

Artemisia Horticultural Consultancy

Jan Hoyland, Park Hill Farm, Harwood Dale, Scarborough YO13 0LB.

Arboricultural Impact Assessment Proposed development at Lawns Farm, Ugthorpe.

Date of Survey: 28th January 2022

Client: Mr & Mrs Brown

Date of report: 3rd February 2022

Surveyed & prepared by: Jan Hoyland

Instructions: I have been instructed to undertake a survey of the trees in the orchard of Lawns Farm and provide a report on the following:

- The overall condition of the trees.
- The trees' suitability for retention as categorised in accordance with BS 5837:2012, *Trees in relation to design, demolition and construction*.
- The constraints presented by the trees.
- To give outline considerations on development of site in relation to any retained trees.

1 SURVEY METHODOLOGY

- 1.1 I carried out an accompanied site visit with Mr Brown and Planning consultant Cheryl Ward, on 28th January 2022. The weather at the time of survey was sunny and bright, with good visibility to carry out the survey to the required standard.
- 1.2 I have indicated the positions of the subject trees in the location plans attached.
- 1.3 Individual trees were identified when forming an open grown nature not influenced by other trees. Groups of trees were identified where they formed clear and discrete formations either by species or physical proximity.
- 1.4 The survey does not set out the working specifications of tree protection measures and design features and provides enough detail in principle to demonstrate the feasibility of the scheme.

2 DOCUMENTS PROVIDED AND RELEVANT INFORMATION

2.1 Documents provided: I have been provided with the following documents:

- A location map with the proposed camping pods marked.
- Basic details of the construction of the base for the pods and the requirements for utilities.

2.2 The limit of Artemisia Horticultural Consultancy's indemnity over any matter arising out of this report extends only to the instructing client; Artemisia Horticultural Consultancy cannot be held liable for any third party claim that arises following or out of this report. This report remains the intellectual property of Artemisia Horticultural Consultancy.

2.3 Statutory protection: The trees are not subject to tree preservation orders and do not fall within a conservation area. The planning department is with North York Moors NPA.

3 LIMITATIONS

3.1 The survey was of a preliminary nature and did not involve any climbing or detailed investigation beyond what was visible from accessible points at ground level. Both survey and report have been undertaken to accord with the recommendations British Standard 5837:2012 Trees in relation to design, demolition & construction - Recommendations [BS 5837].

3.2 No documented information has been provided regarding any history of root disturbance or severance or changes in local ground conditions (soil levels, drainage patterns etc.) or the location of underground services.

3.3 This assessment does not relate to risks associated with subsidence, heave or other forms of disturbance associated with tree root growth or removal.

3.4 I did not require access to trees outside the boundaries on private property as they will not be impacted by the development.

3.5 The contents of this report are for the exclusive use of the client. It may not be sold, lent, hired out or divulged to any third party not directly involved in the subject matter without our prior written consent. Its contents are for the exclusive use of the addressee.

3.6 The statements made in this Report do not take into account the effects of extremes of climate, vandalism or accident, whether physical, chemical or fire. Artemisia Horticultural Consultancy cannot therefore accept any liability in connection with these factors, nor where prescribed work is not carried out in a correct and professional manner in accordance with current good practice.

3.7 The authority of this Report ceases at any stated time limit within it, or if none stated after two years from the date of the survey or when any site conditions change, or pruning or other works unspecified in the Report are carried out to, or affecting, the Subject Tree(s), whichever is sooner.

4 THE PROPOSAL

- 4.1 The proposal is to install two wooden camping pods on concrete bases, within the small field known as the orchard, opposite Lawns Farm. There will be a requirement for electricity, water and sewerage connections to these structures, which will need to be placed underground. The septic tank will be located in an adjacent field.

5 SITE DESCRIPTION

- 5.1 The site comprises a small field bounded by hedges of around half an acre, referred to as 'the Orchard' and currently being used as a garden. It is located opposite Lawns Farm and close to the village church. There are a number of trees of mixed species and age within the field which may be affected by the proposed development. The site falls within the North York Moors National Park Authority.

6 PRINCIPAL TREES

- 6.1 Appendix A contains the factual data collected during the site survey including comments regarding health, condition and amenity value. I have expanded on these data with regard to the principal trees. All principle trees have been given an individual consecutive number on the attached map.
- 6.2 Tree T1. Horse Chestnut.
This is a mature open grown specimen. It is located on the southern edge of the orchard, near the boundary to another pasture field to the west. It has a height of 16 metres and a diameter at 1.5 metres of 990 millimetres.
This is a large specimen with a wide and spreading canopy.
It has lost two large branches previously, with no sign of decay where the limbs have torn away. The canopy appears slightly sparse and there is minor dead wood throughout.
The ground below the tree appears compacted, although there were no defects found within the roots or buttress.
There are tarry spots of exudate on the North side at 1.2 metres and to the south-west at 1 metre. This could be due to Bleeding Canker, a common disease of Horse Chestnut, although at this stage it does not appear to be widespread within the tree.
The loss of a large limb on the North-east side at 2.2 metres appears to have occurred within the last 12 months. It has left a large scar and has also adversely affected another branch which has left it with a weak attachment to the main stem. A further side branch has been lost on the north side of the canopy at around 5 metres.
- 6.2 Group. Beech and Cypress sp.
Two young trees, small in size and located on the southern end of the field between T1 and T2. The Beech is a good young specimen. The conifer is in a poor condition. These will both need to be removed for the proposed development.

