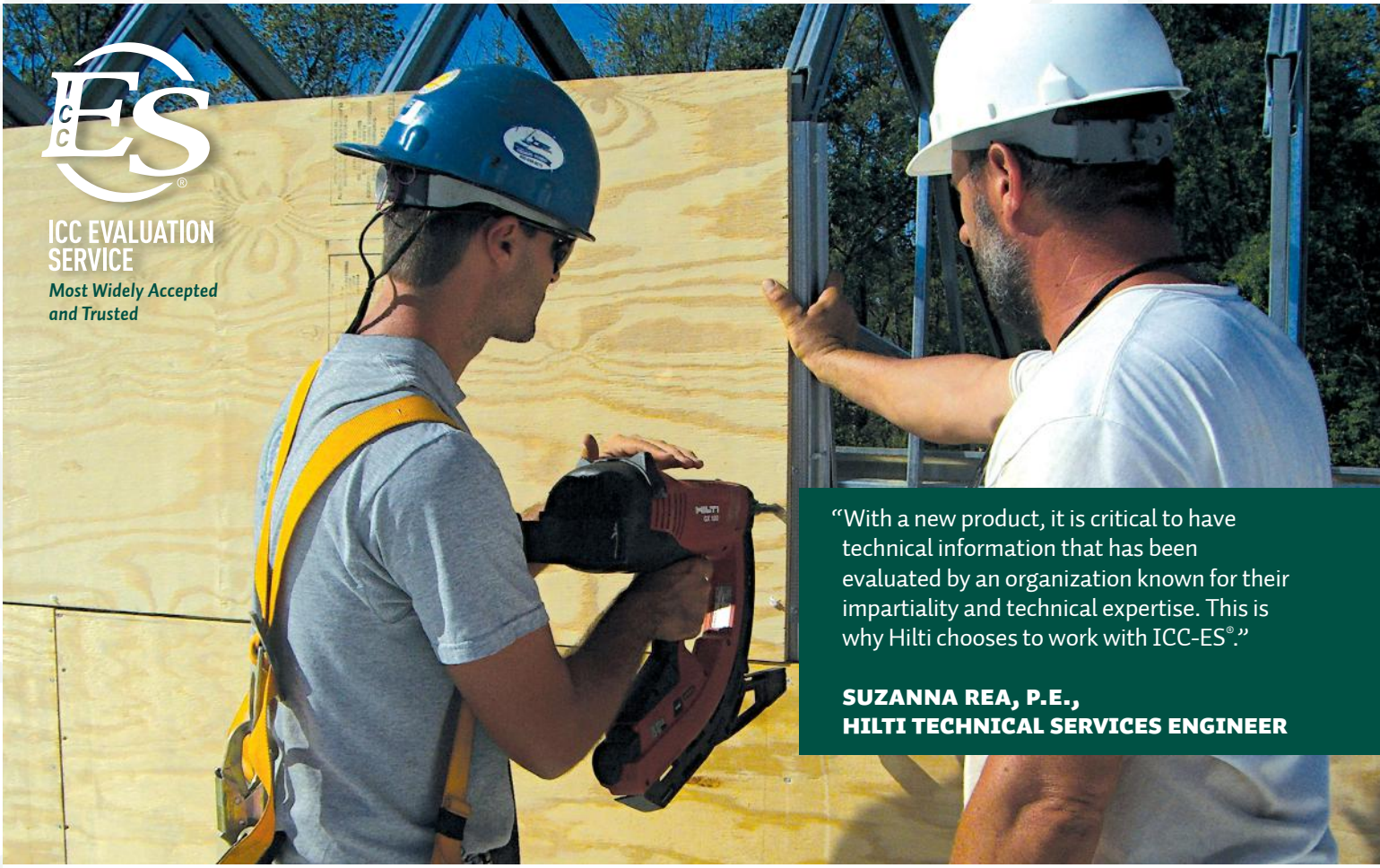

Step on the Gas: ICC-ES® Evaluation Reports Increase the Speed of New Product Acceptance

ICC Evaluation Service® (ICC-ES®) Reports are important to the building industry because they allow code officials and building professionals to quickly verify that a product meets building code requirements. This is especially useful with new, innovative products, such as the Hilti X-GPN37 MX power-driven fastener, which recently received recognition in ICC-ES ESR-3059. "With a new product, it is critical to have technical information that has been evaluated by an organization known for their impartiality and technical expertise," says Suzanna Rea, P.E., Hilti Technical Services Engineer. "This is why Hilti chooses to work with ICC-ES®."

