

loquats (T25 & T26) have been recorded, are included in the survey schedule and have been added to the survey plan.

7.2 Individual tree details, comments, recommendations and re-inspection dates are listed in the appended survey sheets. Details of the trees that I consider require further explanation or comment are noted below.

- **Horse chestnut** (T3) – a mature, single-stemmed tree that divides into two stems at 6.5m. Longitudinal strips of exposed sapwood extended from ground level to 6m and 10m with well-developed rolls of new wood and bark developing at the wound margins. In places dry black exudates were visible on the bark.
- **Holm oak** (T11) – a mature, broadly-spreading, twin-stemmed tree with a wide u-shaped fork at 1.6m and rolls of wood forming a cup union. The stem to the south extends at 60° with a helical growth pattern to 4m and then at 45° to an old pollard point, there are thick plates of bark and visible increment strips on the underside of the stem and thin, smooth bark with indistinct increment strips on the upper surface to around 2m from the attachment point. The main, upright stem, with 3 main lateral branches at around 6m and 1 to the west at 7.5m, subdivides into three stems at 8.5m. There were multiple pruning wounds – some occluded, some with exposed sapwood – on both stems. Small-diameter, pendulous branch tips hung low over the access drive and car-parking spaces.
- **Hawthorn** (T13) – a mature tree on the southern boundary with moderate to major deadwood in the crown.
- **Cherry** (T14) – a mature tree, single stem to top graft union and then a multi-stemmed irregular habit. An old pruning wound with decayed tissue at 1.8m over the path was noted, as were the remains of a fungal fruiting body at the graft union and on the ground. Deadwood and broken branches were present in the crown.
- **Apple** (T21) – a mature, single-stemmed tree with significant die back at the branch tips. Loose and missing bark at the stem base; fungal mycelium and remains of fruiting bodies were also present. The tree appeared fairly unstable.

8.0 CONCLUSIONS

- 8.1 The tree survey did not identify any significant structural weakness or hazard representing a risk that requires urgent remedial action.
- 8.2 The work recommended in the previous report (**Ref: B/0110/15**) has been completed. The row of ash (T15 to T19) has also been recently re-pollarded.
- 8.3 Conclusions for the trees highlighted in the appraisal are detailed below.
- **Horse chestnut** (T3) – the longitudinal strips of exposed sapwood and dry black exudates are symptomatic of *horse chestnut bleeding canker* the causal agent of which is a bacterium that can cause bark death. Death of branches or entire trees can occur when bark loss extends around the circumference of individual branches or the main stem; however, the well-developed rolls of wood at the margins of the wounds indicate that the disease is stabilising at present. The exposed sapwood is a potential site for colonisation by wood decaying fungi.
 - **Holm oak** (T11) – broadleaf trees support branches by developing tension wood on the top of the branch. The thin, smooth bark and indistinct increment strips on the upper surface of the stem to the south may indicate a reduction in the development of tension wood, which may in part be due to historic pruning resulting in foliage restricted entirely to the tips of the branch and limiting the amount of available carbohydrates needed to develop the reactive tension wood at the branch union. The thicker plates of bark and visible increment strips on the underside of the stem show that the trunk may be forming supporting wood. Supporting wood can extend for around 1m from the trunk and while unable to push the branch up it can delay or prevent branches from sagging. Failure of the stem could result in injury or damage to properties in Ivy Close. Shortening the tips of branches at the pollard point and installing a non-invasive dynamic cable brace could reduce end loading, help support the branch and may reduce the risk of stem failure. The small-diameter, pendulous branch tips low over the access drive and car-parking spaces represent a minor obstruction.
 - **Hawthorn** (T13) – major deadwood in the crown extends over the hedgerow and border; however, the risk of its failure resulting in injury or damage is extremely low and as the conservation benefits