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Tree Risk Assessment

Merton College Estates

Tur Langton Farm

Tur Langton

Leicestershire

Ref: TRA Tur Langton 0423

Version: V1

Date: 18/04/23

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REVISION HISTORY

Rev	Description of change	Date	Initials
1	Original report	18.04.2023	BS

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DISCLAIMER

While all reasonable efforts have been made to identify defects in the subject trees, the statements made in this report do not take into account the effects of extreme weather events, vandalism or accidents, or changes to the site that may affect trees that have taken place since the date of the survey. Nicholsons does not accept any responsibility in connection with these factors. The comments and observations made within this report will cease to be valid either within two years of the date of the survey (unless specifically stated elsewhere within the report), or when site conditions change or any works to trees take place that have not been specified within this report, whichever is the sooner.

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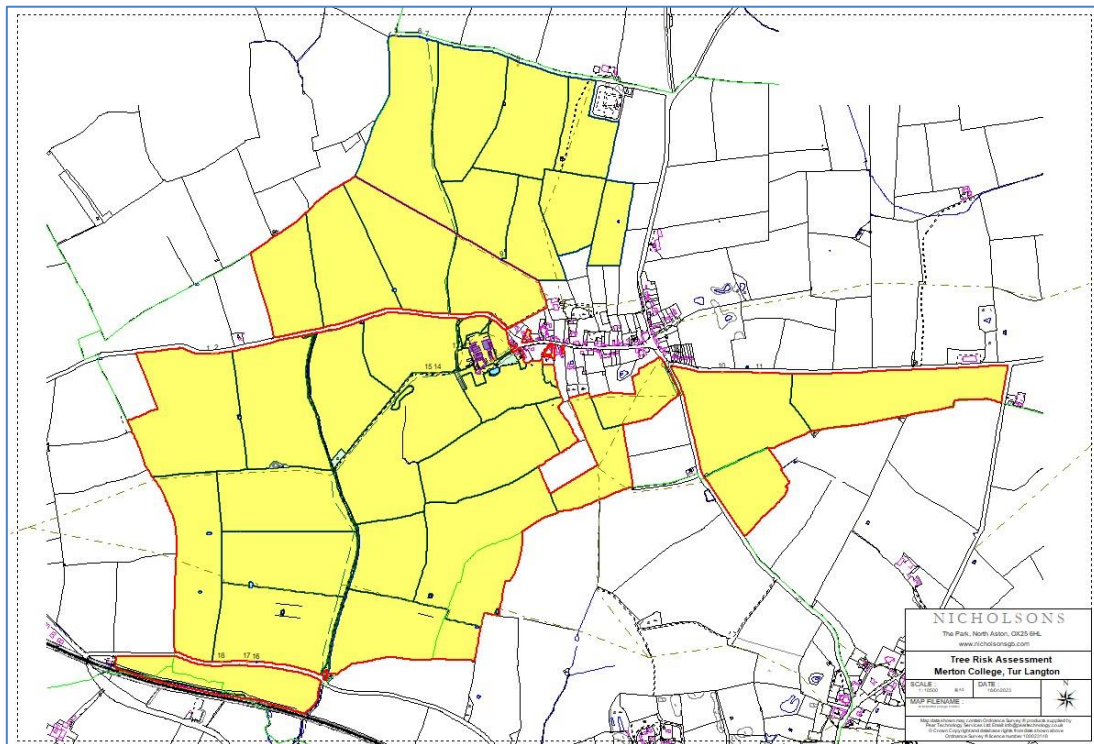
Description	Reference	Version
Tree Schedule	Schedule Tur Langton 0323	1
Tree Location Plan	Location plan Tur Langton 0323	1

1. INTRODUCTION

- 1.1. **Instruction:** Nicholsons has been instructed by Nicola Harrison, the Estates Administrator for Merton College, to undertake a survey of trees at Tur Langton Farm and provide recommendations for any action necessary to reduce the likelihood of tree failure.
- 1.2. **Surveyors:** The survey was conducted by Bob Staig and Tom Smith.
- 1.3. **Documents and information provided:** Nicholsons have previously been provided with a “Pear map” showing the property extents.

Scope of this report: This report covers any tree in excess of 150mm at 1.5m above ground level within falling distance of Highways, rights of way and property.

