



FrameFAST™

Structural Framing System

CASE STUDY: Modera Marshfield



COLT BUILDERS BOOSTS PRODUCTIVITY AND SAFETY WITH FRAMEFAST

Focused on increasing jobsite productivity, Colt Builders and FastenMaster teamed up to test the FrameFAST Structural Framing System. At their jobsite in Marshfield, MA, Colt Builders used the FrameFAST System to secure roof trusses to wall plates in one of two identical buildings, and traditional hurricane ties in the other. The results: FrameFAST installed 5 times faster, significantly easier, and unquestionably safer.

Installation Speed & Productivity

Using the FrameFAST system, workers completed the truss-to-wall connection 5 times faster than they did when installing traditional hurricane ties. This significant time savings allows workers to move on to other important tasks. Here on the Marshfield job, the FrameFAST system saved 2-1/2 hours on just 1 building.

Ease of Installation

Jeff Beauchemin, Regional GM of Colt Builders, was impressed with how easy the FrameFAST system is to use. "The learning curve is accelerated with FrameFAST versus traditional hurricane clips. The tool is very intuitive, and the guys take to it very quickly. With the traditional hurricane tie system, there are a few more steps in that process to get them trained to install them correctly. There are different nails for different clips, but with FrameFAST the guys put the screws in their pouch and they're off and running." The FrameFAST installation heads ensure that every screw is installed at the proper angle and location which is critical to the integrity of this type of structural connection. Not only are workers able to go faster, the FrameFAST system makes it easier for them to do the job right.

PROJECT DETAILS

LOCATION
Marshfield, MA

TOTAL SQ FOOTAGE
274,000

CONTRACTOR
Colt Builders Corp.

MATERIALS
FrameFAST



Jeff Beauchemin
Regional General Manager

Safety

"The key part I like about FrameFAST," says Shane Broughton, VP Colt Builders, "is the safety. You don't have the back strains, guys up and down ladders, slips and falls." Jeff Beauchemin agrees, "It keeps our guy's feet on the deck, avoiding any potential for nail ricochets...It really drives home our culture of safety." Eliminating ladders, pneumatic nailers, and hoses, the FrameFAST system allows workers to move more easily throughout the building and significantly reduces the risk of injury associated with slips, trips, and falls.

Case Study Experiment

Two identical buildings were constructed in Marshfield, MA by Colt Builders. Each building required 180 truss-to-wall connections to provide structural resistance to uplift and lateral loads. On day 1 a worker was tasked with installing traditional hurricane clips in one of the buildings. The installation process was recorded and the average time per connection was calculated. On day 2 the same worker installed FrameFAST screws in each of the 180 locations. The installation process was again recorded and the average time per connection was calculated.

Observations

During the hurricane tie installation, the worker struggled to move equipment throughout the building, from one unit to another. Similarly, the pneumatic hoses proved to be both an inconvenience and a trip hazard. However, when using the FrameFAST system the worker was able to move freely throughout the building, without having to drag the ladder and pneumatic hoses between studs to move from one unit to the next.

Comparison

This Installation of the hurricane tie requires positioning a ladder under each truss, climbing that ladder with a pneumatic nailer in hand, positioning the clip, installing all 10 nails, then climbing down the ladder. Clips must be positioned just right as not to interfere with drywall, and nails must be installed properly to pass inspection.

Using the FrameFAST system, the worker approaches the connection location, loads a FrameFAST screw into the tool, reaches up and drives it through the wall plate and into the roof truss above, all while standing safely on the floor.

FastenMaster
FrameFAST™
Advantage

 FastenMaster FrameFAST 13 Seconds per Connection	 H2.5A Hurricane Ties 63 Seconds per Connection
80% Reduction	
Total Project 7 Apartment Buildings 2,720 Truss to Top Plate Connections	
38 Hours Projected Time Savings	

Results

Using the FrameFAST System, the worker was able to complete each truss-to-wall connection in an average time of 13 seconds. When installing traditional hurricane clips, the worker averaged 63 seconds per connection. The difference of 50 seconds per connection results in an overall installation time savings of 2-1/2 hours per building.

Conclusion

In total, the Marshfield site included 15 buildings of various sizes which amount to over 3,980 truss-to-wall connections. Altogether, the FrameFAST system can save over 55 hours on this project, allowing workers to move on to other critical tasks. The ease of use associated with the FrameFAST system means that anybody on the job site can quickly learn how to complete these structural connections properly. Using the FrameFAST system, ladders and pneumatic nailers are eliminated which means that the risks of trips, slips, and falls, along with the potential for nail ricochets are significantly reduced. Shayne Broughton concludes, "I want to take (FrameFAST) company-wide with us in all of our markets!"