

Asphalt Now

Reporting on the Asphalt Industry

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www.asphaltuk.org

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Local authorities continue to face significant shortfalls in their road maintenance budgets. Our message is clear: "An improved means of funding highway maintenance to facilitate longer-term planning and more cost-effective work has to be found". The past few months have been extremely busy for the AIA and our members, and were kicked off by the 17th ALARM Survey - which once again triggered a huge amount of coverage in the broadcast, print and online media.

Elsewhere in this newsletter you will be able to read about the work the Alliance is doing to share best practice and how we are taking our messages to local councillors and into the House of Commons.

As ever, there is an interesting selection of stories from our member companies, who continue to innovate both with products and how they work to the benefit of customers and the environment.

Sadly, our former Chairman Colin Loveday passed away earlier this year and this edition carries a personal tribute to him from Director of MPA Asphalt, Malcolm Simms.

Finally, please be aware that for cost effectiveness we will be trialling an electronic version of *Asphalt Now*. To balance the cutback on hard copy, we will also be sending news by email, so please make sure you complete and return the



form sent with this issue so that you will be able to receive future news by email.

I hope you enjoy the read and wish you all well.

Alan Mackenzie
Chairman, Asphalt Industry Alliance

Highways in the House

A lively discussion was held by members and guests of the All Party Parliamentary Group (APPG) on Highway Maintenance at the beginning of the year.

Transport for London's (TfL) Director of Roads, Dana Skelley, was the guest speaker. She engaged the audience with a description of how the authority copes with balancing the differing challenges of: ensuring better value and better quality of highways for all road users; phased works to minimise impact on the travelling public; and the need for long term planning.

TfL has been measuring customer perception of road network quality for some years. This helps define where communications should focus. Skelley told the Group that although cracks in the road surface were a clear indicator that there was a problem to resolve, the public was far less concerned about these than potholes. She also explained that a 10-year planning horizon meant that TfL was in a better

position to clarify spending options and be more responsive to public priorities.

MPs raised a number of issues including the inevitable pothole questions and others ranging from subjects such as quiet road surfaces to trench reinstatement and the benefits of asset management.

Reporting on HMEP



At the May APPG meeting, local roads minister Norman Baker MP took time out of his busy schedule to explain to the Group

the rationale behind the DfT's £6 million Highway Maintenance Efficiency Programme. This stimulated much debate

over questions on shared services and contracts and especially over the types and range of asphalt mixes available, which were answered by industry guests. Their message was that a reduction in the number of types of asphalt specified should be not only more efficient for customers, but also for suppliers themselves.

For further information:
www.highwaysmaintenance.org



Get on track!

Feedback from last year's Sharing Best Practice on Highways Maintenance event organised by the AIA in conjunction with APSE and ADEPT encouraged the three organisations to hold another North of England event in 2012 for local authority highway officers.

The National Railway Museum in York is the venue for this year's event on Thursday 20 September from 10-4pm. It will once again showcase best practice case studies and during the workshop sessions, focus on practical and strategic solutions to provide opportunities to learn and share best practice with other highways officers from authorities around the country.

Places are limited for this free event so please reserve your place as soon as possible.

Further information from:
020 7222 0136 or info@asphaltuk.org

New Chairman at RBA

Health and safety will stay very much at the top of the agenda for the Refined Bitumen Association (RBA) under its new Chairman Andrew Williams.

Andrew, whose day job is UK Distribution Manager at Nynas, fully subscribes to the Target Zero philosophy of no incidents and is anxious to maintain the RBA's keen promotion of best practice relating to safety, storage and the handling of bitumen. "My intention is to keep up the pressure to reduce incidents at customer locations, particularly those of spillage. We've done some very good work in this area in the past, but there is always room for further improvement," says Andrew.

The RBA works with Eurobitume and other European associations on the development of common standards, and last year saw the introduction of a European *Guide to Safe Delivery*

of Bitumen. This is built on the RBA's *Code of Practice for the Safe Delivery of Bitumen Products*, which Andrew describes as "having been the industry benchmark for many years".

The RBA continues to support industry research and he added: "The current research project, carried out in collaboration with the Highways Agency and Mineral Products Association, is concerned with optimising the performance of modern asphalt surfacings - with the aim of improving durability".