Plate 1: Survey area, Source: Merton College



2. SITE INFORMATION

- 2.1. The site was surveyed on 30th March 2023. The survey was carried out unaccompanied with the exception of the grounds at Manor farm where the surveyor was accompanied by the tenant. The weather was clear and adequate for surveying on all occasions.
- 2.2. **Site description and context:** Tur Langton Estate is a mixed arable and pasture farm, lightly treed with some significant, primarily Ash hedgerow standards adjacent to highways and rights of way. A range of businesses operate from the former agricultural buildings at Manor Farm. The farmhouse itself has a number of mature trees situated within its grounds.

3. THE TREE SURVEY

- 3.1. Trees identified as requiring works or other action have been surveyed and recorded on the Schedule (appendix 2) and have been given an approximate location marked on the plans either as single trees or as groups of trees.
- 3.2. Trees requiring action have been identified with a black plastic numbered tag fixed to the tree at approximately 1.8m. Some trees may have been marked with orange spray to further assist identification particularly in dense undergrowth. Smaller, obviously dead trees may have been marked with orange spray and may not have been tagged. Where a tree has an existing tag from a previous survey this may have been used as the identifier or referenced in the schedule.
- 3.3. Any tree requiring action has been risk assessed. An explanation of this system is shown at appendix 1. When assessing risk the risk assessment, in association with the surveyor's judgment and experience, has been used to create a colour coded recommended work priority (expressed as months). While not an exact science it provides an indication of the degree of hazard and urgency of action.
- 3.4. The trees were assessed primarily based on public safety however the report may contain some general management and cultural guidance where there is no immediate safety issue but where problems may be anticipated in the future. Where this is the case, the tree has been listed as *Advisory* in the Priority column of the Schedule.
- 3.5. The survey process can be described as a rapid but careful search for clear defects. In some cases, more detailed inspection of individual trees may have been recommended before a course of action can be fully specified.
- 3.6. The survey was conducted from ground level with the aid of binoculars where necessary.
- 3.7. The trees were surveyed following the principles of Visual Tree Assessment (VTA) as expounded by Mattheck and Breloer in 'The Body Language of Trees,' (Department for Transport, Local government and the Regions Book Research for Amenity Trees No. 4, 1994).
- 3.8. With some trees, particularly those growing in woodlands, it is not possible to view the crown from all angles. Other trees may be growing in hedgerows where the base is partially obscured. In these situations, judgements have been made according to what was visible at the time of the survey. Where trees have ivy cover, judgements have been made within the constraints imposed by this.
- 3.9. No tissue samples were taken nor was any internal investigation of the subject trees undertaken. No soil samples were taken. All dimensions were estimated and are for guidance only. Trees were surveyed in March. Only issues visible at this time could be assessed.
- 3.10. It is recognized that, particularly on larger sites, some time lapse may occur between conducting the survey and the submission of the report. This has been considered when recommending time scales for the completion of work. On this basis, it can be assumed that time periods specified in the 'priority' column of the Schedule commences when the report is received.

- 3.11. Trees are living organisms, readily affected by environmental changes, therefore, observations can only be considered as correct at the time of inspection. In the light of this, the report can only be considered valid for a maximum period of 2 years provided all factors remain unchanged.
- 3.12. The survey Schedule and tree location plan (TLP) are appended.

