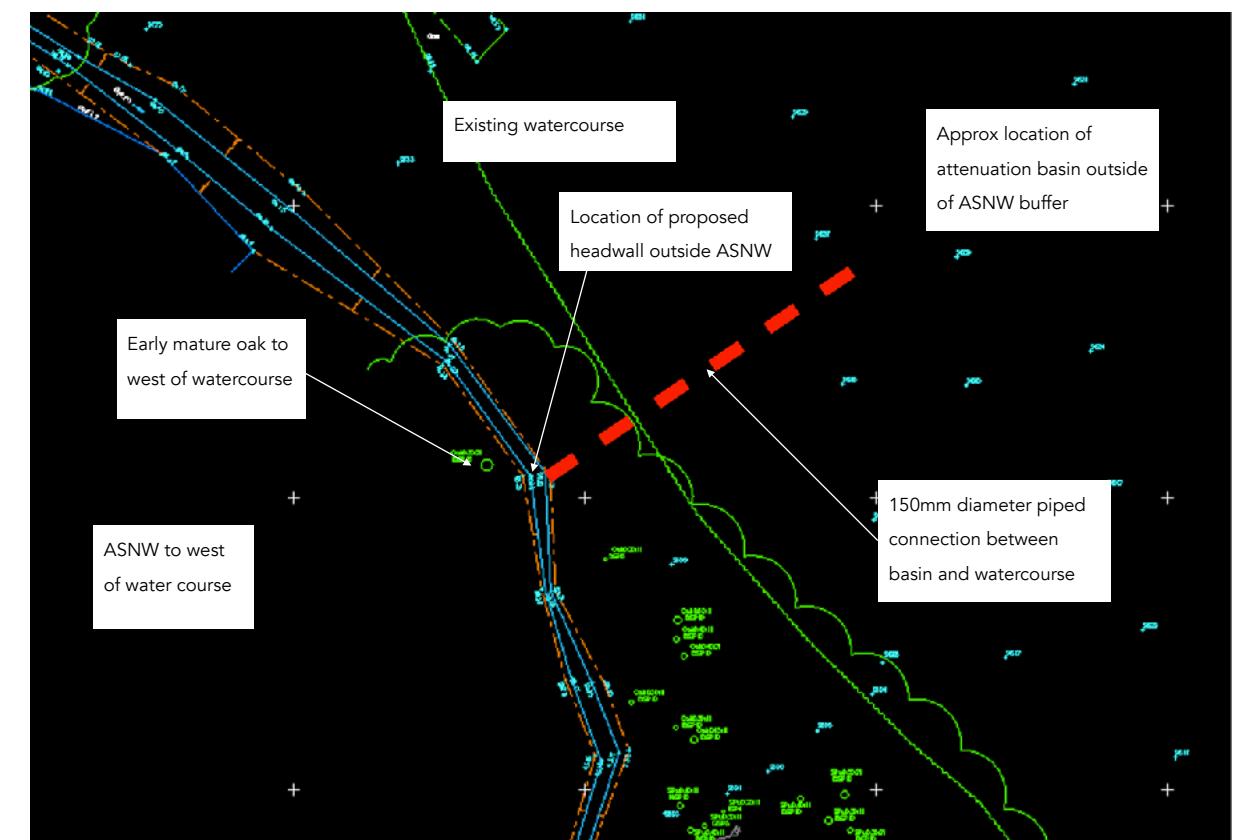


Figure 2: arrangement for surface water drainage outfall next to ASNW.

6.15. The pipe will connect to a headwall on the eastern side of the existing water course (outside the ASNW). The headwall will not be constructed of cast in situ concrete or blocks. Instead it will be a pre-formed glass reinforced concrete (GRC) headwall and carried into position. The headwall will be small and only measure 500mm at its base and be 160mm in depth. As shown in Figure 3 below.

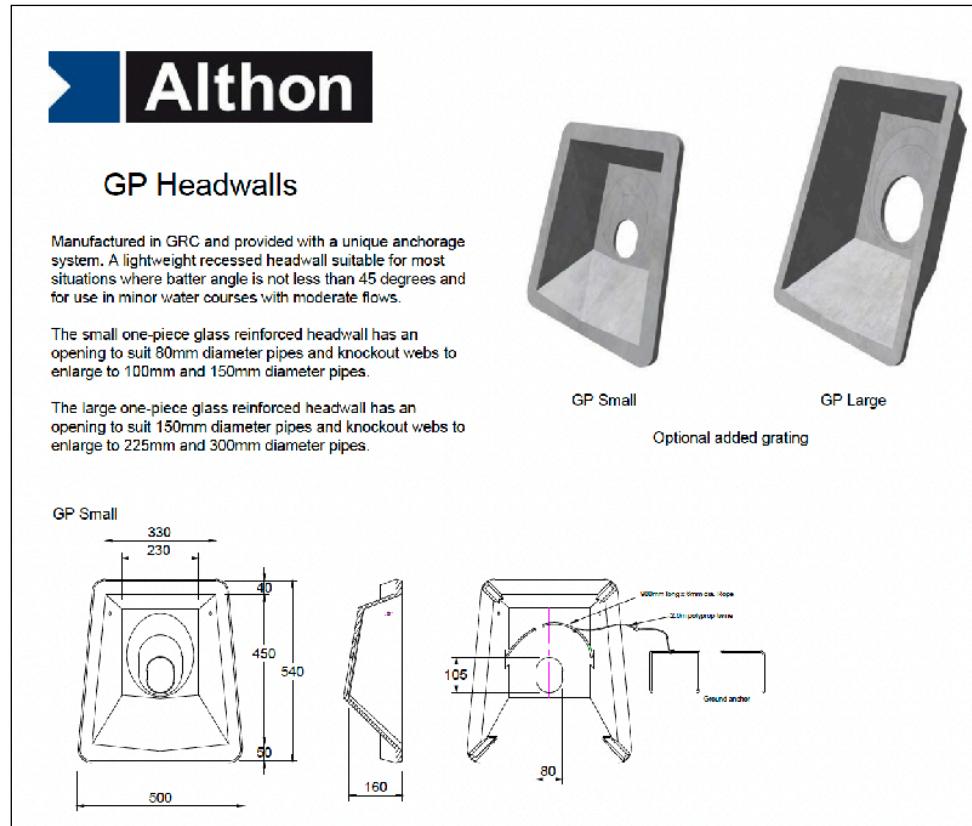


Figure 3. Details of GRC headwall.

