

MB Trees (East Anglia) Ltd.

Hollybank House, Broad Green Lane, Forward Green, Stowmarket, Suffolk, IP14 5HU
info@mbtrees.net – 01449 711 968



Tree Health & Condition Tree Survey at The Chestnuts, Long Green, Wortham, Diss IP22 1RD

Date of inspection: 24th October 2022

Inspection/Report carried out by:

David Mitchell

Experience and relevant qualifications: 26 years in the Arboricultural industry in both practical aspects of tree surgery and now in an Arboricultural Association (AA) Approved Contractor company as part of the consultancy team. In this time, has gained a City and Guilds Certificate in Arboriculture, a BTEC National Diploma in Arboriculture and Lantra Professional Tree Inspection Certificate. Has also obtained an extensive Continual Professional Development (CPD) record within the industry including AA Certificate in Advanced Tree Assessment for Planning and an AA Certificate in Advanced Managing Trees on Construction Sites. A copy of the CPD record is available on request.

Weather at time of inspections:

Clear and sunny with slight cloud over and a strong southerly to easterly wind

Inspection methodology:

Both inspections were made from ground level with non-invasive methods. A DBH (Diameter at Breast Height approx. 1.5m from ground level) tape was used to record the stem dimensions, a hammer test was used when deemed necessary to test the base and stem of the trees to check for difference in noise to indicate any cavity areas and a probe was used where necessary to inspect cavity depths or topsoil area of the base of the trees and a Clinometer was used to measure the heights of the trees.

Aim:

Undertake a Visual Tree Assessment on the mature trees within the grounds at 'The Chestnuts' to assess the health and condition of the trees. To also document the findings and pass judgement by the tree inspector including any tree work recommendations with time frames for works to be completed by.

Local Authority Tree Constraints

The local authority for the site is Babergh & Mid Suffolk District Council. Accessing their online GIS mapping system, the following tree constraints at the site have been identified:

- The site and surrounding relevant trees are not within a Conservation Area
- There is a blanket Tree preservation Order (TPO) on the site and neighbouring property to the west. The TPO reference number is MS119/A1 and was established in 04/05/1989 – ‘It covers all trees of whatever species within A1 on the council plan. In particular Horse Chestnut’

Before undertaking any tree works it is strongly advised to check with the local authority that any tree constraints are up to date from a GIS mapping system and that no others have been put in place.

Site details:

The site is in Long Green in Wortham and set back south from Wash Lane. Long Green is open grass land with houses often set back from the main road through it giving an open common land feel with mature tree lines on the periphery to where most of the local houses are sighted.

The main House at ‘The Chestnuts’ was developed on land that used to be part of the neighbouring farm, and likely that the TPO’s were placed on the trees at the time of development.

To the south from both east to west of ‘The Chestnuts’ is open arable land making the location exposed to high winds if approaching from these directions.

