



CASE  
STUDY

**Triflex**

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CAR PARK REFURBISHMENT  
UTTOXETER ROAD, DERBY

# DERBY ROYAL HOSPITAL

**Area**

1,350m<sup>2</sup>

**Systems**

Triflex ProPark®

**Authorised Contractor**

Concrete Repairs Ltd.

**Scope of work**

Refurbishment of a car park to restore long-term waterproofing and surfacing

# The challenge

Ten years after its construction, the car park's waterproofing system at The Royal Derby Hospital had come to the end of its warranted life and was no longer protecting the structure. If left as it was, there would be a risk of long-term structural damage through chloride ingress, in addition to contaminated and potentially caustic water dripping onto cars and people below.

The car park is the first impression that many patients and visitors have of the hospital, so it was important to upgrade the facility for both future safety and for the trust's image and reputation.

Skanska maintains and manages the car park as part of a PFI contract with the trust and were keen to find a system that would not only minimise disruption during installation, but would also extend the waterproofing warranty beyond the lifetime of their agreement. The Triflex system being cold liquid applied, solvent free and rapid curing, made the installation safe, easy and fast to apply.

It was agreed that the refurbishment would take place over the summer holidays, because past records show that the hospital is less busy over this period, so there would be less disruption to staff and visitors.





# The solution

The Triflex Technical Team visited the site to complete a survey of the car park, which assessed the structure's existing waterproofing. Other areas such as joints, drainage channels and details around ticket machines and safety barriers required special attention.

They found evidence that the previous solution was substantially worn, delaminating, and splitting, all of which affected its waterproofing.

The technical team also tested its suggested waterproofing system, Triflex ProPark, by conducting adhesion tests to the underlying concrete which allowed them to determine requirements for the substrate preparation.

Contractors can often apply Triflex solutions directly on top of existing coatings, but in this case the substrate had deteriorated too badly so the team recommended removing the original coating before applying Triflex ProPark. This left the car park exposed to the weather, but as the primer element of the proposed system takes just 25 minutes to become rainproof and the next coat can be applied after just 45 minutes, this was not a problem.

Triflex ProPark incorporates a fully reinforced, elastomeric membrane, certified under EN1504-2 for crack bridging ability to B4.2 (-20°C). This means the contractor, CRL could apply the waterproofing system confident that it would deal with continued structural movement and associated cracking. Finally, Triflex supplied all the materials for bay delineation and heavy-duty deck signage.

Says CRL, project manager, Gary Dobinson: "Using the Triflex system we could complete an entire area in just a day and manage it to complete smaller areas in phases so that we had no fear of rain affecting our progress. In fact, the time-consuming element of the refurbishment was removing the existing coating before applying Triflex ProPark.

"The system was simple to apply and made it easy to ensure that all the details around ticket machines and bolts holding safety barriers in place are completely waterproofed to avoid any future moisture ingress."



# Triflex

Delivering solutions together.

Triflex is the leading European specialist in cold liquid applied resins. Our high-quality systems provide reliable and lasting waterproofing, surfacing, protection and markings for roofs, walkways, balconies, terraces and car parks. We are a family owned and operated company that provides individual solutions worldwide. From our production facilities based in Minden, Germany, we have been researching and developing solutions designed to protect and repair the built environment for more than 40 years.

From our UK headquarters based in Stone, Staffordshire we pride ourselves on providing our clients with tailored solutions and exceptional levels of service and support throughout all stages of their project. From conducting in-depth site surveys, to our comprehensive testing and off-site and on-site support, we ensure that your project is completed on time and to the highest standards. All Triflex solutions are certified to the highest standards and are backed up by long term meaningful warranties ensuring peace of mind.

☎ 01785 819119

🌐 [www.triflex.co.uk](http://www.triflex.co.uk)

✉ [info@triflex.co.uk](mailto:info@triflex.co.uk)

🌐 Triflex (UK) Ltd

🐦 @TriflexUK

Triflex (UK) Ltd. | Whitebridge Way | Stone | Staffordshire | ST15 8JS

## Testimonials

**"We needed a system that would cause minimum disruption to the hospital staff and visitors. The Triflex system allowed us to complete the project within a short time frame."**

*"Triflex were also very thorough in helping us come up with the right solution, doing a comprehensive site audit with testing to ensure that we had every confidence in the proposed system. This was important because we needed a long-term waterproofing solution that would last for the remaining life of the car park."*

Richard Smith | Project Manager, Skanska.

**"Triflex ProPark is easy and fast to apply. It is also fast curing meaning that we are less weather dependent than we would have been with an alternative solution."**

*"It allowed us to apply a complete waterproofing system across the whole car park within the short time frame that we had to complete the project."*

Gary Dobinson | Project Manager, Concrete Repairs Ltd.

## System benefits Triflex ProPark®

- Proven, fully reinforced, elastomeric waterproofing membrane
- Compatible with virtually all substrates including asphalt
- High levels of anti-skid
- Totally cold liquid applied technology
- Rapid curing system - even at low temperatures
- Maximum design options
- Certified to the highest standards

Finish

Waterproof wearing layer

Reinforced waterproofing

Primer