4. APPRAISAL

- 4.1. **General;** 18 trees or groups of trees have been identified for action or further assessment. In terms of urgency and work priority they breakdown as follows;
- High priority (three months) – zero trees
 - Medium priority (six months) – 13 trees
 - Low priority (twelve months) – 5 trees
- 4.2. **Ash Dieback:** Ash dieback continues to be a serious issue affecting tree health in the UK and appears to be a significant issue in the Leicestershire area. There were signs of the presence of Ash dieback in several trees at Tur Langton and guidance on action has been provided in the schedule where this is the case.
- 4.3. The disease weakens the tree directly and indirectly through infection by secondary pathogens. Where severe infection is identified, it is advisable to fell the trees as soon as possible before they become fragile and potentially more difficult to deal with.
- 4.4. For the purposes of this report we have categorised the Ash trees into one of four categories (see appendix 3). This mirrors The Tree Council publication “Ash dieback disease, a guide for tree owners” published in June 2020.
- 4.5. Our view is that there is likely to be only a limited risk associated with class 2 levels of dieback in the next two years. Some are showing resistance and it is possible that the decline may have been slowed by a dryer season in 2022.
- 4.6. We would advise that when trees reach late class 3 or class 4 consideration should be given to felling or, in appropriate locations, removing all limbs to leave a “monolith” which will provide some nature conservation value at low public risk. Class 4 trees are unlikely to recover and the limbs will rapidly become fragile.
- 4.7. The priority assigned in the schedule to each tree reflects both the extent of the decline and the target environment.
- 4.8. **Ivy:** Ivy was a minor constraint to surveying in various areas. As a general rule it is not possible to make a full assessment of the tree’s health when heavily clad in ivy. Ivy can obscure potential issues with branch unions, the base and main trunk. It also adds to the wind-sail of the tree and increases their vulnerability in storms.
- 4.9. It is recommended that, in locations where there is regular activity within falling distance, Ivy is severed at the base as soon as possible. Ivy can take over a year to wilt fully. Cutting should therefore be done at the earliest opportunity to allow the Ivy sufficient time to wither before the next recommended inspection (usually two years).

5. RECOMMENDATIONS (GENERAL)

- 5.1. Recommendations for remedial work are generally the minimum considered necessary to reduce the risk of tree failure. Where significant defects have been identified in trees of little amenity value felling may have been recommended as the more pragmatic approach.
- 5.2. Where recommendations have been made to fell, particularly in the case of Ash Dieback, it may be more economically efficient to reduce the tree to a height that removes the hazard. Similarly, recommendations to selectively reduce limbs are generally the minimum necessary to reduce risk but it may, in some cases, be more practical to remove entire limbs or fell the tree.
- 5.3. Except where a shorter interval is specified, it is recommended that, unless otherwise stated, all trees are re-inspected after two years or after extreme weather conditions such as high winds. Ideally consecutive inspections should alternate between winter and summer as each season allows different aspects of the tree's health and physiology to be examined more fully.

6. OTHER CONSIDERATIONS

- 6.1. **Trees subject to statutory controls.** Trees may be subject to constraints such as Tree Preservation Orders and Conservation Area status. Checks should be made with the Local Authority before undertaking all but emergency work. Failure to comply with any such restrictions could result in prosecution.
- 6.2. **Protected Species:** It is advised to check for protected species (most notably bats and nesting birds) before carrying out work on trees with likely habitats such as cavities and loose bark.

7. APPENDIX 1 - TREE RISK ASSESSMENT METHODOLOGY

- 7.1. In order for risk to exist, there needs to be a hazard. A hazard is defined as something that has the potential to cause harm. In relation to trees, any part of a tree that could fail has the potential to be a hazard. Therefore, all trees are potentially hazardous.
- 7.2. Definitions as given in the Management of Health and Safety at Work Regulations (1999) and Approved Code of Practice (1992) are used throughout this document.
- A hazard is something with the potential to cause harm.
 - Risk is the likelihood of potential harm from that hazard being realised. The extent of the risk will depend on:
 - (i) the likelihood of that harm occurring;
 - (ii) the potential severity of that harm, i.e. of any resultant injury or adverse health effect; and
 - (iii) the target (person, property or infrastructure) which might be affected by the hazard.
- 7.3. The International Society of Arboricultural has devised a programme for tree risk assessment which has achieved international recognition. The programme culminates in the Tree Risk Assessment Qualification (TRAQ) and ensures that the assessor is competent in Tree Biology and Mechanics, Tree Inspection and Assessment, Data Analysis and Risk Categorisation, and Risk Reporting.
- 7.4. The TRAQ system of assessing tree related risk uses two matrices to consider the likelihood of failure, the likelihood of a failed part impacting a target and the severity of that impact. The resulting output of the matrices provides an assessed risk rating (Extreme, High, Moderate & Low), but the management of that risk is retained with the landowner or risk management.
- 7.5. Every person or organisation will have a different attitude to risk and therefore the risk threshold will differ. The Risk Assessment does not seek to set a threshold but instead to provide a reference point for the risk manager to base any decision upon.
- 7.6. In order to assist in determining the level of risk associated with a hazard, the risk assessor needs to follow several stages:
- **Assessment of the potential target:** The assessor must consider everything, whether inanimate or animate, which could be impacted by a hazard. Having considered what each target is, the assessor must then provide an occupancy rating based on the criteria in Table 2.

