

Cupernham Infant and Junior School Expansion Car Parking and Tree Protection Statement

Further to the initial planning application, the design team has been asked to demonstrate that the proposed extension to the car park can be achieved without significant impact to the large mature oak tree on the northern boundary of the site.

The design team recognises the importance of a number of factors affecting the parking layout and has designed it to:

- comply with current safety standards, in particular to facilitate the separation of pupils and other pedestrians, and vehicles.
- provide 2 staff parking spaces per class for the 3FE school, rather than the standard 1.5 per class to relieve pressure on neighbouring properties.
- retain as much green space as possible, particularly on the Infant school part of the site which already has limited outdoor facilities
- minimise impact on the mature oak tree.

The guidance on Tree Protection has changed very recently; the latest guidance became valid on 30th April 2012. This more stringent guidance has been consulted and as a result, both the size of the root protection area and the design of the parking spaces within it have been reassessed.

The oak tree is situated just outside the school boundary, on a bank between a footpath in front of 8 – 34 Bransley Close and the existing car park of Cupernham Junior School. It has a trunk diameter of 1300mm, and following the recommended method given in BS5837:2012, this gives a root protection area (RPA) of 707m², described by a circle of radius 15m. This is an enlargement to the previously assumed RPA of 10m radius based on the size of the tree canopy. There is existing hard surfacing within this area which would have been laid in the 1960s when the housing estate and school were constructed: car park 97m² (school side), footpath 60m² (adjacent to housing)

In order to maximise parking on the site following the extension to the school buildings, conventionally surfaced spaces will be provided to either side of the RPA and the existing parking layout will be reconfigured, as previously submitted. On the previously submitted drawings 5 spaces beneath the canopy of the tree are shown surfaced with porous asphalt.

The recent guidance BS 5837:2012 implies that over time, porous asphalt silts up, preventing water from reaching the roots and potentially damaging the tree:

“Bitumen paving and resin-bonded gravels:

These surfaces can consist of porous or impermeable material. As the interstices in unsealed tar paving will eventually become blocked by fines, it is advisable for such surfaces to be laid following the same principles as those for impermeable surfaces”

It is therefore proposed to amend the design by altering the surfacing of the car parking spaces which sit within the RPA from porous asphalt to a simple grass reinforcement grid, such as “Terram Geocell Tree Protection” filled with clean 20mm free-draining stone (no fines) covered with a grass paver filled with a sharp sand / topsoil mix (with

appropriate geotextile separation). This would then be sown with a grass seed mix high in hard-wearing ryegrass species. See accompanying drawing.

This system would be laid with minimal excavation within the RPA. Careful investigation of the RPA will be undertaken to determine the presence of surface roots, and an Arboricultural Officer consulted, to agree the depth of dig which can be safely undertaken.

Ground levels rise from the edge of the existing car park to the boundary adjacent to the base of the tree by approximately 250mm, an overall gradient of 1:25, and the proposed geocell / grass paver system will further increase ground levels by up to 250mm. It is therefore proposed to provide a sloping kerb up to the new surface from the car park to facilitate cars driving up onto it.

The proposed car parking spaces shown on the revised plan are slightly shorter than the recommended 4.8m, at 4.5m, since space to the boundary is limited. In order to prevent cars from parking in the central area of the root protection zone, where there is the danger of cars parking too close to the trunk, a simple knee-rail type timber barrier is proposed.

The other issue of concern is protection of the tree during construction of the extension to the school. The contractors will be asked to draw up a "Tree Protection Plan" using the guidance in BS 5837:2012, covering aspects such as the formation of a construction exclusion zone around the RPA, protected by barriers, measures to prevent moving plant from damaging branches overhanging the barriers, preventing spillages of harmful materials close to the RPA, etc.

In summary, a number of car park layout options have been explored by the designers and they feel that the proposals submitted with this statement provide the best compromise between providing the desired number of staff parking spaces and retaining beneficial environmental features on and around the site.