

# Research Update

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July 15, 2005

## Two New Research Projects Initiated

The Steel Framing Alliance's core value of "maintaining leadership in construction technology through innovation" is the primary driver behind its research initiatives. These efforts have been strengthened with the initiation of two new research projects.

- **Key Seismic Parameters** will compare the requirements for the use of the overstrength factor, resistance and safety factors for seismic design and identify the differences between steel and wood framing in industry documents.
- **L-Header Evaluation** will compile available test data on performance of L-header assemblies, investigate an improved methodology for the uplift capacity of L-headers reflecting new provisions for unstiffened compression elements with stress gradient in the 2004 Supplement to the AISI Specification, and establish criteria for L-header serviceability related to vertical deflection under gravity load.

## Eight Research Projects Underway

Results of all of this important work are expected to significantly impact design standards and codes, as well as design guides, training curriculum and seminars. Once completed, the reports from these projects will be available through the Steel Framing Alliance website ([www.steel framing alliance.com](http://www.steel framing alliance.com)).

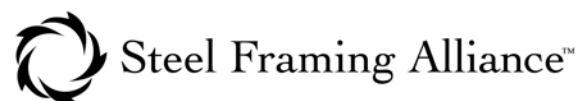
- **Load Bearing Top Track** will provide alternatives to the in-line framing requirement by adding details and span-load tables for new load bearing top track options to the AISI Prescriptive Method.
- **Wall Stud End Gap Tolerance** will experimentally study the influence of the wall stud end gap on strength and serviceability and propose an acceptable tolerance for design. As a further objective, the deflection of deflection track will be investigated and a methodology suggested for the AISI Wall Stud Design standard.
- **Gable End Walls** will create the documentation necessary to enable the expansion of the Standard for Cold-Formed Steel Framing – Prescriptive Method for One and Two Family Dwellings (2001) for gable end walls.
- **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.
- **Clip Angle Bearing Stiffeners** will develop design rules for cold-formed steel floor joists with clip angles used as bearing stiffeners.
- **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.
- **Fiberboard Sheathed Shear Walls** will generate test data, provide design values for the AISI Lateral Design standard and serve as basis of a code change to permit use of fiberboard sheathing on steel-framed walls.

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](mailto:jl Larson@steel.org), 610.691.6334.

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