6.16. In summary, the proposed drainage strategy is acceptable in arboricultural terms. Overall, the design of the piped connection and its installation have been prepared to minimise any disturbance to an acceptable level. However, appropriate controls through the reserved matters process and implementation stage will still need to be adopted. These controls will ensure that the buffer and the ancient woodland beyond remain intact and are safeguarded throughout construction. The controls will include:

- the use of robust tree protection barriers
- Hand dig of trench for 150mmØ outfall pipe;
- the use of a light weight pre-formed glass reinforced cement headwall (as opposed to concrete/brick or block) at the outfall point;
- backfilling the trench with site won material, reinstated to match the existing soil bulk densities on site, and;

- a requirement that the works are undertaken in accordance with an appropriately detailed construction management plan and arboricultural method statement.

Enhancements

6.17. A series of enhancements to the arboricultural resource of the site can be provided through the delivery of the development. These are summarised in the non-exhaustive list below:

- Woodland margin planting within the ASNW buffer zone. Using appropriate, ecologically valuable tree and shrub species. Including the provision of varied vertical and lateral structure allowing a sinuous margin to be created
- Providing appropriate and ecologically sensitive management of woodland W3 to protect it from increased usage on informal paths and improve its overall condition
- Provision of a significant amount of standard tree planting with the main part of the site. Including the planting of specimen street trees and tree planting within open space
- Proactive and appropriate management of T16.

7. TREE PROTECTION MEASURES

7.1. Tree protection fencing will be utilised to protect adjacent retained trees and woodland during the construction phase. At the very minimum the fencing should be positioned in locations that will protect the defined RPAs of retained trees, but where possible the fencing should maximise the protection area around trees and woodland (including buffers) forming the Construction Exclusion Zone. The fencing must be to an appropriate standard (e.g to the specification set out in Figure 3 of BS5837:2012). The fencing must also be installed prior to the commencement of any construction work (including enabling works) on site and maintained throughout the entire build period. A final Tree Protection Plan has not been produced at the current, outline, planning stage as any meaningful tree protection measures must be based on an approved, detailed layout. However, based on the Illustrative Masterplan the appropriate protection of retained trees on the site is feasible and to demonstrate this draft protection measures have been shown on the Tree Retention/Removal And Draft Protection Plan in **Section 3**.

8. HEADS OF TERMS FOR AN ARBORICULTURAL METHOD STATEMENT (AMS)

- 8.1. BS5837:2012 (Figure 1) recommends that detailed/technical design of tree protection and arboricultural methodologies should be resolved and finalised following on from the approval of the feasibility of a scheme by the Local Planning Authority.
- 8.2. Annex B and Table B.1 of BS5837:2012, an informative, advises that arboricultural method statement heads of terms are a sufficient level of information in order to deliver tree-related information into the planning system. The table also advises that, in the case of an outline application, a detailed arboricultural method statement might reasonably be required at the reserved matters planning stage.
- 8.3. A brief summary of the principles of tree protection on development sites is included in section 7. A draft, 'heads of terms' for an arboricultural method statement is set out below:

- Project arboriculturist – schedule of monitoring and supervision (as required)
- Pre-commencement site meeting (to be attended by all relevant parties including, project arboriculturist, site manager, LPA tree officer, contractors etc)
- Tree and hedge removals as per a final, approved Tree Retention/Removal Plan
- Erection of tree protection barriers (and any other measures as may be required) as per a final, approved Tree Protection Plan
- Main construction phase
- Removal of tree protection barriers - following approval of site conditions
- Final landscaping including tree planting.

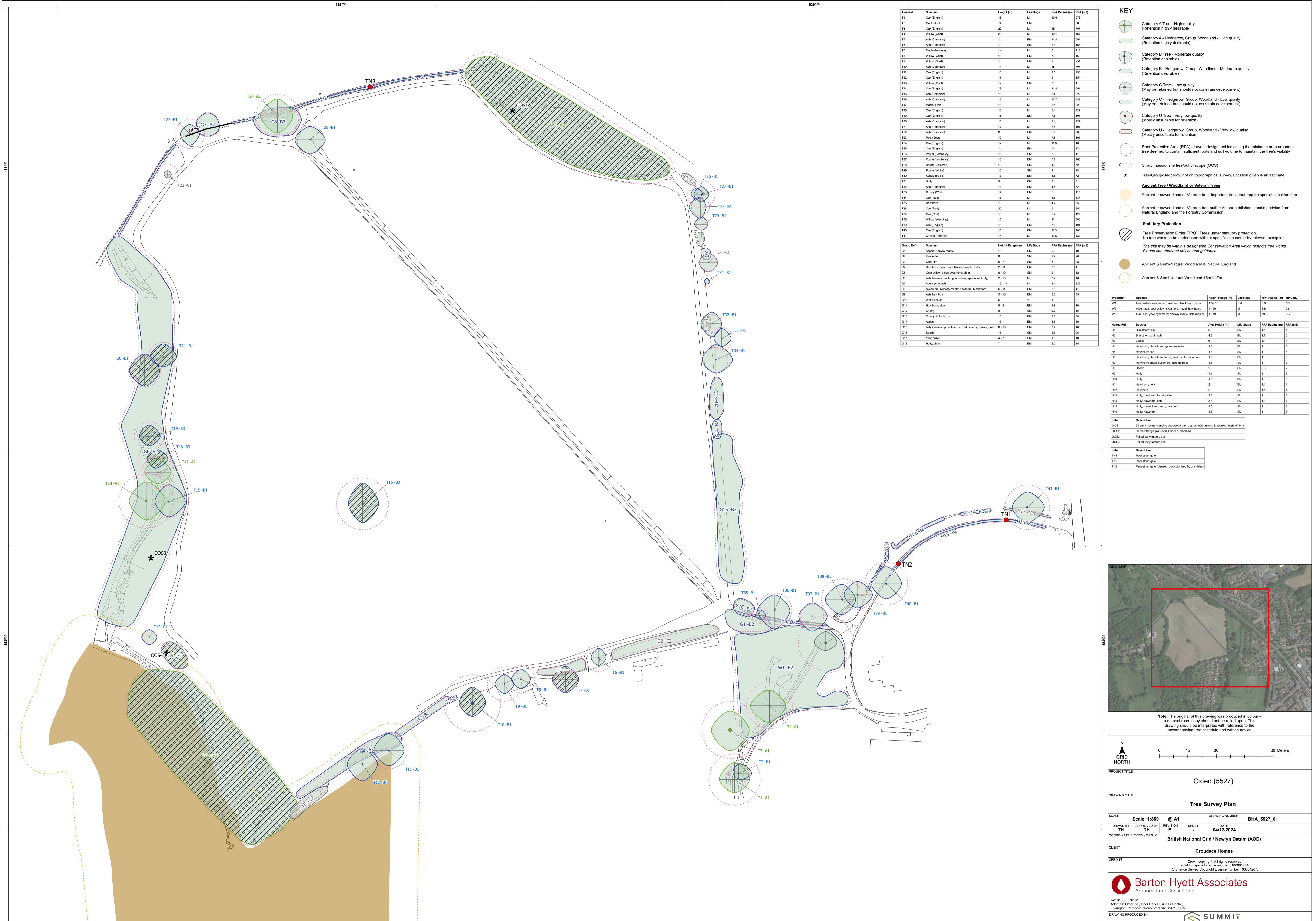
9. SUMMARY AND CONCLUSION

- 9.1. The proposed development in the form shown on the Illustrative Masterplan is acceptable from an arboricultural perspective. All trees of value (including all protected by TPO and the area of ASNW) can be retained and adequately protected during construction activities to sustain their health and longevity.
- 9.2. The required minor hedgerow loss can be mitigated through diverse tree/shrub planting which is proposed throughout the main site area and surrounding open spaces. In addition, significant enhancement planting beyond that required to mitigate the losses could be provided.
- 9.3. A further arboricultural impact assessment (detailed) as well an arboricultural method statement and finalised tree protection plan will need to be produced. Once the feasibility of a scheme has been agreed by the Local Planning Authority at the outline planning stage, this detail can be secured through the reserved matters process.