Andrew has been on the RBA Council for three and a half years, serving as chairman of the Health and Safety Committee for the last two. He describes himself as being very



much a logistics person, having joined the National Freight Consortium straight from university as a graduate trainee.

For further information:
www.bitumenuk.com



ALARM rings to same tune

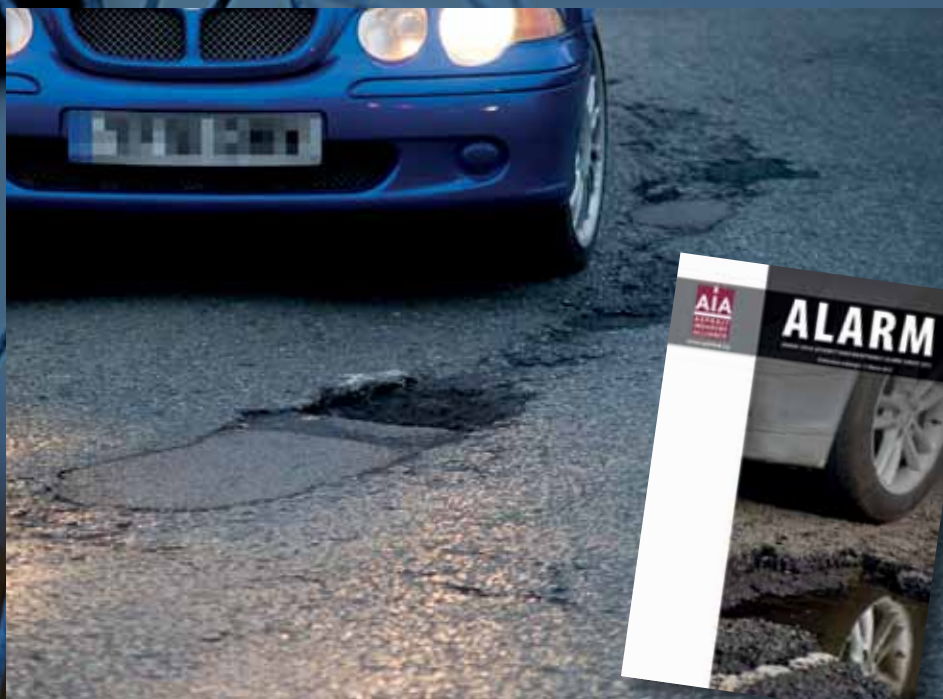
In March, the 17th ALARM Survey continued to spread the word about the need for an improved means of funding highway maintenance to facilitate longer term planning and more cost effective work.

It was more important than ever to reiterate this message in 2012. The ALARM report was published almost exactly a year after central government's £200 million emergency funding to help highways departments repair damage caused by severe winter weather. As anyone involved in the care of the local road network is only too aware, this level of financial assistance was a welcome "quick fix" for some of the country's potholes but came nowhere near resolving the underlying issue. Following a thankfully mild winter, the messages emanating from Westminster this Spring were clear that no more funding would be forthcoming.

The attention given to the issue by the government's *Potholes Review* was welcomed by all, not least the AIA who, along with many other organisations, was invited to sit on the Review Board. Of the three key messages summarised by the Review, the most important has to be that: "prevention is better than cure". The asphalt industry is committed to playing its part in achieving the Review's aims. That means not just helping to communicate to those who influence highway maintenance funding but also providing whatever information and practical help might help generate a better understanding of the supply chain mechanism and material specification.

So is the "job done"?

A robust 70 per cent response rate to the 2012 ALARM Survey from local authorities across England and Wales helped hammer home the message that, sadly, there has been no significant



change. The annual funding gap of £800 million across England and Wales might appear an improvement compared to recent years but add to that the near £600 million of additional work created by the 2010/2011 winter and the extent of funding shortfall is clear.

Just over two-thirds of authorities reported that they had been unable to make good all the additional damage caused by the previous two severe winters. The emergency funding had simply not been enough.

One in five local authority roads is now in "poor" condition, with less than five years of life remaining; the potential reconstruction costs are phenomenal.

The key message from this year's survey was that it would still take nearly £10 billion to get the local road network back into an acceptable condition such that it would properly benefit from longer term planned, preventative maintenance. When poor local road condition is costing small and medium sized businesses £4 billion a year, the principle of investing in improving condition now to save a huge repair bill in the future makes total sense.

