Permeable Pavers Surpass Storm Water Management Expectations and Design Goals for Apartment Application

Solutions: Sustainable storm water management, roadway pavement alternative

Sitting between two luxury apartment skyscrapers in Chicago, IL, and home to a gourmet pizzeria and tap house, this public roundabout required updates to match its high traffic surroundings. The previous roadway was deteriorated, cracked, and frequently puddled due to poor management. In essence, a landscaping crew had plugged the drainage system with dirt, and previous repairs sealed the joints between pavers. To update this public square, the contractor chose H₂O Pro® Pavers, concrete permeable pavers, manufactured by County Materials Corporation. The property management firm worked with the site’s landscaping crew to ensure their ongoing maintenance efforts would prevent dirt from clogging the wider joints filled with drainage aggregate.

The site required permeable pavers because there was no curb drainage. Instead, the site’s only drainage is an underground perforated PVC pipe connected directly to the city’s water management system. The drainage pipe sits between 20”-34” below surface level, requiring a deeper base layer than usual. The contractor carefully followed industry recommendations and worked with County Materials’ sales team and engineers to install a proper base layer using additional aggregates to make up for the deeper base.

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The biggest challenge with this application was keeping the roundabout open during installation. The contractor fenced off half of the site at a time, significantly limiting space to work. Additionally, all the entrances and businesses remained open, meaning the contractors had to work around the busy bustle of the city.

Since the project was completed, it has gone through many major rain events with the H₂O Pro® Pavers effectively managing runoff and surpassing all expectations. Puddling has been eliminated, and the property owner is pleased with the permeable system’s performance and great design.

"The H₂O Pro® Pavers have effectively managed runoff and has surpassed all expectations."