BTC

Project Profile



Harbor View is a 30-story, 288-unit residential condominium building completed in 2009. A parking garage located on the 1st through 5th floors has a total of 308 deeded parking spaces. The garage is accessed through overhead doors on the north elevation. The 1st floor of the garage consists of a cast-in-place concrete slab-on-grade. Elevated floors of the garage consist of conventionally reinforced cast-in-place concrete slabs.

BTC was initially retained in 2015 to evaluate potential causes of numerous water-related issues in the parking garage including water leaking on cars, ponding water, and leaks into stair vestibules. Cracking in the elevated reinforced concrete slabs was contributing to water penetration into the concrete and through to the floors below. In some cases, the leaks resulted in damage to vehicles. Slope and drainage issues exacerbated ponding water at numerous locations throughout the garage and standing water inside stair vestibules.

Subsequent to our evaluation, BTC was retained to design repairs to the garage. The design included concrete patching, crack repairs, and the application of a traffic bearing membrane (TBM) to minimize water penetration into the slab, and protect embedded reinforcing steel against accelerated deterioration. New drains were added in areas where significant ponding occurred and in front of stair vestibule doors. Concrete crickets were constructed in corners to redirect water toward drains.

Numerous pipe penetrations through the slabs occurred throughout the garage. To prevent water from traveling through the penetrations to floors below, bent plates matching the profile of existing vehicle guards were detailed. The plates also eliminated the need for complicated TBM terminations by providing a vertical surface to wrap the TBM on to.

Bidding assistance and construction contract administration services were also provided by BTC to ensure repairs were performed in accordance with the design. Project Name: Parking Garage Repairs

Project Location: Harbor View Condominiums 1901 South Calumet Avenue Chicago, Illinois

Client:

Museum Park Place South Condominium Association / FirstService Residential

Approximate Construction Cost: \$500,000

Year Completed: 2016

Nature of Services: Evaluation, Repair Design, Bidding Assistance, and Construction Phase Services