To allow innovative products that are not covered in the existing codes into the market, ICC-ES has a unique process in place, called the Acceptance Criteria development process. With the requirements of ICC-ES® Acceptance Criteria for Power Driven Pins for Shear Wall Assemblies with Cold-Formed Steel Framing and Wood Structural Panels (AC230), Hilti had its innovative power-driven fastener X-GPN37 MX evaluated by ICC-ES® for compliance. The new evaluation report addresses recognition under the *International Building Code®*, the *International Residential Code®* and the *Florida Building Code*. "As a leading manufacturer of building products, Hilti values working with ICC-ES®, because products holding ICC-ES® Evaluation Reports are recognized as code-compliant by an independent organization that is trusted throughout the building industry," says Drew Liechti, P.E., Hilti Technical Services Manager.

Hilti anticipates that by using gas-actuated technology, contractors can realize significant increases in productivity over traditional screw attachments. Hilti's innovative X-GPN37 MX power-driven fastener provides an efficient solution for the attachment of wood structural panels, including plywood and OSB, to cold-formed steel framing as part of shear wall assemblies and for other applications such as the construction of parapet walls and the support of exterior cladding. ICC-ES® ESR-3059 recognizes use of the X-GPN37 MX power-driven fasteners in Seismic Design Categories A through F. In addition to providing shear wall strengths, the evaluation report provides shear and tension capacities for basic connections of wood structural panels to cold-formed steel framing. One fastener length covers the most common wood structural panel shear wall applications.

Through a combination of engineering analysis and full-scale cyclic load testing, the Hilti X-GPN 37 MX fasteners have been qualified for use in many shear wall configurations. In May of 2008, the scope of AC230 was expanded to allow this type of combined approach to qualification. Hilti is the first manufacturer to use this approach. As a result, it was found that AC230 needed further revisions to clarify requirements. Hilti and ICC-ES staff worked together toward a common goal of having an acceptance criteria, which addressed the intended uses of the fasteners in a clear and comprehensive manner.

Because of the openness and transparency of the ICC-ES acceptance criteria development process, all interested parties were able to participate in the hearing process on revisions to AC230. "ICC-ES was very helpful during the acceptance criteria development process and evaluation review. Any questions that we had regarding changes to AC230 were quickly and thoroughly answered by ICC-ES® staff," said Kamil Celik, Technical Services Engineer.

Working on ESR-3059 involved knowledge and understanding of several different materials, as well as the methods for determining capacities for resisting seismic loads. All this made for a more complex evaluation than is usually called for when evaluating power-driven fasteners for general use. Elyse Levy, Senior Staff Engineer with ICC-ES, said, "Working with a responsive partner such as Hilti resulted in a much improved criteria in a relatively short period of time, as well as a ground-breaking evaluation report. The evaluation process was a great learning experience, which has resulted in improved processing of these types of evaluations for all clients."

Bill Gould, P.E., Hilti Technical Director, added, "Hilti takes great pride in developing innovative new products. We also are proud of the ISO 9001 and 14001 quality certifications under which Hilti operates. Our quality team ensures that all of our products comply with specifications. This was validated through the ICC-ES® evaluation process and gives building professionals peace of mind."

To find out more about this product, view ESR-3059 at www.icc-es.org/reports/pdf_files/ICC-ES/ESR-3059.pdf. All ICC-ES® Evaluation Reports® can be accessed and downloaded free of charge at www.icc-es.org/Evaluation_Reports/index.shtml, and are readily searchable based on attributes such as product type, manufacturer name or report number.

** This article is intended to provide information on a new and innovative building product or system for which an ICC-ES® Evaluation Report® has recently been issued. It should not be construed as a product endorsement or a recommendation for its use.*