BS 5837:2012
Post Development Report

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Site
Mitton Road
Clitheroe
BB7 9RX

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Instructed By
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Executive Summary

Treestyle Consultancy was commissioned to complete a woodland survey post development of land off Mitton Road, Clitheroe. Work normally specified in British Standard 5837:2012 Trees in relation to design, demolition & construction - Recommendations has not been implemented, it has been advised that an assessment of the woodland should now be carried out. This report has listed the observations made during the site visit, to advise on the implications of what may arise from the construction and then recommend actions to be taken.

The grounds in question has a fantastic green infrastructure with good variance of tree species with a predominately mature tree population. A central driveway leads to small buildings which flows through to a site beyond. There is a high population of Ash located centrally with some Oaks and a few large Beech. Other species are Alder and then Sycamore, which can be seen trying to dominate the woodland with several mature trees around the perimeter. The wooded area has been thinned, with several trees mature trees having been removed. Additionally, there has been good tree planting through out the wood.

The woodland trees were assessed at a level one (limited visuals), with only a walk about survey. Areas that have seen the most development were only discussed, these two areas have been assessed for their biological and mechanical issues, observing the activities around the trees that can and have caused stress. These trees were assessed at a level two (basic) assessment. A total of nine individual trees were recorded for the purpose of this report. The woodland was observed with a limited visual assessment.

What was observed were the thinning the woodland trees and then their replacement. Unfortunately the replanting has seen limited success for several possible reasons. This may have been caused by stress within the woodland, specifically with the Ash tree population as they are displaying poor canopy cover. The area with the greatest impact due to construction is around the main entrance. It was observed that a large new stone wall has been constructed in close proximity to some large mature trees. They will have experienced root severance and soil contamination. The second area that has been recorded was near the two stone buildings to the east where a large mature Beech and Ash tree. The Root Protection Area (RPA) of these two trees has seen a change of surface to a large area and it would appear that the remaining areas have been disturbed and experienced partial resurfacing. Additionally a newly installed kerb runs past the base of their trunks.

The Ash tree population is showing signs of stress which may have possibly resulted from the change of environment and the water table. Stress on several trees can be seen with crown decline around the main entrance and towards the rear of the woodland. Their individual longevity is limited and action is required.

It would be recommended that plans for the proposed development be submitted and assessed to ascertain if there is a justification for an Arboricultural Method Statement (AMS) and a Tree Protection Plan (TPP) to be carried out. All recommended tree work be carried out as stated in Appendix A - Tree Schedule. Tree removal, soil reconditioning, tree planting, BS5837:2012 report written. A further tree inspection to be carried out in 15 months.

This document would be read in conjunction with a landscape design plan and with the Arboricultural Method Statement.
1.0 Introductions

Terms of Reference

1.1 Under the instruction from Beechwood Industries an arboricultural report has been prepared to enable planning to discharge prior commencement conditions. No mapping or design plans have been drawn. Google maps was overlaid by Treestyle Consultancy to highlight the trees location, categorisation and approximation of the rooting areas.

1.2 The report will include a tree survey, undertaken in accordance with British Standard 5837:2012 Trees in relation to design, demolition & construction – Recommendations, and an appraisal of the trees and hedges located within and outside of the site and their possible constraint to development.

Method of Inspection

1.3 The inspection of the trees was undertaken at ground level using visual assessment (VTA) of the trees canopy, stem and basal area, based on methodology devised by Mattheck (1998). No diagnosis tools were used in the survey. Further investigation, including decay detection or climbing inspections, will be recommended where suitable. All measurements were calculated using the necessary instruments or estimated where access could not be gained. All trees with a stem diameter greater than 150 mm located within the boundaries of the proposed site have been included in the survey. The survey is compiled in accordance with BS 5837. Root Protection Areas (RPAs) are based upon equations taken from section 4.6 of this document.

Qualifications & Experience

1.4 Andrew McLoughlin has a National Certificate in Arboriculture and a Higher National Diploma in Arboriculture awarded in 1998. The founder and Managing Director of Treestyle Consultancy since 2001 has successfully developed and maintained this family run company. ISA Tree Risk Assessment Qualification and a qualified Quantified Tree Risk Assessor. I also hold my Cert Ed as qualified teacher and a LANTRA instructor and assessor. More recently an Ancient and Veteran Tree Specialist.

