



# Marshall's

*Creating Better Spaces*





## Marshall's CPD

Marshall's recognises the value of Continued Professional Development and has been providing free training sessions to its customers for many years.

Our presenters are experts in their field and are skilled at adapting their presentations to suit the experience and knowledge of their audience.

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## Marshall's CPD

CPD Sessions can be delivered in a number of ways:

- Remotely online
- Scheduled webinar
- In your office
- Toolbox Talks
- At one of Marshall's facilities
- An alternative venue of your choice

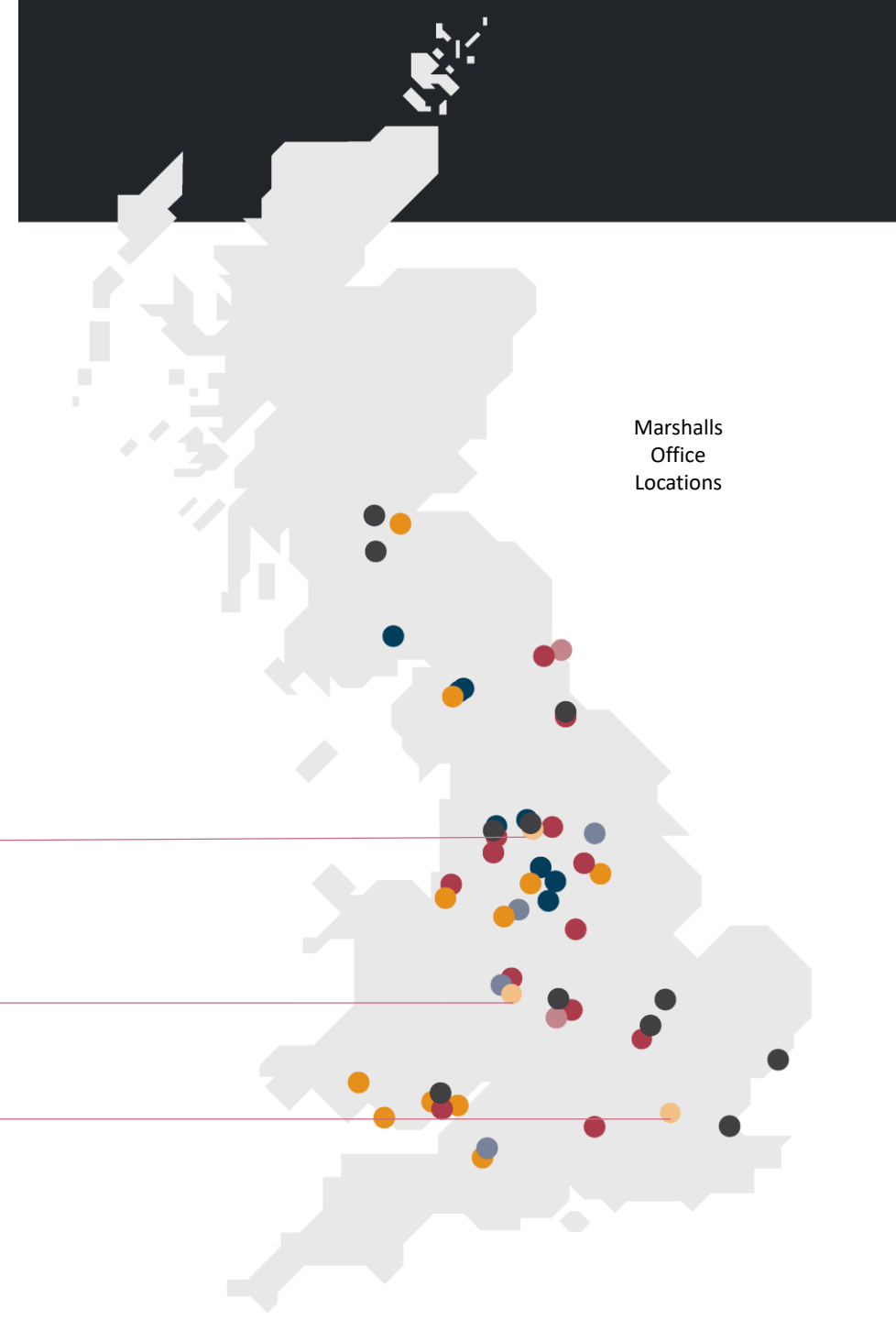
All participants will receive Marshall's CPD certification following their session.