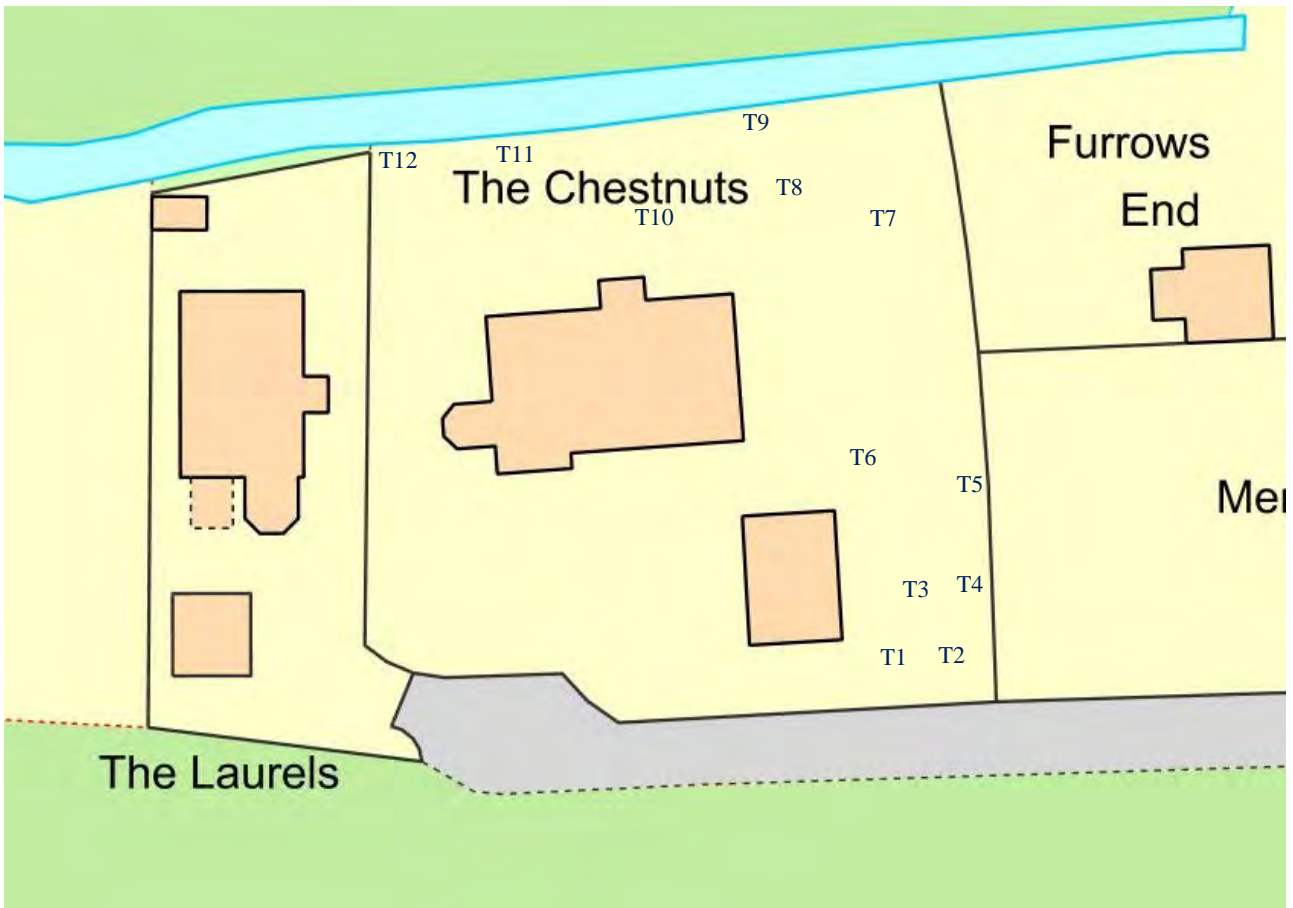
Limitations:

Whilst the findings have been noted on my visual inspections it should be added that in some circumstances **such as extreme weather conditions, no tree can be considered to be safe and, in these conditions, would make any findings in the survey invalid.** It is also recommended that following any extreme weather circumstances to the site within this report that the areas and trees should be resurveyed due to any potential hazards or issues that may have occurred from the extreme weather.

Should there be a change to the surrounding site environment, then the current results will be invalid, and it is recommended that a new survey is undertaken.

Sketch Map:

Map is scaled to Ordnance Survey maps; however, trees have been plotted by hand



Findings/Comments from inspection:

Species of tree: T1 – Horse Chestnut / *Aesculus hippocastanum*

Height: 17m

DBH: 84cm

Age classification: Mature



Comments and notes of tree condition:

On the northwest top section of the canopy there are some heavily congested branches with canker, causing swelling to selective branches.

At the top of the main stem and where branch structure starts for the upper most section of the canopy there are several old storm damaged wounds creating cavity areas.

The low southwest limb that grows towards and over the low voltage has several large old pruning wounds from heavy pruning next to electrical cable.

The low south limb has a visual cavity on the upper side of the main limb. This also has old pruning wounds near the electrical cable and has strong extension growth from the old pruning area that is now becoming overextended on the cavity created by heavy pruning.

