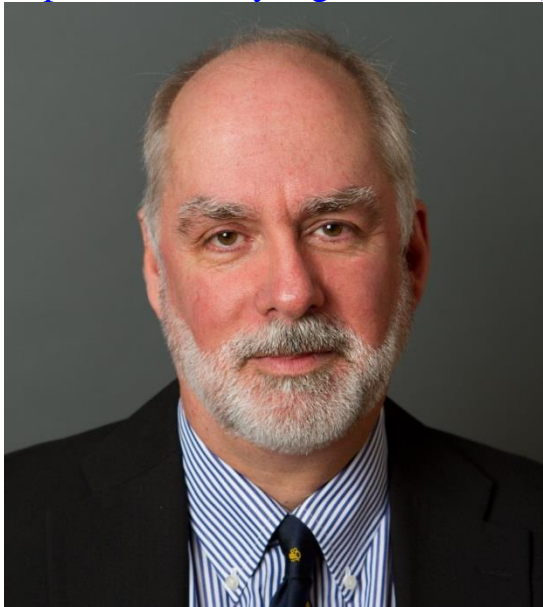


A Paradigm Shift for Geosynthetic MSE Wall Design in North America

The AASHTO Load and Resistance Factor Design (LRFD) Bridge Design Specifications document is the authoritative design code for MSE wall design in the USA. The next edition of the code to appear in 2020 will specify the new Stiffness Method as the primary method for internal stability design of geosynthetic MSE walls. The reinforcement stiffness approach represents a paradigm shift on how reinforcement loads are calculated for internal stability design of MSE walls under operational conditions. The Stiffness Method was developed by the team of Tony Allen of the Washington Department of Transportation and Professor Richard J. Bathurst of the GeoEngineering Centre at Queen's-RMC. The development of this method is the culmination of 25 years of research which included the gathering of more than 1000 reinforcement load measurements from 92 wall cases worldwide and the monitoring of another 16 full-scale laboratory walls constructed at the Royal Military College (RMC) of Canada. This is another example of the impact of research outcomes on practical geotechnical engineering by members of the GeoEngineering Centre at Queen's-RMC and their collaborators. The method is described in a pair of papers published in the ASCE Journal of Geotechnical and Geoenvironmental Engineering at [http://dx.doi.org/10.1061/\(ASCE\)GT.1943-5606.0001874](http://dx.doi.org/10.1061/(ASCE)GT.1943-5606.0001874) and [https://ascelibrary.org/doi/10.1061/\(ASCE\)GT.1943-5606.0001355](https://ascelibrary.org/doi/10.1061/(ASCE)GT.1943-5606.0001355).



Richard Bathurst



Tony Allen