- 9.4. On the basis that the recommendations and advice contained within this report are adhered to, the proposed development is acceptable from an arboricultural perspective.



Richard Hyett MSc, BSc (Hons.), MARborA, MICFor
Chartered Arboriculturist





INDIVIDUAL TREES

Ref	Species	On/off site	Top Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. low crown height (m)	1st branch ht (m)	1st branch dir.	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m ²	TPO
T1	Oak (English)	On	18.0	1	None	1130	9.0-8.0-7.0-8.0	4.5	3.5	S	M	None	Drainage ditch to west of root plate; main stem splits @3 - 3.5m into 3x scaffold limbs; historical storm damage to west of crown @5m with decay pockets formed @tear out wounds creating good habitat	Good	Fair	40+	A1	13.6	578.0	-
T2	Maple (Field)	On	14.0	2	None	440	5.0-7.0-3.0-3.0	2.0	0.0	None	EM	None	Twin stemmed; drainage ditch to west of root plate; laterally suppressed by adjacent oak	Good	Fair	20+	B1	5.3	88.0	-
T3	Oak (English)	Off	20.0	1	Yes	1800	10.0-10.0-11.0-10.0	3.5	3.0	W	M	Notable Tree	Offsite oak to rear garden boundary; main stem splits @3.5m into multiple scaffold limbs forming a wide spreading crown; historical storm damage to east of crown @3 - 8m with decay pockets formed @tear out wounds creating good habitat	Good	Fair	40+	A1	15.0	707.0	-
T4	Willow (Goat)	On	20.0	1	None	1010	8.0-8.5-9.0-10.0	3.0	3.0	W	M	None	Open grown willow; main stem splits @3m into 3x scaffold limbs forming a spreading crown	Good	Fair	40+	A1	12.1	461.0	-
T5	Ash (Common)	On	14.0	10	Yes	1200	6.0-6.0-4.0-6.0	2.5	0.0	None	EM	None	Multi stemmed tree; topped @14m	Good	Fair	20+	C1	14.4	651.0	-
T6	Ash (Common)	On	10.0	6	None	610	5.0-4.0-4.0-4.0	1.5	0.0	None	SM	None	Typical for age & species; adjacent to disused sub station compound (Named as : WHEELER AVE N OXTD 503870)	Good	Fair	20+	B1	7.3	168.0	-
T7	Maple (Norway)	Off	14.0	1	Yes	500	7.0-7.0-7.0-7.0	3.0	3.5	NW	M	None	Off-site tree in private garden; cursory inspection from boundary	Good	Fair	20+	B1	6.0	113.0	Yes
T8	Willow (Goat)	Off	10.0	6	Yes	610	5.0-5.0-5.0-5.0	2.0	8.0	None	EM	None	Off-site tree in private garden; cursory inspection from boundary	Good	Fair	20+	B1	7.3	168.0	-
T9	Willow (Goat)	Off	10.0	9	Yes	750	5.0-5.0-5.0-5.0	2.0	8.0	None	EM	None	Off-site tree in private garden; cursory inspection from boundary	Good	Fair	20+	B1	9.0	254.0	-
T10	Ash (Common)	Off	14.0	1	Yes	1800	8.5-7.0-7.0-7.0	3.5	0.0	None	M	Notable Tree	Main stem splits @1m into multiple scaffold limbs; appears to be old coppice stool from historic boundary / hedge line; visible woodpecker activity to decay pockets on stems	Good	Fair	20+	B1	15.0	707.0	Yes
T11	Oak (English)	Off	18.0	1	Yes	800	9.0-8.0-8.0-8.0	4.5	7.0	NW	M	None	Within adjacent garden; typical for age & species	Good	Fair	40+	B1	9.6	290.0	-

Ref	Species	On/off site	Top Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. low crown height (m)	1st branch ht (m)	1st branch dir.	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m ²	TPO
T12	Oak (English)	Off	17.0	1	Yes	750	8.0-8.0-9.0-8.0	2.5	7.0	W	M	None	Within adjacent garden; typical for age & species	Good	Fair	40+	B1	9.0	254.0	-
T13	Willow (Goat)	On	12.0	1	Yes	300	4.0-4.0-4.0-4.0	0.5	1.0	N	SM	None	Typical for age & species	Good	Fair	20+	B1	3.6	41.0	-
T14	Oak (English)	Off	18.0	1	Yes	1200	10.0-10.0-10.0-9.0	3.5	3.0	S	M	None	Off-site oak to rear garden boundary; main stem splits @5m into multiple scaffold limbs forming a wide spreading crown; historical storm damage to E & S of crown @3m with decay pockets formed @tear out wounds creating good habitat; drainage ditch to east	Good	Fair	40+	A1	14.4	651.0	-
T15	Ash (Common)	Off	18.0	1	Yes	700	9.0-9.0-8.0-7.0	3.5	6.0	S	M	None	Non progressive lean to east; drainage ditch to west of root plate	Good	Fair	20+	B1	8.4	222.0	-
T16	Ash (Common)	On	19.0	1	None	1140	11.0-8.5-10.0-7.5	3.0	3.5	SW	M	None	Main stem splits @7.5m into scaffold limbs; small to moderate deadwood throughout crown; vigorous leaf flush to north limb & reduced vigour to south limb; raised root plate; exposed cavity to north of stem @0.25m; historic storm damage to east of crown @8	Good	Fair	20+	B3	13.7	588.0	Yes
T17	Maple (Field)	Off	16.0	1	Yes	700	7.0-7.0-6.0-7.0	2.0	0.5	S	M	None	Sub dominant limb to south of stem (1st sig. limb); lower stem swathed in ivy; drainage ditch to west of root plate	Good	Fair	40+	A1	8.4	222.0	-
T18	Oak (English)	Off	16.0	1	Yes	700	5.0-7.0-5.0-4.0	3.0	6.5	S	M	None	Loss of vigour with moderate to large deadwood throughout crown; swathed in ivy; drainage ditch to west of root plate; good habitat tree	Fair	Fair	20+	B3	8.4	222.0	Yes
T19	Oak (English)	Off	16.0	1	Yes	650	6.0-6.0-5.0-5.0	2.0	3.5	N	EM	None	Loss of vigour with small to moderate deadwood throughout crown; heavily swathed in ivy; drainage ditch to west of root plate; good habitat tree	Fair	Fair	20+	B3	7.8	191.0	Yes
T20	Ash (Common)	Off	18.0	1	Yes	700	9.0-8.0-8.0-8.0	5.0	8.0	S	M	None	Main stem splits @10m into 4x scaffold limbs; drainage ditch to west of root plate	Good	Fair	20+	B1	8.4	222.0	Yes
T21	Ash (Common)	Off	17.0	1	Yes	650	7.0-7.0-5.0-7.0	2.5	6.0	NE	M	None	Main stem splits @5m into 2x scaffold limbs; drainage ditch to west of root plate	Good	Fair	20+	B1	7.8	191.0	Yes

