# pave-it

news from interpave

october 2004 › issue four

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Interpave
THE PRECAST CONCRETE PAVING AND KERB ASSOCIATION

**www.paving.org.uk**

**the latest on concrete block paving, flags and kerbs ››**

# New designer labels hit the high street

Innovative precast paving products and imaginative design are transforming run-down areas into vibrant and people friendly space.

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Interpave
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# pave-it contents



**cover pictures**
above: Hall Street, Blackwood, Caerphilly (pages 14-15).

below: the Sydney Olympics 2000 complex (page 8).

## about Interpave

Interpave – the Precast Concrete Paving & Kerb Association – represents the leading manufacturers of concrete block pavings, flags and kerbs. Its main objective is to expand the use of these materials through education, technical and marketing campaigns.

Interpave is a product association of the British Precast Concrete Federation.

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# welcome...

**to our fourth issue, which reflects feedback from our readers – my own thanks to all of you who took the time to send in the questionnaires.**

While we don't aim to 'theme' issues of Pave-It, we do seem to be concentrating on public space this time – particularly with the exclusive announcement of the Interpave/PSLG Awards winners. This important event celebrates excellence in the design and imaginative use of precast concrete paving in public spaces. On a similar theme, CABE's acting Chairman Paul Finch explains how the government backed CABE Space initiative is set to influence design of the external public environment. Finally, a review of the role played by concrete block paving in creating exciting public spaces for the Sydney Olympic Games in 2000 – and beyond – is particularly timely as London strives for the 2012 Games.

Despite coverage in previous issues, we make no excuses for including more on permeable paving and Sustainable Drainage, as one of the most important technical developments for our industry. We all continue to learn from experience and it is essential to share this information. Similarly, new legislation covering accessibility for the disabled is just taking effect. At Interpave, we are keen to inform all those affected as soon as possible of the implications for external paving and look forward to feedback from our readers on the impact of this legislation over the coming months. Finally, we shouldn't forget the importance of installation with the latest developments in machine laying and new initiatives from Interlay.

Sorry, but there are no prizes or formal questionnaires with this issue – but we are keen to hear your views on how to improve Pave-It, as well as contributions for future issue.

John Howe
Development Director

# news »»

## accessibility – it's the law now

Part III of the Disability Discrimination Act 1995 (the DDA) dealing with Rights of Access takes effect this month. This affects any organisation or individual providing goods, facilities or services to the public and their landlords or property managers, how must now make "reasonable adjustments" to their properties to overcome physical barriers to access. Sounds easy enough! But it will eventually be for the courts to decide whether service providers have actually made reasonable adjustments.

Of course the DDA, as well as the latest Part M of the Building Regulations (with Scottish and Northern Ireland equivalents) and BS 8300 have been looked at long and hard by building designers and managers, in terms of layouts and details. But they apply equally to the external, paved environment: are consulting engineers, surveyors, landscape architects and local authorities prepared? Interpave will shortly publish guidance on accessible paving and this topic is looked at in more detail on page 6.


## SUDS, SUDS...

With the rapidly growing popularity of pervious pavements as part of Sustainable Drainage Systems (SUDS), Interpave has launched a programme of training events delivered by Sustainable Drainage Associates and CIRIA.

A series of one-day training events is aimed at all those involved in the specification and design of pervious pavements, including engineers, local authorities, planners, developers and highways authorities. Topics covered include design considerations, hydraulic design, pollution removal, structural design and materials specification – and practical sessions will be included. The first two events will be held in London on 19th October and Coventry on 24th November. Full details and application forms can be found on the Interpave website **www.paving.org.uk** or you can register on-line at **www.ciria.org.**

A new code of practice encouraging uptake of SUDS, developed under the chairmanship of the Environment Agency with representation from central and local government and the water industry, has just been published by CIRIA. This new code should encourage the uptake of SUDS in new and existing developments by making its adoption and maintenance more straightforward.

