

# WATER & SOLAR POWERED PASSENGER LIFT

Designed by Matthew Lloyd Architects

Created by Matthew Lloyd Architects for the London Festival of Architecture 2010, this water and solar powered lift has been designed to raise public awareness around access and sustainability, firmly placing the key issues of inclusive design and equal access in the spotlight. The design team worked throughout with disability arts groups Architecture Inside Out and Shape to ensure that the scheme is relevant and worthwhile. Matthew Lloyd Architects also enlisted the help of the Royal Engineers in the initial design stage, partly because of their historic links to this part of central London, and partly because of their unsurpassed skill in developing swift-response, site-specific solutions.

The zero-energy lift, capable of carrying more than 350kg, uses water weights to counterbalance the lift cart, with solar panels powering the pump. In using water and solar power, one is freed from the need for a connection to mains electricity. This means the lift can be used anywhere, and can even be moved from one site to another. It also enables the lift to touch the historic steps lightly, with no mechanical fixings to the old stonework. As a Grade I listed site, the Duke of York Steps has the highest level of historic and architectural importance. The architects worked hard to create something of architectural merit, suitably responsive to the surroundings. Whereas most lifts of this nature are hidden away, the water powered wheelchair lift takes centre stage on the site. In addition to the symbolic value, the central siting gives disabled people an equal experience of going up and down the Steps, enjoying the views.

It is also important that the lift be an enjoyable attraction to the general public. This is proving to be the case, with queues forming of tourists and passersby eager to have a ride. All the mechanical innards are visible, allowing users and passersby to decipher how it works. The lift is a prototype, a radical vision of equal access; it is hoped that it will be developed into a fully sustainable lift installation, which would consist of three lifts, one on each landing, offering access to the complete staircase.

The Royal Parks (site owner), and the City of Westminster (the local authority) have kindly supported us in our quest to create this installation.

In collaboration with RIBA, Architecture Inside Out and Shape, the Royal Engineers as concept engineers, and The Royal Parks as land owners.

