

CASE STUDY

Unclassified Rural Roads

‘over 2.6km reshaped, strengthened and surface dressed in 5 days’

Scheme: Fen Road, Wiggshall
Authority: Norfolk County Council
Client: Lafarge Tarmac
Date: October 2014
In-Situ Process: 200mm ‘Regen Roads’ / 200mm HBM
Surface: Double Surface Dressing
Carbon Saving: 115 tonnes



Fen Road as the name suggests is a rural single track built on soft, moving ground, resulting in cracking and deep rutting throughout.

Previous treatments included patching and shallow surface treatment, but these did little to improve the ride quality for road users.

SPL's approach was to firstly pulverise the existing road to a depth of 200mm. The depth of pulverisation was determined in conjunction with Norfolk Council's Laboratory, as it was critical to avoid incorporating clay or silts within the new road layer. When required water was added.

The pulverised road was then re-graded and compacted, and when required the road could be trafficked to give access to local residents.

The trial involved two binding techniques, hence 60% of the scheme area was mixed with Portland Cement pre-blended with slow hydrating PFA. The remainder was left effectively unbound utilising only the residual bitumen from the old asphalt road as a binding agent.

Both the bound and unbound road sections received a final re-grade and full compaction, before being surfaced dressed using a double layer treatment, in line with industry practice. This proprietary approach sits outside the standard specification for In-Situ Structural Recycling and the RSTA Codes of Practice but is a cost effective alternative to existing shallow treatments. In particular, the treatment corrects ‘saturated’ bitumen roads prone to bleeding and softening during hot summer months.