Ref	Species	On/off site	Top Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. low crown height (m)	1st branch ht (m)	1st branch dir.	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m ²	TPO
T22	Ash (Common)	On	8.0	15	Yes	460	2.0-2.0-2.0-2.0	0.5	0.0	None	SM	None	Within field margin; typical for age & species	Good	Fair	20+	C1	5.5	96.0	-
T23	Pine (Scots)	On	12.0	1	Yes	650	5.0-5.0-6.0-5.0	2.0	6.0	S	M	None	Heavily swathed in ivy; loss of main leader creating a wide spreading crown	Good	Fair	20+	B1	7.8	191.0	-
T24	Oak (English)	On	17.0	1	None	940	9.0-8.0-9.0-9.0	3.0	3.0	S	M	None	Adjacent to highway; footpath runs through west of root plate; non progressive lean to west; main stem splits @4m into 3x scaffold limbs; minor deadwood throughout crown	Good	Fair	40+	A1	11.3	400.0	-
T25	Oak (English)	On	14.0	1	None	620	7.0-8.0-7.5-8.0	0.5	1.0	S	EM	None	In-field tree adjacent to footpath; dia. recorded @0.5m; main stem splits @0.5m into 4x scaffold limbs creating a wide spreading crown	Good	Fair	40+	B1	7.4	174.0	-
T26	Poplar (Lombardy)	On	15.0	1	None	300	3.0-3.0-3.0-3.0	1.0	1.0	SW	SM	None	Typical for age & species	Good	Fair	20+	B1	3.6	41.0	-
T27	Poplar (Lombardy)	Off	18.0	1	Yes	600	4.0-4.0-4.0-4.0	2.0	2.0	S	EM	None	Within grounds of cemetery; immediately adjacent to network rail boundary	Good	Fair	20+	B1	7.2	163.0	-
T28	Beech (Common)	Off	10.0	1	Yes	400	5.0-3.0-6.0-6.0	1.0	1.0	S	SM	None	Within grounds of cemetery; stem in contact with boundary fence; laterally suppressed by adjacent poplars	Good	Fair	20+	B1	4.8	72.0	-
T29	Poplar (White)	Off	10.0	2	Yes	250	4.0-3.0-3.0-4.0	2.0	0.0	None	SM	None	Within grounds of cemetery; typical for age & species	Good	Fair	20+	B1	3.0	28.0	-
T30	Acacia (False)	Off	13.0	1	Yes	400	5.0-5.0-5.0-5.0	2.0	2.0	S	EM	None	Within grounds of cemetery; bark damaged to west of main stem @0.5m	Fair	Fair	20+	C1	4.8	72.0	-
T31	Holly	Off	9.0	3	Yes	260	1.5-1.5-1.5-1.5	0.0	0.0	None	EM	None	Within grounds of cemetery; typical for age & species	Good	Fair	20+	B1	3.1	31.0	-
T32	Ash (Common)	Off	14.0	1	Yes	400	6.0-5.0-7.0-6.0	2.0	3.0	S	EM	None	Within grounds of cemetery; typical for age & species	Good	Fair	20+	B1	4.8	72.0	-
T33	Cherry (Wild)	Off	14.0	4	Yes	500	5.5-5.0-4.0-4.0	1.5	0.0	None	EM	None	Within grounds of cemetery; typical for age & species	Good	Fair	20+	B1	6.0	113.0	-
T34	Oak (Red)	Off	18.0	1	Yes	550	8.0-9.0-7.0-7.0	2.0	2.0	S	M	None	Within grounds of cemetery; typical for age & species	Good	Fair	20+	B1	6.6	137.0	-
T35	Hawthorn	Off	10.0	1	Yes	350	3.0-3.0-2.0-2.5	3.0	0.0	None	M	None	Hedgerow tree swathed in ivy; typical for age & species	Good	Fair	20+	B1	4.2	55.0	-

Ref	Species	On/off site	Top Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. low crown height (m)	1st branch ht (m)	1st branch dir.	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m ²	TPO
T36	Oak (Red)	Off	20.0	1	None	750	8.0-8.0-10.0-9.0	3.5	4.0	S	M	None	Within grounds of cemetery; typical for age & species; tag affixed - No:378	Good	Fair	20+	B1	9.0	254.0	-
T37	Oak (Red)	Off	18.0	1	None	520	7.0-8.0-8.0-7.0	2.0	2.0	S	M	None	Within grounds of cemetery; typical for age & species	Good	Fair	20+	B1	6.2	122.0	-
T38	Willow (Weeping)	Off	15.0	1	None	920	8.0-7.0-8.0-9.0	2.0	2.0	NW	M	None	Within grounds of cemetery; bin store & concrete path to north of stem; drainage ditch to west of root plate; topped with seems to have been carried out after a large limb tear out to the west of the canopy @8m; tag affixed - No:301	Good	Fair	20+	B1	11.0	383.0	-
T39	Oak (English)	Off	16.0	1	Yes	650	7.0-8.0-7.0-7.0	5.0	8.0	S	EM	None	Within grounds of cemetery; east of crown overhangs road by 5m; drainage ditch to west of root plate	Good	Fair	40+	B1	7.8	191.0	-
T40	Oak (English)	Off	16.0	3	None	940	9.0-8.0-8.0-8.0	2.5	0.0	None	EM	None	Within grounds of St. Mary's Church; 3x stems - central stem is dominant & splits @1.5m into 2 (dia. recorded @1m); west of crown overhangs road by 8m; root plate above roadway by approx. 1.5m	Good	Fair	40+	B1	11.3	400.0	-
T41	Chestnut (Horse)	Off	15.0	4	None	980	8.0-9.0-8.0-8.0	2.5	0.0	None	M	None	Within car park of MediVets; 4x stems; south of crown overhangs road by 8m; root plate raised above car park by 0.5m; 2x largest stems to east show bark damage & associated decay @1 - 2m	Good	Fair	40+	B1	11.8	434.0	-

