

Client Side

Olympic designers look for sustainable asphalts

Design of paving material specifications is under way for the London 2012 Olympic Games, to a philosophy that puts recycling and porous asphalt central to the Olympic Park plans.

Remediation of 250ha of brownfield land is under way in East London, a large portion of which will become paved areas of the London 2012 Olympic Park. Large quantities of material will go into the paving, including asphalts and possibly a porous asphalt reservoir to make the Park and its legacy as sustainable as possible.

The Olympic Delivery Authority (ODA) and LOCOG (London Organising Committee of the Olympic Games) have published a sustainability plan, entitled Towards a One Planet 2012. This includes consideration of the materials to be used and now the ODA's delivery partner CLM (CH2M Hill, Laing O'Rourke and Mace) is using the philosophy to design material specifications for the Olympic Park.

Towards a One Planet 2012 is based on the WWF/BioRegional concept One Plant Living, which has 10 guiding principles including 'zero waste' and 'local and sustainable materials'. The ODA has set programme-wide minimum targets of achieving 25% by weight of recycled aggregate use in the Olympic Park and reuse of 90% of onsite demolition materials.

These are the key targets for a complex, multi layered programme of pavement design and construction. Creation of the Park requires permanent and temporary access roads and the Olympics venues will feature paved surfaces that will either provide a lasting legacy, or will be removed after the event for further regeneration of the site. Furthermore, plans for the Park feature 'public realm' spaces, cycleways and footways – temporary and permanent – to be designed to the same sustainability plan.



The Olympic Park will feature temporary and permanent paved spaces, cycleways and footways

Interest in the paving materials also cuts across all levels of organisation of the Games. ODA is leading on planning and construction of the Park, LOCOG on aspects that impact on the staging of the Games, while the London Assembly, Development Agency and local government will take over the legacy and responsibility for regeneration.

According to an ODA spokesman, pavements that will be 'retained in legacy' are being designed to national adoptable standards, whereas parts of the Olympic road network will reflect limited vehicular use. Design consultants are working with the ODA and highway authorities to develop technical specifications which suit operational needs, sustainability targets and the availability of material for recycling into paved areas. Design

teams will be able to specify high levels of recycled aggregate from local sources for highly durable or temporary asphalt pavements.

They may also design the largest UK example so far, of a porous pavement as part of a Sustainable Urban Drainage System (SUDS). The ODA says it is adopting SUDS wherever possible, such as in the area of the Olympic Parkland and Public Realm. A concept being considered is a porous asphalt surface over a porous sub base to create a sub surface storage reservoir. Its design will be governed by the storage volume required and the surface loading from vehicles.

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