Short term patching keeps immediate costs down but, square metre for square metre, it is at least 20 times more expensive than longer term maintenance measures. So, persuading those who hold the purse strings to loosen them somewhat should not be too difficult a challenge.

Highways departments that have their asset management plans in place should find that particular challenge much easier to overcome, when the true value of their road network to their locality's economy is easily identifiable. Just over a third of the respondents to this year's ALARM Survey stated that their authority's asset management plan had not yet been completed.

Until it is possible to put a meaningful value on what the local road network delivers economically and make a robust business case for investment in its proper maintenance, the words to that old song: "You don't know what you got till it's gone..." might be a little close for comfort.

ALARM 2012 IN NUMBERS

1.7 million	Potholes filled last year in England & Wales
Nearly £800 million	Annual shortfall in road structural budget - England & Wales
£5.3 million	Average annual highway maintenance shortfall per authority in England (excl London)
1 in 5	Roads with residual life of less than 5 years
11	Years to clear carriageway maintenance backlog in England
10%	Increase in public complaints
£584 million	Cost of last year's (2011) winter damage
£200 million	Emergency funding awarded by central government in 2011 for winter weather damage
2/3rds	Of authorities unable to make good 2010/11 winter damage
Nearly £10 billion	Estimated "one-off" cost to get roads back into reasonable condition



Cool bitumen en route to UK

One bitumen company has developed a type of bitumen that allows asphalt producers to make warm mix asphalts at 40°C lower than hot mix asphalts without having to make any modifications to their plant or laying equipment.

The Total Azalt ECO² bitumen was developed in France to address demands for decreased energy consumption and emissions. In addition to reducing asphalt plant fuel consumption and lowering CO₂ output compared to hot mix asphalt, the lower temperature application of the new bitumen used in warm mix asphalt (WMA) allows faster overlaying of the binder course and typically 20 per cent Reclaimed Asphalt Pavement can be included.

Following extensive laboratory work and two large scale trials of WMA laid as both surface and binder courses in 2010, over 20,000 tonnes of WMA incorporating this "ready to use" modified bitumen have been laid in France.

Trials have taken place in the UK and further WMA supplies incorporating Total Azalt ECO² are planned for 2012.

For further information:
www.bitumen.total.co.uk



Sharing best practice

For the third year running the AIA took the highway maintenance funding message to the annual highlight of the local political calendar, the LGA Conference. Held over three days in June at Birmingham's ICC, the event attracted over 1,500 attendees, all of whom received information relating to the highway maintenance topic.

The AIA also sponsored a breakfast fringe meeting addressed by Councillors and highways officers from Stoke-on-Trent and Cheshire West and Chester who explained how sharing best practice can reduce highway maintenance costs.

Four Best Practice case studies are available by calling 020 7222 0136, sending an email to info@asphaltuk.org or via the AIA website: www.asphaltuk.org.





Leicestershire Highway Works Alliance

An innovative, long-term highways maintenance and improvement contract between Leicestershire County Council (LCC) and Tarmac National Contracting is unlocking efficiency savings without compromising service delivery.

The Leicestershire Highway Works Alliance (LHWA) is designed to encourage innovation and efficiency savings by sharing resources, best practice, knowledge and developing multi-disciplined integrated teams.

The initial five-year contract drew upon Tarmac's extensive resources and expertise, including the supply of asphalt, surfacing, planing services, and recycling capabilities.

Mark Stevens, Assistant Director (Highways) at LCC, says: "We looked at ways to identify efficiency savings while progressing our maintenance work. This collaborative framework enabled LCC to cut costs, helped produce significant procurement efficiencies, speed up project delivery and enabled us to work more closely with our contractors to improve performance and develop best practice".

Delivering efficiency

One of the main drivers of the LHWA contract, which began in 2008, is the commitment to the realisation of a minimum three per cent year-on-year efficiency saving.

Major improvements in project management have been made across delivered work, which to date have generated

more than £670,000 in efficiency savings.

Since the beginning of the LHWA, around 180 highway maintenance schemes have been delivered, with over 100,000 tonnes of asphalt laid in Leicestershire.

Sustainability

Reducing the carbon impact of all LHWA operations is an added priority over the remaining years of the contract, and all parties have agreed to work closely together in order to measure current levels and, wherever possible, introduce methodology to improve current performance.