Table 1: Occupancy Rates

<u>Occupancy Rates</u>	
Constant	A target is present at all time, 24 hours a day, 7 days a week
Frequent	A target is occupied for a large portion of the day or week
Occasional	The target zone is occupied by people or targets infrequently or irregularly
Rare	The target zone is not commonly occupied by people

- Having considered the potential target/s, the risk assessor must then consider the likelihood of each specified hazard failing. Table 3 provides details of the likely failure definitions.

Table 2: Likelihood of failure

<u>Likelihood of Failure</u>	
Imminent	Failure has started or is most likely to occur in the near future, even if there is no significant wind or increased load
Probable	Failure may be expected under normal weather conditions within the specified time period
Possible	Failure could occur, but is unlikely during normal weather conditions within the specified period
Improbable	The tree or part is not likely to fail during normal weather conditions and may not fail in many severe weather conditions, within the specified period.

- Once the likelihood of failure has been determined, the assessor must then consider the likelihood of the hazard impacting on the target (on the assumption that the hazard has failed). Table 4 provide a summary of the likelihood of impact definitions.

Table 3: Likelihood of impact

<u>Likelihood of Impact</u>	
High	Failed tree or tree part is likely impact the target. This is the case when there is a constant target, there are no protection factors, and the direction of fall is towards the target.
Medium	The failed tree or part could impact the target but is not expected to do so
Low	There is a slight chance that the failed tree or part will impact the target
Very Low	The likelihood of the felled tree or tree part impacting the target is remote .

- Having assessed the potential for failure and the potential of a hazard impacting the target, the assessor needs to consider the consequence of the hazard impacting the target. Table 5 provides details of the consequence definitions.

Table 4: Consequence of failure

Consequence of Failure	
Severe	Serious personal injury or death, damage to high-value property or disruption of important activities
Significant	Personal injury, property damage of moderate to high-value or considerable disruption
Minor	Very minor personal injury, property damage of low to moderate-value, or small disruptions to traffic
Negligible	No personal injury, low value property damage, or disruption that can be mitigated or repaired.

- Once all of the likely or potential outcomes have been considered, the risk assessor is able to reach a conclusion as to the risk rating, using the matrices provided in Table 6 - Likelihood of Failure vs Likelihood of Impact Table 6 and Table 7.

Table 5: Likelihood of Failure vs Likelihood of Impact

		Likelihood of Impact			
		Very low	Low	Medium	High
Likelihood of failure	Imminent	Unlikely	Somewhat Likely	Likely	Very Likely
	Probable	Unlikely	Unlikely	Somewhat Likely	Likely
	Possible	Unlikely	Unlikely	Unlikely	Somewhat Likely
	Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Table 6: Risk Rating

		Severity of Impact			
		Negligible	Minor	Significant	Severe
of Results Table 1	Very Likely	Low	Moderate	High	Extreme
	Likely	Low	Moderate	High	High
	Somewhat Likely	Low	Low	Moderate	Moderate
	Unlikely	Low	Low	Low	Low

8. APPENDIX 2 – TREE SCHEDULE KEY

8.1. Tree Schedule and Map explanatory notes

- **Measurements/estimates:** All dimensions are estimates unless otherwise indicated.
- **Species:** Common names are given for species identified on site.
- **Height:** Height is an estimate height in metres as an aid to identification only.
- **Stem Diameter:** The diameters at 1.5m above ground level are estimated and recorded in centimetres.
- **Estimated Age:** Age is estimated from visual indicators and is shown in classes. Age estimates often need to be modified based on further information such as historical records. The age classes used are:

Young - a tree normally less than 15 years old

Semi Mature - a tree normally 15 – 30 years old

Early Mature - A tree approaching maturity.

Mature - A tree which has reached the full growth potential of its species.

Late Mature - A tree which is beginning to decline.

Veteran - A tree of significant amenity, landscape, or habitat value by virtue of its size or age.

These age classes will vary according to species.

