

## **Acknowledgements**

First of all, I would like to thank my thesis advisor and committee chairman Prof. Carin Roberts-Wollmann, whose guidance helped me finish all the necessary work for and achieve the goals of this study. I also would like to express my gratitude to my two other committee members, Prof. Finley Charney and Prof. Thomas Cousins, whose expertise provided helpful directions in completing this study. Also many thanks to Prof. Joe Dove, a professor in the geotechnical engineering department, who helped me in reading the soil boring reports for the two bridges analyzed in this study.

I also would like to thank the people who have given me copyright permissions to use their work and publications in this research study, including Mark Maday, P.E. of CH2MHill, William Brown, P.E. of Dewberry & Davis, Jennifer Graves of AASHTO, Jane Stoye of MCEER and Paulette Goldweber of John Wiley and Sons, Inc., John Ferguson of Reed Construction Data / R.S. Means, John Dick of the Prestressed Concrete Institute and Prof. Nigel Priestley of the University of California – San Diego.

Last but not least, I would like to thank my parents and sisters whose support and prayers kept me motivated in finishing this study.