There is a sizeable cavity from old wound on the main stem at approx. 6m from ground level facing north. As can be noted in the picture on following page.

No visual defects noted at the base or lower level of main stem

Overall health in good condition and physiological condition fair.

Tree work recommendation including time frames to complete the works:

Reduce the height of the tree by 3m and removing heavy cankered branches

Low southwest limb to be reduced by 4m

Low south limb, reduce extension growth by 3-4m

Remaining canopy to be reduced to balance the crown after initial reduction works and reduce any other necessary branches away from the powerline by approx. 1m where possible and leave main crown structure if within 1m

Works to completed within – 12 months

Recommended next inspection date: 18 months

Picture of T1 showing cavity on north side of main stem

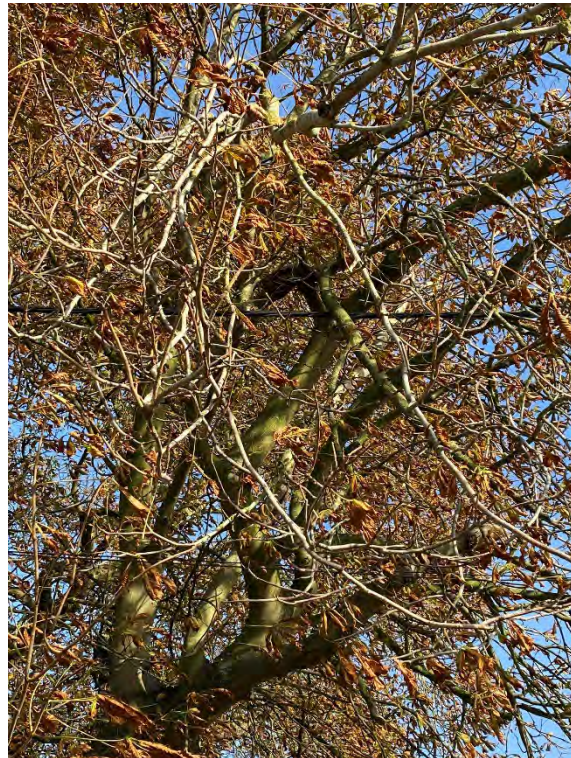
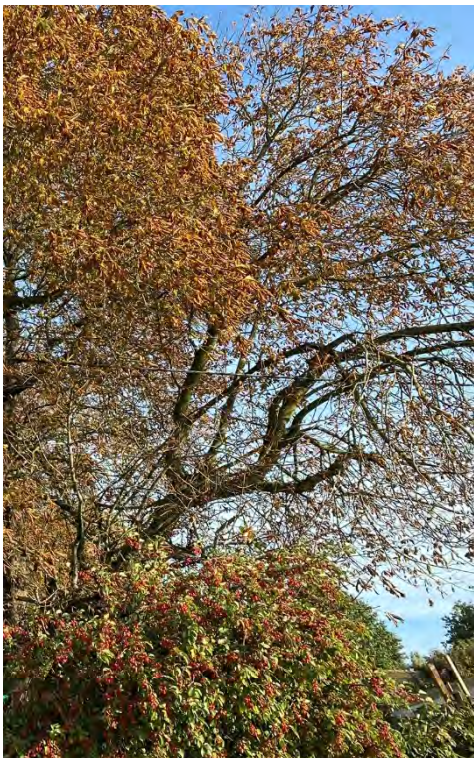


Species of tree: T2 – Horse Chestnut / *Aesculus hippocastanum*

Height: 10m

DBH: 54cm & 32cm

Age classification: Mature



Comments and notes of tree condition:

The buds and overall health appear in good condition. The physiological condition however is poor due to previous heavy pruning that once would have been old pollard points. The Canopy extends eastwards towards the neighbouring property and powerlines. There is also A split damaged, branch on the south side almost touching the power cable as can be seen in the photo on P5.

