

CEE 595F – Geotechnical Engineering Seminar

Thursday, March 14th, 2019 | 11:00 AM, Newmark Lab 1233



Foundation Remediation using Micropiles and Low Mobility Grouting (LMG) at Sandy Cove Condominium, Barbados

John R. Wolosick, P.E., D.GE, F.ASCE
Director, Hayward Baker Inc

Abstract: This case study describes the micropile underpinning and grouting works for the foundation improvements carried out to remediate settlement distress of a new building located on the west coast of the Caribbean island of Barbados. This work was carried out by the Atlanta and Tampa offices of Hayward Baker. The foundation remediation ultimately included the construction of a 280-foot-long sub-surface ‘sea-wall’, the installation of 174 micropiles (providing direct and indirect support to the building). Low mobility grouting of voids and interconnected fissures/fractures in the weak, vuggy, uncemented coralline limestone strata underlying the building foundations was also performed.

An investigation of the cause(s) of the settlement, a flexible remediation design, and close monitoring of the drilling and grouting operations during construction were essential to the success of the project. The investigative work and monitoring was performed by Golder Associates of Canada. The repair was completed within the very tight schedule required by the Owner due to imminent move-in of new owners at this high-end condominium building.

Speaker Bio: John R. Wolosick is Director of Engineering for Hayward Baker Inc., Atlanta, Georgia. From this home base, he works on projects all across the USA. He holds B.S. and M.S. degrees in Civil Engineering from the University of Illinois at Urbana-Champaign. He has more than 39 years of experience in Geotechnical Engineering and Contracting. John is the author of more than 35 technical papers. Mr. Wolosick is the recipient of the 2008 ASCE Geo-Institute Martin S. Kapp Foundation Engineering Award. He is the immediate Past-President of the Deep Foundations Institute (DFI – 2014-2016). John is the former Co-Chair the ADSC/DFI Micropile committee (2004-2007). He is also a member of the ASCE Earth Retaining Structures committee and Past-Chair of the ASCE Georgia Section Geotechnical Committee (2003-2005). Mr. Wolosick was named the Georgia Society of Professional Engineers ‘Engineer of the Year – Industry’ in 2017.