

Superior VOC protection for project situated on former railroad site

Vapor intrusion has become a significant environmental issue for regulators, industry leaders, and concerned residents nationwide. The use of a spray-applied vapor barrier to protect against the threat of vapor intrusion has become a widely recognized application by numerous local and state regulatory and guidance groups. These groups also recommend that a gas venting system be used in conjunction with a vapor barrier for optimum vapor intrusion mitigation.



PROJECT DETAILS

Smith Performing Arts Center

Design Engineer: Kleinfelder, Inc.

General Contractor: Whiting-Turner Contracting Co.

Certified Installer: Commercial Roofers, Inc.

LOCATION

Las Vegas, Nevada, USA

PRODUCTS USED

LIQUID BOOT® Spray-Applied Vapor Barrier

GEOVENT™ Gas Venting System

ULTRASEAL® Waterproofing Membrane

Kleinfelder Engineering was chosen to assess the project site's soil conditions and offer solutions for contaminated soils and water. Ultimately, the LIQUID BOOT® vapor barrier and GEOVENT™ gas venting systems were specified to mitigate the subsurface soil contamination issues resulting from residual VOC contamination. CETCO certified installer, Commercial Roofers, Inc., was the preferred installer on the project.

CHALLENGE:

To install a seamless and gas-tight gas vapor barrier, protecting the 125,000 sq. ft. structure from residual VOC contamination in the soil. Portions of the project are situated in the water table, therefore, protection from water migration was also required.

The performing arts facility is situated on a location formerly used as a union railroad site. Soil gas analysis show residual VOC gases present in the soil due to its former use. VOC levels indicate a need for a gas vapor barrier and venting system to protect the structure from gas vapor intrusion and to protect the indoor air quality.

Superior VOC protection for project situated on former railroad site

SOLUTION:

CETCO provided design assistance, on and offsite training and technical support for both the waterproofing and gas vapor barrier and venting systems. CETCO's dual system provides superior waterproofing and gas vapor protection by implementing an active waterproofing technology, ULTRASEAL® waterproofing membrane, and the industry-leading vapor barrier system, LIQUID BOOT®. GEOVENT™, high-performance, low-profile and trenchless gas venting system, was installed in conjunction with the gas vapor barrier system.

RESULT:

LIQUID BOOT® vapor barrier and ULTRASEAL® waterproofing membrane, provided by CETCO Building Materials, proved to be the most cost effective solution for the project. CETCO's LIQUID BOOT® vapor barrier allows for a seamless, monolithic application. LIQUID BOOT® vapor barrier is sprayed at ambient temperatures and can adhere to penetrations, footings and other details without the use of batton strips, compression or welding, effectively sealing critical vapor intrusion pathways.