



1. ACKNOWLEDGEMENTS

I would like to take the opportunity to thank all of those who helped me develop this thesis. Their support was instrumental in the successful completion of this learning process.

First, I thank my family and especially my parents for their support in my pursuit of a degree in Architectural Engineering. They have always supported my interests and encouraged me to be at my best. Without their help I would not have been able to come to Penn State to achieve my goals.

All of my teachers in life have helped me develop in some way towards being able to complete this work. My professors at Penn State in the Architectural Engineering Department have always shared their knowledge in order for me to become a better student and future engineer. I especially thank Dr. Bill Bahnfleth, Dr. Jim Freihaut, Dr. Stan Mumma, and Dr. Courtney Burroughs for their time and energy to help me produce this thesis. I also thank Andreas Phelps and Paulo Cesar Tabares for sharing their expertise.

My friends and colleagues have also given me support throughout my college career. Malory Faust and Erin Faulds have been my partners in crime for the past three years. Our teamwork and friendship has carried us through trying times in college. Justin Bem has always been ready to answer questions and I appreciate his help. Justin Schultz, Jon Williams, Robin Scaramastro, and Lauren Wilke have also provided useful input into this thesis.

My coaches on the track team have been incredibly understanding and patient with me this year. They have made it possible for me to follow my passion for running while maintaining the workload of an AE student.

Finally, I especially want to thank the professionals who have provided me with this thesis building. Cindy Cogil and Greg Mella at SmithGroup were tremendously helpful and graciously provided me with everything I needed to know about the Gallaudet Project. I also thank Gallaudet University for their permission to study the SLCC.