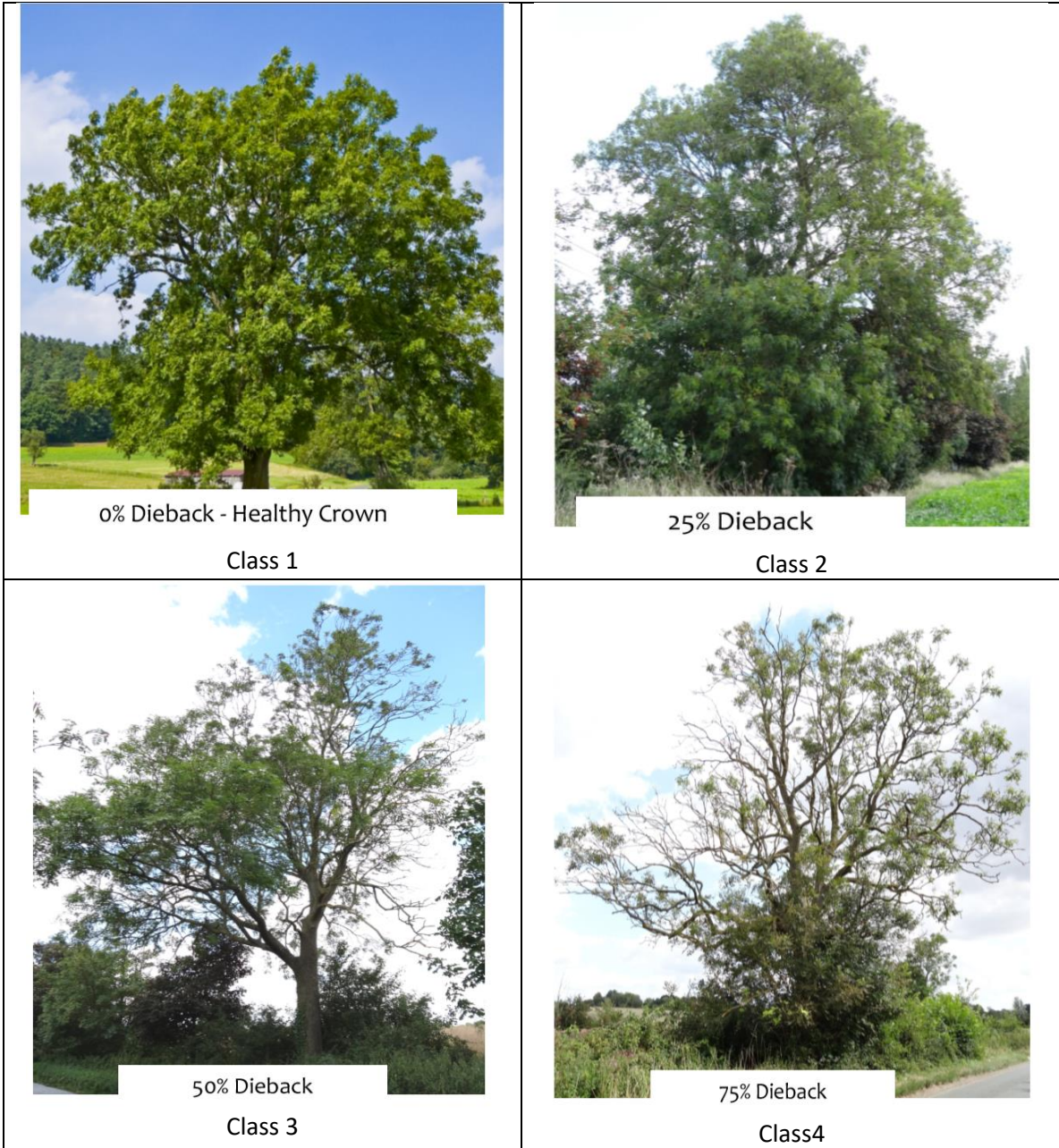
- **Physiological Condition:** An assessment of the general physiological health of the tree compared to what would normally be considered typical of a healthy tree of the species.
- **Condition/Observations:** An assessment of the physical state of the trees highlighting any decay, weakness or damage.
- **Target:** The feature likely to be impacted should the tree fail.
- **Hazzard Assessment:** The risk rating (see table 6 in appendix 1).

