

# Asphalt Reinforcement

Rotaflex, Fen Grove, Bexley, UK



## Project Description

Fen Grove is a residential area in the London Borough of Bexley. Bexley and Sidcup are well developed community areas largely with detached or semi-detached housing. During the interwar period the area became a highly desirable commuter area for Central London. Fen Grove, originally constructed in the 1930s, is an important spine road for the area. Construction was comprised of concrete slabs and expansion joints; it was then overlaid in 1988 with a flexible material to prolong the road's life expectancy.

## The Challenge

The road had suffered with reflective cracking from underlying differential settlement, failing expansion joints and poor ride quality, and had reached the end of its serviceable life. Complete re-construction was beyond budget consideration and would have been too disruptive to residents. The challenge was to restore Fen Grove to a tough and durable surface in as short a time as possible, as disruption to traffic had a high cost to residents and the wider area. Maintenance options were also limited due to fixed thresholds. Simple inlay was acknowledged to only provide limited improvement as it would not mitigate the damaging effects of reflective cracking.

## The Solution

A grid reinforced overlay was chosen as the best option to give maximum pavement life in a cost effective way. A grid could be installed quickly to minimise disruption.

## Project Information

Client London Borough of Bexley

Contractor FM Conway

Consultant London Borough of Bexley

Products Rotaflex 830SL

Quantity 2,200m<sup>2</sup>

- Benefits
- Rapid installation minimised disruption
  - Maintained existing thresholds
  - Extended pavement life
  - Reflective cracking protection



**ABG Rotaflex**

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After consultation with **ABG's** technical department and a site meeting **Rotaflex 830SL** was chosen by the borough for the project. The original failed flexible material was stripped away and **Rotaflex 830SL** was applied directly to the concrete slab using a bitumen emulsion bond coat. **Rotaflex's** integral polyester paving fabric provides a waterproof barrier and absorbs the bond coat helping to create a strong bond to the receiving surface. Installation took one day and was completed by subcontractor Geogreen.

Nigel Theadgold, Highways Manager, London Borough of Bexley commented:

*"The use of **Rotaflex** on Fen Grove allowed us to rethink the rehabilitation of the surface allowing us to achieve a very favorable finished product which we anticipate will last many more years."*

## The ABG Service

Assistance with technical comparisons, costing, design and supply where all provided by **ABG**.



**Planned surface showing original concrete slab construction laid down in the 1930s. Degradation of the joints and relative movement caused reflective cracking in the surface. Joints were filled and reinforced using Rotaflex low strain glass reinforcement grid with waterproof barrier preventing subsurface breakdown**



**Reflective cracks causing poor ride quality**



**Reinforced finished surface with extended maintenance**

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