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Advantages of circular construction include:
- little or no raw material wastage;
- contribution to the circular economy;
- high-quality building, worth more in the long run;
- government subsidy opportunities.

The consortium, consisting of Holland Immo Group (finance), Kern Architects (design), Aan de Stegge Twello B.V. (construction) and Q-Park (operation), submitted a C2C construction plan for a new parking facility on the site.

Reusable materials
The building materials chosen can largely be reused. Furthermore, by developing the car park in an energy-efficient way, a circular structure has been realised in line with the C2C principles of Venlo municipality.

Another important aspect of the plan was integrating the car park into its surroundings. This has been achieved by finishing the façade with brickwork and steel elements – materials which can easily be recycled.

More about this cradle-to-cradle construction.

Temporary construction

Q-Park and Aan de Stegge Twello B.V. are collaborating on another parking facility in Venlo: a temporary car park designed by MH1 architects in collaboration with Continental Car Parks.

Despite the temporary nature of the car park, the plans are for a high-quality structure that blends in perfectly with the local landscape. Circular building materials will include:
- high-quality and durable galvanised steel;
- TT floor slabs;
- wooden slats to shield parked cars from view.

Circular design
The temporary parking facility will be fully dismantlable and suitable for rebuilding at another location in due course.

This parking system, the Flexideck, a Continental Car Parks innovation, scores high in a cradle-to-cradle context because most of the materials can be reused.

The construction of the parking facility in Venlo will take about four months, construction work will begin in January 2021.

More about Venlo's temporary car park.

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.

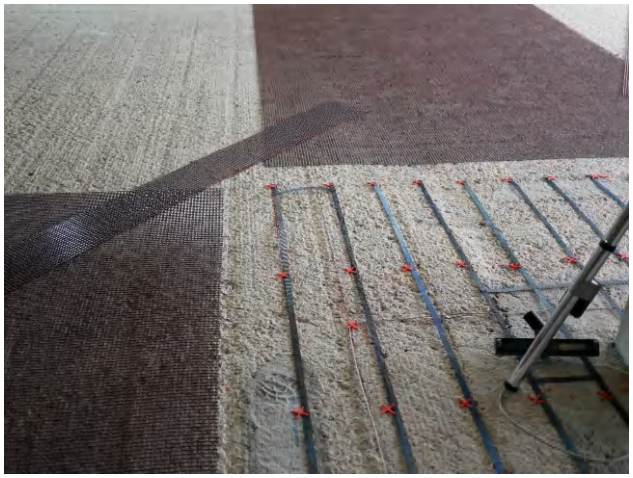
Major refurbishment was required as holes were appearing in the reinforced concrete floor and corrosion was found throughout the reinforcement. Exposed concrete allowed de-icing salts from cars to penetrate the structure easily and attack the internal reinforcement, compromising the structural stability.

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:
- structural steel, glass fibre composite reinforcement and carbon scrims;
- carbon-fibre reinforced concrete;
- carbon scrim coating with anti-corrosion and anti-oxidation properties;

- rigid long-lasting sealant for additional protection against tyre wear.

Parking deck - Before & After



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.

Rejuvenating Antwerp's docklands

Q-Park Belgium opened the prestigious Q-Park Steendok car park on 3 December 2020. This car park is part of a larger development including a park and another underground car park (Q-Park Kooldok), planned for opening Spring 2022.

Added value for Antwerp

This new underground parking facility is part of a larger plan adding value to the city of Antwerp and is:

- reshaping disused docklands;
- repurposing public space;
- creating considerable parking capacity.

The spacious car park with room for about 1,000 cars and 125 bicycles is built within the walls of the former dock. A historical dock wall has been preserved and is visible on level -1.

The new parking facility will help rejuvenate the southern part of Antwerp which is home to museums, art galleries and trendy restaurants.

The car park also provides safe, secure and economic parking solutions for residents.

Customer friendly car park

All four underground levels have spaces for people with reduced mobility close to the pedestrian exits. EV charging is available on all levels and the bicycle parking area includes facilities for e-bike charging.