

Arboricultural Report – additional supporting evidence

1.0 LOCATION

- 1.1 land to the south of Sundown, Littleheath Road, Fontwell, Arundel BN18 0SR.

2.0 SUMMARY

- 2.1 Further to my telephone conversation with Mark Warwick, Arun District Council Tree Officer/Parks and Greenspace Team, of the 8th September 2021 it was agreed that I would undertake further investigation and close observation of excavation within the nominal RPA of one mature English oak (**T1**) to provide evidence in support of my comments at sections 4.2 and 4.3 of the addendum to Arboricultural Method Statement (**B/0301/21**).

3.0 TREE DETAILS

- **Species** English oak (**T1**) {*Quercus robur*}
- **Age class** Mature
- **BS category** B
- **Stem diameter** 830mm at 1.5m above ground level
- **RPA** 311.7 m²
- **RPA radius** 10m



Fig. 1 - English oak (T1)

- 3.2 The English oak (**Fig.1**) is a mature Category B tree that sits at the top of a bank on the southern boundary of the plot at the point before the ground falls away into the old quarry. The stem base is 1.8m to 2m above the surface of the quarry floor. The exposed profile at the eastern end of the bank (**A**) shows the clay, gravel and flint subsoil that forms the main soil structure within the site.
- 3.3 Vegetation at the base of the oak and extending part way down the bank included small-diameter laurel, holly, elder, ash regeneration, hazel seedlings, brambles, foxgloves, ivy and grasses.

4.0 EXCAVATION AND OBSERVATION

- 4.1 Following an initial site visit to determine the soil type and rooting pattern within the plot, and subsequent to discussions with the Council Tree Officer, a narrow trench was dug within the RPA of T1 and details recorded.
- 4.2 The main trench (**Fig. 2**) extended from a point at 11.5m to the east of **T1** for 13.8m to a point at the centre of the track, 5m from **T1**, where the ground rises up to the level of the proposed building.



Fig. 2 – main trench

- 4.3 A shorter 5m trench (**B at Fig.2**) was excavated within the section of track now filled in to the level of the higher ground.

- 4.3 Excavation was initially by hand within the shallow topsoil, 50mm to 100mm, before continuing – under close supervision – with a mini digger to a depth ranging between 700mm and 800mm.
- 4.4 The soil profile exposed (**Fig. 3**) within the main trench showed a thin topsoil, between 50mm to 100mm deep, over a heavy subsoil of clay, flint and gravel.



Fig. 3 – soil profile

- 4.5 No roots were present in the heavily compacted subsoil.
- 4.6 The location of any roots encountered within the top soil are noted below.

Distance from east end of trench	Number of roots	Size of roots
0.8m	1	<5mm
2.6m	1	<5mm
4.3m	1	<5mm
6.8m	2	<5mm
7.3m	1 (dead)	30mm

- 4.7 The 30mm diameter dead root at 7.3 m from the end of the trench (**circled in red at Fig.4**) is likely to be part of the root system of an old

dead ash that was located on the bank at the edge of the higher ground within the centre of the plot (**note <5mm roots at 6.8m circled in blue**).



Fig. 4 – dead ash root.

- 4.8 Excavation within the short section of track, filled in to the level of the higher ground, showed a profile that was not representative of the rest of the site (**Fig. 5**). Roots present at all depths of the trench were grass roots that had been covered when the ground was raised with one <10mm root at 1m from the east end of the trench likely to be laurel. The thin topsoil, typical of the rest of the site, can be seen below the grass roots at the bottom of the trench.

5.0 COMMENT

- 5.1 Ordnance Survey maps from 1896, 1910 and 1937 all show a sandpit or quarry at the site of the proposed development. I believe that the English oak (**T1**) postdates the original excavations at the quarry and that root development is far more extensive in the open ground to the south than in the unfavourable rooting environment in the excavated ground to the north and north-east.
- 5.2 The 1:200@A3 development proposal plan (**Appendix 1**) shows the proposed site layout with the nominal RPA of **T1** repositioned to reflect the tree's more likely rooting pattern.

6.0 CONCLUSIONS

- 6.1 I believe that the supervised excavation has demonstrated a complete lack of root development from the English oak (**T1**) within the site and that construction of the development proposal can proceed without harm to the tree. The very few small-diameter roots noted in the topsoil are likely to be from the woody vegetation on the bank.



Fig. 5 – excavation within raised ground; note grass roots at all levels and <10mm Ø laurel root circled.

7.0 RECOMMENDATIONS

- 7.1 Protective barriers should be positioned as per the revised 1:200@A3 tree protection plan (**Appendix 2**) and the guidelines in the arboricultural method statement (**B/0301/21**) adhered to.
- 7.2 A section of protective barrier can be removed to allow drainage works, under close arboricultural supervision, as identified at section 7.0 (**B/0301/21 addendum**).

8.0 DETAILS

8.1 Inspection date - 15th September 2021

8.2 Date of report - 21st September 2021

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21st September 2021



