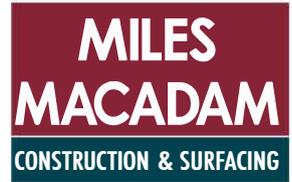




# The journey to making Calderdale carbon neutral



Renew talks to Toby Fitzsimmons at Miles Macadam about its latest carbon neutral project in Calderdale.

**Renew (R): What were the main challenges you needed to solve in Calderdale?**

**Toby Fitzsimmons (TF):** Calderdale Council have numerous concrete carriageways on their highways network. These sites had been overlaid with conventional materials and were demonstrating typical failure characteristics such as reflective cracking leading to water ingress and deterioration of the surface course and the sub base. Milepave provides a durable fully sealed surface as the liquid asphalt element of Milepave prevents water ingress, reinforces surface strength, slows the oxidation process and increases flexibility.

In tandem with our pre and post jointing system Milepave is specifically designed to address the issues of current and future concrete joint failure and water ingress, eradicate these problems and ensure long term successful performance.

**R: How did you go about planning for the carbon neutral project?**

**TT:** When discussing the concept with the Highways and Environmental teams in Calderdale, it was clear from the outset that there was a real desire to embrace and address carbon issues associated with highway maintenance. This was

really refreshing given the resistance, lack of awareness or understanding that many of the local authorities that we deal with, have on the issue. In the past year, only seven authorities have so far carried out or shown interest in Carbon Reduction Highways Maintenance Programmes.

Calderdale has the ambition to be Carbon Neutral by 2038 and delivering a carbon neutral surfacing scheme with Milepave complimented this goal. We worked closely with the Highways team to identify the sites and from this we designed the programme in the same way as any other surfacing scheme. The difference, however, was that running parallel to this, the Environmental and Communications team were heavily involved in supporting the scheme and delivering the message on the innovation and benefits to the

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authority and the residents of Calderdale Council.

**R: How did you calculate what carbon savings would be made?**

**TT:** We've developed a Carbon Calculator to accurately identify the Carbon Footprint of our surfacing projects. This has been developed, audited and assessed by Carbon Footprint Ltd, who are audited by QAS (Quality Assurance Standard for Carbon offsetting), VCS (Verified Carbon Standard), CFS (Carbon Footprint Standard) and Ricardo-AEA Ltd. The data for the Carbon calculations is derived from numerous verified databases including the Inventory of Carbon & Energy (ICE), The Environment Agency & DEFRA, this data is also cross checked with our suppliers information.

The Carbon Calculator allows us to compare Milepave against conventional Asphalt materials and work out the subsequent savings.

**R: How do you work with clients to offset the carbon needed to achieve 'Carbon neutral'?**

**TT:** There are a variety of Verified Carbon Standard (VCS) and Gold Standard accredited carbon offset projects available both here in the UK & abroad. Sadly certified schemes in the UK are currently limited, but this is something we are seeking to change. Our first steps are to understand the client's policy concerning offsetting. Once this is identified a scheme can tailored to suit this policy. It is our hope that more environmentally sustaining schemes such as seagrass planting, acid lake regeneration and the like, will become accredited in the coming months and we are actively trying to drive this.

**R: What role does Milepave play in all this?**

**TT:** Milepave is, by design, a low carbon surfacing material that utilises less





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resources and lower mixing temperatures than conventional asphalt. Milepave consists of a paver laid open graded receiving course. The open graded element enables us to achieve a greater spread rate per tonne leading to a 12.5% aggregate saving. It also has a lower binder content which offers a 20% saving in straight run bitumen; a highly carbon intensive constituent. Added to this it is a warm mix material. The result is a process with lower carbon credentials yet a proven track record in longevity and performance.

**R: How far can we go with carbon reduction in the highways sector?**

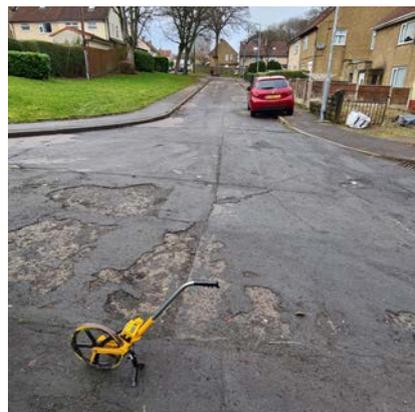
**TT:** As an industry we are beginning to see a real change in focus towards carbon awareness, analysis and reduction.

Highway maintenance will always have a high carbon footprint as will construction, but great efforts are being made in these sectors. Last year warm mix asphalts only accounted for 4% of all asphalt production in the UK but this year that percentage is rising significantly.

Other factors being utilised is the use of lower PSV aggregate for low speed areas of the network sourced locally, rather than

using finite sources of high PSV stone. These are all positive steps.

At Miles Macadam we're attempting to lead by example on carbon reduction and innovation. As a company we are actively encouraging our sub-contractors to embrace carbon neutrality, which in turn will raise their awareness around carbon usage and reduction techniques.



We're also trying to lead on carbon offsetting which will always be needed to achieve a Net Zero status, whilst driving an initiative for the Government to set up a National carbon bank, to standardise credits and centralise carbon reduction schemes.

**R: What advice would you give any local authorities setting out on the journey of carbon reduction?**

**TT:** In 2019 most local authorities declared a climate emergency and the vast majority have Net Zero or Carbon Neutral ambitions. Carbon reduction involves many factors, both large and small, which collectively will make a difference.

Any carbon policy needs to be clear and direction and decision making taken on a multifaceted approach involving all departments. Colleague engagement is key, so that they are clear and supportive about the policy and objectives.

For carbon reduction to take off, it is vital that we all understand the aim, embrace the idea and are encouraged to seek out personal and corporate carbon reductions.

About the **RSTA**

The Road Surface Treatments Association (RSTA) aims to raise awareness of the benefits of road surface treatments and promote workforce competence and safe working practices.

Membership covers the whole supply chain and includes large national and regional contracting companies, Local Authority Direct Labour Services Organisations, materials and equipment suppliers, test houses and consultants.

Members are required to be registered with the National Highway Sector Scheme 13 or HAPAS Product Certification and Approved Installers Schemes where applicable.

For further information on the RSTA, its objectives, membership and programme of industry initiatives and training visit [www.rsta-uk.org](http://www.rsta-uk.org).



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