- 6.3 Tree T2. Horse Chestnut.
This is another mature specimen, slightly smaller than T1. It is located next to the lane at the southern end, near the hedge boundary on the east side. It has a height of 12 metres and a diameter at 1.5 metres of 830 millimetres.
This tree also has a wide spreading canopy, but has had a canopy lift and slight reduction over the lane. There is superficial decay present between the buttresses to the north and east, affecting the bark but nothing further.
The main stem has a twisting habit and leans slightly to the west. There is a small patch of tarry exudate on the south-west side at 1.2 metres.
The main union is wide and tensile and ascending branches continue in a twisting manner. No further defects found.
- 6.4 Tree T3. Horse Chestnut.
A semi-mature specimen located next to T2, on the boundary of the orchard and the lane. It has a height of 10 metres and a diameter of 470 millimetres.
There is a small cavity in the buttress of the tree on the north side. Area of approx. 10 x 15 cm, extending inwards by 12 cm. The cavity appears to be contained with no active decay present. The main stem has a fluted appearance. There has been a branch removed historically at 2.5 metres on the west side. There is decay visible but I was unable to assess the extent of its spread. Canopy is suppressed to the south by T2.
No further defects were noted.
- 6.5 Tree T4. Horse Chestnut.
A small semi-mature specimen to the north of T3. It has a height of 10 metres and a diameter at 1.5 metres of 520mm.
This has a small compact canopy and has had ivy removed from the main stem.
No defects were noted.
- 6.6 Tree T5. Oak.
A young specimen, located towards the northern boundary of the orchard close to the church entrance, next to the lane. It has a height of 7 metres and a diameter at 1.5 metres of 280mm.
A good open grown tree with no defects.
- 6.7 Tree T6. Oak.
A young specimen, located towards the northern boundary of the orchard close to the church entrance, on the western boundary. It has a height of 7 metres and a diameter at 1.5 metres of 250mm.
A good open grown tree with no defects.
- 6.8 Group. 3 x Rowan, 1 x Oak.
A line of young trees on the west of the field. All young specimens and small in size. The oak is poor due to shading from T1.

7 CONSTRAINTS ANALYSIS

- 7.1 The Horse Chestnut T1 has the largest Root Protection Area, with a radius of 12 metres, which extends almost to the south edge of the field, and as such, one of the camping pods will fall within this RPA. I am informed that the foundations for the pods will be 6m x 4m (Area of 24 m²) Given that the RPA area is 443m², this falls within the 20% allowable incursion. (Where a slab for a minor structure (e.g. shed base) is to be formed within the root protection area, it should bear on existing ground level, and should not exceed an area greater than 20% of the existing unsurfaced ground.) The foundations must therefore, be laid without excavation into the ground and should not require excavation into the soil, including the lowering of levels and/or scraping, other than the removal, using hand tools, of any turf layer or other surface vegetation. Any trenches for utilities must avoid running through the RPA, both in the orchard field and the adjacent field to the west, where I am informed the water supply will come from. The utilities trench should be located behind the camping pods so as not to affect the root system of either T1 or T2.
- The main constraint will be the proximity of the camping pods to such a large tree. The canopy will require removal of the long extending branch on the south side with a weak attachment as well as an overall reduction on the south side by around 3 metres, to reduce the growth away from the proposed structure.
- Given the size and age of the tree, I would recommend regular safety inspections as this tree will likely require ongoing reductions in order to manage it in a safe manner. It is likely that this may also be a requirement of any Public Liability insurance for the site.
- 7.2 The two trees between T1 & T2 will require removal for the installation of the camping pods. The landowner is open to the idea of planting replacement trees. There is capacity to do this as part of the hedgerow on the southern edge of the field. Suitable trees would include Birch, Holly, Crab Apple or Rowan.
- 7.3 The Horse Chestnut T2 also has a large RPA with a radius of 10 metres. This means that it is likely that the second base for the camping pods will fall partly within the RPA. As such, the foundations must be laid without excavation and trenches located as mentioned above. Once again, the size and age of this tree will potentially be of concern from a safety aspect and will require regular inspection to inform any future management of the canopy. I would recommend a crown reduction by around 2-3 metres on the south side close to the development as well as the lane side, where branches are growing close to electricity lines.

