

London Borough of Barnet Council  
Hendon Town Hall  
The Burroughs, Hendon  
NW4 4BG

1 December 2023  
Our ref: M DJAC-2 2.158-A DD-0 1

Dear Sir/Madam,

**RE: Addendum to submitted arboricultural details for the proposed re-development of Ashley Pines, Barnet Gate Lane, Barnet, EN5 2AA.**

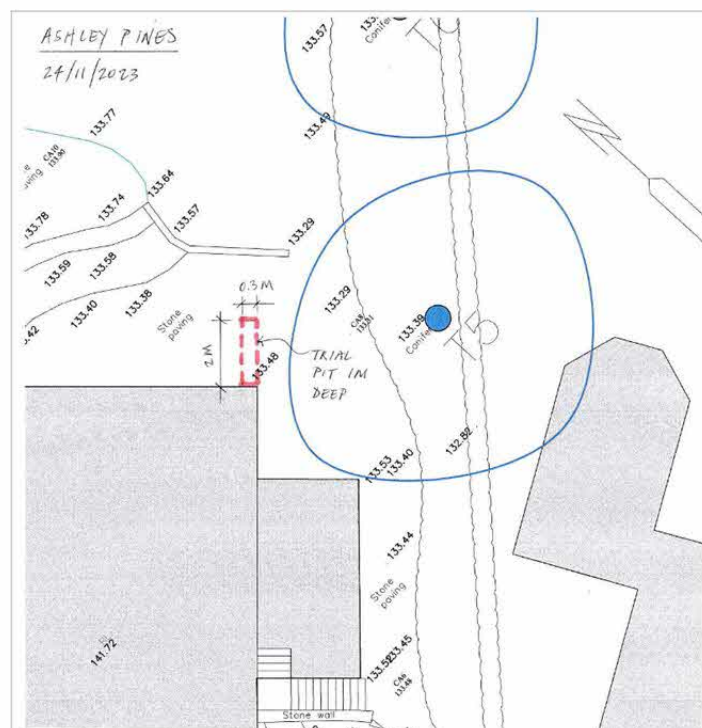
### PURPOSE AND CONTEXT

In 2022 I was instructed to carry out a tree survey and to produce a package of arboricultural reports and drawings to support a planning application to re-develop the above site (submitted report ref. MDJAC-22.158-AIA-02).

I understand that the Planning Department has since provided comments on the proposed site layout but has expressed concerns in relation to the alignment of the two proposed dwellings in relation to location and scale of the existing property, and associated views along Barnet Gate Lane. Consequently, my client, Toast Developments Limited, has been exploring potential amendments to the site layout with a view to overcoming these concerns.

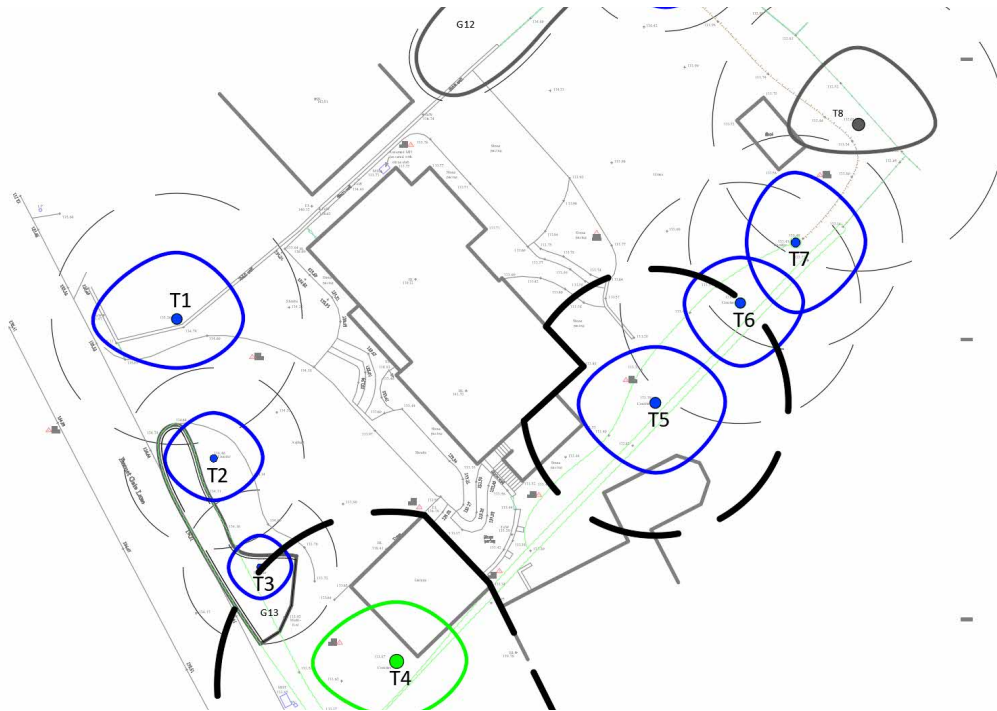
The general intention is thus to extend the rear (north-east) elevation rearward by up to 2m from the existing rear elevation. However, as the area in question, shown on the sketch plan below, is within the Root Protection Area (RPA) of a TPO'd western red cedar (T5), a trial excavation has been carried out to determine the extent of rooting within this area, to enable an assessment of the proposed impacts.

*Figure 1: showing the location of trial excavations.*



The extent of the RPA, which has already been modified in shape in accordance with paragraph 4.6.2 of British Standard BS5837:2012 to reflect the physical barriers to root growth posed by the current dwelling's footprint (supported by previous trial excavations), is shown below for context.

