

Statement of response following Council queries on revised root barrier application.

To whom it may concern

Included with the application is the most recent level monitoring showing movement about the front and rear left-hand corner of the property, although damage is all about the property with a 360-degree influence of vegetation, I have also provided some wording below explaining the barrier further and referencing the “island effect”.

The degree of movement now witnessed and the latest SI shows the influence comes from various trees and species and movement is located all of the way around the property to some degree or another. The only way of combating this would be to consider a piled raft which would be many hundreds of thousands of pounds, or the installation of a barrier which whilst still expensive, is a fraction of the alternatives. The aim is to isolate the property from the surrounding vegetation and the effects it has on the volumetric stability of the clay soil under the foundations.

The barrier used is a copper impregnated bio-barrier, this prevents roots growing back towards the property once they have been severed by the forming of barrier trenches. It is critical to understand however that the barrier is water permeable. In fact, its water permeability is key to allowing the hydrology to move below ground water across the site and rehydrate the clay under the footings. We don't fully understand the term used by the tree office in so far as an “island effect” is not an engineering reference, but we assume the assumption is that the trench will form some impermeable cofferdam style defence to the building. This is not the case. The barrier trench will be formed in 5m sections. The act of forming the trench will sever the roots and the trench will be lined with the copper impregnated bio-barrier material. This will then be backfilled with 20mm angular stone to within 200mm of the surface and topped up with topsoil and seeded with grass seed. The severing of the roots, causes the roots within the barrier line to die back and the clay soil will hydrate and swell, returning to its equilibrium state and become volumetrically stable.

Kind regards,

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