Interpave
THE PRECAST CONCRETE PAVING AND KERB ASSOCIATION

## ...AND MORE SUDS

Interpave was represented at the latest Standing Conference on Storm-water Source Control held in Dunfermline during September which attracted 125 delegates including civil engineers and landscape architects, as well as representatives from local authorities, Environment Agency, SEPA and various universities. Since 1990, the Standing Conference has provided the national forum for presentations by engineers and other relevant professionals. Today, with the growth of Sustainable Drainage, the Standing Conference continues to play its part in promoting the introduction and understanding of design and performance of SUDS techniques.


## paving on the web

The Interpave website continues to be developed as a major technical resource with a new homepage and structure to simplify navigation. New guides to specific technical issues, available as PDF downloads, are being added all the time – the latest covering the Handling of Kerbs. Revised sections on pavement design and construction are planned over the next few months.

Interpave
THE PRECAST CONCRETE PAVING AND KERB ASSOCIATION

## INTERPAVE AND THE CONCRETE CENTRE

The Concrete Centre, which commenced operations as the generic promotional body for all cement bound products and systems in January 2003, is concentrating on 10 key strategic areas to defend and grow market share of its enormous product and system portfolio.

The Concrete Centre™

Concrete block paving, flags and kerbs is one of these areas and Interpave, along with its 'contracting' sister organisation Interlay, is one of the highest profile organisations supported by the Centre which in its turn is supported by 15 of the major cementitious and concrete producers in the UK.

The Concrete Centre has teams of local advisors who offer both clients and specifiers unbiased generic advice. Those advisors also offer presentations on concrete block paving, flags and kerbs for housing or commercial applications, as well as on Permeable paving as part of SUDS. CPD (Continuing Professional Development) certificates are provided to meet the requirements of professional bodies.

**www.concretecentre.com**

## Calling all readers

Pave-It already has a circulation of 33,000 but we are keen to expand this – do you have colleagues or contacts who would like their own copy? Just let them know that they can register on **www.paving.org.uk**

We are also keen to feature a wide range of projects in future issues so that experience can be shared by all. Please send us details of your own innovative paving projects: e-mail us at **info@paving.org.uk**

## thanks... for helping us to help you

A big thank you to everyone who returned the questionnaire from the last issue of Pave-It. We have learned a lot from your comments which will help to improve future issues of the magazine.


Eight lucky winners of books on decorative paving from the USA were drawn from respondents:

- Mr Weller, Senior Technician of the Operational Services Directorate, Huntingdonshire District Council
- Mr Higgins, Consultant Architect at Alan N Higgins Associates Ltd., Macclesfield
- Mr Fisher, Group Property Manager of Lidl UK GmbH, London
- Mr Smith, Project Manager at the London Borough of Enfield
- Mr Robertson, Architect Partner of Seven Design Group, Glasgow
- Mr Carter, Director of Wilde & Partners, Stockport
- Mr Rochford, Company Buyer of Harlor Homes Ltd., Wigan
- Mr Cox, Technical Specifier Key Account Manager of RMC Concrete Products Ltd., South Benfleet.

Congratulations to all eight!

legislation

# accessible paving

Major legislative changes are focusing attention on accessibility for all. The implications for the paved environment are substantial but precast concrete products are ready to meet the challenges.

The latest Part M of the Building Regulations and its Approved Document (AD) 'Access to and use of Buildings' took effect in May this year. For non-domestic buildings, the AD is substantially based on a Code of Practice, BS 8300:2001 which includes guidance and detail additional to Part M. BS 8300 is considered appropriate to all applications including housing and existing buildings. Also making frequent reference to BS 8300 is the Department of Transport's 2002 'Inclusive Mobility, a guide to best practice on access to pedestrian and transport infrastructure' which deals with other public areas, often away from buildings.

Completing the picture – and perhaps most challenging – is Part III of the Disability Discrimination Act 1995 (the DDA) that has just come into effect. It requires those providing goods, facilities or services to the public and their landlords or property managers – all known as 'service providers' – to make "reasonable adjustments" to their properties to overcome physical barriers to access. The DDA Code of Practice does not include detailed guidance and it is generally accepted that adherence to BS 8300 will ensure compliance with the DDA – but it will be for the courts to decide on specific issues.

