

Monday 8th December 2008
One Great George Street, Westminster, London.

Underground SUDS solutions: Design, policy and application

A seminar for those with an interest in the design and specification of below ground SUDS solutions.
The current and future statutory policy concerning construction, ownership and operation.

Speakers from:

DEFRA

OVE ARUP

CIRIA

Heriot Watt University

Conference organised by Marley Plumbing and Drainage.



Includes a copy of the NEW
CIRIA Design Guide

Programme

- 10.00 Registration and refreshments**
- 10.30 Welcome and introduction**
Mark Hansford, Features Editor, New Civil Engineer
- 10.40 Drivers for sustainable drainage**
Paul Shaffer, Associate, CIRIA
This presentation will outline the drivers and benefits of sustainable drainage and examine what can be achieved within the built environment.
- 11.05 Structural design of modular geocellular tanks**
Steve Wilson, EPG, BEng MSc CEng CEnv CSci MICE MCIWEM FGS
Author of the recently published CIRIA Report C680, Steve will discuss the guidance provided in this Report, entitled "Structural design of modular geocellular drainage tanks", and other recent documents. He will explain how to avoid common pitfalls in design and construction, to provide tanks that are safe and durable.
- 11.45 Hydraulic aspects of SUDS design**
Malcolm Wearing, CRM Rainwater Drainage
With a background in physical hydraulic modelling and testing, Malcolm has been deeply involved in the hydraulic design of underground box structures. His presentation will focus on the hydraulics of flow into and out of box structures, as well as wider hydraulic aspects of SUDS design.
- 12.15pm Lunch**
- 1.30pm SUDS and beyond in the UK**
David Evans, Ove Arup & Partners
David is an Associate Director with Ove Arup and Partners; he leads the Water Group in their Cardiff office and is responsible for services delivered to Welsh Water. As well as discussing the issues facing the UK Water Industry, his presentation will give pointers to the way forward.
- 2.00pm Climate change: Too much and too little water – challenges for the 21st Century engineer**
Professor John Swaffield FRSE
John is Professor Emeritus at Heriot Watt University, President of CIBSE and a member of the DCLG Part G Building Regulations Working Party. His presentation will concentrate on three areas: increased rainfall severity and frequency; water conservation and its reflection in governmental responses to water demand and the implications of increased urban population densities on the public health aspects of building drainage design.
- 2.30pm Surface water management**
Linda Aucott, Project Manager, Surface Water Drainage, DEFRA
Linda will explain the Government response to the Pitt Review, new guidance for Surface Water Management Plans and take a forward look at proposed changes for improving surface water drainage.
- 3.00pm Questions and discussion**
- 3.30pm Summary and close**

It is now widely recognised that the effects of climate change will impact further on stormwater drainage systems and increase the risk of flooding.

Because of such predictions, Sustainable Drainage (or SUDS) is now at the forefront of environmental policy and planning.

Over the past year there has been a raft of studies and reports, which consider how sustainable drainage should be encouraged and implemented. The Pitt Review and the Government's water strategy for England, Future Water among them. Most recently we have seen publication of the DEFRA consultation paper on "Improving surface water drainage", which considers the options for the future construction, ownership and operation of SUDS installations.

SUDS systems installed underground can have advantages over above ground equivalents:

- Low space utilisation
- No health and safety risk
- Adaptability to suit site conditions
- Conducive for rainwater reuse
- Low vandalism risk
- Low maintenance

However the design of underground SUDS systems, particularly those using geocellular tanks requires a particular approach when it comes to structural and hydraulic design.

This seminar, organised by Marley aims to clarify the issues of load transference and the general structural design philosophy required for storage cells as well as looking at how storm profiles are used in the hydraulic design of such installations. We will also be looking at the likely direction of future regulation with particular emphasis on the long term responsibility for such systems, as well as the potential for such systems to incorporate rainwater reuse.

Booking Information

Return by 21st November 2008

I wish to make the following booking:

I enclose a cheque for £70.50 (£60 +VAT) made payable to Marley Extrusions Ltd.

Full Name	<input type="text"/>		
Position	<input type="text"/>		
Company	<input type="text"/>		
Address	<input type="text"/>		
	<input type="text"/>		
County	<input type="text"/>		
Postcode	<input type="text"/>	E-Mail	<input type="text"/>
Telephone	<input type="text"/>	Fax	<input type="text"/>
Signed	<input type="text"/>		

Please return with cheque to Fiona Bashford, Marketing Communications Manager, Marley Plumbing and Drainage, Dickley Lane, Lenham, Maidstone, Kent, ME17 2DE.

Tel: 01622 852682 Fax: 01622 852568 Email: bashfordf@marleyext.com

I do not wish to receive future information from Marley by e-mail or by any method (Marley do not pass data to third party companies)

TERMS AND CONDITIONS BOOKING CONDITIONS A confirmation email will be sent within 3-5 working days from receipt of your booking. Payment must be received before the conference date and can only be accepted by cheque. This seminar has a limited number of places, these places will be allocated on a first come, first served basis. **CANCELLATIONS/SUBSTITUTIONS** Cancellations made before Monday 10th November 2008 will be charged at 10% of the invoice total. Cancellations made between this date and Monday 24th November 2008 will be charged at 50% of the invoice total. Cancellations made after this date will be charged the full invoice total. However you can send a substitute delegate at any time. Cancellations and substitutions must be made in writing. **ACCOMMODATION** For accommodation please refer to www.onegreatgeorgestreet.com **ACCESS REQUIREMENTS** To help us ensure that all delegates attending the conference are able to participate fully, please let us know about any requirements you have by contacting Marley using the details above. **DIETARY REQUIREMENTS** Please inform us if you have any particular dietary requirements. **CONFERENCE LANGUAGE** English **PLEASE NOTE** The conference fee covers entrance, a copy of "Structural design of plastic geocellular drainage tanks" by S Wilson, published by CIRIA, conference documentation and available papers, coffee/refreshment breaks and lunch.

