

**A residential pool in Kingston has been constructed deep underground within the front grounds of the property as an extension to the main house.**

# Creating an underground pool

IT IS LOCATED beneath a new garage and accessible by stairway from the house. A ground level glazed atrium was constructed at one end of the pool to make maximum use of natural daylight

The pool, which is 14m long x 3.5m wide x 1.4m deep, has no visible footprint as the installation is deep underground; the excavation was 6.4m deep from ground level. The project, undertaken by London Swimming Pool Company, was a significant engineering challenge as the substrate was ballast and sheet piling was needed to contain the ground whilst a massive reinforced concrete box was constructed that would become the swimming pool and plantroom. A garage block and upper accommodation was constructed on top of this. A specialist watertight concrete, Caltite, was used which does not allow water to penetrate from the surrounding ground.

## Low noise

Specialist low noise pumps and a deep bed filter with ultra violet disinfection and

automatic chlorine and PH control provide the filtration and water treatment service. A ducted air handling system heats the air and water and re-circulates and dehumidifies air. Heat recovered air exchange to outside and heat recovery air to water within the structure ensures efficient air treatment providing both comfort and managed running costs.

To achieve a modernist design, neutral colours and contrasting textures such as glass and polished plaster were used along with a specialist high glazed mottled pale blue glass mosaic from Spain, interspersed with small mirrored mosaics to break up the pattern and reflect back some light in the underground setting.

LED lighting sourced from Germany was used for the pool lights giving a blue glow and night time ambience to the pool. The uplights on the stairs match the LEDs in the pool. Underwater sound is provided by two underwater speaker units, also German, linking in to the main sound system.

The pool won a silver SPATA design award on completion.

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The vision was for a linear and clean minimalist design with finishes using pale colours and natural stone.



## Screen for poolside coaching

A RANGE OF IP56-rated weatherproof LCD screens provide an innovative training tool for swimming coaches.

The screens, from Aquivo, can be used outdoors and have been sealed and tested for poolside areas, where they can be used as a teaching aid. Students can be filmed by underwater cameras in the pool and the coach or trainer can then analyse the strokes of the swimmer and show how to improve them without the student leaving the pool, increasing teaching time and efficiency of the lesson. Coaches are able to play back the sequence as many times as is necessary.

The screens, which have a toughened glass casing, range from 32" up to 70". They have an anti-reflective surface and can be specified with an anti-theft bracket for outdoor and vulnerable applications.