### Safe and Secure Surfaces

All the guidance documents agree that for all the external situations covered, the paving surface must be firm, stable and even – so loose materials such as sand or gravel are inappropriate – as well as durable, slip resistant and non-reflective. Precast concrete flags and paving blocks, used in conjunction with concrete kerbs and accessories, easily meet all these criteria for car parking, level accesses, ramps, stairs and other paved areas. As fully engineered products manufactured under controlled conditions, they consistently provide accurate sizing with controlled joints to ensure an even surface with non-slip characteristics in dry or wet conditions (specifically recognised in BS 8300). Unlike formless materials, chamfered edges of concrete block paving enable rainwater to move quickly off the surface minimising ponding.

Precast concrete paving offers the required, proven long-term performance and durability, while reinstatement after below-ground work can be completed without evidence to give an even surface. It is also one of the few materials capable of the wide variety of colours needed to help visually impaired people – for example to contrast ramp landings or tactile surfaces – while maintaining uniform frictional characteristics (all requirements of BS 8300). Road markings and logos such as the 'wheelchair' symbol can be incorporated easily in coloured blocks. Generally, accessibility requirements apply to the paving needed for access to the building entrance from the edge of the site, car parking, setting down points and (for non-housing) from other buildings on the site. Of course, the design principles involved can also be applied to other external areas to ensure accessibility for all while the DDA and other legislation may well apply to other public areas.

Detailed design measures are available for the following elements:

- On-street parking
- Off-street parking
- 'Level' approaches
- Ramps
- Steps

Interpave will shortly be publishing a guide document on accessible paving summarising these measures.

### SUMMARY OF THE CURRENT REQUIREMENTS

- New Housing – must comply with Part M (Sections 6-10).
- Housing Extensions and Alterations – must not make the building less satisfactory in accessibility terms.
- Non-domestic or Mixed Use New Buildings and Extensions – must comply with Part M (new Sections 1-5).
- All 'Service Provider' Buildings and Facilities – should take reasonable steps to meet BS 8300.
- Pedestrian and Transport Infrastructure – should embrace the Department of Transport's 'Inclusive Mobility'.

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### BOSTON SQUARE, HUNSTANTON

Boston Square Sensory Park in Hunstanton consists of planted areas at differing levels, water features and seating – carefully designed for ease of access by all. Chamferless block paving is ideal for wheelchair users at the main arrival area, contrasting with radial paving blocks to provide a central feature for circular areas.

### SHEERS GREEN, NORTHFLEET

Another sensory park – this time for young children – makes use of concrete paving. The garden at Shears Green Infant School in Northfleet features sensory, ecological and educational themes. Pathways using concrete paving blocks and flags with various aggregates alongside add to the diversity of materials generally and lead to a central, circular 'outdoor classroom' area.

# products for people

Tactile paving surfaces, reinforced with the use of colour, have been in use for some time to provide blind or partially-sighted people with specific information. But it is essential that the rationalised range is used properly and consistently, in accordance with the DETR 'Guidance on the use of Tactile Paving Surfaces'. This is difficult to achieve with many materials but with precast concrete flags and paving blocks, the detailed profiles, sizes and colours specified can be produced easily and consistently.

Members of Interpave have also responded to the challenges of accessibility with product developments such as 'fine chamfer' block paving. New technologies have been adapted, such as use of 'self-draining' permeable block paving for car parking bays, combined with standard paving for pedestrian access, to eliminate the need for cross-falls – a frequent problem for wheelchair users – without surface water accumulation. New products continue to be developed, for example special kerbs to enable level access at bus stops.

Finally, Interpave Members work closely with designers on hard landscaping projects for the maximum enjoyment of all including disabled people, the elderly and the very young. Just a few examples of such schemes are shown below.

## PLANTATION PLACE, LONDON

And, of course, landscaping needn't be confined to the ground, as this garden on the rooftop of Ove Arup's Plantation Place building in central London shows. Here, exposed aggregate concrete flags play a major role in the design concept while ensuring accessibility for all.

## WEST BROMWICH BUS STATION

Interpave members continue to develop innovative products to aid accessibility. For example, at West Bromwich Bus Station the profile of the concrete kerbs was developed to create a 'self-steer' effect stopping the wheel of the bus from climbing the kerb, so that it comes to a halt extremely close to, and perfectly aligned with, the bus stop simplifying access.

