

Paper of Concern

National Architectural Accrediting Board

Date: May 15, 2003

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Background of the Committee

The Boston Society of Architects' Building Envelope Committee was formed as a result of concern about the quality of construction documents prepared by design professionals and the quality of building envelope construction. This concern stems from the lack of understanding by many design professionals regarding the principles/ basic building science involved in envelope design and the inability to meet the level of detail required for certain elements to convey their design intent to contractors.

Vote of the Committee

On March 24, 2003 the Committee voted to submit a Statement of Concern to the National Architectural Accrediting Board describing our concerns about the education of architects in the United States.

Statement of Concern

1. Architects Not Technically Knowledgeable

The schools are not providing sufficient education in the areas of the building envelope/ enclosure and the relevant building science. Practitioners in the Boston area find that their staff often doesn't understand the principles governing the design of building envelopes and the control of heat, air and, especially, moisture (both liquid and water vapor) within buildings and across and within in the building envelope. The schools of architecture should be educating architects as to the principles – technology of building envelopes and the relevant building science.

2. Primary Liability Areas for Architects

For most built facilities the primary physical component involving liability for architects is the building envelope. It interacts with the mechanical system which condition the interior space, as well as with the exterior environment and its variable weather, contributing to the mega-liability area of indoor air quality. The discipline of mechanical / service system engineering is far too complicated for architects to hope to master. We usually engage consultants to do this for us. But the building envelope, so intimately involved with the building design and usually the image we show in our architectural journals, can and must be mastered by practicing architects. We run the risk of losing the business of being prime professional for the performance (and maybe even the looks) of the building enclosure. And if architects can learn the discipline of building science, they have some hope of dealing constructively with the issue of indoor air quality. Moisture is the MOST important loading in regard to durability; 90% of claims against architects (DPIC) are moisture related. Moisture management must be an ESSENTIAL and critical architectural capability.

3. NAAB Criteria

The current criteria of the NAAB, in the 1998 Conditions and Procedures, devotes only one out of 37 criteria to the building envelope and NONE to building science.