Up to date Curriculum Vitae (which include records of up to date Continued Professional Development - CPD) can be provided upon request.
2.0 Caveats and Limitations

2.1 This survey was carried out from the ground level. No aerial inspection was undertaken and, as such, this report can only identify defects clearly visible from the ground. A VTA (Visual Tree Assessment) that is a level two arboricultural tree survey was carried out. This normally involves a full 360 degree visual of the buttress, stem and crown of the tree. While every attempt has been made to provide a realistic and accurate assessment of the trees’ condition at the time of inspection, it may have not been appropriate, or possible, to view all parts or all sides of every tree to fulfil the assessment criteria of a risk assessment.

2.2 No tree is entirely safe given the possibility that exceptionally strong winds could damage or uproot even a mechanically 'perfect' specimen. It is therefore usually accepted that hazards are only recognisable from distinct defects or from other failure-prone characteristics of the tree or the site. The seasons are quickly changing through global warming and trees are suffering because of this.

2.3 Underground services were not confirmed in any of the areas surveyed. The potential influences of trees upon building or other structures resulting from the effects of trees upon shrinkable load-bearing soils or the effect of incremental root growth are specifically excluded from this report.

2.4 The report reflects the tree stock as found on the days surveyed. Change of ground level, soil conditions, surrounding tree cover or land use, or any ground works within the root zone of any tree may invalidate the content of this report. No root zone excavation was undertaken.

2.5 Change of circumstance as a result of unusual weather conditions or ‘Force Majeure’ may invalidate the content of this report. It is recommended that trees should be reassessed after strong gale, 39 – 46 mph wind Beaufort scale 8.

2.6 The content of this report is valid for 12 months from the cover date. Any works recommended for beyond this time period are based on expectations rather than in response to currently identified defects. Trees should have their condition re-inspected by a qualified arboricultural consultant on a rolling 15 month basis. This allows the trees to be observed in all four seasons. This allows a full crown observation in summer, fruiting bodies in autumn, crown structure in winter and canopy growth in spring. Then this can be extended to a 3 to 5 year plan.

3.0 Survey Details

3.1 The survey took place on 26th June 2018, permission was granted by Beechwood Industries to access the site. The weather was clear and sunny with no constraints.

3.2 The survey should be read in conjunction with the Tree Constraints Plan located in Drawing 1 Tree number and Categorisation

3.3 Trees were visually assessed and all relevant information recorded on site. Trees were graded in accordance with BS 5837. Data collected on all trees surveyed can be found in Appendix A – Tree Schedule. An explanation of the tree schedule format can be found in Appendix C – BS 5837:2012 Cascade Chart for Tree Quality Assessment.
4.0 Statutory Protection and Guidance

National Planning Policy Framework (NPPF)

4.1 The NPPF assumes protection of all ancient woodland and veteran trees unless it can be clearly demonstrated that the need of, or benefits of, development outweigh the loss. In this respect ancient woodland is defined as an area which has been wooded continuously since at least 1600 AD and a veteran as a tree of exceptional value for wildlife, in the landscape, or culturally because of its great age, size or condition.

4.2 On this site there are no ancient woodland or veteran trees, Tree Preservation Orders & Conservation Area are not known.

4.3 Local authorities reserve the right to create Tree Preservation Orders (TPO) to protect the amenity value conferred to a location by a tree or group of trees. Where a TPO is in force, lopping, topping, felling, uprooting or wilful damage caused to a tree is prohibited and such actions may be prosecuted and incur an unlimited fine. Works to TPO protected trees must only be undertaken with the written consent of the local authority.

4.5 Mature trees often contain cavities, crevices and hollows which are a potential habitat for roosting bats. Bats are afforded protection under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), as well as under Schedule 2 of the Conservation of Species and Habitats Regulations 2010, and as such causing damage to a bat roost constitutes an offence.

National House Building Council

4.6 This report has been written in accordance with, and to satisfy the requirement of BS5837:2012.

4.7 The nature of the soils on site was not assessed during the survey. The possibility of soil movement due to tree root activity cannot be discounted.

4.8 A number of trees were not shown on the topographical survey used to record the position of trees and groups and therefore TEP’s surveyor estimated their locations. Prior to the undertaking of foundation depth calculations the exact location of all trees in relation to structures will be required.