There is a cavity at the base below where the tree divides into two main stems on north side. The probe was inserted into the cavity by approx. 27cm. There is also a smaller cavity on the south side at the base of the tree. The probe was inserted into this cavity by approx. 70cm before hitting solid matter.



Cavity on north side



Cavity on south side

Tree work recommendation including time frames to complete the works:

Reduce the canopy by 4m

Remove split damaged branch

Reduce remaining canopy away from powerline by approx. 1m where possible and leave main crown structure if within 1m

Works to completed within: 12 months

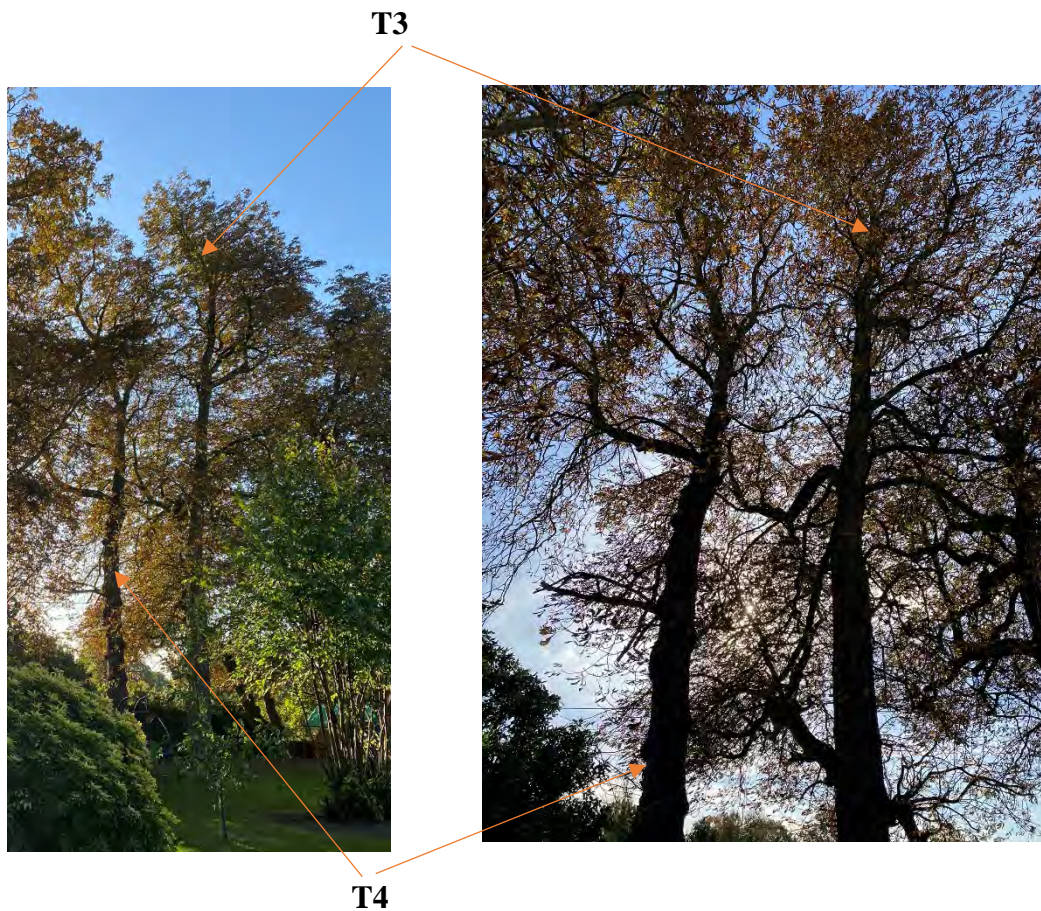
Recommended next inspection date: 18 months

Species of tree: T3 – Horse Chestnut / *Aesculus hippocastanum*

Height: 20m

DBH: 69cm

Age classification: Mature



Comments and notes of tree condition:

The tree shares a codominant canopy with the neighbouring Horse Chestnut (T4). The crown is in reasonable condition with only one broken branch stub at mid canopy on southeast side. There is also a low extended limb on the southeast that grows towards the neighbour's garden. There are some small amounts of wound wood on the main stem approx. 2m rising from ground level that visually continues up the stem with some small amounts of flaking bark. Hammer test in this area sounded flaking bark areas and sound wood. Overall health and physiological condition are in good vigour and condition.

