

5-9 BERKELEY AVENUE, READING, RG1 6EL

Planning Reference: 181640

'Application for approval of landscaping details reserved by condition 7 of permission 101656/EXT (10/01567/EXT) as allowed on appeal ref. APP/E0345/A/11/2151515/NW'

Richard Hyett, MSc, BSc (Hons.), MArborA.

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Introduction

This Technical Note has been prepared to accompany drawing WH186/17/15.103 Rev E (Weston Homes), submitted as part of the discharge of condition application for landscape details on the above site. This note sets out my assessment of the watermain connection installation and its potential impact on a protected London Plane (Approximately 20m tall with a stem diameter of approx. 1500mm). The tree is understood to be protected by Reading Borough Council Tree Preservation Order (TPO) No.2/05.

Installation works undertaken

I visited the site on the 2 April 2019. I was informed that excavation works to install the water main connection at the Berkeley Road access to the site had been undertaken. The watermain connection had been installed on the alignment shown on Service Details drawing: WH186/17/70.101 (Weston Homes). The trench had been excavated to a depth of 900mm.

On site assessment

I carried out a visual inspection of the area which revealed the trench had been excavated and the final wearing course of the adjacent road surface installed. The excavated trench had been, in part, backfilled. A one metre section closest to Berkeley Avenue (containing the connection valve) had not been back filled. The wearing course of tarmac had not been installed along the alignment of the trench. The trench was mostly covered by temporary steel road plates making a full inspection of the trench impossible. This can be seen in image 1, overleaf.



Image 1: Looking north towards Berkeley Avenue from within the site. The trench is located beneath the road plates and the subject London Plane is located to the left of frame.

Upon request, the Site Manager instructed the appointed ground works contractor to remove the road plates so a more detailed assessment could be made. During on-site discussions with the supervisor from the ground works contractor I was advised that they did not come across any roots during the trench excavation and that all the excavation was in to made ground.

Once the road plates had been removed it was apparent that the section of trench containing the connection valve had not been backfilled. In this part of the trench the made ground was present to a depth of approximately 600mm however the depth of made ground increased as the trench extended further into the site. A wedge of what is believed to be undisturbed (relatively) in situ soil was present adjacent the connection valve itself. In this section of the trench I observed 11 fine roots emanating from the side of the trench closest to the tree. The size of the roots ranged from 1-2mm, however, one 4mm diameter root was also observed. The roots observed were mostly located within the 'undisturbed' wedge of soil adjacent the connection valve. This can be seen in image 2, overleaf.



Image 2: Looking at the western face of the trench excavation adjacent the connection valve.

Due to the presence of the apparent undisturbed soil, I requested the trench backfill material be excavated further. In total, approximately 2.5 linear metres of trench backfill was removed. The removal of the backfill material revealed the face of the trench closest to the tree (western) to be formed of made ground. The made ground included mixed aggregates formed of sub-base, broken concrete, tarmacadam and brick fragments. This can be seen in Image 3 overleaf.

The backfill at the base of the trench (that forms the sand bedding layer for the pipe) was locally excavated by hand to reveal the bottom of the trench on the side of the tree. Access to carry out this part of the excavation was very restricted due to the presence of the water pipe but it was possible to confirm the point where the made ground extended to the bottom of the trench.

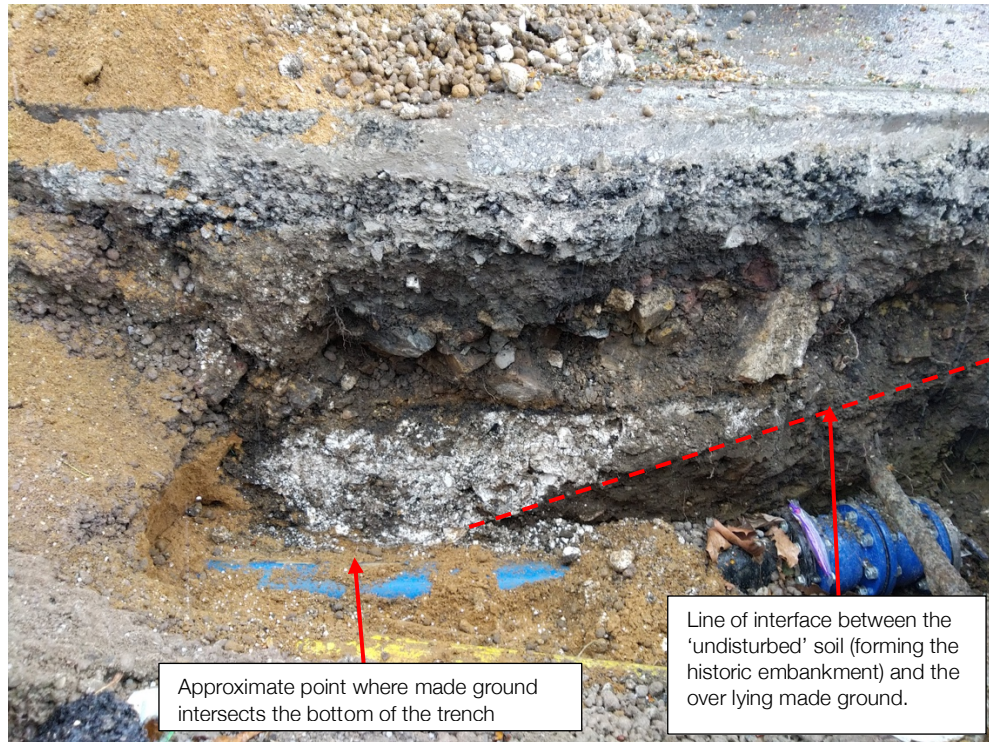


Image 3: Looking at the western edge of the trench excavation with the depth of made ground increasing towards the right of frame.

Summary and conclusion

Trench excavation works have been undertaken within the anticipated rooting area of a protected London Plane.

The potential impact of the works was investigated by excavating the backfilled trench. Only a small area of in situ soil was revealed at the bottom of the northern end of the trench. The remainder of the trench was observed to be within made ground.

I believe the reason the made ground is present to such a depth is that the London Plane in question stands on top of an historic slope that leads down from Berkeley Avenue into the site. This slope formed part of the embankment for the bridge over the River Kennet. This can be observed further to the west where another London Plane is situated at the top of the of the embankment.

However, at some point in the past a vehicle access was created between the subject tree and the bridge over the River Kennet. I believe the levels within the site were built up using made ground in order to achieve this. This can be seen in Image 3. Given the age of the London Plane, I also believe its primary and structural root system would have established in the soil horizons beneath the made ground (within the former embankment) and this is the reason why no significant roots have been encountered within the trench.

I only observed the presence of some fine roots at the northern end of the trench. These roots had been severed by the trench excavation works. In my professional opinion the loss of these roots will not have any impact on the long-term health of the protected tree. I am therefore also of the opinion that the trench works will not be of any detriment to the public visual amenity this tree provides.

Should you have any questions regarding the contents of this Technical Note, please feel free to contact me.

Richard Hyett

MSc, BSc (Hons), MICFor. MArborA.
Chartered Arboriculturist
Director | Barton Hyett Associates Ltd

Email: Richard@barton-hyett.co.uk
Tel: 01386 576161