




# Making Parking Greener

In partnership with 

As the need for car parking spaces grows, finding ways to make parking more efficient and more environmentally friendly is becoming increasingly important.

**A greener approach can be achieved in two ways:** through aspects of the construction process, and through keeping a firm hand on the maintenance and management of car parks.

The Osborne Siderpark modular car park solution can help in both areas, with our quick and easy to erect structures that can be dismantled and used elsewhere when needed. We can also provide sustainable energy sources and Electric Vehicle parking solutions; all this can be provided along with full design and financing solutions.

**Parking has three main effects on the environment**

– it takes up space, it is visually intrusive, and searching for a parking space uses unnecessary fuel and causes pollution, especially in enclosed car parks.



Academic estimates suggest that up to 10% of the land in some cities is now devoted to car parks. Traditional car parks encourage sprawl, contribute to urban heat islands and offer little in the way of biodiversity. The impact of going upwards by adding an extra deck to a parking area can be a low-cost solution with a smaller cost to the environment.

The provision of adequate space and information about the availability of spaces within a car park can overcome much of the searching-for-a-space problem. As for the visual and space-occupying aspects, underground car parks are expensive to build and maintain. Careful landscaping and sympathetic cladding for above ground car parks can reduce the visual impact, but at a greater cost to the operator.



There is no doubt that electric vehicles (EVs) are the future of private road transport – the UK and France are to ban the sale of new petrol and diesel vehicles by 2040. As charging capability is crucial to the parking choices made by EV owners, car park operators that don't install charging stations as standard will be left behind when EVs become more widespread.

And, of course, it makes great economic sense to supply the charge from photovoltaic sources, or solar panels. Although the initial costs can appear high, they pay for themselves quickly.

In the longer term, it has been suggested that car parks might form giant 'batteries', using the EVs within as a huge electricity storage resource. It has been estimated by an academic study in Australia that EVs are stationary for 95% of the time, and this presents a significant opportunity for car parks housing EVs to become part of the electricity grid, helping to store energy more evenly and removing supply bottlenecks. Trials are already underway in Denmark to see if this is a feasible prospect.

Rainwater harvesting is also another efficient and green way of utilising the flat space offered by car park structures. And the strategic planting of trees in and around car parks can offer shade, absorb pollution and take up water. There is research to suggest that heavily shaded car parks absorb smog-producing ozone, cut overall hydrocarbon emissions from vehicles by 2% and reduce run-off by more than 175 gallons per tree.

Photovoltaic "solar trees" can provide more shade than real trees, while generating clean electricity at the same time. A recently unveiled car park consists of 25 power-generating solar trees shading 186 parking spaces. The panels produce over 430,000 kWh a year which is used to power offices, provide lighting and recharge EVs.

Sensor lighting solutions are another obvious way of making car parks greener. Motion sensitive lights use far less electricity than 'always on' systems. Scaled lighting can also be employed, with shorter light poles and less intense lighting where pedestrians or bicycles will be, and higher intensity lighting in areas where cars are, to minimize the over-lighting of areas that don't need to be lit.



## The solution

Osborne Siderpark modular car parks can be installed directly on top of an existing car park surface without the need for foundations. This doesn't just save time and money - it also means that you don't have to worry if the ground beneath the car park is an archaeologically sensitive site.



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modular solutions

**Overall,** using the Osborne Siderpark modular car park solution means you can be satisfied that you're going to be as green-friendly as is possible: a huge draw in these environmentally worrying times.