Moving forward

The first four years of the LHWA can be seen as being successful, with an extensive amount of services delivered across Leicestershire to both programme and budget.

Commenting on the partnership, Paul Fleetham, Managing Director of Tarmac National Contracting says: "This approach to maintenance and innovation has helped save cost and maximise value. The LHWA is a living, breathing example of the public and private sectors working together to deliver best value in highway maintenance".

A work experience partnership

Karl Croft, Lafarge's Renishaw Site Manager, has built up a successful partnership over the past three years with nearby Netherthorpe School, in Derbyshire, providing a valuable work experience placement for one Year 10 pupil each summer.



Netherthorpe School is a designated Science College and helps its Year 10 pupils, who are typically 15 years old, find a fortnight's placement at the end of the school year in a business that reflects each student's interests.

Daniel Marshall (pictured) was the most recent Netherthorpe pupil to gain carefully supervised, hands-on skills and experience at the Renishaw site, which can produce asphalt at the rate of 150 tonnes per hour.

The wide range of activities Daniel experienced included operating the weighbridge to check the weight of vehicles and materials, seeing how an asphalt plant works, assisting in the batching control room, and learning about the quality controls needed - including testing of aggregates and asphalt.



New Scottish SMA

The first SMA to comply with a new surface course specification has been laid in Scotland by Breedon Aggregates on the A985 trunk road at Crombie, between Rosyth and Kincardine.

The new material was awarded interim approval after meeting Transport Scotland's new TS2010 surface course specification, which takes into account the findings of a programme of research carried out by TRL Scotland. This specification is based on German specifications and experience, but with some increased requirements including very high performance polymer bitumen of grade 75/130-75, gritting of

the final surface and a specified post-installation Grip Number.

Following a Type Approval Installation Trial (TAIT) procedure and after the appropriate Grip Number requirement was achieved (measured after six months), Transport Scotland awarded Breedon Aggregates interim approval for the supply and laying of this TS2010 compliant material. Full approval only comes after the

material has been trafficked for two years.

Achieving interim approval is a three stage process of lab design, a witnessed surfacing trial and a trunk road network trial. Criteria have to be met at each stage for approval, before the next stage can be undertaken. The interim approval certificate for Breedon was issued almost exactly one year after the new specification was issued.

Roundabout resurfaced in quick time

In the face of a last minute change of plans, the Southgates roundabout in King's Lynn was resurfaced within a strict time constraint.

The upgrade and widening project - to accommodate the heavy traffic and reduce congestion close to King's Lynn town centre - was significantly speeded up after work had already begun in order to minimise disruption for road users. With the clock ticking, a complete road closure was introduced at 6pm on Saturday and three, 12-hour shifts later the whole project was completed by 6am on Monday.

Material was ordered from the Higham plant in Suffolk, with standby coating plants at Flixton and Trowse in Norwich. There was also back-up laying plant and equipment, to ensure all appropriate contingency plans were in place.

Approximately 1,000 tonnes of asphalt was laid, including 900 tonnes of a new and innovative high polished stone value aggregate asphalt specifically designed for areas requiring high levels of skid resistance and density. Surfacing works also included the five newly widened approach roads which converge at the roundabout, navigating around the improved pedestrian and traffic islands.

The project was delivered by Lafarge and May Gurney, under the Norfolk strategic partnership for long-term patching, surfacing and recycling.

Norfolk County Council's Ian Taylor said he "was impressed with the determination and professionalism shown, and the work achieved during the closure is a credit to the partnership and everyone involved."



MPA Asphalt Conference addresses Innovation in Recession

The MPA Asphalt 2012 Conference takes over from the AIA series for this year to address some of the more technical aspects and material considerations often raised in discussions on highways maintenance. Case Studies and debate will demonstrate how the industry is responding to and delivering real solutions to real issues.

The venue is at the Heritage Motor Museum at Gaydon in Warwickshire, and the Conference takes place on 18 September. The delegate rate is less than £200 and it is hoped to include a tour of the Museum.

For further information contact:
mary.burling@mineralproducts.org

HMEP in year 2

By Matthew Lugg, OBE - HMEP Advocate and President of ADEPT

Just over a year ago, Transport Minister Norman Baker MP launched the Highway Maintenance Efficiency Programme (HMEP), a sector-led transformation programme designed to maximise returns on investment and deliver efficient and effective services.



