



**NORTH CAROLINA BOARD OF EXAMINERS
FOR ENGINEERS AND SURVEYORS**

4601 Six Forks Rd Suite 310
Raleigh, North Carolina 27609

February 8, 2010

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Mr. John N. Fountain
Young Moore and Henderson, P.A.
PO Box 31627
Raleigh, NC 27622

RE: System Drawings Sealed by a Professional Engineer

Dear Mr. Fountain:

In response to your request, I am providing a confirmation, as further expressed in this letter, of the information in your September 30, 2009 letter that was based on our conversations. The discussion revolved around questions about the utilization of drawings or plans of mechanical systems and the ability or necessity of the North Carolina contractor to rely upon the design portrayed on those drawings.

Engineering plans that are sealed with an out-of-state engineering seal are not valid in North Carolina unless the exception in the Board Rules for Standard Design Plans is applicable, in which case the plan must be made compliant with NC codes and site adapted by a NC licensed Professional Engineer (PE). The rule deals with the situation where standard design plans (not custom designed for a specific site) are imported into the State, originally prepared elsewhere, but to be used in North Carolina. The rule is Board Rule 21 NCAC 56.1106, which provides as follows:

21 NCAC 56 .1106 CERTIFICATION OF STANDARD DESIGN PLANS

Standard design plans that were initially prepared and certified by an individual who is a licensed engineer in the state of origin of such plans (including North Carolina) may then be reviewed by a North Carolina Professional Engineer for code conformance, design adequacy, and site adaptation for the specific application within North Carolina. The reviewing Professional Engineer who is licensed in North Carolina assumes responsibility for such standard designs. Standard plans, which bear the seal of the original design engineer who is a licensed engineer in another state, or North Carolina, shall be sealed by the reviewing North Carolina Professional Engineer who is assuming responsibility. In addition to the seal, a statement shall be included as follows: "These plans have been properly examined by the undersigned. I have determined that they comply with existing local North Carolina codes, and have been properly site adapted for use in this area." (Emphasis Added)

Telephone
(919) 791-2000

FAX
(919) 791-2012

EMAIL Address
ncbels@ncbels.org

WEB Site
www.ncbels.org

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Your following statement is consistent with how our Board would generally approach review of these projects: "The information I was given indicates that the Engineering Board would not expect that every house in the same subdivision have a separate set of plans, newly sealed, in a situation where the same house plan will be built ten times in the same subdivision. In contrast to the above, however, the Engineering Board would not expect that an out-of-state plan, reviewed and sealed by a North Carolina Engineer, could be used in New Hanover County and then used again in Watauga County without further review and revision." One comment is that the plan could clearly disclose and allow for further site specific engineering work based upon site orientation, soil conditions or other specific conditions of the site that differ from sites in the area.

Other rules that pertain to signing and sealing documents include 21 NCAC 56.1103, which states how a document is to be certified and when certification is "optional" because of clearly indicated phrases such as "preliminary", "not for construction", "not a certified document. . ." or ". . . certified . . . only as to the revisions" being used.

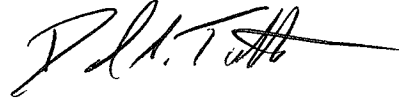
You also inquired as to whether the Board of Examiners for Engineers and Surveyors ("Board of Engineers") held the view that both engineer and the contractor bear some responsibility to the Board of Engineers and the Plumbing & Heating Board for poor design, such that the contractor does not get a free pass when the system is clearly deficient just because there is a seal of a North Carolina engineer on the plan. As Board Counsel, I agree with the proposition that to the extent the contractor knew or should have known the plans were deficient, there was an obligation to take action of the contractor to protect the public, but otherwise the contractor should be able to rely upon the PE for the design just as the building code official should be able to do so. As Board Counsel for the Board of Engineers I underscored that the PE should put notes on the plan if any site adaptation or other modification was expected, assumed or required with regard to location. This can take the form of alternative designs based upon conditions. An example as to general construction is where a foundation wall design is good up to a certain height and an alternative design is required in a height range above that height.

As to education and enforcement, I also indicated there was a significant problem with some code officials who check as far as an engineer's seal but no further as to the appropriateness of the seal. It is certainly appropriate for the Board of Examiners of Plumbing, Heating & Fire Sprinkler Contractors to assist in the education that neither a mechanical inspector nor mechanical contractor should rely upon an out-of-state set of plans sealed by an out-of-state engineer.

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Should you have any questions or require any additional information,
please contact me at (919) 791-2000, extension 111.

Sincerely,

A handwritten signature in black ink, appearing to read "D. S. Tuttle", with a long horizontal flourish extending to the right.

David S. Tuttle
Board Counsel

DST/