## NOTTINGHAM EXPRESS TRANSIT

Several of our cities are seeing a revolution in public transportation with tram or light rail projects. Here, precast concrete paving and kerbing products are being used extensively – including those specifically to help accessibility for disabled people. For example, the Nottingham Express Transit project used over 1000 square metres of tactile paving for pedestrian crossing points and on tram stops.

public space – australia

# olympic achievement

With the Athens Olympics behind us and our thoughts turning towards the London bid for 2012, Alan Pearson looks at the impact of concrete block paving on the 2000 Sydney Olympics complex.

**Alan Pearson** is a Fellow of the Institution of Engineers of Australia and Executive Director of the Concrete Masonry Association of Australia.

The Olympic complex is situated at Homebush Bay, an old industrial site demographically central to Sydney. The green-field site was developed over 4 years to provide an extensive and diverse range of facilities including a 110,000 seat stadium, Super Dome, Aquatic and Tennis Centres, Showground and Olympic Village for 10,000 athletes – as well as transport infrastructure and a hotel. Major venues are kept close together and linked by a 1.5km long concrete block paved boulevard forming a central spine with vast pedestrian plazas interconnecting the venues.

To break up the plazas visually, various block shapes, colours and surface finishes were used creating a 'backgammon board' effect. Shading of rest areas along routes was considered essential and medium to large sized trees were incorporated. Here, concrete block permeable pavements were used to ensure sustenance for the trees as well as to provide sustainable drainage solutions for the paving. Over 8km of 200mm wide tactile paving units were also used throughout to guide and warn visually impaired people. One of the most difficult design processes was colour selection, which involved four architectural practices and various trials based around three special colours: Yellow, Mauve and Bluestone (Black). Of these, the mauve proved most challenging, eventually resulting in an earthy terracotta. In addition, various post-manufacturing surface treatments were tried including polishing, shot-blasting, bush-hammering, exfoliating and, the eventual chosen finish, honing. The paving surrounding the Athletics Stadium depicts a dry cracked river bed typical of Central Australia – earth and ochre colours have been chosen to reinforce this theme.

During the 2000 Olympics the boulevard and plazas proved a great success, not just in handling the large numbers of people and facilitating movement between activity centres, but also in creating attractive public spaces. Four years on and the complex remains well-used with the paved areas popular with pedestrians. The aesthetic appeal is continually improving with maturing vegetation blending with the soft, sensible scale the segmental concrete block paving provides. The durability and performance of the paving units continues to meet its design functions, with minimal or no maintenance required to date.

public space – UK

**Paul Finch** is acting chair of CABE, where he has been a commissioner since 1999. He is also editorial director of the Architects' Journal.

# CABE Space – designs on the public realm

Given the many organisations with an interest in open space and the public realm generally, why did John Prescott, the deputy prime minister, want a new one? The short answer is that there was no single body involved in the full range of what was perceived to be needed, and in particular there was no organisation with an umbilical cord to Whitehall.

Mr Prescott therefore turned to CABE, the Commission for Architecture and the Built Environment created by the government in 1999, to see what could be done. After all, CABE is charged with promoting quality across the built environment, not just in relation to buildings. CABE had a dilemma. On the one hand we were hugely interested in engaging more fully with public realm and green space issues. On the other, with the relatively limited resources at our disposal, we were in no position to deliver the ambitious programmes envisaged by government. Happily, the deputy prime minister found a way of increasing CABE's funding significantly, thereby allowing the organisation to double in size and to create **CABE Space**, which was announced at the Urban Summit in 2002 and launched in 2003.

