

Spray-applied barrier is proven methane mitigation solution on former gas station site

Situated on a former gas station site, elevated levels of petroleum hydrocarbons were detected in the soil. The area was a prime location for the retail facility and solutions to mitigate the contamination were actively sought.



PROJECT DETAILS

Rite-Aid Pharmacy

Engineer: BL Companies

Certified Installer: CETCO Contracting Services Company

LOCATION

Prospect Park, Pennsylvania, USA

PRODUCTS USED

LIQUID BOOT® Spray-Applied Vapor Barrier

The spray applied application of the LIQUID BOOT® vapor barrier ensured the project be completed quickly, and with the application of CETCO's leading quality assurance and control procedures such as smoke testing, CETCO was able to provide a membrane that was ensured vapor tight even with the number of penetrations and foundation complexities.

CHALLENGE:

Methane contamination was the primary cause of concern for the structure. The project was to be situated on bayfill which created unstable soil conditions, requiring the project to be put on piles. This process was necessary due to the high expectation of differential settlement on the site.

SOLUTION:

Actually, the job was made considerably easier and satisfied the engineers wishes that we attach LIQUID BOOT® to the piles themselves rather than on to the pile caps. Only the LIQUID BOOT® spray-applied vapor barrier would be able to perform in these haunches. LIQUID BOOT® was also chosen for its superior track history and methane permeability. We were also had a cheaper installation cost than batten and welded HDPE.

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In order to obtain building approval, an engineered barrier was required to build the 12,000 square foot pharmacy. Another major concern were the amount of penetrations and the complexities of the foundation design, which would make it difficult to ensure a vapor tight seal around the entire footprint. As stated, only the LIQUID BOOT® vapor barrier would have been able to be applied in those areas where the membrane had to be haunched down to the piles.

RESULT:

The solution was extremely successful and installed much quicker than any of the competing products could have. The LIQUID BOOT® vapor barrier allowed the building to be built safely while also saving the customer money over competing products.