

Research Update

July 15, 2006

New Research Project Initiated

The Steel Framing Alliance's core value of "maintaining leadership in construction technology through innovation" is the primary driver behind its research initiatives and was strengthened with the initiation of a new research project.

- **Comparison of Wood and Steel Framing** will identify and evaluate the top 10 to 15 design and construction inequalities between wood and steel that result from the structural requirements for light-frame construction in the 2006 Editions of the ICC International Building Code and International Residential Code, and the relevant design standards that are referenced in these codes, that would have the most impact on steel's competitiveness if the inequalities were mitigated.

A November 2005 survey conducted by the LGSEA Technology Development Committee identified inequities between wood and steel framing as the highest priority technological research project for the Steel Framing Alliance (SFA) to pursue. The work plan for this project includes the following:

1. Identify the relevant standards for steel and wood light-frame construction.
2. Review the codes and standards and identify the major differences that place steel at a disadvantage. Where structural issues interact with other trades or systems, these interactions shall also be documented.
3. Develop estimates for the potential cost savings if the inequalities were mitigated and a method for how to present costs so that SFA can best evaluate the impact on the industry.
4. Develop and give a presentation on the findings of above activities to the SFA.
5. Based on input from SFA, identify the best opportunities for SFA to conduct follow-up research on and develop a strategy or approach for each. Include estimates of the labor, other resources, and a schedule for each strategy.
6. Submit a final report on all activities conducted under this project.

Pending a successful conclusion of the above project, which is focused on US codes, a companion project focused on Canadian codes is anticipated.

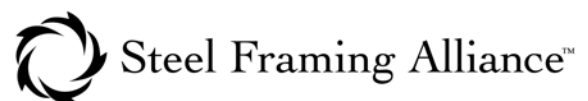
Four Research Projects Continue

- **Reinforcing Holes in Floor Joists** will determine appropriate prescriptive methods for reinforcing holes such that the floor joist member selection tables would apply to holes with diameters up to 70 percent of the web depth.
- **Hip Roof Rafter and Ridge Framing** will provide the design methodology to be used in subsequent work to develop roof rafter spans in the next edition of the Prescriptive Method, and experimentally determine the strength of and establish prescriptive requirements for built-up ridge members.
- **ILZRO ZC-26 Project on Pressure Treated Wood** is working towards establishing reliable life prediction data for galvanized steel products used with currently available pressure treated wood products.
- **Detailing CFS with Residential Concrete Walls** will develop draft connection detailing provisions for standard committee consideration for AISI Standard for Cold-Formed Steel Framing – Prescriptive Method for One and Two Family Dwellings, and PCA Prescriptive Method for Concrete in Residential Construction.

Once completed, the reports from these projects will be available through the Steel Framing Alliance website (www.steel framingalliance.com). The Research Team serves the Steel Framing Alliance as a technical advisory group, facilitating the timely technical review of research and the dissemination of its findings. For more information, please contact the Research Team Leader, Jay Larson, jl Larson@steel.org, 610.691.6334.

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