

## West Mill Road

MILWAUKEE, WISCONSIN

### Environmental

Sigma served as the hazardous materials consultant for this 1.5 mile road rehabilitation project on Milwaukee's north side. Sigma provided environmental site and hazardous material assessments involving Phase 1 and Phase 2 in accordance with Wisconsin Dept. of Transportation Facilities Development Manual procedures. The Phase 2 work involved screening and sampling soils from geotechnical soil borings completed at locations with Recognized Environmental Conditions (RECs) as identified in the Phase 1 report. The Phase 2 report provided recommendations for management and handling of materials during the road rehabilitation work.

### Geotechnical

Sigma partnered with Gestra Engineering to serve as geotechnical subconsultant. Gestra proposed the depths and sampling frequency based on the geotech requirements of the scope of work, and Sigma directed boring locations for borings used to evaluate RECs identified in the Phase 1. Sigma oversaw boring completion for those borings used for environmental sampling, and Gestra completed the remaining borings for the County's portion of the roadway reconstruction design.

### Design

Sigma prepared preliminary and final design plans for the rehabilitation of two existing box culvert bridge structures. Existing structure surveys/investigations were performed by Sigma to determine the extent of concrete surface repair and epoxy crack seal required.



Design plans were prepared including the following concepts: removal of existing concrete parapets and associated railings and fences, concrete surface and crack repairs, new concrete parapets, decorative metal railing, architectural surface treatment, and concrete staining. Sigma prepared plans and estimated quantities for inclusion into Milwaukee County's roadway redesign plans.

