25 September 2019

**RE: EXISTING TREES IN ROAD RESERVE AND IMPACTS FROM ROAD CONSTRUCTION**

Dear Sir/Madam

With regard to the existing trees within the road reserve at Manor Road and part Harrington Road, Harrington, and further to previous correspondence (date 26 June), the following is relevant.

I am a Certificate 5 qualified Arborist (AQF 5), having completed my Diploma in Horticulture (Arboriculture) in 2010. I have no vested interest in the removal of the trees on this site and specifically, I will not be involved in any such removal.

Following the advice provided previously, it has been requested that the proponent provide "further investigation similar to Option 4, including "an examination of carriageway width requirements; carriageway, footpath, servicing and street lighting location options within the road reserve for the relevant works to determine if the trees assessed are able to be retained".

Plans are attached which identify the proposal in its current format. The following points were considered in the development of these plans:

- Decreasing the carriageway widths has been discussed on site with Council Engineers. This resulted in minimal additional tree retention for below standard road from a council and RFS perspective
- The proposed footpath would require the compaction of the soils beneath it and this has been removed from the current proposal to allow the structural soils required for tree retention.
- Street lighting can be provided at the intersections with reticulation occurring inside the development.
- The current proposal includes a retaining wall and safety fence along the Northern edge of the proposed wetland moving the impact of the proposed works further onto the developed site and allowing retention of most of the trees investigated.

As discussed in the previous correspondence, the initial proposal will have an unacceptable impact on the SRZ and TPZ of the trees, thus requiring the removal of the trees. Alternative proposals put forth did not alter this situation, or did not provide retention of enough trees.

The current proposal, which includes the use of Structural soils in the filling works and a retaining wall along the northern edge of the proposed wetland would potentially result in the retention of 116 of the 161 trees identified in this investigation, an increase of 63 trees from the previous proposal of Option 4.



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Structural soils are generally used to allow for root growth within the soils and are predominantly utilised in the planting of new trees in restricted environments (such as paved road reserves in built up areas) – in these instances, the trees are new plantings. The proposed use of structural soils in this instance is to allow for aeration of the root system and also to allow for hydrological flows. Structural soils are a mixture of carefully selected and placed rock and soils of different aggregate sizes.

Whilst the standard states that there should be no filling within the SRZ and only up to 10% of the TPZ, the correct application of structural soils should (based on previous projects) result in a situation where there is a high probability of tree retention. In order to maximise the chances of success, the structural soils will need to be placed carefully, especially around the trees to prevent damage. In addition, the base course of the structure soils (150mm blast rock), should be placed around the trunk up to what will be the finished levels as this will lessen the likelihood of collar rot. The structural soils are to be layered as shown in the proposed plans to prevent clogging of the void spaces allowing a long term solution.

Whilst there can be no guarantees regarding long term tree survival, it is considered that the use of structural soils should provide a high chance of success in this regard and this would be the preferred option to satisfy all aspects of the development.

Kind regards
**TATTERSALL LANDER PTY LTD**

**Ben Folbigg**
**Arborist (AQF 5)**