*Figure 2: showing the modified RPA shapes following trial excavations carried out in early 2023.*



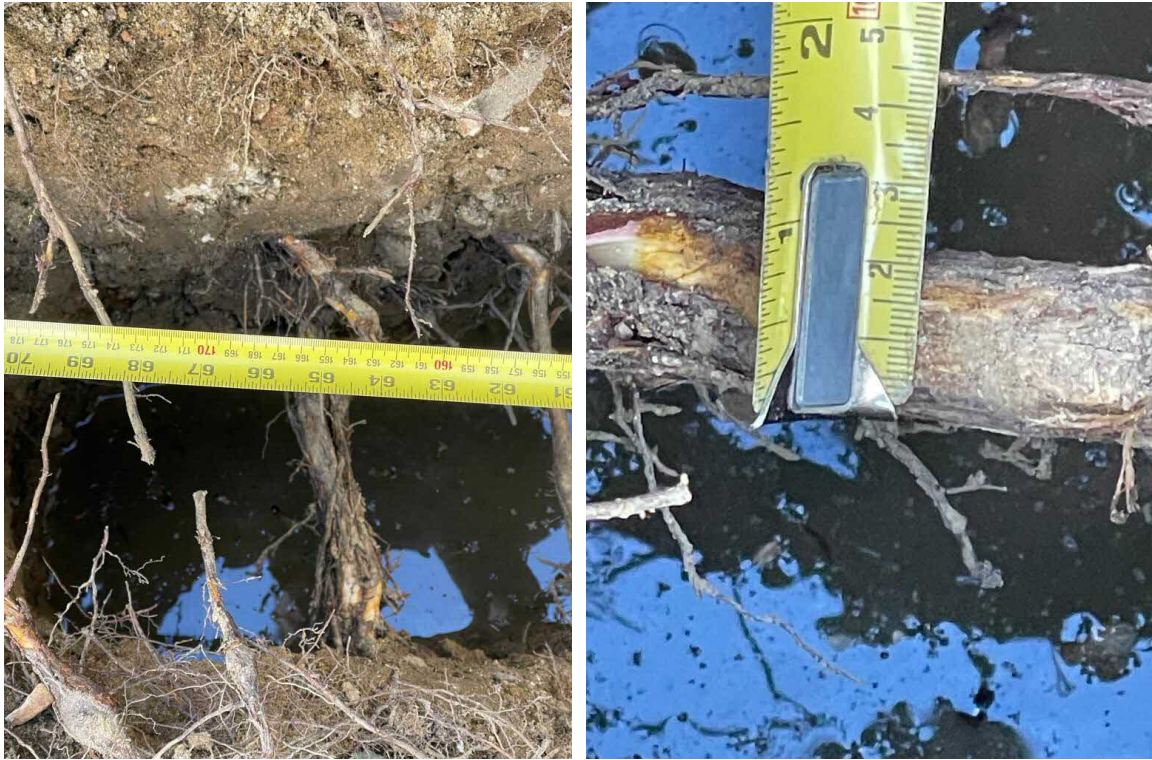
## RESULTS OF TRIAL EXCAVATIONS

The trial excavations were carried out by hand with due care towards the potential for encountering roots. The trench extended to circa 1m in depth, and 2m in length from the existing rear elevation, along the proposed building line so as to gauge the extent of rooting affected by the proposed new alignment. A summary of the findings is provided below.

*Photograph 1 and 2: showing the length of excavation. Note the small fibrous roots growing close to the surface.*



*Photograph 3 and 4: showing the location and sizes of the most substantial roots encountered.*



## DISCUSSION

As expected, a small mass of fibrous roots were found in the upper 500mm of soil along the length of the trench. These are the fine roots, the primary function of which is to provide sustenance to the tree by absorbing water and nutrients from within the soil solution. The severance or pruning of these roots is unlikely to result in lasting damage or reduced physiological function, as roots, particularly fine roots, can grow or regrow at 10 times the rate of above ground shoots (Urban, 2008), subject to sufficient energy reserves.

The most substantial root encountered was found at 1.65m from the rear elevation, and measured approximately 23mm in diameter. A slightly smaller root was also identified at c. 1.6m from the rear elevation, and this is estimated to be around 20mm in diameter.

While more substantial than the fibrous roots, these two roots are below the generally accepted threshold of 25mm diameter at which roots are considered to be 'significant' in the context of development. Consequently, roots of this size are often pruned back to implement foundations and other structures without causing significant or lasting damage to the subject tree and as such, I would not expect any material adverse impacts to arise as a result of their pruning, should the amended building footprint be approved by The London Borough of Barnet.

The minimal impact of the pruning of these small diameter roots is also supported by literature from the USA (among others), which suggests that western red cedar (*Thuja plicata*) has a good tolerance to root pruning and disturbance provided that there are no significant changes to soil moisture and hydrology (Matheny & Clark, 1998)

## CONCLUSIONS

Based on the above, my view is that it would be feasible to implement foundations for an alternative dwelling footprint within the area marked in red at Figure 1, subject to design and adherence to standard

tree protection principles throughout development, such as supervision, ongoing monitoring, and root pruning by a qualified arboriculturist.



Matthew Jones, BSc (Hons), MArborA  
**Director & Arboriculturist**

## REFERENCES

- Matheny, N., & Clark, J. R. (1998). *Trees and development. A Technical Guide to Preservation of Trees During Land Development*. International Society of Arboriculture.
- The British Standards Institution. (2012). British Standard BS5837:2012 'Trees in relation to design, demolition and construction - Recommendations'. BSI Standards Limited.
- Urban, J. (2008). *Up by roots. Healthy soils and trees in the built environment*. International Society of Arboriculture.