

Kentucky Division of Waste Management Approves Geo-Seal® for Mitigating Vapor Intrusion to Redevelop Brownfield Property

Project Highlights

- Approved by Kentucky Division of Waste Management
- Approximately 142,000 ft² installed at brownfield site allowing for redevelopment to move forward
- Triple layer protection from chlorinated solvent vapors provides safe and reliable barrier for student housing

Project Summary

Student housing was to be constructed in Louisville, KY over 42 acres of vacant Brownfield property. Chlorinated solvents were discovered in the subsurface soil and groundwater beneath the proposed construction area and caused concern over potential indoor air vapor within the housing complex. Terracon Consultants, Inc. specified Geo-Seal® Vapor Intrusion Barrier and Vapor-Vent™ Trenchless Venting System in their risk management plan.

The Kentucky Division of Waste Management under the Kentucky Department of Environmental Protection evaluated the Geo-Seal vapor barrier along with other membranes and determined Geo-Seal to be an “excellent vapor intrusion barrier system” based on its ability to resist contaminant permeation and breakthrough. 142,000 square feet of Geo-Seal successfully installed.

Technology Description

Geo-Seal is a gas vapor management technology designed to eliminate vapor intrusion on Brownfields or any type of environmentally-impaired site. Geo-Seal is a chemically-resistant material placed between the foundation of the building and the soil pad to eliminate vapor intrusion pathways and stop contaminant vapors from permeating through the slab.

By deploying Geo-Seal, developers can ensure a healthy indoor environment while reducing the cost of site remediation and expediting site construction.

Vapor-Vent is a low profile vent system that can be used in lieu of slotted PVC pipe. The speed of installation and the proximity of the vent to the barrier provide cost savings and performance benefits compared to other technologies.



Site Details

Site Type: Brownfield site

Contaminant of Concern: Chlorinated solvent vapors

Vapor Intrusion Solution: Vapor intrusion barrier

Treatment Area: 142,000 ft²

Technology Used:

