

## Shopping Centre MSCP's Refurbishment

The Plaza Shopping Centre, Wokingham

### SCOPE

- // Concrete Repair
- // Sacrificial Anodes
- // Anti-Carbonation Coatings
- // Deck Waterproofing

### DETAILS

- // Shopping centre car park
- // >7,000m<sup>2</sup> of parking decks and ramps re-waterproofed
- // >25 tonnes of defective concrete removed
- // Significant concrete repairs & resin injection to decks, soffits, columns & walls.
- // In excess of 11,000m<sup>2</sup> soffits, columns & walls protected with anti-carbonation coatings

# Case Study // Car Parks

Client | Colliers International  
Role | Principal Contractor

**Before:** Delaminated Deck Coatings

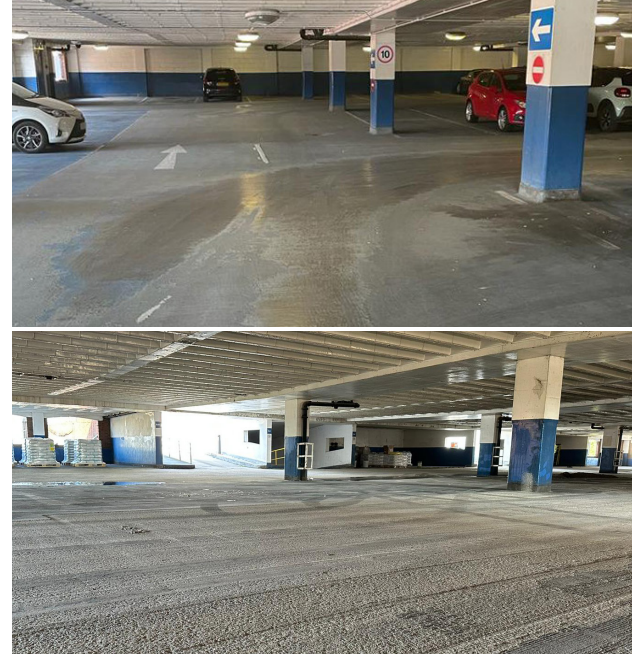


**During:** Pre-Primer To Combat Outgassing

**The Plaza Shopping Centre stands proudly at the heart of Wokingham town centre, serving as a vibrant hub for residents and visitors alike. Beyond parking, this car park serves multifunctional purposes, accommodating town centre visitors, patrons of the shopping centre and members of the renowned Nuffield Health and Wellbeing gym. Additionally, it provides essential support for local residents with permit parking options, ensuring convenience and accessibility for those in the vicinity. This integrated approach not only enhances the overall shopping experience but also fosters a sense of community and inclusivity within the bustling town centre environment.**

The existing waterproofing system was failing due to being

**Before:** Dark & Unwelcoming Environment



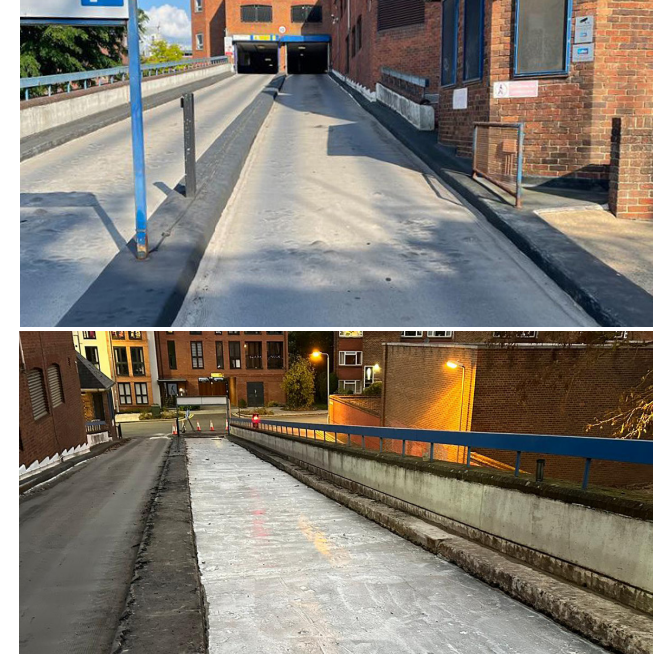
**During:** Concrete Repairs Completed and Decks Prepared

