

Eastgate MSCP Southampton, UK

Country: United Kingdom

Client: Southampton City Council

Project Timescale: April - August 2008

Structure: MSCP lift slab construction

CPT Treatment Applied:

DuoGuard™ Hybrid Anode™ System

RebaGuard™ Galvanic Anode System

CPT Products used

- DuoGuard™ 350
- DuoCrete SD Mortar
- RebaGuard™
- MN15 Reference Electrodes
- GAN 1 Monitoring System

This 1970's Car Park is situated in the centre of Southampton adjacent to popular shopping locations. Historical records/testing indicated that, prior to the application of the current deck coating, the concrete deck had been exposed to de-icing salts deposited by parked cars. As this was a lift slab car park, and with the observation of limited areas of concrete deck spalling, the council were keen to ensure that any potential issues with chloride salt induced corrosion were identified early on.

The council therefore installed a remote corrosion monitoring system, provided by Concrete Preservation Technologies Ltd, in which a number of reference probes were installed at critical locations on the structure.



Early data from the corrosion monitoring identified one area of activity. However, the client was due to undertake a refurbishment of the car park. The existing worn coating was removed and replaced.



During the refurbishment, half-cell potential testing was undertaken over the complete deck surfaces, which allowed identification of areas where corrosion had initiated. These areas were treated with DuoGuard 350 anodes applied on a 500mm grid in the affected areas.

As a permanent installation, the DuoGuard 350 units offer long term corrosion protection of the structure at local 'hotspots'. The cost to the client was minimal as the area treated was <2% of the deck surface. Corrosion monitoring was extended to all decks of the car park allowing the client to undertake an on-going assessment of rebar corrosion.



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