8 POST DEVELOPMENT PRESSURE

- 8.1 This is generally represented by any retained trees being too close to the new buildings and their associated problems. As mentioned above, given the size, age and species of T1 & T2 and their proximity to the proposed camping pods, they will require regular safety inspections. Best practice would suggest this should be carried out on an annual basis. This will inform any future management requirements of the trees on an appropriate risk based assessment.

9 TREE PROTECTION MEASURES

- 9.1 I propose that a protection barrier should be set up for any retained trees, based on the individual RPAs given in Appendix A below. These areas need to be erected prior to

development and should remain in situ throughout. Care must be taken to ensure that any heavy machinery is not brought onto the site from the Northern end, as this is likely to cause damage to the RPAs of a number of trees which are otherwise unaffected by the development.

10 CONCLUSIONS

10.1 On the basis of the above information and discussions, I summarise my conclusions as follows:

- The development can potentially take place with only minimal implications to any of the trees on site, as long as the advice given above is adhered to at all times.
- Any retained trees can be protected in accordance with current standards and guidance. An annual safety inspection is recommended for T1 & T2, post development.
- There is plenty of scope for the planting of new trees and hedges to mitigate any loss of current specimens.

10.2 I have taken account of the information given to me and my own observations on site and I am satisfied that this proposed scheme is arboriculturally sound provided that the factors I have described are taken into account.

Jan Hoyland

APPENDIX A

| Tag | Name | Height (canopy height) | Mean diameter [stems] | N | E | S | W | 1st Sig. branch | Life stage | Comments | Cat | Co nd | Life Exp. | Recommend ations. | RPA (R) | RPA (A) M ² |
|------|----------------|------------------------|-----------------------|---|---|---|---|-----------------|------------|---|-----|-------|-----------|---|---------|------------------------|
| T1 | Horse Chestnut | 16 (2) | 990mm [1] | 7 | 6 | 8 | 6 | SW 2 | M | Large specimen. Branch torn out on east side, leaving remaining branch with weak attachment. Tarry exudates on stem. Minor dead wood throughout canopy. | B | F | 20+ | Remove limb with weak attachment . Reduce canopy to south side by 3m. | 11.9 | 443 |
| Gp 1 | Beech& Cypress | - | - | - | - | - | - | N/A | Y | Young trees. | U | - | - | | - | - |

| | | | | | | | | | | | | | | | | |
|-----|----------------------|----------|-----------|---|---|---|---|-------|----|---|---|---|-----|--------------------------------|-----|------|
| T2 | Horse Chestnut | 12(2) | 830[1] | 5 | 5 | 7 | 6 | W 2.5 | M | Beech in good cond. Conifer in poor cond. | B | G | 20+ | To be removed. | 10 | 312 |
| T3 | Horse Chestnut | 10 (1.8) | 470mm {1} | 3 | 3 | 2 | 2 | N/A | SM | Large specimen. Superficial decay in bark between buttresses. Tarry exudate on main stem. | B | F | 20+ | Reduction of canopy on E side. | 5.6 | 100 |
| T4 | Horse Chestnut | 10(3) | 520[1] | 2 | 3 | 2 | 2 | N/A | SM | Small cavity at ground level. No decay. Branch removed at 2.5m W with visible decay. | B | G | 20+ | None | 6.2 | 122 |
| T5 | Oak | 7(1.5) | 280 [1] | 3 | 3 | 3 | 3 | N/A | Y | Small specimen with compact canopy. No defects. | B | G | 40+ | None | 3.4 | 35.5 |
| T6 | Oak | 7(1.8) | 250[1] | 3 | 3 | 3 | 3 | N/A | Y | Good young open grown specimen. No defects. | B | G | 40+ | None | 3 | 28.3 |
| Gp2 | 3 x Rowan, 1 xOak | - | - | - | - | - | - | N/A | Y | Good young specimen. No defects. | B | G | 20+ | None | - | - |
| | | | | | | | | | | Row of young trees on west boundary. Rowans in good condition, Oak poor due to shading from T1. | B | G | 20+ | None | | |

APPENDIX B - Tree Schedule Explanatory Notes

Sequential Tree Reference Number.

Where the term group is used it is intended to identify trees that form cohesive arboricultural features either aerodynamically (e.g. trees that provide companion shelter), visually (e.g. avenues or screens) or culturally, including for biodiversity (e.g. parkland or wood pasture), in respect of each of the three subcategories.

Species

Common name

Height

Recorded in metres by inclinometer in each discrete area and estimated from the measured tree. Where trees are on hedges the height measurement has been taken from the base of the tree / top of the hedge.

