THE CHALLENGE
Mitchell Road, a residential street in North London was due for scheduled resurfacing to replace the existing surface that was aged and in poor condition. Core samples showed that the road base had originally been built using unbound construction waste. They also indicated layers of tar bound asphalt in the upper layers of the road construction. The existing surface was clearly not coping with traffic from residents and HGV movements from the nearby industrial site. Simply replacing with a conventional asphalt mix would risk future cracking. The cost and delays involved with full depth reconstruction meant that this was not a viable option. The client, London Borough of Enfield, was keen to find an innovative long-term surfacing solution that could be installed quickly and would help to break the cycle of repeated failure and repair.

OUR SOLUTION
After discussions with Tarmac’s Technical Product Support Manager, ULTILAYER 6mm SMA, Tarmac’s high performance, polymer modified asphalt was identified as a solution. ULTILAYER combines outstanding flexibility and strength to deliver long-term durability, even on challenging sites. The advanced polymer modified binder would provide the enhanced flexibility and durability needed to cope with vehicles manoeuvring and trafficking by commercial vehicles. ULTILAYER can be laid in a single layer. This would allow resurfacing work to be completed quickly to reduce road closures and accommodate restrictions in pavement depth.

RESULTS AND BENEFITS
The old surface was planed out and 120 tonnes of 6mm ULTILAYER asphalt was supplied and laid over two days. Removal of the tar bound asphalt and specialist disposal or encapsulation using in-situ recycling would have been costly and time consuming. Using this innovative approach has provided a long-term solution to the problem of cracking on this road and overlaying of an unbound material. Significant cost savings were achieved by avoiding full depth reconstruction and reductions on site traffic meant less disruption to local residents and businesses. There was a major improvement in the ride quality of the new surface, in addition it is significantly quieter for local residents. This should also result in extended pavement life and reductions in long term maintenance expenditure, road closures and disruption for local people.