Tree work recommendation including time frames to complete the works:

Due to co dominant canopy and recommendations for T4, reduce the canopy of the tree by approx. 3-4m

Works to completed within: 6 months

Recommended next inspection date: 18 months

Species of tree: T4 – Horse Chestnut / *Aesculus hippocastanum*

Height: 18m

DBH: 64cm

Age classification: Mature

Comments and notes of tree condition:

The tree shares a codominant canopy with the neighbouring Horse Chestnut (T3). The overall canopy structure is small for the age and size of tree, due to neighbouring competition with T3 and co dominant crown, where T3 is the more dominant. In the mid to tip section of the crown there is a strong leading branch on the east side that grows predominately over the neighbouring garden.

The low east branch growing over the neighbour's property has been poorly pruned to now leave a large dead stub on the end of the limb.

The main stem of the tree has several burrs from approx. 2m leading up the main stem although of little significance to health and condition.

At the base of the tree there is a large wound on the east side that extends upwards with decay to at least 2.5m from ground. There is good wound wood on the southside of the decayed area, with only minor wound wood on the north side. Further investigation of the area and base indicated basal cavities where the probe was inserted at a 45degree angle up to 42cm and downward up to 1m. On the north side the probe was inserted downward up to 72cm. In between the cavities there is still buttress intact buttress root that appears to have put on reactive growth to compensate for the decaying base. Equally the buttress roots on both west and south have put on reactive growth to self-optimize the tree at the base in its current condition. This can be seen more clearly in the pictures below:



Decaying area



Intact buttress root in middle of decay zone



Buttress root putting on reactive growth to compensate decaying area

Overall health is good but physiological condition poor

Tree work recommendation including time frames to complete the works:

Reduce the canopy by 3-4m

A PiCUS test could also be undertaken to show the extent of the decay at the base of the tree for future evaluation and assessment

Works to completed within: 6 months

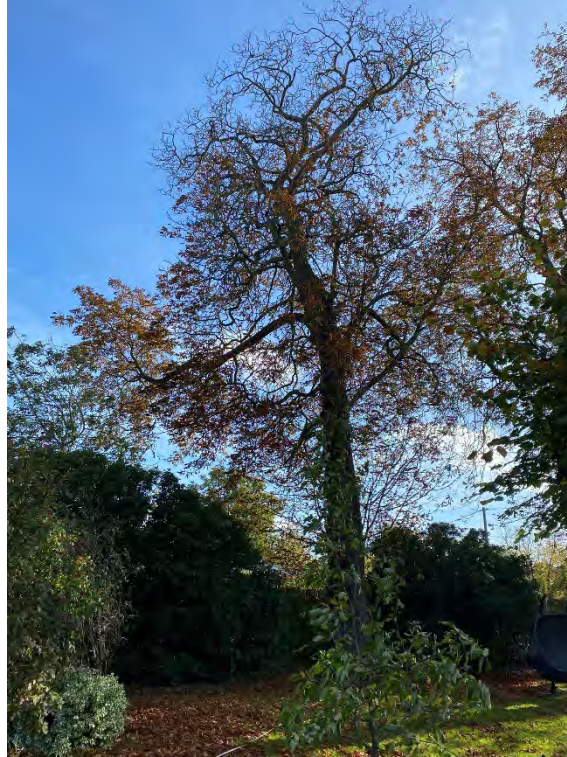
Recommended next inspection date: 12 months

Species of tree: T5 – Horse Chestnut / *Aesculus hippocastanum*

Height: 19m

DBH: 91cm

Age classification: Mature



Comments and notes of tree condition:

There is an old storm damaged wound on the upper west side of canopy and the majority of the crown has a grown towards the neighbouring garden to the east with low over extended limb on northeast. There is an old scar likely from a lightning strike in the top section of the main stem that runs all the way down the stem to the ground on the south to east side. Scar has good wound wood around the main length overall.