4.9 Any discrepancies in tree location or missing trees will require further discussion with a qualified and experienced Arboricultural Consultant.
5.0 Site Overview

5.1 The woodland is located on the outskirts of Whalley and can be accessed on Mitton Road heading north. Access is gained from the road which enters an existing driveway, passing beneath the woodland in question, between two small buildings and out towards a cemetery.

5.2 The topography of the land is level and predominately surrounded by fields with another smaller wooded area to the south. The tree population is predominately mature with several recent plantings.

5.3 The woodland was observed with a limited visual assessment and a total of nine individual trees were recorded for the purpose of this report.

6.0 Tree Retention Considerations

6.1 Due to the woodlands current condition it has been classed as medium quality and value. A lot of individual trees could be categorised as high quality and value. The woodland is currently in a transitional period recovering from stresses induced on it over the years. Currently the target areas within are of low consequence if failure were to occur. Besides trees within striking distance of the road, the trees within could mostly be retained under the current target areas beneath these trees. Without knowing its future makes it difficult to recommend the health and safety the regards to the consequences of failure.

7.0 Arboricultural Implications Assessment

7.1 The implications of construction work near mature trees can be detrimental to their health and this may take many years to show. The greatest impact will be seen with the trees around the entrance, this is due to the foundations of the large wall being dug within the RPA of several trees. The further stress will be induced with the contamination of the soil profile with building materials such as cement. This could result in the loss of all trees where soil contamination and the RPA cross over. Another area of concern to the east where a large Beech and Ash tree have seen ground excavation. A change in the soil profile may have occurred with the installation of a new surface to accommodate vehicles. The true impact that this resurfacing is not known, therefore difficult to assess the likelihood of tree failure. The installation of a kerb which has used building materials such as cement can be seen near to the base of this tree and throughout the wooded area. Again the effect of the installation of this kerb may not be seen for several years.

7.2 Any root disturbance of these large mature trees could result in causing damage, stress and ill health in one or all of these trees due them sharing the soil profile. The loss of one or more of these could result in the removal of all of them due to the sudden exposure to the elements. This stress can be applied either directly or indirectly. Directly would be from roots being cut and indirectly from soil contamination from building materials like cement. This may not only be experienced near the construction areas but where materials have been stored. It is suspected that this may have happened on the RPA of the Beech tree T8.
7.3 The environmental impact that these trees will have experienced from the removal of many trees can be seen in the poor crown canopies of the Ash tree population. This may be due to the change in the water table level. The removal of any mature or understory trees or shrubs and ground plants can dramatically change the above an below ground environment. This loss can increase the temperature within the wood, increase wind speed and losing moisture. Opening up the canopy can allow unnatural amounts of sunlight causing scorching of the bark and soil. The retention of the Ash trees is fundamental to the longevity of the woodland.

8.0 Conclusions

8.1 The initial stress was first induced when trees, shrubs and the ground cover was first removed. This shocked the ecology of the woodland and can be seen in the Ash trees now displaying poor crown canopies. These are not an immediate hazard as there is a percentage of leaf cover and they may possibly recover. There retention is important and where possible it is important to maintain some canopy cover. The loss of this species which is predominately located centrally could be detrimental to the woodland and its ecology. However, their biological and mechanical potential issues should be assessed on a 15 month rolling cycle.

8.2 The first priority is to make the woodland safe, this would involve the recommendations made in Appendix A - Tree Schedule be carried out. This would involve the retrenchment of several trees, removal of trees and the removal of deadwood from trees overhanging areas of potential activity. The second priority is to ensure the retention of the woodland and its ecology. This would require the areas of soil that have been contaminated with building materials such as cement see soil reconditioning. Then planted up with similar species (not Sycamore). These species should include understory trees such as Rowan and Holly as well as dominant trees such as Oak. Finally, the wooded area would require a tree management plan which would explain how the trees would be managed over the next ten years.

8.3 The longevity of the Beech tree is in question because of the change to its environment. At the time of inspection a poor upper crown canopy was observed. No other biological or mechanical issues were seen. It may be many years before the true impact of the work around its rooting area are known. However, the delicate rooting area of a Beech tree is very susceptible to damage which once damaged can be an entry point for pathogens. Once these pathogens have taken hold the trees future is limited. Retrenchment is sometime recommended, unfortunately Beech are not tolerant of this hard pruning technique. Therefore, for now only the deadwood can be removed and the tree reassessed in 15 months. Again, the impact if this tree where to be removed could further increase the stress on the woodland.