Under its director, Julia Thrift, CABE Space has made rapid progress in creating programmes similar to those operated by

CABE's enabling and design review operations. They range from campaigning to make better use of our public realm (the 'Wasted Space?' initiative, for example); publication of guidance and information (for example 'the Value of Public Space' document); through to enabling and delivery programmes offering support and access to funding for significant local schemes. It is in these latter areas that, long-term, CABE Space is likely to have the most impact. Calling on a range of 'enablers' skilled on tackling public realm design challenges, we can offer best practice guidance on everything from writing briefs through to technical aspects of landscape delivery. All this happens under the umbrella name of the CABE Space Advisory scheme, which splits its work into three sections:

- Direct assistance to local authorities preparing green space strategies for developing and managing their networks of parks and green spaces
- Training for local authorities preparing green space strategies
- Assistance on individual site-based projects for local authorities and other (mainly public) organisations.

Examples of the latter include help given in running a design competition for the Sheep Market and Red Lion Square in Stamford, two historic town centre squares; other councils including Birmingham and Stoke-on-Trent have been helped in relation to new and rehabilitated park schemes.

Following the 'Wasted Space?' publication, five sites across the country have been the subject of scoping studies to find out why they have become derelict, and what can be done to overcome their problems.
In addition, a panel of more than sixty advisers has been created following public advertisements inviting interest; the advisers devote between 5 and 15 days to individual projects where advice has been sought on planning, design, maintenance and management.

In short, **CABE Space** has a terrific amount of expertise at its disposal, and is anxious to help in the urgent task of revitalising our public spaces, both green and hard landscape, to create the pleasant physical environments which government believes are a prerequisite to achieving its long-term goal of sustainable local communities.

installation

# the machines are taking over

**Dale McRobbie,**
Chairman of Interlay

Mechanised installation techniques for concrete paving blocks slash installation times and cut manual working. Pave-It asks Dale McRobbie – Chairman of the block paving installers' association Interlay – about their growing popularity here in the UK after many years extensive use in Europe.

Pave-It: **How does machine installation work?**

**D McR:** Essentially, a hydraulically operated clamping system is used to lift a 'cluster' of blocks, about 1 square metre in area, as manufactured and already in the required laying pattern. Clamps can be fitted to a variety of site equipment or form an integral part of a dedicated machine designed for good site manoeuvrability. While the machine does all the work, there is usually an operative guiding the cluster into place as well as the machine driver.

Pave-It: **What types of block paving can be used?**

**D McR:** There are various shapes available, as well as standard rectangular blocks in various patterns, most commonly herringbone which some manufacturers offer ready for machine laying.

Pave-It: **How fast can machines lay?**

**D McR:** This depends on site organisation, travel distances, machine types and other factors. But 1,500 square metres per day is easily achievable, and more – contrasting with no more than 50 square metres per person for manual laying. Rates such as these are now comparable with asphalt laying machines. The ability to deploy a block laying machine and crew at short notice to meet 'just in time' demands on sizeable projects is a major benefit.

Pave-It: **So, how well used is this technique?**

**D McR:** In Germany and some other countries, machine laying has been the norm for many years and is used on even the smallest jobs. Here in the UK, the proportion installed mechanically is still relatively small – but growing rapidly, particularly as Interlay members take on the challenge and invest in equipment.

Pave-It: **Apart from speed, what other benefits are there?**

**D McR:** Well, speed means earlier completion and less operational down-time of the paved area – not forgetting that block paving can be used immediately after completion without curing times. It can also lead to lower installed costs. But machine installation also makes it easier to consistently achieve accuracy and uniform joint widths.

Pave-It: **So, all we need is machines to lay the blocks?**

**D McR:** It's no good just using laying machines in isolation, without examining all the other site processes, planning to maximise efficiency and at least considering mechanising other operations such as screeding the laying course and delivering blocks close to the laying face. After all, concrete block paving meets today's construction industry requirements for fully engineered, prefabricated products – fully justifying use of efficient, mechanised site processes.

the Interlay page

# training for paving

Interlay and Interpave have been working closely with MANCAT Construction Skills Manchester, formerly The Manchester College of Building, which now offers a range of courses on installation of precast concrete paving products. Course Tutor Ged Ironmonger reports on this new training initiative.