GROUPS OF TREES

Ref	Species	On/off site	Height range (m)	No. of trees	Est diam?	Max stem diam (mm)	Av. Crown radius (m)	Avg. low crown height (m)	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	TPO
G1	Aspen; Norway maple	On	15	9	None	490.0	6.0	4.0	EM	None	8x early mature aspen & 1x semi mature maple; close grown trees forming a cohesive crown; footpath to north of stems; exposed & damaged roots within path	Good	Fair	20+	B2	5.9	-
G2	Elm; elder	On	8	25	None	240.0	4.0	0.5	SM	None	Boundary feature; predominantly elm with occasional elder; several sporadic dead elm stems throughout plot	Fair	Fair	20+	C2	2.9	-
G3	Oak; elm	On	6 - 7	2	None	250.0	3.0	0.0	SM	None	Close grown multi stemmed trees forming a cohesive crown; footpath to north of stems	Good	Fair	20+	B2	3.0	-
G4	Hawthorn; hazel; ash; Norway maple; elder	Off	2 - 11	20	Yes	300.0	4.5	0.0	EM	None	Consistent boundary feature; outgrown hedge with establishing trees which occur on both sides of an undefined boundary	Good	Fair	20+	B2	3.6	-
G5	Goat willow; alder; sycamore; elder	On	6 - 10	15	None	160.0	2.0	0.5	SM	None	Thicket to field boundary	Good	Fair	20+	C2	2.0	Yes
G6	Ash; Norway maple; goat willow; sycamore; holly; hazel; hawthorn; blackthorn; elder; dogrose; honeysuckle	Off	2 - 18	80	Yes	600.0	6.0	0.0	M	None	Consistent boundary feature; drainage ditch runs through plot; ash & willow dominate with other species occurring as understor	Good	Fair	40+	B2	7.2	-
G7	Scot's pine; ash	On	13 - 17	2	Yes	700.0	8.0	2.5	M	None	Close grown trees forming a cohesive crown; mature ash & early mature pine with ash dominating plot & causing lateral suppression of pine; stems in contact at base; heavily swathed in ivy; adjacent to road	Good	Fair	20+	B2	8.4	-
G8	Sycamore; Norway maple; hawthorn; blackthorn	On	6 - 11	30	None	300.0	4.5	1.5	EM	None	Thicket to field boundary; footpath runs through plot	Good	Fair	20+	B2	3.6	-
G9	Ash; hawthorn	Off	5 - 10	7	Yes	280.0	3.5	0.0	EM	None	Off-site close grown multi stemmed trees forming a cohesive crown; on network rail embankment	Fair	Fair	20+	C2	3.3	-
G10	White poplar	On	6	5	None	80.0	1.5	0.0	Y	None	Self seeded / suckers from poplar within cemetery; footpath to west of stems	Good	Fair	10+	C2	1.0	-
G11	Hawthorn; elder	Off	5 - 6	2	None	150.0	2.0	0.0	EM	None	Close grown multi stemmed trees forming a cohesive crown; footpath to west of stems	Good	Fair	20+	B2	1.8	-
G12	Cherry	On	8	5	None	180.0	3.5	2.0	SM	None	Close grown trees forming a cohesive crown; footpath to west of stems	Good	Fair	20+	C2	2.2	-

Ref	Species	On/off site	Height range (m)	No. of trees	Est diam?	Max stem diam (mm)	Av. Crown radius (m)	Avg. low crown height (m)	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	TPO
G13	Cherry; holly; birch	On	10	10	None	290.0	4.0	2.0	EM	None	Close grown trees forming a cohesive crown cherry all multi stemmed with 3x small stems to west of fence line & within site; footpath to west of stems	Good	Fair	20+	B2	3.5	-
G14	Aspen	On	17	4	None	320.0	6.0	3.0	EM	None	Close grown trees forming a cohesive crown; footpath to west of stems	Good	Fair	20+	B2	3.8	-
G15	Ash; Corsican pine; lime; red oak; cherry; robinia; goat willow; hawthorn	Off	8 - 18	15	Yes	600.0	6.0	2.0	EM	None	Close grown trees forming a cohesive crown within cemetery boundary; footpath to west of stems	Good	Fair	40+	B2	7.2	-
G16	Beech	Off	15	2	None	460.0	6.0	2.0	SM	None	2x close grown trees forming a cohesive crown; footpath to south of stems; tag affixed to western most stem - No:374	Good	Fair	20+	B2	5.5	-
G17	Yew; hazel	Off	4 - 7	2	Yes	150.0	2.0	0.0	SM	None	2x close grown trees suppressed by mature willow & oak; forming a cohesive crown; established to west of drainage ditch	Good	Fair	20+	C2	1.8	-
G18	Holly; plum	On	7	2	Yes	180.0	2.5	2.5	EM	None	2x close grown trees forming a cohesive crown	Good	Fair	20+	C2	2.2	-

HEDGEROWS

Ref	Species	On/off site	Av. Height (m)	Av. width (m)	Av. Stem diam (mm)	Avg. low crown height (m)	Life Stage	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)
H1	Blackthorn; elm	On	6.0	3	90	0.0	SM	Outgrown hedge feature; dead elm stems to east of feature; younger stems to west of feature	Fair	Fair	20+	C2	1.1
H2	Blackthorn; oak; ash	On	4.5	3.5	140	0.0	EM	Outgrown hedge adjacent to path; 1x young ash & 1x young oak establishing within hedge line; lower side of feature to field side has been flailed in past	Good	Fair	20+	B2	1.7
H3	Laurel	Off	6.0	5	90	0.0	EM	Outgrown laurel hedge feature	Good	Fair	20+	C2	1.1
H4	Hawthorn; blackthorn; sycamore; elder	On	1.5	1	80	0.0	SM	Maintained hedge adjacent to road	Good	Fair	20+	B2	1.0
H5	Hawthorn; ash	On	1.5	1	80	0.0	SM	Maintained hedge adjacent to road	Good	Fair	20+	B2	1.0