There are some large dead stubs in the low area of the canopy on the east from poor pruning of overhanging branches to the neighbouring property.

At the lower section of the main stem there is some 'Bleeding Canker of Horse Chestnut', identified on the southern side. On the northwest buttress there are some old wounds visible, and a basal cavity was identified between the buttress roots on the north side at ground level with probe inserted up to approx. 55cm.

It is noted that at the base on the south to east side where old potential lightning strike finishes there is a decaying area and some mushrooms where found. The exact species is not known by the tree surveyor although likely to be a deadwood saprophyte that is feeding of the dead wood.

Overall health in fair condition with physiological condition also fair.



Picture showing potential lightning strike



Decaying area with unidentified mushrooms

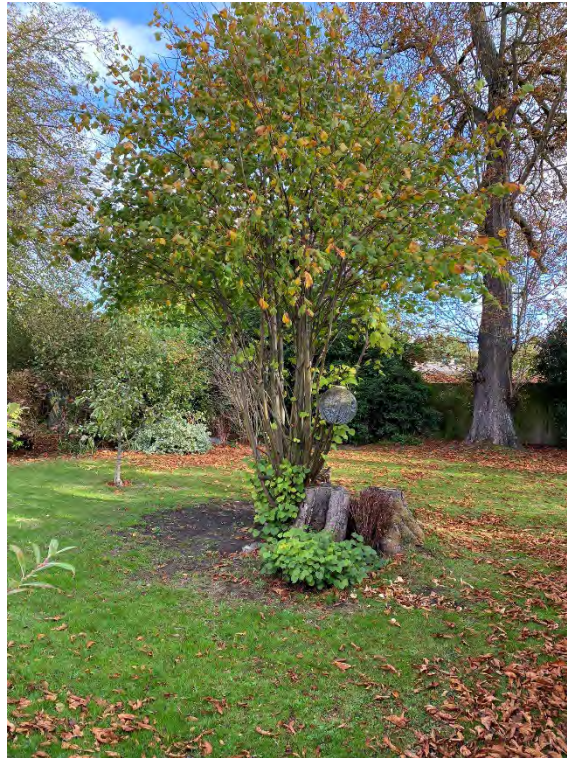
Tree work recommendation including time frames to complete the works:

Reduce overall canopy by 3-4m

Remove dead stubs back to suitable replacement growth if available or main stem if not

Works to completed within: 12 months
Recommended next inspection date: 18 months

Species of tree: T6 - European or Common Lime / *Tilia x europaea*
Height: 6m
DBH: N/A
Age classification: Over Mature



Comments and notes of tree condition:

The older main tree has been removed in the past likely due to the heart wood decay pathogen known as Ganoderma. There is still old bracket fungus from the Ganoderma present on the old, decayed stump. As can be seen below:



New young growth has been produced in the section of the old stump that indicates there is still sufficient root structure to support the tree to continue to grow in this area. The health of the new growth is good vigour and condition.

Tree work recommendation including time frames to complete the works:

None at present although consideration for future management of coppicing the new growth to the old coppice/stump area on a suitable pruning regime is advised so the new growth does not get too tall on the old decaying main stump causing leverage and potential failure.

Works to completed within: 2-3 years suggested for pruning regime

Recommended next inspection date: 24 months

Species of tree: T7 - European or Common Lime / *Tilia x europaea*

Height: 19m

DBH: 96cm

Age classification: Mature



Comments and notes of tree condition:

Within the canopy there is minor dead wood present including areas in the upper most section near the top of the crown. The overall canopy is also congested with growth, which is a characteristic of this species and likely for the abundance of dead wood from branches naturally and selectively shutting off to produce new growth. There is also a small dead hung up branch on the east area at mid canopy height.

