The Chair and Deputy Chair of Ripon Civic Society

Further to your request I enclose my opinion as to whether the revised scheme for Ripon Cathedral's Visitor Centre is in accordance with current good arboricultural practice.

The key documents are *BS 5837: 2012 Trees in relation to design, demolition and construction* and *BS BS3998: 2010-Tree Work- Recommendations*.

In regard to root severance the pile raft design is acceptable. A tree's root plate is like a spoked wheel. Kew Gardens undertook a survey of wind-blown trees after the 1987 hurricane and found that the average number of lateral roots emanating from a tree 's bole is 16-24. Please see the attached diagram. I have calculated the radial area lost and it is in the order of 3%. Visually the severance appears much more.

BS 5837 defines the root protection area for a tree as being twelve times its trunk diameter. The standard is being revised and the current draft version will go to print in March 2025. The new BS increases the RPA for veteran trees and mature A trees to 15 times trunk diameter. Therefore the root protection areas of twelve times trunk diameter are not negotiable.

Hard surfaces such as drives within a tree's root protection area should not take up more than 20% of the root protection area even if they are porous. Therefore the assessment of hard surfaces within the root protection area should include the building footprint with the porous access areas.

I have annotated the architects' proposed layout drawing to show the percentages of RPA's covered with porous paving. In addition, the halo line around the building footprint shows the area the scaffolding would take to build the building. In round figures T23 would lose 40% of its RPA; T19 would lose 70%; T14 would lose 50%; and T17 would lose 50%. These figures are not vaguely acceptable.

Moving to the aerial parts of the scheme the design collapses. Barnes Associates specify a 6.7m crown lift for the trees around the building footprint. The average height of a bungalow is 6m. Therefore it follows that it would be impossible to fit a two-storey public building under a tree branch height of 6.7m. The architects' front elevation drawing shows the building as 14.8m high to the eves and 18m high for the hipped roof sections. On top of the building height a minimum of 2m would be required to build the building and for roof ventilation. Therefore the crown lift will need to be from 16.8m to 20m around the scaffolding line. This would cut the trees in half and is not vaguely in accordance with the levels of acceptable pruning set down in BS5837.

It has been proposed that, because the hemispherical trees would back on to the building, they would look acceptable. This argument only holds true for the front view of the trees. Looking along the building or from the Old Deanery side the trees will appear mutilated. The view from the cathedral steps would be along the front of the proposed building.

It should be noted that T17 is only 600mm from the front elevation and T19 1m. Though T17 lines up with a window pillar the branch spread across the building would be akin to having a hedge 600mm from its front windows. Furthermore if either tree deviates from the vertical into the building line it will have to be decapitated at that point for the build.

I fully accept that an artist Is entitled to draw a picture In any form they choose. However for the artist's impressions to be presented as views of what the building will look like in its setting is not reasonable. In this case the impressions are not accurate in relation to the trees.

The front elevation picture from Bedern Bank shows T17 crown lifted to 10m. All the trees are lightly branched with balanced crowns. The trees are not all in the right places. These pictures are imaginings not a forecast.

Unfortunately large mature trees with wide spreading branches oversailing public areas run the risk of bird perch mess. The risk cannot be quantified but when it does occur it is a major problem.

Finally, the shade that would be cast from these mature trees would mean that the lights would have to be on all day every day. It is inevitable that, in the near future, there would be petitions to fell the trees.

The sum of the above is that I have no faith that the trees and reception centre would coexist harmoniously and I have serious reservations as to whether the building could be built with the trees in place. I would anticipate that at the scaffolding stage it would be claimed that the trees can no longer be retained and that a planning application to fell all the proximal trees would be lodged.

Anthony Whitehead

Chartered Arboriculturalist