Ref	Species	On/off site	Av. Height (m)	Av. width (m)	Av. Stem diam (mm)	Avg. low crown height (m)	Life Stage	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)
H6	Hawthorn; blackthorn; hazel; field maple; sycamore; spindle; dogrose	On	1.5	1	80	0.0	SM	Maintained hedge adjacent to road	Good	Fair	20+	B2	1.0
H7	Hawthorn; privet; sycamore; ash; dogrose	On	1.5	1	80	0.0	SM	Maintained hedge adjacent to road	Good	Fair	20+	B2	1.0
H8	Beech	On	2.0	1	70	0.0	SM	Maintained hedge adjacent to footpath	Good	Fair	20+	B2	0.8
H9	Holly	On	1.5	1	80	0.0	SM	Maintained hedge adjacent to road; hedge becomes patchy to south of feature	Good	Fair	20+	B2	1.0
H10	Holly	On	1.5	1	80	0.0	SM	Maintained hedge adjacent to road	Good	Fair	20+	B2	1.0
H11	Hawthorn; holly	On	2.0	1.5	90	0.0	EM	Maintained hedge adjacent to road	Good	Fair	20+	B2	1.1
H12	Hawthorn	On	2.0	1.5	90	0.0	EM	Maintained hedge adjacent to road	Good	Fair	20+	B2	1.1
H13	Holly; hawthorn; hazel; privet	On	1.5	1	80	0.0	SM	Maintained hedge adjacent to road; predominantly holly	Good	Fair	20+	B2	1.0
H14	Holly; hawthorn; ash	On	3.5	1.5	90	0.0	EM	Hedge adjacent to road; sides & east tip maintained regularly	Good	Fair	20+	B2	1.1
H15	Holly; hazel; lime; plum; hawthorn	On	1.5	1	80	0.0	SM	Maintained patchy hedge adjacent to road; low vigour beneath shade of mature chestnut	Good	Fair	20+	C2	1.0
H16	Holly; hawthorn	On	1.5	1	80	0.0	SM	Maintained hedge adjacent to road	Good	Fair	20+	B2	1.0

WOODLAND

Ref	Species	On/off site	Height range (m)	No. of trees	Est diam?	Max stem diam (mm)	Av. Crown radius (m)	Avg. low crown height (m)	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	ASNW or ARW buffer (m)	TPO
W1	Goat willow; oak; hazel; hawthorn; blackthorn; elder	On	1.5 - 15	150	None	550.0	5.5	0.5	EM	None	Copse between cemetery, road, & rear garden boundaries; predominantly willow with occasional establishing oak; all other species occur as well developed understory; multiple desire lines running through plot; drainage ditch to southern boundary	Good	Fair	40+	B2	6.6	-	-
W2	Alder; ash; goat willow; sycamore; hazel; hawthorn; elder	On	1 - 20	100	None	730.0	8.0	2.0	M	ASNW	Predominantly mature alder & willow with occasional ash; all other species occur as well developed understory; waterlogged ground to north of plot; sample of feature recorded where survey area abuts plot; area to south of sample within designated ASNW plot	Good	Fair	40+	A2	8.8	15	Yes
W3	Oak; ash; yew; sycamore; Norway maple; field maple; hawthorn; blackthorn; elder	On	1 - 19	150	None	850.0	8.0	1.5	M	None	Copse between field boundary & network rail; predominantly mature oak & ash; all other species occur as well developed understory; early-mature standing deadwood; desire line runs through plot; north west tip of plot within network rail boundary (track-side)	Good	Fair	40+	A2	10.2	-	Yes



IMAGE 1: A view looking northeast across the site, taken from the PRoW, with W3 highlighted.



IMAGE 2: An internal view of W3, looking southeast along the desire line.



IMAGE 3: A view looking northeast along Court Farm Lane with T40 highlighted.



IMAGE 4: A view looking southeast at the in-field tree T16 (note reduced vigour to south of crown).



IMAGE 5: A close-up, looking southwest at the basal cavity of T16.



IMAGE 6: A view looking west at Court Farm Ln (where it meets Barrow Green Rd) with T41 highlighted (G18 shown to the far right of frame).

- The tree survey was carried out with reference to the methodology set out in BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'.
- Trees were surveyed individually or as groups where it was considered that they had grown together to form cohesive arboricultural features either aerodynamically (trees that provide companion shelter), visually (eg avenues or screens) or culturally (including for biodiversity). However, where it was considered that there was an arboricultural need to differentiate between attributes trees within groups/woodlands were also surveyed as individuals
- The full tree survey findings are recorded in the following tree survey schedule.
- Within the tree survey schedule, each surveyed TREE (T), GROUP (G), HEDGEROW (H), WOODLAND (W) or SHRUB MASS on or adjacent to the site is given a reference number which refers to its position on the tree survey and constraints plan.
- TREE SPECIES are listed by common name.

The **DIMENSIONS** taken are:

- STEM-No. Indicates the number of main stems (i.e. whether the trunk divides at or below 1.5m; (Used in the calculation of RPA.) "m-s" = Multi-stemmed.
- STEM DIAMETER (in millimetres), obtained from the girth measured at approx.1.5m. For trees with 2 to 5 sub-stems, a notional figure is derived from the sum of their cross-sectional areas. For multi-stemmed trees the notional diameter may be estimated on the basis of the average stem size x the number of stems. (A notional diameter may be estimated where measurement is not possible.)
- HEIGHT, are measured in metres. They are recorded to the nearest half metre for dimensions up to 10m and to the nearest whole metre for dimensions over 10m.
- The CROWN SPREAD are taken at the four cardinal points to derive an accurate representation of the tree crown. They are recorded up to the nearest half metre for dimensions up to 10m and to up the nearest whole metre for dimensions over 10m.
- CROWN CLEARANCES are expressed both as existing height above ground level of first significant branch along with its direction of growth (eg 2.5m-N), and also in terms of the overall canopy. Measurements are recorded to the nearest half metre for dimensions up to 10m and to the nearest whole metre for dimensions over 10m.
- ESTIMATES. Where any measurement has had to be estimated, due to inaccessibility for example, this is indicated by a "#" suffix to the measurement as shown in the tree survey schedule.

LIFE STAGE is defined as follows:

Y Young: normally stake dependent, establishing trees. Should be growing fast, usually increasing in height more than spread, but as yet making limited impact upon the landscape.

SM Semi-mature: Established young trees, normally of good vigour and still increasing in height, but beginning to spread laterally. Beginning to make an impact upon the local landscape & environment. Semi-Mature (still capable of being transplanted without preparation, up to 30cm girth and not yet sexually mature).

EM Early-mature: Not yet having reached 75% of expected mature size. Established young trees, normally of good vigour and still increasing in height, but beginning to spread laterally. Beginning to make an impact upon the local landscape & environment.

M Mature: Well-established trees, still growing with some vigour, but tending to fill out and increase spread. Bark may be beginning to crack & fissure. In the middle half of their safe, useful life expectancies.

LM Late-Mature: In full maturity but possibly beyond mature and in a state of natural decline). Still retaining some vigour but any growth is slowing.

A Ancient: A tree that has passed beyond maturity and is old./aged compared with other trees of the same species. Typically having a very wide trunk and a small canopy.

PHYSIOLOGICAL CONDITION (HEALTH & VITALITY):

Essentially a snapshot of the general health of the tree based upon its general appearance, its apparent vigour and the presence or absence of symptoms associated with poor health, physiological stress etc. (Fungal infections may be recorded here but decay giving rise to structural weakness would be recorded under 'Structural Condition' – see next parameter):

Good: No significant health issues.