in a very poor condition. Delamination was occurring across the whole car park, primarily focused to the drive aisles. This system was removed using a specialist 'ride on' planer with works commencing on the top deck then progressing down through the car park, level by level.

Significant repairs were required to the concrete substrate on the top deck. There were also concrete defects to the internal decks, soffits, columns and walls throughout the structure, leading to in excess of 25 tonnes of defective concrete being broken out. Before concrete repairs could be completed, sacrificial anodes were installed to the reinforcement to alleviate the ongoing corrosion.

Trials were undertaken using Westwood's primer to validate the bond to the existing and repaired concrete substrate. Whilst the bond strength was good, these trials identified

**Before:** Failing & Blistering Asphalt To The Ingress/Egress Ramp



**During:** Traffic Management to the Ingress/Egress Ramp

substantial outgassing of the concrete, likely caused by the ingress of moisture into the concrete through the existing failed coating.

Westwood's 821 pre-primer was applied, sealing the concrete slab and stopping the outgassing phenomenon at the source of the problem, thus eliminating the risk of pin holes through the decking system. Westwood's Wecryl fully crack bridging waterproofing system was then applied to the 3,330m<sup>2</sup> top deck.

The waterproofing of the top deck allowed for the levels below to be enhanced. Concrete repairs and resin injection crack repairs were completed to the concrete surfaces throughout the car park, previously unachievable due to water ingress. Followed by anti-carbonation coatings, protecting the structure from the underside whilst the

# Case Study // Car Parks //

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waterproofing system protects from the top.

The existing waterproofing system on the intermediate deck had numerous defects across the 3,450m<sup>2</sup>. To combat this, the deck received a full enhancement of resin deck coatings. The lower car park deck was comprised of an ageing asphalt which served as the roof and waterproofing system to the shopping centre. As part of this scheme, the asphalt was repaired and overcoated with Westwood's interdeck waterproofing system.

These new protective, yet decorative coatings, combined with a new lighting system on the roof and interdecks now offers patrons a bright and safe environment in which to park.

A waterproofing system was required to the ingress and egress ramp. To maintain the existing levels at the top and

bottom of the ramp, a buried waterproofing system was installed then finished with a tarmac wearing layer. Cemplas kept the car park operational throughout these works by introducing a Highways approved traffic management system from the main road into the multi-storey car park, creating a safe and efficient one way system so vehicles could enter on one side of the ramp.

The other side of this ramp was stripped of the failing and blistering asphalt, back to the concrete substrate which was repaired and levelled using a rapid setting repair system to speed up the process. It was critical that these areas were completed promptly and returned to use within the two week period granted by Highways.

Our works at The Plaza Shopping Centre stand as a

testament to our commitment to excellence in construction and maintenance. By implementing innovative solutions and meticulous planning, we successfully addressed the challenges posed by water ingress, ensuring the longevity and structural integrity of this iconic town centre landmark.

The collaborative effort between our skilled team and stakeholders demonstrates our dedication to delivering exceptional results while minimising disruption to businesses and visitors. Moving forward, we remain steadfast in our pursuit of excellence, ready to tackle future challenges and contribute to the continued success of the Plaza Shopping Centre and the community it serves.

**For further advice and/or information regarding all of our services, please visit [www.cemplas.co.uk](http://www.cemplas.co.uk)**



**After:** Aesthetically Enhanced Top Deck



**After:** Light & Bright Interior Improvements



**After:** Fully Protected Decks & Ramps