



Case Study

Underground Mansion Kensington

Sika® Watertight Concrete System

Sika Concrete Admixtures: Sika® Watertight Concrete System

Client: A P Arcon Construction Ltd

Main Contractor: A P Arcon Construction Ltd

Concrete Supplier: Hanson Concrete

Underground Mansion, Kensington

The use of **Sika® Watertight Concrete** has enabled A P Arcon Construction Ltd to construct an exciting new, partly subterranean mansion, on a strip of previously vacant land between two existing buildings in Kensington.

The main bedrooms, entrance and garage space are built above ground, but the main living, entertainment and swimming pool areas are underground, so total watertightness was an essential requirement on the project. For this reason, **A P Arcon chose Sika® Watertight Concrete** to construct the below ground shell of the building.

Close to 1,000 cubic metres of **Sika® Watertight Concrete** were supplied by Hanson Concrete to create a watertight structure that conforms to BS8102 Grade 3 for habitable space. Around 1,200 skips of soil weighing around 10 tons each had to be excavated to create the working space. With access being extremely limited, virtually the whole site had to be excavated by hand. Main piles up to 30 metres with soft piles up to seven metres in length had to be constructed on the project before excavation could begin. Particular care had to be taken to stabilise the adjoining properties as excavation progressed.

Sika® Watertight Concrete is a high performance, cost effective solution, saving time at both the design and construction stages, and it also delivers the maximum usable area to the developer, as the overdig requirement is much reduced. This is an important feature on projects such as this in cities where space is at a premium.

Arek Palka, Director at A P Arcon commented: "We chose **Sika® Watertight Concrete** for a number of reasons, including a 50 year track record, a competitive price and warranty. Importantly, Sika supplied good technical back up throughout which gave us added reassurance on such a complex and difficult project".



The project is now complete, with a two-car garage and three main bedrooms with en-suite facilities above ground, together with living areas, guest bedroom, swimming pool, cinema and various other rooms below.

Sika a Global Company

Sika is a global market and technology leader in the development and production of specialist products and systems for construction and industry. Sika develops concrete additives, bonding, coating, flooring, repair and protection, reinforcing, roofing, strengthening and waterproofing solutions for the construction industry.

They are backed by market leading technical support; on site, over the telephone and through our website. Our research and development activity is focussed on finding new solutions for people and the environment, whilst meeting increased health and safety requirements and providing added value for our customers.



For further information or to discuss your project requirements

E-mail concreteinnovation@uk.sika.com or telephone **0800 292 2572**

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