



PROJECT PROFILE

*191 Presidential Condominiums
Philadelphia, Pennsylvania*

**TREMCO'S LEAK-FREE
BUILDING ENVELOPE SOLUTIONS**

CHALLENGE:

When severe water infiltration required tarps to protect parked cars from falling water and spalling concrete, owners of the 191 Presidential condominium complex realized they need a fix—and fast.

With over 500 residents, the 10-story structure includes a ground level parking deck and an underground parking garage. A failed concrete repair 12 years prior ultimately led to water leaks on the main level, significant concrete deterioration and rusting metal.

Watts Restoration and Conn-Shaffer Consulting Engineers were brought in to investigate and execute on a remediation plan. Since the new waterproofing membrane was going to be covered by a hot asphalt pavement, they sought out a system that could handle the weight, vehicular traffic and movement.

Another challenge was the need for a quick turnaround. Because of the occupied space, the membrane had to be fast-curing so that the residents could regain access to their parking spaces.



BEFORE

Water infiltration led to concrete deterioration and rusting metal, a big eye sore for occupants.

SOLUTION

The TREMproof® PUMA Under Asphalt system was determined to be the ideal solution because of its ease of application, durability and extreme elongation properties.

Polyurethane methacrylate (PUMA) technology is also rapid-curing, making it a perfect restoration method to mitigate occupant disruption.

After the shot-blaster removed the weak layer of concrete and brought the broom finish to a concrete surface profile (CSP) of between 2 and 4, the Tremco® PUMA Primer was roller-applied and then lightly broadcast with aggregate. After that cured (approximately 25 minutes), applicators installed 80 mils of the Tremco PUMA Base Coat. The next day, they applied the PUMA Top Coat and seeded it with heavy duty aggregate. This process was repeated in phases so that cars could be temporarily diverted to other parking areas.

SOLUTION (CONTINUED)

Any cracks in the concrete were detailed with Tremco's Dymonic® 100 Polyurethane Sealant. On the turn lanes leading into the parking garage, applicators installed approximately 8,000 ft² of Vulkem® EWS with PUMA technology.

All these products are compatible with each other which added ease and peace of mind.

Over the course of the fall 2018, installers added the asphalt and sidewalks, and the entire parking area was reopened with renewed waterproofing performance and improved aesthetics.

AFTER



After the TREMProof® PUMA system was applied, asphalt was installed overtop and the lot was opened to traffic.

PRODUCT SPECIFICS

TREMProof® PUMA is a cold-applied, waterproofing system that utilizes polyurethane-methacrylate (PUMA) technology, which offers superior elongation over traditional MMA/PMMA technology systems.

- Designed for concrete slabs and protecting occupied areas underneath from water damage.
- Ideal for use beneath an asphalt overlay.

Vulkem® Extreme Wearing System (EWS) with PUMA technology is a cold-applied waterproof traffic deck coating system, designed to have tenacious adhesion and extreme abrasion resistance.

- Protects concrete from the damaging effects of chloride, deicing salts, chemicals, gasoline, oils and anti-freeze.
- Ideal for ramps, helical turns and ticket spitters.

Dymonic® 100 is a high-performance, medium-modulus, low-VOC, UV stable, non-sag polyurethane sealant.

- Durable, flexible and offers excellent performance in moving joints.
- Exhibits tenacious adhesion once fully cured.
- Ideal for expansion and control joints, precast concrete panel joints, and perimeter caulking, aluminum.



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PPPHI/1219