

A blurred background image of a red double-decker bus driving down a city street, suggesting a busy urban environment.

ULTILAYER

Proven performance

OXFORD CIRCUS/REGENT STREET, LONDON

The challenge

Oxford Circus is one of the best known and busiest retail locations in Europe. It is estimated that around half a million people visit this area of London each day. The surrounding roads are heavily trafficked by a wide range of vehicles including buses and taxis. Severe rutting and cracking had been a persistent problem for many years due to a combination of high volumes of heavy, slow moving traffic and the poor condition of the underlying concrete. A solution was required to deliver long term durability and avoid the cost and disruption associated with repeated maintenance. The work would need to be completed quickly to minimise the impact on local road users and retail businesses.

Our solution

After discussions with Westminster City Council, ULTILAYER HD was chosen as an alternative to deeper reconstruction which would have resulted in lengthly road closures in one of the busiest parts of the city. It would be laid as a 10mm binder/regulating course and 10mm surface course. ULTILAYER HD contains a high performance Polymer Modified Binder (PMB), combined with carefully designed aggregate grading. The elasticity of the binder makes it far more flexible than conventional asphalt. Very strong, yet highly flexible, ULTILAYER HD is able to withstand constant heavy traffic and underlying movement in the road. As a result, the risk of reflective cracking and deformation is significantly reduced. By avoiding deeper reconstruction, this approach also simplified programme logistics and reduced the impact on road users and surrounding businesses.

Results and benefits

Despite the challenging nature of this site, ULTILAYER HD has demonstrated excellent performance to date. The site was checked four years after it was laid and there were no signs of deformation or surface cracking. The client was pleased with the outcome and the expected reduction in future maintenance requirements: "Traditional pavement design and materials were not viable options. We have achieved a high quality road pavement, which will provide long-term value for money. In addition the works have been delivered on programme and on budget, with extensive liaison and coordination during the design and construction phases." **Rakesh Vaghela, Assistant Service Manager for Highways, Westminster City Council.** Ten years on, those sections that remain in place continue to perform well.