Aimed at the local highways sector, the Department of Transport (DfT) -sponsored programme runs to 2018 and is a partnership between public and private sectors.

The HMEP team consists of representatives from local highway authorities, industry and central government, and there are three foundation stones at the core of the Programme:

1. By the sector for the sector;
2. Centred on practical, adaptable approaches; and
3. Results-focused

The Programme Board has targeted the DfT's £6million investment to initially support increased collaboration, more efficient and effective procurement, greater standardisation, enhanced asset management and improved benchmarking and performance. Deliverables have been identified under these themes as:

Increased collaboration - including toolkits for setting up highway collaborative alliances and shared services for highway services.

More efficient and effective procurement - products include a model standard local authority highway maintenance contract, advice on routes for procurement and advice on undertaking a supply chain review.

Greater standardisation - a model standard specification for local highway authority highway maintenance services.

Enhanced asset management - new national guidance documents on deterioration modelling, lifecycle planning, the management of highway drainage asset and a new framework guidance for highway asset management.

Improved benchmarking & performance - products to provide better comparative performance data and cost/quality/customer perception measures of value for money.

A great deal of progress is being made developing the above products, which will be released over the next six months.

These are all part of a wider offer to the sector comprising the following initiatives:

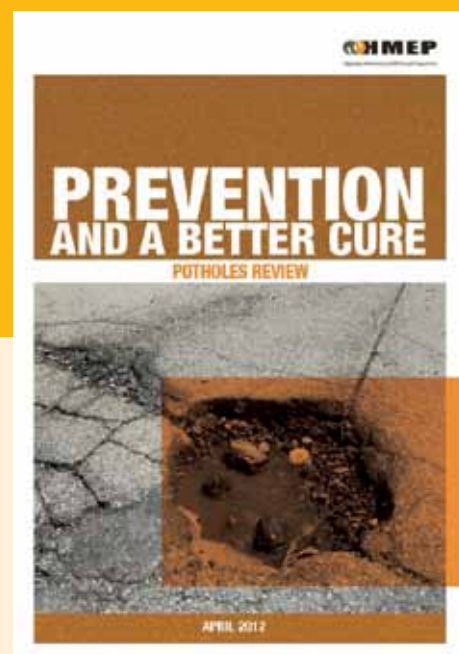
- **Health Check** - to enable organisations to identify and prioritise potential opportunities for efficiency gains and establish current baseline levels of efficiencies/operations
- **Sign Post and Brokerage** - to direct stakeholders to good practice resources and facilitate access to experts (champions) to talk to
- **Knowledge Hub** - to provide a living repository for good practice around generating highways efficiencies
- **Special Interest Groups** - Forums sharing ideas and expertise around highway efficiency topics

All these are under development and will be released later this year.

Prevention and a Better Cure - Potholes Review

The *Prevention and a Better Cure - Potholes Review* is the first HMEP Product and was released this April.

The Review was commissioned by the Minister as a consequence of increasing public concern into the widespread damage to road networks apparently caused by three successive severe winters, and was undertaken with the support of a broad range of Stakeholder Groups.



The three themes highlighted in the Review are:

1. **Prevention is better than cure** - intervening at the right time will reduce the amount of potholes forming and prevent bigger problems later
2. **Right first time** - do it once and get it right, rather than face continuous bills. Guidance, knowledge and workmanship are the enablers to this
3. **Clarity for the public** - local highway authorities need to communicate to the public what is being done and how it is being done.

These are underpinned by 17 recommendations, each of which, if implemented, would lead to more effective outcomes in managing road networks.

The report is predicated on existing good practice and reference is made to 24 case studies, plus further supplementary information on technical notes, guidance documents, research projects, National Highway Sector Schemes (NHSS) and the Highway Authorities Product Approval Scheme (HAPAS).

The Project Board for the review consisted of 20 different stakeholder groups from local and central government, key user groups and industry - including the AIA, HTMA and RSTA.

Taking on board the recommendations of the Review will not mean the end of potholes, but will make a difference in reducing the problem and the impact on all road-users.

If you would like to be kept up to date with the latest news from HMEP please send an e-mail to highwayefficiency@dft.gsi.gov.uk with the subject "Updates" and you will be added to the e-mail circulation list.