Fair: indications of slight stress or minor disease (e.g. the presence of minor dieback/deadwood or of epicormic shoot growth)

Poor: Significant stress or disease noted; larger areas of dieback than above

Dead: (or Moribund)

STRUCTURAL CONDITION:

Defects affecting the structural stability of the tree, including decay, significant dead wood, root-plate instability or significant damage to structural roots, weak forks (e.g. those where bark is included between the members) etc.

Classified as:

Good: No obvious structural defects: basically sound

Fair: Minor, potential or incipient defects

Poor: Significant defect(s) likely to lead to actual failure in the medium to long-term

Dead: (or Moribund)

REMAINING USEFUL LIFE EXPECTANCY:

An estimate of the length of time in years that a tree might be expected to continue to make a useful contribution to the locality at an acceptable level of risk (based on an assumption of continued routine maintenance)

- less than 10 years
- 10+ years
- 20+ years
- 40+ years

SPECIAL IMPORTANCE:

Trees that are particularly notable as high value trees such as ancient trees/woodland, or veteran trees. Such trees may be regarded as the principal arboricultural features of a site, and pose a significant constraint to potential development.

An ancient tree is one that has passed beyond maturity and is very old compared with other trees of the same species. Very few trees reach the ancient life-stage. Veteran trees are often very old, but not necessarily so; they may be regarded as 'survivors' that have developed some of the characteristic features of an ancient tree but have not necessarily lived as long. All ancient trees are veterans but not all veteran trees are ancient.

QUALITY CATEGORY:

Trees are classed as category U, A, B or C, based on criteria given in BS5837:2012; summary definitions as follows (see BS5837 for further details). Categories A, B and C are further characterised by the use of sub-categories, which attempt to identify what aspect of the tree is the main source of its perceived value:

- (1) arboricultural qualities
- (2) landscape qualities, and
- (3) cultural, historic or ecological/conservation qualities.

Examples of these qualities for each of the three categories are given below, although these are indicative only.

Note: This is NOT a health and safety classification; the classification does not take into account any requirement for remedial tree care or ongoing maintenance apart from that which may affect the trees' general suitability for retention.

CATEGORY U: UNSUITABLE:

Trees likely to prove to be unsuitable for retention for longer than 10 years should any significant increase in site usage arise as a result of development.

E.g. dead or moribund trees; those at risk of collapse or in terminal decline; trees that will be left unstable by other essential works such as the removal of nearby category U trees; trees infected by pathogens that could materially affect other trees; low quality trees that are suppressing better specimens

(Category U trees may have conservation values that it might be desirable to preserve.

It may also include trees that should be removed irrespective of any development proposals.)

CATEGORY A: HIGH QUALITY:

Trees or groups whose retention should be given a particularly high priority within the design process. Normally with an expected useful life expectancy of at least 40 years.

- A1: Notably fine specimens; rare or unusual specimens; essential component trees within groups, semi-formal or formal plantings (e.g. dominant trees within an avenue etc.)
- A2: Trees, groups or woodlands of particular visual importance as landscape features.
- A3: Trees, groups or woodlands of particular significance by virtue of their conservation, historical, commemorative or other value (e.g. veteran trees or wood pasture.)

CATEGORY B: MODERATE QUALITY:

Trees or groups of some importance with a likely useful life expectancy in excess of 20 years. Their retention would be highly desirable; selective removal of certain individuals may be acceptable, but only after full consideration of all alternative courses of action.

- B1: Fair quality but not exceptional; good specimens showing some impairment (e.g. remediable defects, minor storm damage or poor past management.)
- B2: Acceptable trees situated such as to have little visual impact within the wider locality. Also numbers of trees, perhaps in groups or woodlands, whose value as landscape features is greater collectively than would warrant as individuals (such that the selective removal of an individual would not impact greatly upon the trees' overall, collective value).
- B3: Trees, groups or woodlands with clearly identifiable conservation or other cultural benefits.

CATEGORY C: MINOR VALUE:

Trees or groups of rather low quality, although potentially capable of retention for at least approx. 10 years. Also small trees with stems below 15cm diameter.

Potentially retainable, but not of sufficient value to be regarded as a significant planning constraint.

- C1: Unremarkable trees of very limited merit or of significantly impaired condition.
- C2: Trees offering only low or short-term landscape benefits; also secondary specimens within groups or woodlands whose loss would not significantly diminish their landscape value.
- C3: Trees with extremely limited conservation or other cultural benefit.

ROOT PROTECTION AREA (RPA):

These are normally represented as a circle centred on the base of each tree stem with a radius of 12 times stem diameter measured at 1.5m above ground level, but the shape of the RPA may be altered where site conditions dictate that there are sound reasons to do so.

THE IMPORTANCE OF TREES

Wider benefits:

There is a growing body of evidence that trees bring a wide range of benefits to the places people live.

Some Economic benefits of trees include:

- Trees can increase property values
- As trees grow larger, the lift they give to property values grows proportionately
- They can improve the environmental performance of buildings by reducing heating and cooling costs, thereby cutting bills
- Mature landscapes with trees can be worth more as development sites
- Trees create a positive perception of a place for potential property buyers
- Urban trees improve the health of local populations, reducing healthcare costs

Some Social benefits of trees include:

- Trees help create a sense of place and local identity
- They benefit communities by increasing pride in the local area
- They can create focal points and landmarks
- They have a positive impact on people's physical and mental health
- They can have a positive impact on crime reduction

Some Environmental benefits of trees include:

- Urban trees reduce the 'urban heat island effect' of localised temperature extremes
- They provide shade, making streets and buildings cooler in summer
- They help remove dust and particulates from the air
- They help to reduce traffic noise by absorbing and deflecting sound
- They help to reduce wind speeds
- By providing food and shelter for wildlife they help increase biodiversity
- They can reduce the effects of flash flooding by slowing the rate at which rainfall reaches the ground
- They can help remediate contaminated soil

On new development sites:

Trees bring many benefits to new development. Where retained successfully they can form important and sustainable elements of green infrastructure, contribute to urban cooling and reduce energy demands in buildings. Their importance is acknowledged in relation to adaptation to the effects of climate change. Other benefits brought by trees include:

- increasing property values;
- visual amenity
- softening, complementing and adding maturity to built form
- displaying seasonal change
- increasing wildlife opportunities in built-up areas
- contributing to screening and shade
- reducing wind speed and turbulence

NATIONAL PLANNING POLICY

The National Planning Policy Framework December 2024 (NPPF paragraph 193) states that, when determining planning applications, local planning authorities should apply the following principle:

c) 'development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused unless there are wholly exceptional reasons and a suitable compensation strategy exists.'

