

# 30 Hudson Yards and Retail Podium

New York, NY, USA (2019)

## PRODUCTS USED:

**Krytol Internal Membrane™ (KIM®) Krytonite™ Swelling Waterstop  
Krytol Waterstop Treatment™ Krytol T1®**

### OWNERS/DEVELOPERS:

Oxford Properties Group  
Related Co.

### ARCHITECT:

Kohn Pedersen Fox Associates

### ENGINEER:

Thornton Tomasetti

### BUILDING ENVELOPE CONSULTANT:

Wiss, Janney, Elstner Associates, Inc.

### CONTRACTOR:

Tutor Perini Corp.

### READY-MIX SUPPLIER:

Greco Brothers Ready-Mix

### DISTRIBUTOR:

Dry Concrete L.L.C.

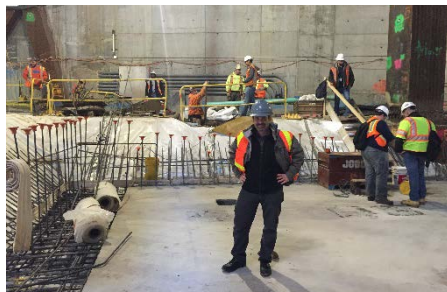
## BACKGROUND

30 Hudson Yards is the tallest of the towers in the Hudson Yards megaproject, which is currently being constructed in New York City's west side. As part of the largest private real estate development in the history of the United States of America, this tall tower covers 241,500 m<sup>2</sup> (2.6 million ft<sup>2</sup>), rises over 400 m (1,300 ft) in height, and features notable tenants such as Wells Fargo.

With 30 Hudson Yards' construction team anticipating the presence of other such Fortune 500 companies, they knew they needed to build a structure that was as functional as it was stunning. They were also aware that the building's design involved a below grade foundation that could be subject to possible water penetration and flooding. That meant they would need a concrete waterproofing system that could fully tank the 30 Hudson Yards' structure for the entirety of its service life.

## SOLUTION

The construction team turned to Kohn Pedersen Fox Associates for a waterproofing specification due to the architecture firm's world-renowned reputation for using the best products possible in all of their designs. The firm recommended the use of Kryton's crystalline admixture, KIM, which was supported by the team's building envelope consultant, Wiss, Janney, Elstner Associates, Inc. As a result, the construction team proceeded to waterproof the 30 Hudson Yards' foundation base slab, elevator pits, flood retention tank, and underwater vaults and pits with KIM.



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For additional waterproofing protection, they also applied Krytol T1 and Krytol T2® to the preexisting foundation walls of the 30 Hudson Yards structure, the retail podium's foundation walls and slab, and the machine room.

Then, to ensure all the construction joints and penetrations were watertight, the team applied Krytonite Swelling Waterstop and Krytol Waterstop Treatment to the appropriate areas. These same products were then used to floodproof the wall that wraps around 30 Hudson Yards' entire perimeter.

Lastly, to prevent water from infiltrating the exposed walkway that surrounds the pier, the construction team added Krytol T1 alongside a topping with KIM admixture to the walkway.

With the help of Krytol® technology from most of these solutions and a device such as Krytonite Swelling Waterstop, the structure was guaranteed to remain watertight above and below the surface for the rest of its life span. The Krytol technology would ensure the structure's concrete could self-seal and block out water indefinitely, and the waterstop would offer four times the compression sealing that other waterstops could, keeping the construction joints and penetrations safe from water.

In the end, 30 Hudson Yards opened to the public in 2019 free from water intrusion concerns, designed for LEED Gold certification, and awarded the H. Bruce Russell Global Innovator's Award for developing a transformative workplace and smart building environment.