The MANCAT General Construction Operations department covers the groundwork occupations of the industry. In this department we offer ICA awards and also NVQ awards for General Construction. The majority of the student intake of this department is taken on the Mason Paviors routes. At the college the students are taught Units within the ICA award that reflect the work that they carry out on site. This award runs alongside the NVQ award and they have to produce a portfolio of work-based evidence to achieve the NVQ award. In 2002 the college was awarded the Centre of Vocational Excellence award for its outstanding achievements throughout construction teaching.

At the college we teach the Health and Safety side of the industry through to practical assessments of flag and block paving installation. The theory side of the course is taught in the classroom along with Basic Key Skills, while the practical tasks are carried outside under the all-weather polytunnel under supervision of time-served masons and qualified assessors. Interpave members have been very supportive, supplying materials and products for the practical work areas. The college will be running the following courses in the coming academic year:

- ICA Foundation Construction Course (1 Yr)
- ICA Intermediate Construction Course (2 Yr)
- NVQ Mason Paviors Level 2 (in conjunction with ICA)
- 5 day Block paving course
- 5 Day Kerb, block and flag course

There are signs that the industry is at last building its numbers back up: this term we have signed up 20 new first year students who will achieve Tradesman status in their two year apprenticeship period. At present we also have 16 second year students and hope that in the future more courses can be run to fill the gaps of tradesmen that have developed over recent years.

## RAISING THE STANDARD

### for clients

- ✓ maintaining the highest standards of laying practice
- ✓ developing new techniques and influencing standards
- ✓ increasing the pool of competent tradesmen
- ✓ maintaining an up-to-date list of specialist installers

### for installers

- ✓ detailed website listing recognised as the reliable source of specialist installers
- ✓ helping with training, qualifications and the CSCS card
- ✓ keeping up to date with a regular newsletter
- ✓ access to Interpave, CITB and The Concrete Centre

Interlay
THE ASSOCIATION OF BLOCK PAVING CONTRACTORS

## Interlay today

Despite continuing growth, Interlay has instigated a recruitment drive and is looking for new contractor members. More and more customers are seeking the reassurance of Interlay membership when selecting paving contractors for projects of all sizes, and a growth in membership will help develop this background of trust. New promotional brochures for members to distribute to customers have been published, the website constantly updated with member information and the first issue of a members' magazine 'Interlay Update' circulated. On the training front, CITB is in discussions with Interlay and BALI with a view to developing and piloting training courses.

permeable pavements

# back to the future

Concrete block permeable pavements are rapidly growing in popularity, particularly as part of sustainable drainage systems (SUDS) – now included in the Building Regulations. Steve Wilson, an author of the latest CIRIA guidance on SUDS, looks at current thinking and some common misconceptions.

Steve Wilson

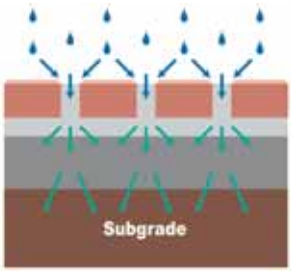
Pervious pavements – which include concrete block permeable pavements – are not a new idea and actually follow principles first adopted by John Loudon MacAdam to improve road construction over 200 years ago. MacAdam used a pervious road surface constructed using coarse angular aggregate, blinded with smaller aggregate and built up in layers with a surface permeable to water. The sub grade was sloped towards edge ditches to give good drainage. Today, there are lessons to be learned from MacAdam's techniques including the use of good quality angular quarried aggregate to give a stable sub base. The specification of the sub base material is crucial to the long-term durability of the pavement and it must be strong and resistant to abrasion, as the strength is provided by point-to-point contact of the particles. These properties must also be unaffected by the presence of water. The grading of the sub grade surface to enhance drainage is also important and the design of modern pervious pavements requires them to drain quickly after a rainfall event so that the storage is available for subsequent storms. The aggregate sub base is therefore specified to be free draining. This means that the pavements are very well drained – much better in fact than conventional pavements – and should give a long service life.

## common misconceptions

Many engineers are concerned about the presence of water in pavements. This is because conventional pavement materials are very susceptible to moisture ingress and rapidly weaken when they become wet. Pervious pavements are not affected because they are designed to allow for the presence of water. Surface clogging is also seen as a worry with pervious pavements although in practice it rarely causes problems – especially with permeable block paving. This is because the surface infiltration rate is so high that even if it was reduced by 90% with clogging that is still sufficient to deal with all but the most extreme rainfall.

