

## GeoTechTools

*Easy identification of the best technologies for solving site-specific geotechnical issues*

Fast-paced projects depend on having foundation solutions that allow innovative project construction in restricted space and unique soil and rock conditions. Many of these geotechnical solutions, although well developed and mature, are not widely understood or used. As a result, less appropriate techniques may be selected and the benefits of advanced techniques not realized.

**By assembling all the information needed to select, design, specify, and monitor soil improvement technologies into one convenient and comprehensive system, GeoTechTools.org provides transportation agencies and their consultants and contractors with the information and tools needed to use these technologies with confidence.**

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*Web-Based Technical Support Tool for  
Geotechnical Solutions*

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## The Solution

Developed through the second Strategic Highway Research Program (SHRP2), this web-based tool has identified more than 40 geotechnical solutions to common embankment, cut slope, structure foundation interface, and pavement foundation issues. This technology selection resource tool is currently in the beta-testing phase and is available at <http://www.geotechtools.org>. It contains extensive photographs, case histories, and examples from past practices that collectively can assist users to select and apply the most appropriate solution to site-specific problems and conditions. The tool helps a user decide among 46 technologies, design issues, and other complex variables to select a geotechnical solution. It offers a balanced level of content for both generalists and specialists so they can identify and apply potential new solutions to geotechnical issues.

## The Benefits

This web-based tool can accelerate the design and construction process by providing practitioners with a convenient and efficient way to identify and apply geotechnical solutions to site-specific conditions and issues based on specific performance requirements. This benefit translates into cost, time, and safety for workers, agencies, and the traveling public.

**GeoTechTools.org helps select site-specific geotechnical solutions**

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**FOCUS AREA:  
Renewal (R02)**

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Web-based tool identifies solutions to common and complex geotechnical issues.

### Save Lives

- The ability to provide proper geotechnical solutions helps prevent failures of walls, shoring, and berms, thus reducing construction-related accidents.

### Save Money

- Geotechnical solutions save owners and contractors from costly over-design or impractical and costly geotechnical options.

### Save Time

- Choosing the appropriate geotechnical solutions can shorten a construction schedule and minimize the footprint and material needed to build a project.

## Who can use these tools?

Many of the assembled technologies have consistently proven to be cost-effective and time-efficient, but they have been inconsistently used by federal, state, and local transportation agencies. Both designers and contractors whose projects need innovative geotechnical solutions can more confidently select and apply these techniques with this web-based tool.

## How can you learn more?

For more information contact Silas Nichols at FHWA, [silas.nichols@dot.gov](mailto:silas.nichols@dot.gov) or Evan Rothblatt at AASHTO, [erothblatt@AASHTO.org](mailto:erothblatt@AASHTO.org). Updates on current implementation efforts can be found at [www.fhwa.dot.gov/GoSHRP2](http://www.fhwa.dot.gov/GoSHRP2) or <http://SHRP2.transportation.org>.

### About SHRP2 Implementation



The second Strategic Highway Research Program is a national partnership of key transportation organizations: the Federal Highway Administration, the American Association of State Highway and Transportation Officials, and the Transportation Research Board. Together, these partners conduct research and deploy products that will help the transportation community enhance the productivity, boost the efficiency, increase the safety, and improve the reliability of the Nation's highway system.

### Strategic Highway Research Program

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U.S. Department of Transportation | Federal Highway Administration  
American Association of State Highway and Transportation Officials • Transportation Research Board