

Structural Drainage

Deckdrain, Bermondsey Rail Dive Under, Thameslink, UK



Case Study

Project Description

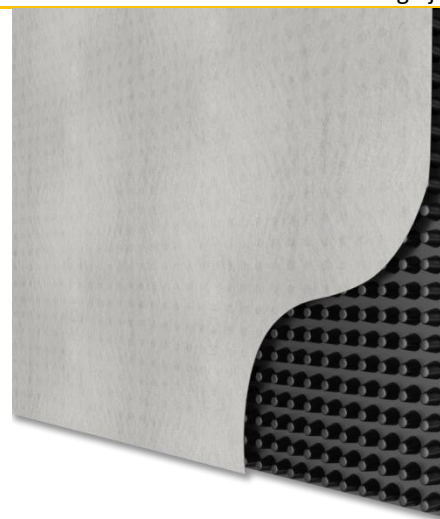
The Thameslink Programme has untangled the track on the approaches to London Bridge station to reduce the time trains wait for platforms to clear and therefore reduce delays. To achieve this, new track and infrastructure has been added – including a major new railway junction called Bermondsey Dive Under. This enables each train service to have its own dedicated line into London Bridge station. Southeastern trains travelling from Kent ‘dive under’ the Sussex lines used by Southern and Thameslink trains, relieving the bottleneck. Previously this historic section of track, which dated back over 150 years, featured some of the most complex track layouts in existence contributing to delays in and out of the station. The new infrastructure will make journeys more reliable for millions of passengers.

The Challenge

Rail lines were live throughout the construction phase of the project which meant restricted working conditions. The construction included the replacement and extension of some of the brick Victorian railway arches and the matching and restoration of the remainder. The existing arched brickwork was porous and needed to be at the interface with the new concrete arches. There also needed to be void between the two structures to reduce vibration transfer. Other structures also needed back of wall drainage on this cramped site. Delivering crushed stone or drainage blocks and installing on a busy site in the heart of London is expensive and problematic, high vehicle movements to and from the site would cause air pollution and prove damaging to the environment. Skanska were targeting a high CEEQUAL score for this prestigious and vital project.

Project Information

Client	Network Rail
Contractor	Skanska
Consultant	Ramboll
Products	ABG Deckdrain
Quantity	3,000m ²
Benefits	<ul style="list-style-type: none">• Easy to install and shape complex structures• Protects sensitive surfaces• Used as lost shuttering providing movement and drainage joint



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The Solution

Skanska chose **ABG Deckdrain** as an alternative to traditional drainage systems which damage sensitive surfaces and are difficult to construct in tight working environments. **ABG Deckdrain** is light and easy to handle in the tight working conditions and flexible enough to fit round the complex shapes where differing gradient lines mixed with elliptical shaped openings. The geocomposite provides high water flow and excellent protection to the existing brick surfaces, reducing vibration transfer from concrete to brick structures. In addition the use of **ABG Deckdrain** reduced the amount of lorry movements to site. In some areas the impermeable back of the geocomposite allowed it to be used as a lost shutter for poured concrete.

The ABG Service

ABG were able to advise the right grade of **ABG Deckdrain** along with helpful installation details. Delivery was efficient to suit site working schedule from our UK manufacturing plant in Meltham.



Deckdrain is easily cut and attached to the existing brick bridge to protect and drain the front face. The geocomposite has the dual functions of drainage to the existing structure and vibration control between the old and new arched bridges.



Deckdrain replaces concrete block drainage in tight work space



Finished deck ready to receive trackbed separated from restored arched railway viaduct

Contact ABG today to discuss your project specific requirements and discover how ABG past experience and innovative products can help on your project.