## keeping up-to-date

The latest information on the design and specification of permeable block paving can be found in Interpave's *Guide to the design, construction and maintenance of concrete block permeable pavements*. Other complimentary guidance is also provided in CIRIA Reports C582 Source control using constructed pervious pavements and the recently published C609 SUDS, hydraulic, structural and water quality advice. Interpave are also running a series of popular one-day training courses delivered by Sustainable Drainage Associates and CIRIA: details and application forms can be found on **www.paving.org.uk.**




# sustainable paving

## A brief background to today's Concrete Block Permeable Pavements (CBPPs)

CBPPs provide a structural pavement whilst allowing water to pass straight off the surface into the pavement construction for temporary storage and dispersal to the ground or for collection. They are one of the main techniques for Sustainable Drainage Systems (SUDS) which aim to replicate the natural drainage pattern of a site prior to development and to reduce pollution, flow rates and water volumes – so minimising impact on watercourses.

### building regulations

The latest Part H3 of the Building Regulations calls for infiltration, as offered by CBPP, in preference to discharge to watercourses, while discharge to sewers should only be used as a last resort. In Scotland, Part M2 of the Technical standards specifically refers to use of suitable SUDS techniques, such as CBPPs.

### planning guidance

CBPPs are recognised in planning guidance for developments with PPG 25 'Development and Flood Risks'. The housing layouts and densities required by the latest PPG 3 planning guidelines could result in a 55-60% impermeable site area and CBPPs offer a real opportunity to reduce this. Permeable pavements are especially cost-effective in existing urban developments, where there is a need to introduce parking but where there is insufficient space for detention or retention ponds. CBPPs also conserve land by combining parking with surface water handling within a single construction element.

### a sustainable approach

Concrete block paving generally is fully recyclable and straightforward to reinstate leaving no evidence. The Building Research Establishment's 'Green Guide to Specification', which offers guidance on best practice by grading various forms of construction from A to C, credits concrete block paving with an 'A' rating for least environmental impact – compared with a 'C' rating for asphalt. CBPPs take these impressive environmental criteria further with sustainable drainage, offering a preferred solution for compliance with today's Building Regulations and Standards and meeting SUDS criteria.

### Sherwood Energy Village

CBPPs form part of the UK's largest SUDS scheme at the new Sherwood Energy Village in the East Midlands. This unique initiative has transformed a 91-acre former colliery into an environmental enterprise comprising industry, commerce, housing, education, recreation, tourism and leisure. Apart from creating environmental benefits, part of the purpose of Eco Court is to demonstrate to developers that sustainability pays. Chris Blankley of East Midlands Development Agency explains: "Whilst there is a higher initial cost, we aim to show by means of this project that this is outweighed by our reduced running costs, combined with greater rental and capital growth returns, thus encouraging these principles elsewhere."

The CBPPs were laid in vehicular trafficked areas and parking bays of Eco Court, a development of six industrial units constructed according to the principles of sustainable construction. The project Architects were L.E.D.A. of Leeds and the Landscape Architects – Technical Exchange of Sheffield.

### Madley Park Witney

Phase 1 of a three-phase social housing project to build 140 affordable homes for Sovereign Housing Association at the Madley Park development in Witney, Oxfordshire incorporates CBPP.
A key requirement of Phase 1 was to incorporate innovative and environmentally sustainable construction techniques to achieve eco-homes ratings and to benchmark these techniques to assess their suitability for the latter stages of the development. Some 1,360 square metres of CBPP in Buff, Charcoal and Grey colours to complement the Cotswold stone walling, was used on the private parking areas. Leadbitter Construction's Specialist Housing Division carried out these works, which form part of a wider plan by West Oxfordshire District Council to provide much needed affordable homes for local people in the area.

awards

# winning paving

**Winners of this year's Interpave/PSLG Awards were announced at a presentation ceremony at the RICS Headquarters in London on 12 October. In a Pave-It scoop we take a first look at the winning projects.**

This year, there were three project categories and each winner received a prestigious trophy and winner's certificate. Look out for full coverage of the Awards in a special supplement to Public Sector and Local Government magazine next month.