White asphalt in tunnels cuts costs and carbon emissions

White asphalt laid in several tunnels across Europe is helping to cut costs and reduce overall carbon emissions without compromising driver safety.

The 1,575 metre Markusberg tunnel in Luxembourg was laid with white asphalt – made by adding a synthetic binder, Shell Mexphalte C, to asphalt mixes – which reflects more light than standard asphalt and so reduces tunnel lighting costs. The energy savings generated as a result paid back the extra material costs in less than five years. At the time of construction, the annual cost reductions were estimated to be about €39,000 in electricity and approximately €16,000 for lighting maintenance. The tunnel energy consumption savings equate to 40 per cent, or about 400,000 kWh, per year. As well as financial savings, the saving in

energy consumption contributes to reduced emissions of air pollutants including CO₂.

Coloured asphalt solutions have been in use for more than 30 years. Coloured asphalt is a type of hot mix asphalt containing a clear binder – a synthetic bitumen that is transparent in thin films. These binders offer the possibility of making asphalt mixtures of any colour, either by varying the colour of the aggregate or by adding pigments (or both). Asphalt mixture performance levels are comparable to those for conventional mixtures with black bitumen, although polymers are added to some binders in order to enhance the mechanical stability of the

asphalt used in heavy traffic applications.

In the Las Planas tunnel in Nice, a class R3 surfacing was laid with a light-coloured asphalt mix for a surface area of 7000 m² in October 1995.

The asphalt mix was a very thin asphalt concrete (BBTM 0/10) with a thickness of 25 mm. It was made with a highly polymer modified synthetic binder, quartzite chippings 6/10 from Inzinzac (France) and titanium oxide as the white pigment.

After one year under traffic, the pavement surface remained very light-coloured, despite a slight decrease in the luminance coefficient.

Tar bound recycling

A recent project led by Hanson Contracting safely recycled nearly 10,000 tonnes of tar bound planings back into the carriageway in a foamix material, thus providing a cost-effective and environmentally sound solution to a potentially difficult problem.



Materials containing tar are classed as hazardous/special wastes and are subject to strict restrictions regarding their disposal and use. They cannot generally be recycled, but in some situations and with the agreement of the Environment Agency, tar bound planings can be re-used through in-situ cold processes.

The foamix process used on the A66 at Little Burdon, which is near Darlington in County Durham, expands bitumen by contact with small amounts of water under carefully controlled conditions. The foamed

bitumen is then mixed with cold moist aggregates and provides a strong adhesive binder system that enables the use of a wide range of recycled aggregates. It produces cold mixes that are often as strong after curing as hot mixes, and stronger and faster curing than emulsion mixes.

20,000 tonnes of non-hazardous materials were planed out on the project, in addition to the tar bound asphalt. To remove the non-hazardous layers, planing of the existing road surface and the required step detail was carried out first. This was followed by planing of the tar bound asphalt. Material from both operations was then taken separately to a recycling facility adjacent to

the site, where the non-hazardous planings were screened, processed and sold into the general market place for re-use as recycled aggregate. The hazardous material was stockpiled separately, crushed, screened and incorporated into the foamix.

Hanson Compliance Manager, Adrian Hadley, said: "Having the facility close to the works meant there was a major reduction in vehicle movements, while recycling the tar bound planings saved bringing in virgin aggregate from our quarries. Leaving the material in place was not an option on this contract, but by using a suitably permitted facility, we were able to provide a safe and sustainable solution."



Carbon count to boost lower temperature asphalts

Producing asphalts at temperatures well below those required for conventional hot asphalt mixtures means less use of fuel and energy and far fewer emissions of greenhouse gases. Reuse of “second hand” aggregates recovered from road works in these mixtures delivers savings not only in the cost of waste disposal, but also in obtaining virgin materials. Put the two together and you are addressing both climate change and sustainability in an effective manner.

On the face of it, cooler asphalts plus RAP (recycled asphalt pavement) is an absolute no brainer. Or so you would think.

“All kinds of factors come into the equation, including the conservative nature of the industry, the uncertainty of highway authorities and the need to go for least initial cost,” says Dennis Day, the cold paving technology specialist of Nynas UK.