On the lower main stem at approx. 2m the stem divides into two stems and has a tight V shaped union which is not as strong as a Y shaped union. There is also some 'included bark' on the north to northeast side (included bark is where the union of a fork does not properly form internally in the wood structure and as the stem grows can produce swelling where the outer section of the tree is pushed outward. As can be seen in the picture below). The potential weak area at the fork is not considered to be problematic at this time.



Overall health and condition is fair.

Tree work recommendation including time frames to complete the works:

Reduce the height by 2-3m back to suitable growth.

Reduce side lateral growth by 2m

Remove dead wood and hung-up branch from canopy

Works to completed within: 18months

Recommended next inspection date: 18 months

Species of tree: T8 - Oak / *Quercus robur*

Height: 17m

DBH: 96cm

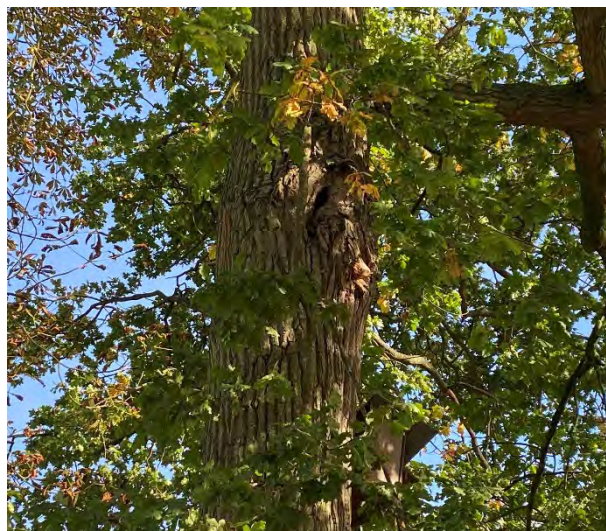
Age classification: Early mature



Comments and notes of tree condition:

The canopy growth is mostly east, south, and west due to the larger neighbouring Horse Chestnut tree that is competing with the oak on the west side. There is a large old pruning wound at the top of the main stem that has created a congested branch structure at this point and producing extended lateral growth to the south.

There is a cavity on the main stem at approx. 5m on west to southwest side. Likely from a removed or failed branch, however responsive wound growth is good around the cavity entrance. As can be seen in the picture below:



Tree work recommendation including time frames to complete the works:

Reduce the overall canopy by 2-3m to maintain size and shape next to the house and minimise leverage on old decaying pruning wound at top of main stem

Works to completed within: 18 months

Recommended next inspection date: 18 months

Species of tree: T9 – Horse Chestnut / *Aesculus hippocastanum*

Height: 22m

DBH: 112cm

Age classification: Late mature



Comments and notes of tree condition:

A large old boundary tree in the later stages of its life cycle. The wayward lean of the overall canopy and stem is towards the open field to north side with low target area.

The mid canopy has a several large over extended limbs with visual compensatory growth to aid in strength and support along the length. There has been some heavy pruning on the lowest limbs to north to east side and some natural damage at this area, likely due to heavy summer branches or string winds.

There is evidence of ‘Bleeding Canker of Horse Chestnut’ at the base on the south side although minor at present. The north side base and stem is hindered for inspection due to Ivy. Overall health in reasonable condition and physiological condition fair for age and size.



'Bleeding Canker of Horse Chestnut' at the base on the south side



Low over extended limbs with poor pruning wounds or natural failure points

Tree work recommendation including time frames to complete the works:

None at present although severance of Ivy at the base would benefit future inspections

Works to completed within: N/A

Recommended next inspection date: 18 months

Species of tree: T10 - European or Common Lime / *Tilia x europaea*

Height: 2-3m

DBH: N/A

Age classification: Over mature



Comments and notes of tree condition:

Similar to T6, where the older main tree has been removed in the past likely due to the heart wood decay pathogen known as Ganoderma. There is still old bracket fungus from the Ganoderma present on the old, decayed stump. As can be seen below:



Tree work recommendation including time frames to complete the works:

None at present although consideration for future management of coppicing the new growth to the old coppice/stump area on a suitable pruning regime is advised so the new growth does not get too tall on the old decaying main stump causing leverage and potential failure.