## And the winners are...

### Large Urban Regeneration Scheme

WINNER

**Front Street, Chester-Le-Street, County Durham**

Local Authority and Principal Contractor:
Durham County Council

Front Street follows the Roman road that determined the layout of this historic town. Today, it contains shops, pubs, cafes and other facilities, leading to the bus interchange. This project is the third phase of improvements to the shopping area aimed at regenerating the town centre and making it more people orientated – rather than putting the motorist first. It makes extensive use of block paving and road narrowing to vehicular routes to limit and slow traffic, linked with wider footways of concrete flags and block paving for pedestrians. Features include raised tables on some road narrowings to provide a gateway to the semi-pedestrianised areas.

The judges said:
*"This is an ambitious scheme which was made to work well with a real impact on the local economy. The attention to detail is impressive with excellent handling of level changes at crossings and use of ramps for shops to aid disabled people – particularly relevant with the DDA taking effect. Design elements have been considered individually to suit specific needs rather than used with a broad-brush approach. An excellent winner."*


### Environmental Scheme

WINNER

**Car Park, Corbridge, Northumberland**

Local Authority:
Tynedale Council

Principal Contractor:
Northumberland County Council

To resolve problems of traffic congestion and parking in this picturesque and historic town, a long-term car park was created right next to the river and an ancient bridge which gives access to the town. As well as being sympathetic to its setting, the design had to meet sustainability criteria, limit runoff to the river and prevent back-flow onto the site during river flooding. Concrete block permeable paving has been used to resolve these issues and proved more cost effective than impermeable surfaces with conventional drainage systems.

The judges said:
*"Village parking is always a sensitive issue and this is a particularly good solution which addresses environmental matters as well. A most impressive permeable paving scheme that is sympathetic to the landscape and designed for people as well as vehicles. It has rescued an historic village centre from strangulation by cars."*

## Small Urban Regeneration Scheme

**The Grove, Ilkley, West Yorkshire**

JOINT WINNER

Local Authority:
City of Bradford Metropolitan District Council

Principal Contractor: Atmos

The Grove is the most important shopping area of this spa town, popular with both locals and tourists, as well as being a route to the station. The scheme aimed to transform a bland environment with uneven surfaces and abundant clutter into a safe, attractive boulevard appropriate to this conservation area. A limited palette of flags, block paving and setts complements the colourful Victorian shop fronts and reflects different uses of the paved areas.

The judges said:
*"An exemplary project with full consultation at all stages, restrained choice of materials and excellent workmanship. Intelligent design recognises the needs of different users and is 'in-keeping' with the environment giving an unobtrusive quality. So good, it looks as though it has always been there."*


## Small Urban Regeneration Scheme

**Hall Street, Blackwood, Caerphilly**

JOINT WINNER

Local Authority and Principal Contractor:
Caerphilly County Borough Council

Responding to a brief that called for an attractive link between the town's High Street and a major new retail development, the pedestrianisation and regeneration of Hall Street needed to resolve substantial level changes as well as access for businesses and residents. The solution included steps and ramps, together with creation of a paved plaza for people to spend time and take in surrounding views.

The judges said:
*"This is an heroic attempt to meet various conflicting needs on a difficult site – and it works. Disabled groups, local residents and businesses have all been consulted and this was one of the few entrants to mention maintenance and the longer term. Excellent vantage points have been created and good street furniture, lighting and planting incorporated. A 'transformational' and inspirational scheme."*


## Environmental Scheme

**Martlesham Park and Ride, Suffolk**

SPECIAL COMMENDATION

Local Authority:
Suffolk County Council

Principal Contractor: J Breheny Contractors

The third Park and Ride built to serve Ipswich, this 3.2 hectare site has space for 530 cars. The key challenge was mitigation of the environmental and landscape effects of development, which included sustainable drainage with concrete block permeable paving and a low-impact terminal building.

The judges said:
*"An impressive and substantial scheme with good local consultation, consideration of safety, monitoring of performance and excellent environmental credentials."*

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