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Senior Engineer,
Blumetric

Geo-Seal 100 and E.Series Products Protects Toronto Affordable Housing

The Rental Replacement Housing Project, undertaken on behalf of the Toronto Community Housing Corporation (TCHC), represents a comprehensive approach to addressing environmental concerns in urban redevelopment. In a unique agreement with the developer, TCHC is providing land in exchange for a building to replace the lost rental units caused by the neighboring condo development on the same property.

As part of this initiative, a 10-storey affordable rental housing building was planned along the edge of Toronto’s eastern waterfront neighborhood. It is part of the Queen-Ashbridge Redevelopment project and includes a separate 10-storey building to house replacement units for demolished buildings. Construction of this portion began in the early spring of 2023 on the southeastern edge of the site, with TCHC leading this aspect.

A Phase I site assessment indicated potential contamination from multiple sources, including a dry cleaner and commercial autobody shop which were formerly situated nearby. Underground storage tanks (UTCs) had also been on the site which may have been another contributing factor as BTEX contaminants were detected in the soil and groundwater during the Phase II assessment.

The team determined that EPRO’s Geo-Seal® 100 barrier was the optimal



Project Size: 10,000 SF
Application: Vapor Intrusion Mitigation, Waterproofing
General Contractor: Bluescape
Installer: GIP
Engineer: Blumetric
System: Geo-Seal 100 and E.Series

Rebar and concrete immediately follows placement of the Bond/Shield layer.

System is cured and smoke tested, ready to receive the Bond/Shield layer. The Bond/Shield layer is being applied in the background.



product to protect the site.

“Geo-Seal was a product that was well-suited to block the residual contamination from migrating from the soil and groundwater into the completed building,” says Keith Metzger, Senior Engineer, Blumetric.

The system was upgraded in the elevator pits to include EPRO’s E.Series family of composite waterproofing products. This localized upgrade to a hydrostatic barrier transitioned seamlessly from the Geo-Seal 100 system, providing the required resistance to hydrostatic head pressure and enhanced chemical resistance without sacrificing diffusive resistance to contaminant intrusion into the building envelope.

“We did some combination waterproofing/vapor barrier membrane at the elevator pits, and installation went really well,” says Jesse Hutton, Director, Operations, Green Infrastructure Partners, Inc. “The transition from one to the other was very simple – almost seamless.”

Geo-Seal 100 is an industry leading and patented sub-slab vapor intrusion barrier system that eliminates vapor intrusion for brownfields or any environmentally impaired site. Designed to be thick and robust, Geo-Seal 100 can withstand the rigors of modern-day construction by providing high tensile strength, puncture resistance and robust seals around penetrations and terminations.

“Geo-Seal is always easy to work with, and we’re mainly working with EPRO products,” says Hutton. “As always, it was great having our rep onsite for support during installation.”

The EPRO team brings deep product knowledge and excellent customer service skills to each and every project. The company prides itself on extensive product training which ensures increased communication on site, enabling work to move forward quickly and safely.

“Projects like this happen on a critical time frame and fast responses are key,” adds Metzger. “EPRO’s responsiveness was excellent, and it helped the project continue moving forward on schedule. Our rep was able to describe all the different Geo-Seal features and make us aware of some of the typical obstacles we could face so we could be sure to avoid these issues on this job site.”