

M E M O R A N D U M

TO: Medard Kopczynski, Chairman
Technical Advisory Committee
Florida Building Commission

FROM: Suzanne H. Schmith
Staff Attorney

RE: Eligibility of Division I contractors certified to use RWDA software
under 1994 and 1997 versions of the SBC

DATE: September 14, 1998

This memo is in response to the following question raised at the August 17th meeting of the Technical Advisory Committee: Are certificate holders who completed the Construction Industry Licensing Board (CILB) approved Residential Wind Design Analysis (RWDA) course, covering software which was developed based on the 1994 Standard Building Code (SBC), eligible to use the 1997 version of RWDA software? After reviewing the applicable documents, I conclude that such certificate holders are not eligible because the circumstances are outside of the Board of Building Codes and Standards' (Board's) narrow recognition of the software. The Board's recognition was limited in two respects. First, the software was recognized as an implementation of the Section 1606 engineering design process of the *1994 FBC*. Second, the methodology was only recognized for use by Division I contractors *if they had passed the CILB approved training course*. As the Section 1606 engineering design process was revised between the 1994 and 1997 versions of the SBC, thereby necessitating the update by Mr. Hubert of the software, the Board's recognition of the software is not applicable to the 1997 FBC. Further, as the CILB has not provided an approved training course covering the updated methodology, current certificate holders are eligible only to use the 1994 code-based version.

Background

In August of 1995, the Board recognized, in an advisory opinion, Mr. Hubert's RWDA software as an implementation of the engineering design process set forth in Section 1606 of the 1994 SBC. With respect to use by Division I contractors, the Board limited its recognition of the program for use only by those contractors who have passed the CILB approved training course. Apparently the Board was concerned with certifying contractors in the use of an engineering methodology designed to produce designs for one and two family dwellings which would meet the wind load requirements of the SBC. It is important to note that the Board recognized RWDA as an implementation of the engineering design methodology of Section 1606 of the 1994 SBC, not as an "alternate methodology" approved formally by rule. It is my understanding that

the three alternate methodologies approved by rule of the department are specification standards, meaning they are pre-engineered solutions which eliminate much of the discretion of the user. The RWDA software, however, is an implementation tool which calculates wind load forces, yet leaves to the discretion of the properly trained user the choice of products to withstand those forces.

The issue of whether the software would remain applicable for future versions of the code has been discussed by the TAC and the Board, but has never been directly addressed. At the September 30, 1996 meeting members indicated that a problem would arise with applying this software to a future more restrictive version of the code. It is my understanding from staff that the 1997 version of Section 1606 of the SBC is not necessarily more restrictive than the 1994 version. While some changed coefficients or other variables may result in more restrictive design criteria for some structures, the results will vary from structure to structure. The relative strictness of the codes alone, then, cannot fully answer the question at hand.

A related, and perhaps dispositive question, is whether the 1997 version of Section 1606 constitutes a change in the engineering design process from the 1994 version. It is my understanding from staff that it does. While the equations remain basically the same, the coefficients and calculations have changed, resulting in a different methodology. If my understanding is correct, then certification to use the 1994 RWDA methodology would not apply to the 1997 version. This conclusion seems consistent with the Board's hesitancy to recognize the software by Division I contractors *without limitation*. I would advise the commission to proceed with the same caution.