In this respect, the following definitions apply:

'Ancient woodland: An area that has been wooded continuously since at least 1600 AD. It includes ancient semi-natural woodland and plantations on ancient woodland sites (PAWS)', and

'Ancient or veteran tree: A tree which, because of its age, size and condition, is of exceptional biodiversity, cultural or heritage value. All ancient trees are veteran trees. Not all veteran trees are old enough to be ancient, but are old relative to other trees of the same species. Very few trees of any species reach the ancient life stage.'

Note: Further information from the National Planning Policy Guidance Suite and Standing Advice is provided in the design guidance section.

Other paragraphs of the NPPF 2023 of relevance to this report are:

Paragraph 136: 'Trees make an important contribution to the character and quality of urban environments, and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are tree-lined, that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newly-planted trees, and that existing trees are retained wherever possible. Applicants and local planning authorities should work with highways officers and tree officers to ensure that the right trees are planted in the right places, and solutions are found that are compatible with highways standards and the needs of different users.'

Paragraph 187: 'Planning policies and decisions should contribute to and enhance the natural and local environment by:

b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland.'

STATUTORY CONTROLS

Statutory tree protection

Works to trees which are covered by Tree Preservation Orders (TPOs) or are within a Conservation Area (CA) require permission or consent from the Local Planning Authority. Where information is available on any Statutory designations such as this they are identified within the summary table in Section 1 and on the Tree Survey and Constraints Plan at Section 2.

Notwithstanding specific exceptions and in general terms, a TPO prevents the cutting down, uprooting, topping, lopping, wilful damage or wilful destruction of protected trees or woodlands without the prior written consent of the LPA.

Penalties for contravention of a TPO tend to reflect the extent of damage caused but can, in the event of a tree being destroyed, result in a fine of up to £20,000 if convicted in a Magistrates' Court, or an unlimited fine is the matter is determined by the Crown Court.

Similarly, and again notwithstanding specific exceptions, it is an offence to carry out any works to a tree in a Conservation Area with a trunk diameter greater than 75mm diameter at 1.5 height without having first provided the LPA with 6 weeks written notification of intent to carry out the works.

On many non-residential sites (excluding specific exemptions) there is also a statutory restriction relating to tree felling that relates to quantities of timber that can be removed within set time periods. In basic terms, it is an

offence to remove more than 5 cubic metres of timber in any one calendar quarter without having first obtained a felling licence from the Forestry Commission.

Any proposed tree works that are planned to be carried out on site must be carried out in accordance with the statutory controls outlined.

Statutory Wildlife Protection

Although preliminary visual checks from ground level of likely wildlife habitats are made at the time of surveying, detailed ecological assessments of wildlife habitats are not made by the arboriculturist and fall outside of the scope for this report.

Trees which contain holes, splits, cracks and cavities could potentially provide a habitat for protected species such as bats in addition to birds and small mammals. It is advised that in some instances specialist ecological advice may be required. This may result in tree works being carried out following a detailed climbing inspection to the tree to ensure that protected species or their nests/roosts are not disturbed. If any are found, the site manager, site owner or consulting arboriculturist should be informed and appropriate action taken as recommended by the appointed Ecologist or the relevant Statutory Nature Conservation Organisation (SNCO): Natural England, Scottish Natural Heritage or Natural Resources Wales.

It is advised that tree/hedgerow works are carried out with the understanding that birds will generally nest in trees, hedges and shrubs between March and August. This time period only provides an indication of likely nesting times and as such diligence is required when undertaking tree works at all times.

Irrespective of the time of year, and other than any actions approved under General Licence, it is an offence to intentionally kill, injure or take any wild bird or to intentionally take, damage or destroy the nest or eggs of any wild bird. Ideally, tree operations should be avoided during the likely bird nesting period. However, any tree works should always only be carried out following a preliminary visual check of the vegetation.

For information, the Wildlife and Countryside Act 1981 (as amended), The Countryside and Rights of Way Act 2000 (as amended) and the Conservation of Habitat and Species Regulations 2010, form the basis of the statutory legislation for flora and fauna in England and Wales. A different legislative framework applies in Scotland and Northern Ireland.

Any proposed tree works that are planned to be carried out on site must be carried out in accordance with any relevant statutory controls, outlined above.

HOW TREE DAMAGE CAN OCCUR

Above the ground

Damage can occur as a result of knocks and scuffs, breakages of branches and/or tree trunks. This is often but not always associated with machine operations, groundworks excavations, teleporters, high sided vehicles and crane use. Other forms of above ground damage include fixings to trunk and unauthorised cutting back of branches. Wounds will harm a tree's health and shorten its life by letting in disease-causing organisms.

Below the ground

It is often not appreciated that the majority of most tree roots are generally located within the top 600mm of the ground. On this basis it needs to be understood that damage to roots can occur in three ways:

- Root severance can occur as a result of, for example, soil stripping during site clearance or excavations.
- Root dieback and death can result from compaction of the soil. Compaction can occur as a result of vehicle weight, weight of stored materials or increased pedestrian access. Compaction crushes out soil pore space and prevents tree respiration from occurring (respiration requires gas exchange between the ground and the atmosphere). Compacted soil is denser and therefore inhibits/prevents any further new root growth.
- Pollution of the soil with chemicals such as oil or cement washings can destroy the soil environment, making it inhospitable for the tree cause causing it stress.

The effects of these impacts can be disfiguring to a tree's appearance and also weaken a tree making it more liable to attack by pest and diseases. In addition, root damage or death results in corresponding decline above the ground with dieback occurring within the tree crown.

The effects of damage to trees generally take some time to become fully apparent. In many cases, damaged trees decline slowly after the completion of a new development, until they eventually need to be removed due to ill health.

Tree protection barriers and load distributing 'no-dig' paths are specified in order to prevent soil compaction from taking place.

GENERAL SITE RULES FOR TREE PROTECTION

Do not independently carry out any activity that is at odds with the site scheme of tree protection. This is contained within an approved Arboricultural Method Statement (AMS) and accompanying Tree Protection Plan.

In simple terms: do not carry out any work within any Construction Exclusion Zone (CEZ) without prior liaison with the Project Arboriculturist and written authorisation from the Local Planning Authority.

Within the CEZ:

- No mixing of cement
- No soil/turf stripping, raising/lowering of ground levels (unless advised), deposit or excavation of soil or rubble
- No excavations for services or installation of services
- No storage of materials, machinery fuel, chemicals or other materials of any other description
- No parking/use of tracked or wheeled machinery
- No siting of temporary structures including hard standing areas, portaloos, site huts
- No lighting of fires or disposal of liquids
- Fires on site should be avoided if possible. Where they are unavoidable, they must not be lit in a position where heat could damage foliage or branches. Fires must be a minimum of 20m from the trunk of any retained tree or the centre line of any hedgerow to be retained
- No signs, cables, fixtures or fittings of any other description shall be attached to any part of a retained tree