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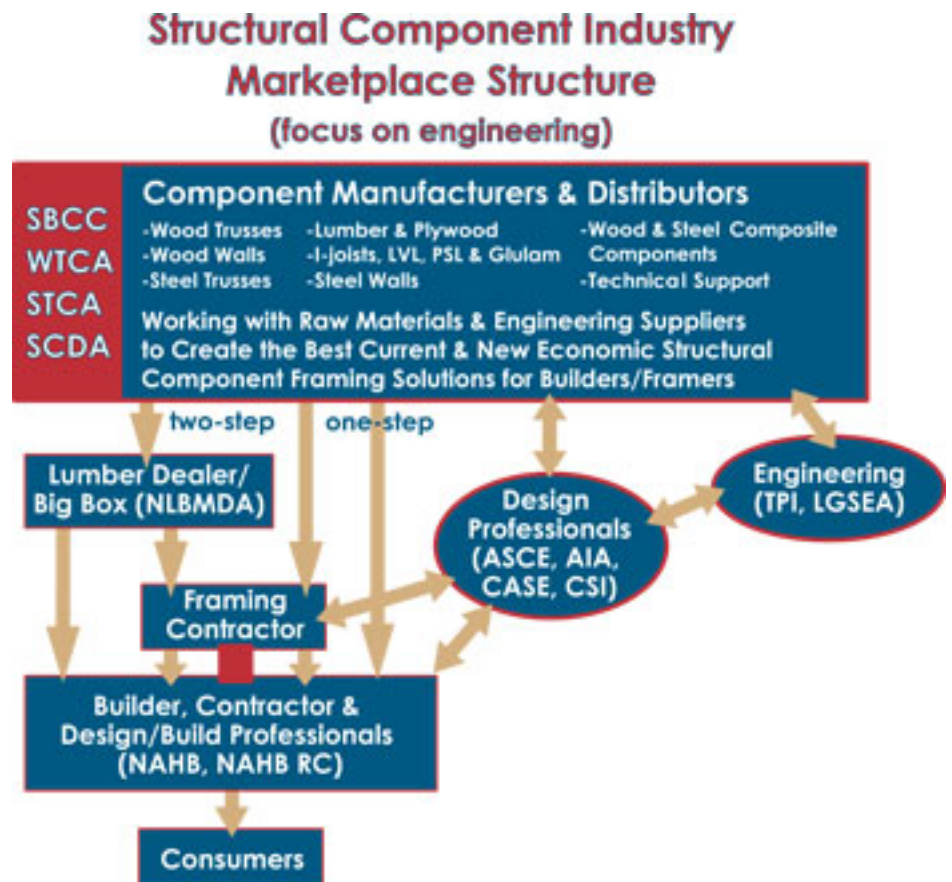
## WTCA Update

[www.woodtruss.com](http://www.woodtruss.com)

One for the History Books by Kirk Grundahl, P.E.

*Current industry trends call for a more in-depth look at design responsibilities and how they pertain to component manufacturers. WTCA's Executive Director walks us through the issue and sheds some light on how, to some degree, the future of the industry hinges on this topic.*

Over the last few years, we have seen more and more specifications, building designers, building officials and builders placing added responsibilities on component manufacturers (CMs). Perhaps this has always been the case and in the information age we live in, we are simply more aware of the attempts to shift responsibilities to component manufacturers. With that said, the goal of all external parties to our industry seems to be to get CMs to do engineering or design work for as little cost possible and to shift as much design risk to CMs as possible. The decision component manufacturers must make is how much of this cost and risk they are willing to put into their price of components, or how much reduction will happen to net profit over time.



When this issue becomes a topic of discussion very often one hears that WTCA believes that component manufacturers and truss designers should not take on more design or engineering work than just the component engineering. What has happened here is an over-simplification of WTCA's position on this issue, probably to make it easy to understand. Here is what WTCA believes regarding the engineering aspects of our business:

1. When one is designing and manufacturing structural components, one should be paid for the design and manufacture of each component. This also includes all the risk, attorney's fees

incurred downstream from the sale, insurance, overhead, shipping, jobsite callbacks, sales, administrative, etc. costs, plus a reasonable profit.

2. When one is supplying I-joists, LVL, glulam, etc. one needs to be paid for the design process, risk, insurance, jobsite call backs, sales, administration, etc. costs plus a reasonable profit.

