Education, Design and Practice – Understanding skills in a Complex World

• Paper / Proposal Title:
Research Education Requirements for Built Environment Professionals

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• Abstract (300 words):
Historically the terminal degrees for architecture, construction management and professionals involved in the built environment have been masters degrees. Also historically academic research has been segmented from the planning-design-build process with few architectural/engineering/construction firms actively involved in research. However, this is changing. More sustainable/resilient designs are relying on research data. Firms such as HOK and Miller Hull Partnership have researchers on staff. This means that educators need to prepare the next generation of professionals on how to conduct research and the nuances between academic research and other types of research. This presentation will discuss the need for research education among the built environment educational system, the types of research that would be beneficial for the next generation of professionals and provide examples of current research and research education.

• Author(s) Biography (200 words each):
Paula Loomis, PhD, FAIA, FSAME, AICP, LEED AP. Paula Loomis is the Executive Director for the Coast Guard’s Shore Infrastructure with responsibility for over 35,000 structures at 2000 sties. Paula Loomis is also an Adjunct Professor at Stevens Institute of Technology. Her research areas include public architecture and spaces, resilient/sustainable public buildings and redevelopment of communities following the loss of a major employer.

Mason Andrews, RA. Mason Andrews is an Associate Professor in Architecture at Hampton University. Capping a wide-ranging career in architectural and furniture design, real estate development, writing and community service, Andrews’ current teaching and research interests are several. She seeks to foster an appreciation of design opportunities in the inevitable constraints of contingency and the code, client and community interests inherent in architecture. Andrews is the editor for R.A.M. Stern’s *Pride of Place: Building the American Dream* and the author of Frank Gehry's *Buildings and Projects, 1985* and Aldo Rossi’s *Buildings and Projects, 1985*. She is currently leading her students in a cross-disciplinary set of design studios studying adaptation strategies to sea level rise at the scale of historic districts. Andrews was recently named a Resilient City Builder by Norfolk’s Rockefeller Foundation.

Annette Stumpf, RA, LEED AP-BDC. Annette Stumpf is a researcher with the US Army’s Civil Engineer Research Lab. She specializes in architectural and engineer research. Projects include BIM, IFC Information Mapping to Building Energy Analysis (BEA) Model with Manually Extended Material Information, Methods of Estimating Water End Use at US Army Installations, Initial Integrated Strategic Sustainability Plan for Fort Leonard Wood and Early Design Energy Analysis Using Building Information Modeling Technology. Annette’s research bridges the gap between academic research and practice.