Works to completed within: 2-3 years suggested for pruning regime

Recommended next inspection date: 24 months

Species of tree: T11 – Horse Chestnut / *Aesculus hippocastanum*

Height: 9m

DBH: 46cm

Age classification: Mature



Comments and notes of tree condition:

Tree is in poor health and condition. There are two stems, and the northern stem has now completely died. The remaining stem has very little growth and Ganoderma species present near the base.



Tree work recommendation including time frames to complete the works:

Fell the tree to ground level due to poor health, poor condition, and dead stem

Works to completed within: 3 months

Recommended next inspection date: N/A

Species of tree: T12 – Horse Chestnut / *Aesculus hippocastanum*

Height: 19m

DBH: 121cm

Age classification: Late mature



Comments and notes of tree condition:

The canopy has been heavily reduced in previous years and does have good extension growth of up to 6m estimated, on top of the old large decaying wounds. It appears due to the younger smaller growth, that the southern area has been reduced more recently and likely due to growing over neighbouring property.

At the top of the canopy on the west side there are two over extended side lateral branches that have had reduction works in the past but not side lateral reduction works.

There are several cavities throughout the main stem and branch structure from old natural wounds or poor pruning and large limb removal.

An old wound and cavity are visible approx. 2m from ground level although extent of cavity is not known due to height constraints.

The tree is sited on top of a deep ditch and the tree has put good compensatory buttress root system for anchorage. The lower section of the main stem up to approx. 2m from ground level is hindered for inspection due to Ivy cover.

Overall health in reasonable vigour and physiological condition poor.



Western over extended limbs for further reduction works



Good buttress root formation for anchorage of top of bank

Tree work recommendation including time frames to complete the works:

Reduce the canopy of the tree back to previous pruning points and assess condition of major wood at pruning points. If decay deemed extensive at these points, then reduce further to healthy sound wood.

Overextended limbs on upper west canopy to be reduced further by approx. 4-5m to suitable pruning points

Remove Ivy from lower main stem and inspect cavities throughout the crown and main stem

Climber to report back on findings from inspection.

Works to completed within: 6 months

Recommended next inspection date: 12 months

Additional notes from survey:

One the rear northern boundary and ditch line there has been a Dead Horse Chestnut that has naturally fallen due to poor condition. It fell into the field with low target area. Old stump was found but no evidence noted for why the tree had died.

In the same area there is another large section of stem from a Horse chestnut. It is not known from where this section came from, and no stump was found to indicate another tree location. After discussions with the client, and local history that have found from neighbours. It would seem another tree failed along the boundary line at a different location into the field and was moved to its current location by the local farmer to remove it from the field.

Additional information:

Within the report there has been reference to certain pathogens or further investigation techniques. The below information and links are for further reading and understanding of the information given within the report.

Horse Chestnut Bleeding Canker

Not reportable

Scientific name - *Pseudomonas syringae* pathovar *aesculin*

<https://www.forestresearch.gov.uk/tools-and-resources/fthr/pest-and-disease-resources/bleeding-canker-of-horse-chestnut/>

Artists Fungus / *Ganoderma applanatum*

A heartwood rot specialist and classified as a 'white rot' which in advanced decay will degrade the lignin within the cells to leave the cellulose making the wood spongy to the feel. Predominantly the heartwood is attacked first and can lead into the inner area of the sapwood over a pro longed period.

Partially decayed wood will retain tensile strength in early stages of the process and why compensatory growth.

This process can take a several years to become a concern but unfortunately is often the case that long term can lead to mechanical failure of the stem or root plate from attack to the larger woody buttress areas.

The below link is to the PiCUS Sonic Tomograph – Sorbus International manual that shows the capabilities of a PiCUS test

https://www.sorbus-intl.co.uk/image/data/Picus/small_PiCUS_Q72_Manual_eng.pdf