Kleinfeld 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 it’s 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.
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.