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Marshall's Head Office  
Halifax

Marshall's Design Space  
Birmingham

Marshall's Design Space  
London





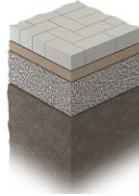
## Marshall's CPD

CPD subjects can be interchanged to form a wider learning programme. We can also create bespoke content tailored to your needs.

To book a session, or to discuss your requirements, please contact:

Engineering Marketing Manager  
Chris Griffiths  
Chris.Griffiths@marshalls.co.uk  
07767 244386

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### Design and Detailing of Modular Pavements with BS7533

- The importance of sub-base design to the performance of a paved surface.
- Understanding the differences between bound and unbound construction.
- Understanding materials, installation methods and laying patterns and how these affect long term performance.
- Maintenance requirements.

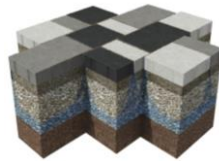
PAVING



### Effective Sub Base Build up Using Marshall's Design Rationale

- Understanding best practise in paving design.
- Examining current British Standard design and its limitations.
- Research, development and testing for better structural performance.
- How to reduce time, cost and carbon using Marshall's' unique indemnified designs.

PAVING



### Designing SuDS Systems with Permeable Paving

- Understanding the importance of Sustainable Drainage and its key principles.
- Why permeable paving is an excellent SuDS solution, and how it fits within a wider SuDS landscape.
- Exploring hydraulic and structural sub-base designs requirements for permeable paving systems.
- Maintenance and adoption of permeable pavements.

PAVING / SuDS



### Linear Drainage Design & Detailing

- Overview of hydraulic design principles to create lean specification
- Use of BS EN 1433 to select most appropriate load classification
- Summary of key details to ensure long term performance
- Effective design that considers long term maintenance of systems including self cleansing properties

DRAINAGE



### Highway Drainage Design

- Overview of hydraulic design principles in highways applications
- Using BS EN 1433 and DMRB to select the most appropriate load classification
- The importance of detailing in Combined Kerb & Drainage design
- Effective design that considers long term maintenance of systems including self cleansing properties

DRAINAGE



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### Bespoke Manhole Systems

- The design benefits of specifying bespoke manholes
- How to install concrete underground systems and the sustainability benefits they can offer
- Understand time and labour benefits – install a watertight sealed manhole in less than 30 minutes!
- How bespoke manholes improve health and safety during the installation process

DRAINAGE



### Below Ground Water Management Systems

- Overview of precast drainage and understand its place within a holistic water management system
- The proven longevity advantage of concrete systems, and how they can complement SuDS
- How modern construction methods can reduce installation times and improve sustainability
- Understand the impact of urbanisation and climate change on water management schemes

DRAINAGE



### Modular Retaining Walls

- Overview of the BBA Approved, CE Marked Redi-Rock™ system
- Understand how it is widely used as part of the UK flood defence strategy
- Also understand its suitability for rail, housing, highways, security, commercial and infrastructure projects
- How to achieve height without compromising on strength – and how this adds value to your project

WALLING



### Hostile Vehicle Mitigation

- Understanding the imposed threats in the public realm and why aesthetically pleasing HVM is required
- Understanding which areas are considered most at risk
- Overview of specification and testing standards
- Key considerations when designing and installing security

LANDSCAPE  
PROTECTION



### Ethical Stone Procurement

- Introduction to some of the issues affecting the procurement of natural stone
- How ethical risk can be managed in the supply chain
- Marshall's Ethical Risk Index and scoring framework

NATURAL  
STONE