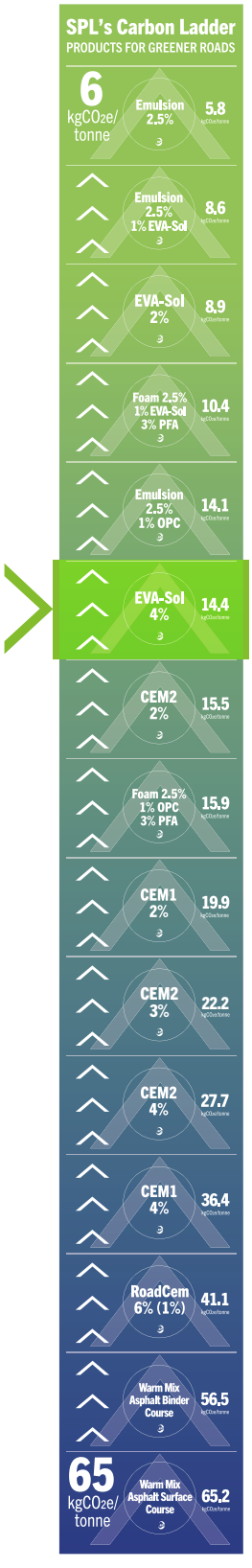
CASE STUDY

B7066 North Lanarkshire - trial site for Live Labs 2 programme



Scheme:	B7066, Hirst Road, North Lanarkshire
Client:	North Lanarkshire - Adept Live Labs 2
Date:	July 2025
Area:	4200 m²
In-Situ Process:	150mm deep with calcined clay
Recycling Depth:	150mm
Surfacing:	Various
CO_2 Saving:	71%

NORTH LANARKSHIRE COUNCIL

ADEPT LIVELABS2 Decarbonising Local Roads

Project Overview

The B7066, Hirst Road, in North Lanarkshire was selected as a trial site within the Live Labs 2 programme, a national initiative focused on accelerating the decarbonisation of local road networks through innovation, collaboration and evidence-led delivery.

The scheme provided an opportunity to **trial low-carbon construction techniques** and materials while maintaining network performance, safety, and value for money.

Stabilised Pavements was appointed to deliver In-situ structural recycling works, aligning directly with the programme's sustainability objectives.

Ironstone House, High Street, Scaldwell, Northampton, NN6 9JS
T. 01604 882955 E. info@stabilisedpavements.co.uk
www.roadrecycling.co.uk

B7066 North Lanarkshire - trial site for Live Labs 2 programme

Project Objectives

1. Reduce embodied carbon associated with traditional road reconstruction
2. Maximise reuse of existing road materials
3. Trial low-carbon binder alternatives within structural layers
4. Support Live Labs 2 learning outcomes through monitored innovation
5. Maintain road performance while minimising disruption

Technical Approach

In-situ Recycling

Stabilised Pavements recycled the existing pavement materials In-situ, eliminating the need for excavation, disposal, and importation of virgin aggregates. This significantly reduced HGV movements, material extraction, and associated carbon emissions.

The existing carriageway was pulverised, processed and stabilised on site to form a new bound foundation layer, providing a structurally sound platform for the final surfacing.

To further reduce embodied carbon, the recycled layer was stabilised using H-EVA SOL, a low-carbon cement alternative. This binder was selected specifically to support the Live Labs 2 decarbonisation objectives, offering:

1. **Reduced CO_2 emissions compared to traditional cementitious binders**
2. **Improved material efficiency**
3. **Compatibility with In-situ recycling techniques**
4. **Proven performance in structural pavement layers**

The use of H-EVA SOL represented a step-change in how bound recycled layers can be delivered with a significantly lower carbon footprint.

CASE STUDY

B7066 North Lanarkshire - trial site for Live Labs 2 programme

Surface Course Trials

Following completion of the recycled foundation, the carriageway was surfaced with trial low-carbon surface course materials. These materials were selected to complement the low-carbon approach of the recycled layer and to support Live Labs 2 monitoring and performance evaluation. The combined system allowed North Lanarkshire Council to assess both structural and surfacing innovations within a single scheme.

Carbon and Sustainability Benefits

1. **100% reuse of existing pavement materials on site**
2. **Significant reduction in embodied carbon versus traditional reconstruction**
3. **Reduced construction waste and landfill disposal**
4. **Fewer vehicle movements and reduced site emissions**
4. **Demonstration of scalable, low-carbon road maintenance solutions**

This approach directly supports local authority climate targets and the wider ambitions of Live Labs 2.

Outcomes and Learning

The Hirst Road scheme successfully demonstrated that low-carbon binders and surface materials can be integrated into live highway environments without compromising programme delivery or road performance.

The project provided valuable data and learning for North Lanarkshire Council and Live Labs 2 partners, supporting future decision-making around low-carbon materials, specifications, and delivery models.

Conclusion

The Live Labs 2 In-situ recycling works at Hirst Road highlight how innovation, collaboration, and proven recycling techniques can deliver meaningful carbon reductions in local road maintenance.

By combining In-situ recycling with H-EVA SOL low-carbon binder technology and trial surfacing materials, Stabilised Pavements and North Lanarkshire Council have demonstrated a practical, scalable pathway towards decarbonising road infrastructure.

This project is part of Live Labs 2, a three-year, UK-wide £30 million programme, funded by the Department for Transport, aimed at decarbonising the local highway network. It includes seven projects, grouped by four interconnected themes, led by local authorities working alongside commercial and academic partners.

North Lanarkshire Council, with support from Amey, leads the north campus for the Centre of Excellence for Decarbonising Roads, while Transport for West Midlands, with support from Colas, leads the south campus, creating a national framework for collaboration and knowledge sharing.

ADEPT LIVELABS2 Decarbonising Local Roads

For more information on SPL's sustainable road solutions, contact:
Hayden Davie: h.davie@stabilisedpavements.co.uk

STABILISED PAVEMENTS
www.roadrecycling.co.uk

CATERPILLAR