8.2. Map & Schedule work priority key:

High, 1 – 3 Months
Moderate, 6 Months
Moderate/Low, 12 Months
Low, 24 months

9. APPENDIX 3 – ASH DIEBACK CATEGORISATION

Plate 2: Ash Dieback Classification



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SURVEY SCHEDULE

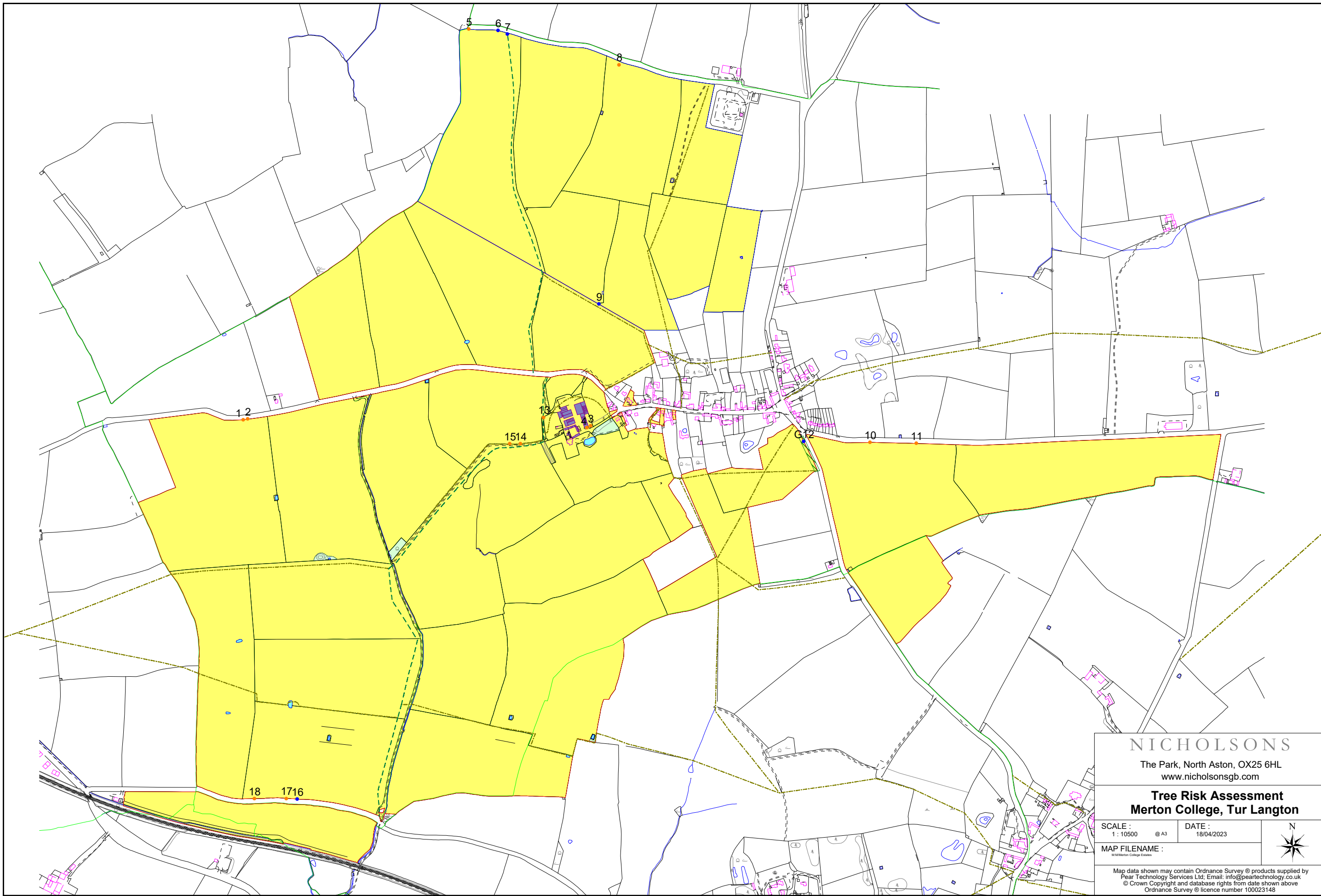
Site: Merton College Estates, Tur Langton Farm