At the turn of the 21st century, concerns grew about climate change and the necessity to cut greenhouse gas emissions. This provided fresh impetus for producing asphalts at temperatures lower than the traditional hot mix of 160°C plus. Attention was paid less to cold mix applications, but to those between cold and hot: - namely “half warm” (70 to 100°C) and “warm” (between 100 and 140°C).

H, S and E benefits

Research has shown that with the right mix components, there need be little difference

between the performance of warm and half warm asphalt when compared to hot mix material. Other advantages include savings of 30 to 50 per cent in fuel and energy when specifying warm/half warm mixes and a similar percentage reduction in carbon dioxide emissions.

Use of recycled material in warm mix also provides benefits. Substituting recycled planings for just 14 per cent of primary aggregate can reduce carbon emissions in an asphalt by four per cent and cut a surfacing’s overall environmental impact by nine per cent.

Warm mixes aren’t just easier on the environment, they can be easier to compact at lower temperatures and are reported to have a greater density and fewer voids. There is also less binder ageing in the mixing process when compared to Hot Mix Asphalt, warm mixes can be hauled longer distances and the laying season may be extended.

There are safety benefits too, as warm mixes reduce the hazards associated with handling materials with high mix temperatures.

Of particular relevance in the UK is the fact that warm asphalts reach ambient temperature sooner than hot ones, which means traffic management and delays to traffic can be reduced when a road is resurfaced using warm mixes.

The future for lower temperature asphalts in the UK

Cost is part of the reason why warm, half warm and cold asphalts have so far not really taken off in Britain. The need to invest in appropriate mixing plant has contributed

to the limited take-up of lower temperature asphalts, which can be inherently more expensive than traditional HMAs.

Also, many local authorities lack the product knowledge to make value judgements from both technical and financial viewpoints, while term maintenance contractors show reluctance to exploit “new technology” in case it does not work.

However, the market in the UK for lower temperature asphalt is set to expand, with a significant driver being the Government’s commitment to reduce greenhouse gas emissions by 20 per cent by 2015.

Carbon accounting will really kick in over the next few years and Day believes that in road construction and maintenance there will be a much greater acceptance by clients of “low carbon” asphalts.

There have been some interesting documents published recently, including *Sustainable Procurement in Government: Guidance to the Flexible Framework* from Defra. This represents a sea change in procurement, embedding sustainability into the procurement process. Value for money based on sustainability risk/impact which takes the emphasis off initial cost is another element which could favour low carbon materials. Life cycle analysis and whole life costing will be adopted on high impact contracts.”

Dennis Day is optimistic that the rate of progress toward producing cooler roads containing recycled materials will speed up in the near future. He concluded: “The political pressure to reduce the carbon footprint of road construction and maintenance will become just too great to ignore.”



To check the carbon footprint of your asphalt materials go to www.asphaltindustryalliance.com and click on the asPECT logo

Industrial asphalt shows its strength

A new, high stone content Hot Rolled Asphalt (HRA) specially developed by Breedon Aggregates has been used in resurfacing the factory yard at Laird Brothers, one of the biggest producers of concrete blocks in Scotland.

Normal asphalt could not withstand the high point loading generated by the concrete block-making unit, which is further increased when vibration is used to aid compaction of the concrete in the block moulds. To meet these exceptional requirements, Breedon Industrial HRA was developed.

The optimised stone content produces an HRA which is not only up to three times stronger than normal materials, but also does not have to cure for 28 days before it can be heavily trafficked - which would have been the case if concrete had been used.

The significant reduction in costly downtime was understandably greatly valued by the customer, and the yard (pictured) was back in use in a matter of days.



Mechanical spraying boosts efficiency and reduces health and safety risks

The amount of joint painting required increased vastly in late 2008, when it was made a requirement for all layers in flexible pavement construction when carried out to the Specification for Highway Works (SHW) Clause 903. This increase in painting volume also intensified the health and safety issues associated with the historic operating procedures, where operatives were once required to manually pour hot bitumen onto the joints (typically from a watering can).

However, the introduction of mechanical sprayers - which are able to paint a much longer length of bitumen at a consistent rate - is increasing the amount, efficiency and efficacy of application of joint coverage.

Lafarge Contracting initially trialled a sprayer unit on the A14, between junctions 34 and 35, before using the machine to complete the A46 Newark to Widmerpool Improvement Scheme.