Item 1 is really what we have concentrated on as we have developed our industry's design responsibilities positions. The cost involved in Item 2 is increasing as CMs are either taking the loads from the plans or at times developing the loads, doing the design in a supplier-provided software package and reselling the products. Furthermore, there is pressure in the market for our industry to be responsible for supplying and designing the truss roof or floor system bracing, sealing the placement diagram, inspecting the installed trusses and providing installation among other things.

With these facts in mind, the questions to consider are:

- Should the CM receive additional compensation for work that goes beyond the design and manufacture of roof trusses? ANSI/TPI/WTCA 4-2002 can certainly serve as a model scope of work document if design work will be limited to components and consideration is given to including it or referencing it in all bids and contracts.
- Has beam, header and I-joist design work been requested? If so, is this design work covered in the product's selling price? Also, has the risk of design and call back potential for field issues been accounted for in that price?
- What overall risk is going to be assumed by taking this job? Is the pay worth the risk?
- Is the customer being provided with additional problem solving, design and installation services to meet their needs? If so, is additional compensation being received by the CM for the completion of extra tasks beyond our industry's defined scope of work? Is that compensation adequate; in other words, does that compensation cover the risk taken and the value provided?
- Will the refusal to provide these additional services for free result in a lost customer?
- Does the customer use the competition as leverage to get additional work for free? If performing this work for free reduces margin, is it worth doing? Are you sure the customer is accurately stating what the competition is willing to do?
- Does the customer really want its suppliers' margins reduced to the extent that it makes the risk of long-term viability go up? Given the position being taken by the customer, is this customer worth keeping?
- Is the additional work being requested work that the CM desires to do?
- Is it worthwhile to structure one's business to undertake this work legally? For instance, if structural engineering work beyond the design of the components is required, state laws may provide for a specific business structure.
- How does the marketplace value the work CMs are performing?
- Is the compensation being received adequate given the market value for this work?

## AN EXPANDING SCOPE OF WORK?

The graphic has been used in a variety of ways over the years as it depicts the business marketplace from the viewpoint of the component manufacturer. (The excerpt provided here

focuses on the CM relationship with engineers in particular. For a look at the complete marketplace flowchart, see page 10 of the May 2003 issue of SBC Magazine.) WTCA has never recommended that component manufacturers should only be component manufacturers. Rather, we have suggested that if CMs are taking on more than just component manufacturing work they need to gain the benefit of greater compensation for this work as well as for any added risk that has been acquired by doing so.

In the market today, there is a continual push to eliminate steps in the distribution process or to consolidate through merger and acquisition. This suggests that our industry is in an increasingly mature market, as margins are maintained by eliminating chains of distribution and even competition by merger or other means. Under this scenario, what should be held as precious? The logical answer is anything that adds value to core business activity, diversifies product lines and provides the expertise that customers can't find anywhere else.

It is easy to see that the component industry is on the brink of change. Two distinctly different directions it could go are:

- Adding technical support value to each sale and get paid for it.
- Becoming a commodity product producer, at least until a new product comes along that will change the entire business (much like the truss plate changed the framing business back in the mid 1950s).

On the added-value side of this equation, to enhance and grow in the technical support area may mean getting into building design at some point. For example, in terms of the business marketplace graphic, this may mean consolidating the Design Professional (Building Designer) function into current business models.

On the other side of the equation is the decision to just be a manufacturing and distribution industry (i.e. produce a commodity product). If so, then technical expertise will either be delegated to or grown by others in the stream of commerce. In this scenario, what is likely to happen? By definition, the result is that others will have the capability of providing everything in the design process—engineering, cutting, plate sizes, etc.—that CMs need to merely manufacture components. Will this ultimately mean that the low cost producers in each market will get the majority of the work? How many companies can be the low cost producer in a particular market? This scenario may also hasten consolidation in local markets, as one way to make an acceptable return on investment is to buy up the competition. Another option is for current CM customers to buy up their supplier(s) or vice versa.

The future of the industry is in the hands of component manufacturers everywhere. Few would argue that the choices are difficult and the stakes are high. However, the real question to ask is: How will the CM be viewed in the history books?

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For a specific example of how these issues were addressed in a current industry forum see [Specialty Structural Engineers](#).

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