

Originally constructed in 1973 and suffering from severe chloride induced deterioration, Bell Street Car Park has now been transformed into the Bell Street Green Transport Hub. The refurbished facility provides 444 parking spaces across four levels, including 180 EV charging bays and 18 accessible spaces. The remaining levels have been repurposed to accommodate a rooftop photovoltaic array and a community focused ground floor featuring cycle facilities and a Regional Bike Reuse Centre.

DUNDEE, BELL STREET

CASE STUDY

Location
Dundee

Client
StructureCare

Completed
2025

Structure
Car Park



The Problem Identified

Bell Street Car Park is a multi storey reinforced concrete structure located in the heart of Dundee. Over time, the structure experienced progressive deterioration caused by chloride induced corrosion of the embedded steel reinforcement, resulting in widespread damage to the reinforced concrete elements.

Extensive structural refurbishment works were required throughout the structure, including more than 3,700 localised concrete repairs to decks, soffits, walls, columns, façade elements, and bridge sections, many of which required specialist access via MEWPs.



The Solution Developed

StructureCare were appointed by the main contractor to undertake the concrete repair, galvanic anode installation, and deck coating elements of the refurbishment works.

Concrete Preservation Technologies (CPT) supplied and installed PatchGuard galvanic anodes which were installed around the perimeter of all concrete repairs as part of the project's corrosion mitigation strategy. The anodes were incorporated to mitigate the formation of incipient anodes adjacent to the repaired areas, helping to ensure the long term durability, structural integrity, and safe continued operation of the structure.

CPT worked closely with all project stakeholders throughout the programme, carrying out multiple site visits to assess steel densities and determine the most appropriate anode types, sizes, and spacing arrangements for the varying structural elements across the car park.

The PatchGuard galvanic anodes were installed into pre drilled holes located within the host concrete around the perimeter of each repair area. Unlike traditional patch repair anodes, which are typically embedded within the repair mortar itself, PatchGuard anodes are positioned within the parent concrete. This installation method optimises current distribution and provides enhanced protection to the surrounding reinforcement, helping to significantly reduce the risk of future corrosion adjacent to the repairs.





In total, more than 7,500 PatchGuard galvanic anodes were installed throughout the multi storey car park as part of the long term corrosion mitigation and durability strategy for the structure.



The Benefits Provided

The PatchGuard system is designed to provide long term corrosion protection to the reinforcing steel within the structure, with a design life of 15 years and the potential to continue performing well beyond this period.

Tony Dinsdale, Operations Manager at StructureCare, commented:

“The PatchGuard anodes were selected due to the speed and simplicity of installation, the supporting technical data, and the excellent technical support provided by CPT throughout the project. The refurbishment has been a major success and we are extremely proud of the finished result.”

The project also received industry recognition, winning the Liquid Waterproofing Project of the Year award at the 2026 Liquid Roofing and Waterproofing Association (LRWA) Awards.

CPT Products Used