Height, crown spread and crown clearance has been recorded to the nearest half metre (crown spread should be rounded up) for dimensions up to 10 m and the nearest whole metre for dimensions over 10 m;

Stem diameter

Tree stem diameter in millimetres at 1.5 metres above adjacent ground level. For multi-stemmed trees a cumulative diameter is calculated from the diameter of each individual stem at 1.5 metres above ground level. Stem diameter will be recorded in millimetres, rounded to the nearest 10 mm (0.01 m)

Branch Spread

In metres taken at four cardinal points.

Existing height in metres above ground level of:

- first significant branch and direction of growth (e.g. 2.4-N);
- canopy.

to inform on ground clearance, crown/stem ratio and shading.

Estimated dimensions (e.g. for off-site or otherwise inaccessible trees where accurate data cannot be recovered) should be clearly identified as such (e.g. suffixed with a "#").

Life stage

(e.g. young, semi-mature, early mature, mature, over-mature);

Comments

e.g. collapsing, the presence of any decay and physical defect and including further investigation of suspected defects that require more detailed assessment and potential for wildlife habitat.

Cond. = Physiological condition:

Good (G) Tree that appears to be in good condition and healthy without significant defects.

Fair (F) Tree that appears to be structurally sound at the time of inspection but due to defects is downgraded from good. These defects may influence its retention.

Poor (P) Tree which shows signs of poor health, in decline and with significant defects.

Dead (D) Tree which has died.

Life Expectancy: Estimated remaining contribution in years in terms of amenity (<10, 10+, 20+, 40+). This is assessed by examining the current situation of the tree.

Category In accordance BS 5837:2012 - Tree Categories

Recommendations.

RPA-R (m) - RPA Radius - The radius of the indicative circle of the RPA.

RPA (m²) - Root Protection Area (RPA) Area in metres squared.

Appendix C – legal considerations.**Trees outside the property.**

Every landowner and manager has a duty of care not to damage trees on neighbouring land. The common causes of damage (compaction, physical damage and inexperienced pruning) must be avoided through good planning and site management.

By common law, branches from trees on adjacent properties extending over boundaries can be pruned back to the boundary line without the permission of the owners. However, the material belongs to the tree owner and the same guidance on statutory controls applies as discussed above.

Statutory wildlife obligations:

The Wildlife and Countryside Act 1981 as amended by the Countryside and Rights of Way Act 2000 provides statutory protection to birds, bats and other species that inhabit trees. All tree work operations are covered by these provisions and advice from an ecologist must be obtained before undertaking any works that might constitute an offence.

Care should be taken during any felling operation or surgery works to trees to avoid damage or disturbance to birds during the nesting season. This can typically be from February to August, with many species producing second or third broods in appropriate habitat and in suitable environmental conditions. Under the terms of the Wildlife and Countryside Act 1981 (As Amended in 1986 & 1991) Part 1 (1), it is an offence intentionally to take, damage or destroy any wild bird or its nest while being built or in use, or to take or destroy its eggs or chicks.

It is also an offence to kill, injure or take a bat or recklessly damage, destroy or obstruct access to any place that a bat uses for shelter or protection. Under the Habitat Regulations it is an offence to damage or destroy a breeding site or resting place of any bat.

Qualifications and experience.

Jan Hoyland is a LANTRA qualified professional tree inspector with over 15 years experience of tree inspection and survey. She has been trained in the Quantified Tree Risk Assessment system.

Signage for Root Protection Zone:

Arboricultural Site Considerations – To be displayed in a prominent place.

- **Protective fencing must be regarded as sacrosanct, and must not be removed or altered without prior consultation with either the Local Planning Authority (LPA) or the arboricultural consultant responsible for the site supervision.**
- **Ground protection must not be lifted or removed without prior consultation with either the LPA or the arboricultural consultant responsible for the site supervision.**
- **Damage caused to protective fencing or ground protection must be reported to the site supervisor to ensure efficient repair.**
- **No materials, chemicals, machinery or vehicles must be stored within the trees Root Protection Area (RPA) as defined on the Tree Constraints Plan (TCP) and identified on site by fencing and above ground root protection.**
- **No materials must be rested against a tree's trunk or machinery chained to it.**
- **No pruning of trees may be undertaken by anyone other than an arborist, and all work must be approved by the supervising arboricultural consultant.**
- **Any physical damage caused to a tree retained on site must be reported to the site manager so remedial work can be undertaken without delay.**
- **Builder's sand, which contains salt, must not be used to back fill excavation within or in close proximity to tree roots, as this can have a toxic affect. Sharp sand can be used instead.**
- **Material that will contaminate the soil, e.g. concrete mixings, diesel oil and vehicle washings, must not be discharged within 10 m of a tree stem.**
- **Fires must not be lit in a position where their flames can extend to within 5 m of foliage, branches or trunk. This will depend on the size of the fire and wind direction.**
- **Notice boards, telephone cables or other services must not be attached to any part of a tree.**