Surveyor: Bob Staig

Date: 18/04/23

Map No.	Tag No.	Species	Age Class	Height (m)	Diameter at 1.5m (mm)	Physiological condition	Condition/Observations	Recommendations	Target	Hazard Assessment	Work Priority (months)
1	5842	Ash	Mature	13	600	Poor	Major aerial deadwood within falling distance of road. Hollowing to base, delaminating bark	Remove large aerial deadwood >50mm to roadside	Highway	Medium	6 months
2	5842	Ash	Mature	13	580	Fair	<i>Inonotus hispidus</i> fungal bodies to main stem. Large aerial deadwood within falling distance of road	Remove large aerial deadwood >50mm to roadside	Highway	Medium	6 months
3	5844	Horse Chestnut	Mature	7	450	Fair	Tap tests as hollow/decayed. Ganoderma bracket to base.	Perform Resistograph decay test within 0.25m of base to establish the extent of remaining sound wood.	Property	Medium	6 months
4	5843	Horse Chestnut	Mature	7	500	Fair	Large area of decay 0-2m. Taps hollow/decayed. Limbs directly over hair salon.	Perform Resistograph decay test at 1m to establish the extent of remaining sound wood.	Property	Medium	6 months
5	5848	Ash	Mature	16	600	Poor	Extensive decay to main stem. Ash Dieback class 3. In decline. Large limb over road and area where informal parking occurs. Memorial sign to trunk.	Reduce to a monolith of 5m.	Highway	Medium	6 months
6	5849	Ash	Early mature	10	280 300	Poor	Three adjacent stems over road. Ash Dieback class 4.	Dismantle to ground level	Highway	Low	12 months
7	5851	Ash	Mature	16	400	Poor	Group of five stems. Ash Dieback class 2/3. Ivy clad	Remove two road leaning stems. Sever ivy	Highway	Low	12 months
8	5487	Ash	Mature	16	700	Poor	Crown mostly dead, heavy limbs over road	Dismantle to ground level	Highway	Low	6 months
9	5801	Ash	Late Mature	16	750	Fair	Dead and decaying limbs directly over path	Remove all dead and decaying limbs within range of path	Right of Way	Low	12 months
10	5846	Ash	Mature	16	600	Good	<i>Inonotus hispidus</i> fungal bodies at base of large limb extending over road at 5m.	Remove limb over road to 2/3m stub	Highway	Medium	6 months
11	5845	Ash	Mature	8	800	Good	Cavity to base. Lapsed pollard Ash Dieback class 2/3	Remove road weighted branches	Highway	Low	6 months

<p style="text-align: center;">NICHOLSONS <i>Leading solutions for the natural environment</i></p>							SURVEY SCHEDULE					
Site: Merton College Estates, Tur Langton Farm							Surveyor: Bob Staig		Date: 18/04/23			
Map No.	Tag No.	Species	Age Class	Height (m)	Diameter at 1.5m (mm)	Physiological condition	Condition/Observations	Recommendations	Target	Hazzard Assessment	Work Priority (months)	
G12	N	Ash	Mature	16	650	Good	Two ivy clad stems. Unsurveyable.	Sever ivy and allow to withier before next scheduled inspection (2 yrs)	Highway	Low	12 months	
13	5852	Ash	Mature	14	850	Good	Very large open cavity to main stem from base to 3m. Three significant limbs directly above cavity	Pollard at point of trifurcation	Right of Way	Low	6 months	
14	5852	Ash	Mature	14	450	Poor	Ash Dieback class 4. Within falling distance of footpath	Dismantle to ground level	Right of Way	Medium	6 months	
15	5853	Ash	Mature	15	920	Poor	Ash Dieback class 2/3. Large dying limb over footpath	Remove dying limb.	Right of Way	Low	6 months	
16	5802	Ash	Mature	17	800	Fair	Overextended limb over road with cavity to base.	Reduce limb to a maximum of 3m from stem.	Highway	Low	12 months	
17	5803	Ash	Mature	18	750	Poor	Ash Dieback class 4	Reduce to a monolith of no more than 6m. (Previous tag 471)	Highway	Medium	6 months	
18	5804	Ash	Mature	16	850	Fair	Extensive fungal fruiting bodies of Inonotus hispidus at base of large limb over road at 6m. (Previous tag 470)	Reduce limb sufficient to remove hazard from carriageway or a maximum length of 4m	Highway	Medium	6 months	
End of Survey												



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Tree Risk Assessment
Merton College, Tur Langton

SCALE : 1 : 10500 @ A3	DATE : 18/04/2023
MAP FILENAME : Merton College 018023	

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