



## Rapid Pool Repair for YMCA in Bellevue, Washington

### Problem

At the YMCA facility in Bellevue, Washington rising water bills were becoming an issue. Administrators noticed a number of small cracks at the edge of the swimming pool and between small tiles at various places around the pool. Closer inspection following selected tile removal revealed voids underneath the cracks. Faced with a serious problem that threatened the facility's main attraction, administrators contacted URETEK to inquire about URETEK Deep Injection® (UDI) as a possible solution.

### Analysis

The project required that all work be conducted in a way that minimized disruption to the tiles within and around the pool. The crew inspected the entire area and formulated an injection plan that would support a second round of pool repair activities scheduled to begin immediately following the completion of UDI. The pool had been constructed with a designed dip in the middle to support complete drainage, when required, and URETEK crews formulated the injection plan to account for this design feature.

### Solution

UDI was performed in a 4x4 grid pattern using URETEK's 486 Star® polymer to provide void filling, under-sealing for the shell of the pool, and overall support for the entire structure. At various points throughout the application, polymer material was observed escaping through unidentified cracks and voids around the pool, which confirmed the initial assumptions that years of leaching water flow had seriously compromised the soils beneath the swimming pool at the YMCA.

## Result

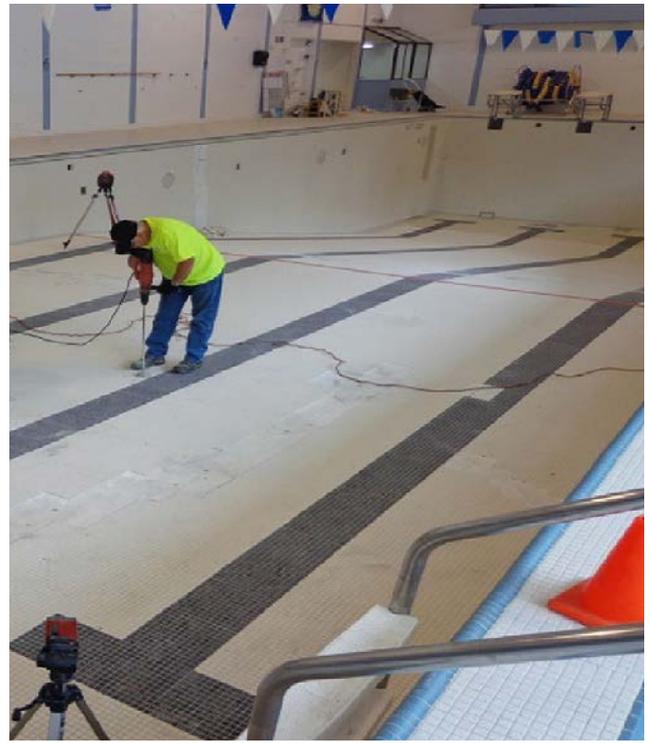
All work was completed during one day at the Bellevue YMCA and following one more day of scheduled tile repair and maintenance, the facility was able to begin refilling the pool and preparing to open again to the public. UDI permanently solved the YMCA's problem. Water bills stabilized and facility administrators breathed a sigh of relief knowing their swimming pool was intact, sealed, supported, and open for service to the community for years to come.

## URETEK Deep Injection® (UDI)

Widely referenced throughout our industry, UDI involves the injection of structural polymer into base and subgrade soils to increase the load bearing capacity. This is achieved by injecting the polymer through small holes drilled directly through the pavement structure to depths determined by site-specific analysis. Our URETEK 486 Star® material flows easily into voids and weak zones within the soil mass below. Through a controlled chemical reaction, the expanding polymer compacts surrounding soils and applies a controlled pressure on targeted areas of the affected pavement above. If needed, a multi-injection design plan is utilized to gently return the pavement to its original grade. The composite material quickly cures into a strong, dimensionally stable, and water-resistant geo-material, providing years of reliable service.

## URETEK 486 Star®

URETEK 486 Star® polymer is a two-component, high-density, expanding thermoset polyurethane system. It was developed to be the ideal solution for under-sealing, void filling, lifting of settled pavement, stabilization and stiffening of weak soils, and for encapsulating and sealing buried infrastructure. URETEK 486 Star® is environmentally inert, non-toxic, and resists underground water erosion or weakening due to its industry-leading hydrophobic properties.



A URETEK crew member drills injection holes in preparation for UDI at the YMCA



Small cracks within the pool's tile work indicated underlying problems

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