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Quality

## Urban liveability



## Sustainable renovation

In 2020, Q-Park Germany completed a challenging renovation project of Q-Park Karstadt in Bielefeld. This concerned a multi-storey car park built in 1965, and acquired by Q-Park in 2009.

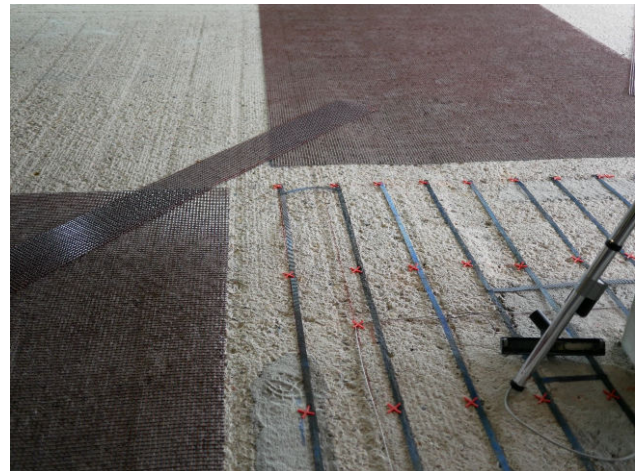
Major refurbishment was required as holes were appearing in the reinforced concrete floor and corrosion was found throughout the reinforcement. Exposed concrete allowed de-icing salts from cars to penetrate the structure easily and attack the internal reinforcement, compromising the structural stability.

Q-Park's real estate team identified the problems and, together with a specialist planner, came up with innovative methods to renovate the site while keeping this busy city centre car park open.

### Innovative maintenance plan

A combination of innovative maintenance systems was chosen to replace the reinforcement, with additional protection against further corrosion. This included:

- I structural steel, glass fibre composite reinforcement and carbon scrims;
- I carbon-fibre reinforced concrete;
- I carbon scrim coating with anti-corrosion and anti-oxidation properties;
- I rigid long-lasting sealant for additional protection against tyre wear.



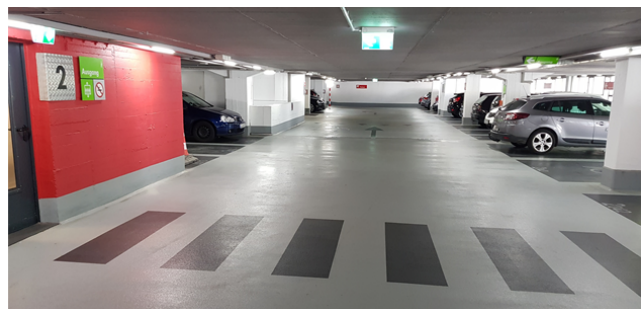
Carbon scrims on bare concrete slabs, with anode strips surrounding the supports to protect against cathodic corrosion (on the right)

### New look and feel

To improve parking comfort, floor plans and traffic routes were redesigned. Although this sacrificed more than 70 spaces, the car park now has 28 XXL spaces and 16 spaces reserved for blue badge holders. All spaces are now at least 2.3m wide.

In addition, an energy-saving LED lighting system with smart light controls was installed on all parking levels, as well as in the stairwells and other pedestrian areas.

 [More about this innovative renovation.](#)



Parking deck - Before & After