Mechanical operation avoids manually handling hot equipment and material as the plant operator drives the machine, and remotely controls the dispensing of bitumen along the joints

from the vehicle cab. This reduces the serious risk of burns and trips, and also alleviates congestion of the site area. In addition, this operation is quicker and can be carried out using the same plant as the bond coat sprayer, with a large separate tank on the back of the tanker.

The new sprayers include variable nozzle settings to meet the required spread - enabling more accurate placing of material and providing a far better finish than previous methods. Subsequently, operative exposure to hot materials and potential manual handling injuries has decreased and heralded the machine as a health and safety innovation.



Colin Loveday remembered

by Malcolm Simms, Director of MPA Asphalt, Mineral Products Association



Colin Loveday, 9 June 1948 - 19 March 2012

Where do you begin when paying tribute to one of the industry's most recognised and formidable characters?

Do you start with the recent plaudits recognising his life-long contribution to the industry, such as the BSI and CEN Certificates of Merit, the Institute of Quarrying 40 year service medal, the

Honorary Fellowship of the Institute of Asphalt Technology or the Worshipful Company of Paviers Medal for Excellence and the, sadly, too late nomination to the Queen's Honours List?

Do you note that Colin ended his career as Director of Technology at Tarmac, the company he joined in 1971 as a Graduate Trainee after studying at Trinity Hall, Cambridge and Leeds University and worked for all his 41 year professional life? Do you record that Colin led Tarmac's technical function and represented the industry and the UK on many national and international bodies? Do you

list the 20-plus Committees, Working and Task Groups that he sat on or Chaired? Do you indicate that he was Chairman of the Mineral Products Association (MPA) Asphalt Product and Technical Committees, a member of the European Asphalt Pavement Association (EAPA) Technical Committee and most recently Chairman of the Asphalt Industry Alliance (AIA). Or even that he had a huge steering influence

in the Collaborative Research Programme between Highways Agency, MPA and RBA, carried out at TRL.

Perhaps you look outside of work for a measure of the man? Colin was a keen rower and cyclist and used the latter hobby to, in his own words, "closely study road surfaces across UK and Europe, with a very small carbon footprint". He was also probably less well-known as a steam train enthusiast and competent DIY-er. Maybe mention should be made of his unique sense of humour, quick wit and capacity to pun or the twinkle in his eye when he was being deliberately provocative or plain silly to break the tension in meetings?

Of course all of these are relevant and indicative of his life and career, but my abiding memory will be of what appeared to be his unstated mission following his cancer diagnosis - to hug as many people as he possibly could before he left us. In our industry that is certainly an exceptional way to make an impact, and he got away with it.

I am pleased to have counted Colin as a colleague and a friend, and as a recipient of several hugs - his presence will be missed.

Colin leaves behind his wife, Anne, and two sons, Oliver and Miles.

New paver signal system

A new paver electronic light signalling system has been developed to bring added safety benefits to paving operations.



Eastern Lafarge Contracting is trialling the light system, which is mounted to the offside wing mirror bracket of the paver, so that it is clearly visible and on the same side as a reversing delivery vehicle driver.

Allowing a paver operator to easily signal instructions to the delivery vehicle, the system releases the banksman from having to stand at the front off-side of a paver to relay hand signals (or torch signals at night). This not only removes a person from the area where vehicles are reversing, but also frees the banksman to carry out the wider role of managing site transport safety.

Banksman can now manage site vehicles as a whole to ensure correct parking in holding areas - and avoid obstructions to site access points, which can in turn have a major impact on the travelling public.

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Media and general enquiries:

AIA PRESS & INFORMATION OFFICE
HMPR Limited, Buckingham Court,
Buckingham Gate, London SW1E 6PE
T. 020 7222 0136 F. 020 7222 2324
E. info@asphaltuk.org



REFINED BITUMEN ASSOCIATION
Chris Southwell, Technical Director
Refined Bitumen Association,
Hammerain House, Hookstone Avenue,
Harrogate, North Yorkshire HG2 8ER
T. 01423 876 361 F. 01423 873 999
E. chris.southwell@ukrba.com



MINERAL PRODUCTS ASSOCIATION
Malcolm Simms, Director of MPA Asphalt,
Mineral Products Association, Gillingham House,
38/44 Gillingham Street, London SW1V 1HU
T. 020 7963 8000 F. 020 7963 8001
E. mpaasphalt@mineralproducts.org