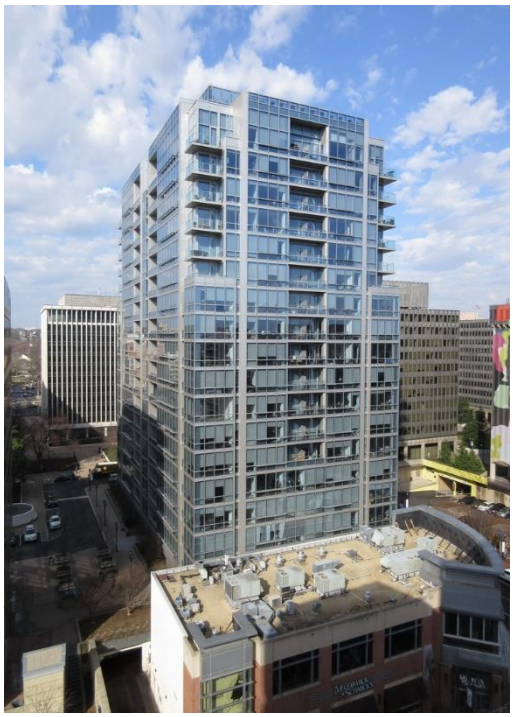
PROJECT PROFILE

220 20th Street

Exterior Water Leakage Investigation and Repair Design | Arlington, VA



CLIENT

JBG Smith

BACKGROUND

Completed in 2009, 220 20th Street is an eleven-story apartment building in the Crystal City neighborhood of Arlington, Virginia. The building includes 265 units, a rooftop pool, and below-grade parking. The facade is primarily comprised of aluminum-framed window wall and curtain wall assemblies with metal panel cladding in a barrier configuration.

The client contacted WJE in 2016 regarding several locations of interior water penetration at the building; at the time, another consulting firm was investigating and overseeing repairs to address the leaks. Due to recurring water leakage following the previous repair program, the client retained us in 2018 to assist with the ongoing water infiltration issues at the property. Since that time, we have completed several leakage investigations and provided oversight during subsequent repairs.

SOLUTION

WJE performed field water penetration testing to identify and confirm the point(s)-of-water entry and leakage path(s) for reported rainwater penetration through the window and balcony assemblies that have resulted in water damage at the building interior. We used a combination of field-testing delivery methods for this project in general conformance with applicable industry standards.

We identified several systemic issues at the building that had resulted in interior water leakage. These issues included discontinuities within the window assemblies and exterior joint sealant, as well as interfaces with roof and terrace waterproofing systems. Upon identifying water entry points via field diagnostic water penetration testing, we developed repair strategies and worked closely with a local restoration contractor to address the issues at the property. After the contractor completed their work, we tested the repairs to confirm that the leaks were addressed.

WJE ENGINEERS ARCHITECTS MATERIALS SCIENTISTS