

## OVERVIEW

### A10 Acoustic Panels

### Netherlands

### Holland Scherm

Holland Scherm is starting a project on the A10 around Amsterdam to replace six kilometres of noise barriers along the highway. The noise reduction barriers were damaged to such an extent by various storms that they no longer did their job.

## BASALT FIBRE REINFORCEMENT

To work sustainably, basalt fibre reinforcement was chosen, saving 40% concrete compared to traditional steel reinforcement. The material is also lighter allowing the use of smaller equipment. In addition, the material has a longer lifespan than traditional reinforcement as it does not corrode. This is the second project within KWS and Holland Scherm where this reinforcement is used in a concrete construction. It has already proven to be a success at the bus depot in Breda.

As basalt is lighter than steel, Holland Scherm were concerned that the lightweight material (4 x lighter than steel) would float up during the application of the concrete. At the bus depot they have now been able to see that this is not the case.

## SUSTAINABLE WORKING

Holland Scherm have looked in various ways at how the innovative reinforcement not only has a positive impact on the climate but also on the way of working. For example, less transport is needed to get the noise barriers to the location. 'The barriers are lighter, so you can place more panels on a truck. That means that we emit less CO2 with the same result.' Commented Hubert Kuijt the project leader.

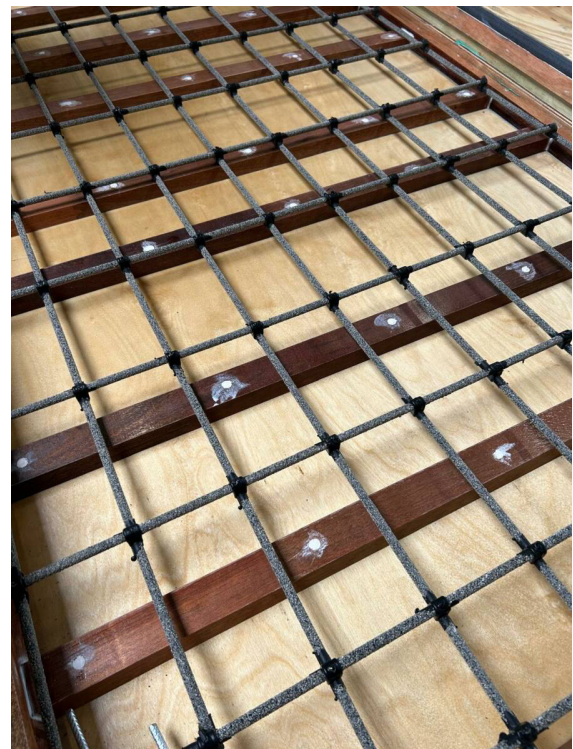
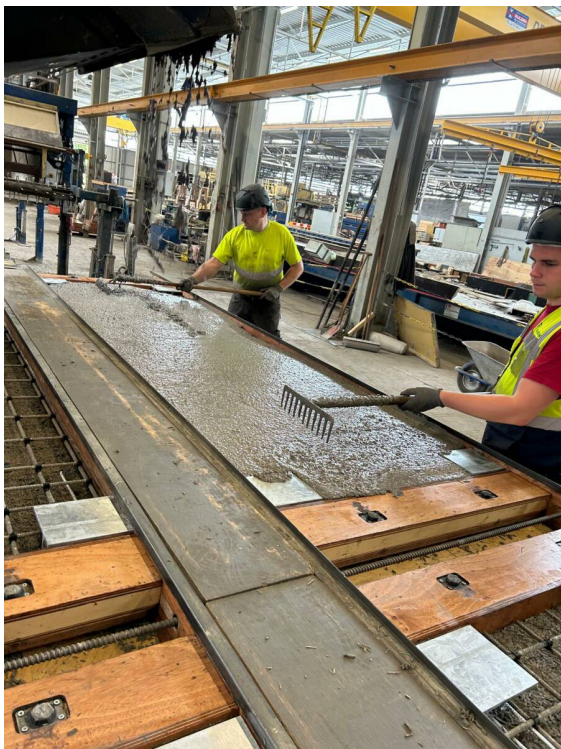
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## CIRCULAR CONSTRUCTION

The noise barriers are placed on the existing foundation, which is quite unique according to Hubert. 'Normally we create a new foundation, but Rijkswaterstaat has carried out a test to see whether the current foundation can support the construction. The results were positive, they think it will last another fifty years.' By re-using the foundation, there is less burden on the environment and the project has a shorter lead time.

## CHALLENGING TIMETABLE

Hubert Kuijt is very proud of this major assignment. 'We are committed to sustainability and want to be an example to others.' When the work begins, the screens will be installed within approximately one year. 'A major challenge is the time we have. By using basalt fibre reinforcement, we can work faster and ultimately the road user will be less inconvenienced by us.' This second project with the application of basalt not only makes the panels more sustainable, but also the future of KWS.



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Orlimex UK Ltd Unit 6, 465A Hornsey Road, London N19 4DR, United Kingdom E: [info@orlitech.co.uk](mailto:info@orlitech.co.uk) T: 01513637612