

- modular saves 30% cost
- 209 spaces with just one deck
- capacity to expand EV charging
- no piled foundations
- 'green wall' increases biodiversity

Case Study



Car park – Institution of Engineering and Technology

Sustainable modular design saves 30%

PROJECT	209 space single deck car park with EV
CUSTOMER	Institution of Engineering Technology
LOCATION	Stevenage
CONTRACT	JCT design and build
COMPLETION	2022





Need

Installing a modular parking deck can save at least 30% in space and cost over traditional designs. However, when a car park is an add on to a wider building project, the focus can be lost. In the same way that knee surgery needs a specialist not a GP, a car park design needs a turn-key parking specialist.

The Institution of Engineering and Technology (IET) facility at Stevenage, is the UK office serving 158,000 members globally. Planned growth needed 200 extra office parking spaces.

The design submitted for planning detailed a traditional car park split over four levels. Using the Octavius/Siderpark system, just one deck achieved 209 spaces saving 30% in cost!



Figure 1 - Original design

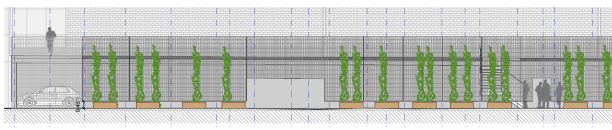


Figure 2 - Single deck with green wall cladding

Solution

Design review

We received the enquiry for a split four level car park, and it was immediately clear that the flow could be improved using our Octavius/Siderpark system. A meeting with the client and architect set the expectation and we refined our proposal.

Added 'Green' Features

The car park would act like a hub linking staff directly between their modes of travel and the offices. That meant it was essential to include EV chargers and cycle storage.

To meld the deck into its surroundings a 'green wall' was designed using the open weave cladding to entwine climbing plants.

Best Layout

The beauty of our modular system is that the long clear spans immediately released extra spaces in the design. By understanding the flow, we were able to position the entrance, exit, and ramps to further increase capacity. As a result of this, and a small increase in the footprint, four decks reduced to just one!

No Piled Foundations

The reduction to one deck and the use of our clear span modular system meant a simple ring beam foundation could be used. There was no need for piled foundations.

Outcome

The change to the Octavius/Siderpark modular parking system brought enormous customer benefits. The most significant was a 30% reduction in cost which released budget for building refurbishments.

Planning approval for a single level car park was gained quickly. If this option had been proposed from the outset it could have also saved time on the planning process.

- Reducing the height from four levels to one improved the visual impact and increased light to the adjoining building
- The sustainable green wall cladding will look great and increase biodiversity as the planting matures.
- On-site erection was quick and less intrusive for nearby office staff.

The gains do not stop there, a second deck can be added, and the infrastructure is in place to convert more spaces for EV's as the facility grows and electric vehicles increase.

This modular parking solution plays its small part in enabling IET to fulfill its vision to engineer a better world, by engaging and inspiring people where engineering and technology are key to solving many of the biggest challenges facing us today.