

Spray-applied barrier is proven vapor mitigation strategy for site with methane

The site for the new Canada Post headquarters was situated on a former industrial location and is a major redevelopment zone for the city of Toronto. The site was contaminated by methane as well as located on bayfill. Construction of a 64,000 sq. ft. facility will be owned by Canada Post and used to sort mail prior to daily distribution.



PROJECT DETAILS

Canada Post

Design Engineer:
Golder Associates

Certified Installer:
Terrafix Environmental

LOCATION

Toronto, Ontario, Canada

PRODUCTS USED

LIQUID BOOT® spray-applied vapor barrier

GEOVENT™ venting system

The foundation design for the new Canada Post Headquarters was complicated by the large pile caps and footings. LIQUID BOOT® spray-applied vapor barrier allows these conditions to be handled easily, whereas labor intensive and costly mechanical fastening would have been required by an HDPE system. CETCO approved installer, Terrafix Environmental, installed the gas vapor membrane and gas venting system efficiently and on schedule.

CHALLENGE:

Contamination such as methane gas and residual VOCs were the primary causes of concern for this project. The project is situated on bayfill which created unstable soil conditions and required the project to be built on piles and spread footings, as there was an expectation of differential settlement anticipated beneath the structure.

The foundation design posed some challenges that needed to be considered when in order to install an effective methane barrier. With the potential for settlement on the site and the requirement of the building to be put onto piles as well as having a significant amount of footings, the project required a membrane that could easily and seamlessly attach to the extensive amount of piles and footings.

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SOLUTION:

Both the LIQUID BOOT® spray-applied vapor barrier and HDPE geomembrane were considered for the project. LIQUID BOOT® vapor barrier was not only able to be installed at a lower cost, but also installed up to twice as quickly as an HDPE system would have been. Due to the numerous amount of the piles and detail work that was required to be performed on the site, the LIQUID BOOT® vapor barrier was also chosen for its superior performance and project history on similar type projects.

RESULT:

The installation of the LIQUID BOOT® vapor barrier was extremely successful and was able to be installed much quicker than any of the competing products due to it's benefit of a spray-application and rapid curing time. CETCO products installed by CETCO trained and certified installers provided the building with proven protection against vapor intrusion while also saving the customer time and money.