



## Success Story: Frontier Builders



Frontier Builders is located in Land O'Lakes, Wisconsin. They build full-scribe custom log homes.

*"Jim and Brad were instrumental in helping us improve our operation. Their assistance has helped me think in new ways. What impressed me the most was their sincere desire to see us succeed."* Dan Wait, President

### Assistance

Lean Manufacturing, Plant Layout, Strategic Planning, 5S, Value Stream Mapping, Standard Work Procedures

### Situation

Dan had recently acquired the business from his father and wanted to develop his own vision for the company that was right for him. There is always a need to improve in every business, so Dan also wanted to look at his overall operations and determine where continuous improvement could be applied.

### Project

Advisors from the Northwest Wisconsin Manufacturing Outreach Center met with Dan and reviewed the operation. It was recommended that a strategic plan be developed with his key people. One of the outcomes of that plan was the desire to see how lean manufacturing techniques could apply to a log home building process.

Over the course of three and one half years, there has been training, value stream mapping, 5-S events, development of a Standard Procedures Book and workspace layout activities. Most recently Frontier Builders was awarded a grant from the State of Wisconsin that provided them the opportunity to continue on with additional improvement efforts. Dan sees it as an ongoing process with no end.

The walls of log homes, and inside features such as log stairways, are generally constructed at the builders log yard, then disassembled and moved to the destination site where they are re-assembled on the foundation. The lean "one piece flow" model even applied to building log homes. They previously had a few homes in process at any given time. They have a very large building that was re-arranged inside to allow a crew to build one home at a time inside this building -- out of the rain, cold, snow and wind.

A gain sharing system was also implemented that allows the crew to benefit from their continuous improvement, high quality work, and efficiency.

### Results

- Through-put time reduced for each home by 35%
- Productivity improved by 15%, resulting in 15% increased sales
- Improved predictability of delivery schedules
- Employee involvement in improvements increased to 100%
- Improved quality
- Gainsharing plan put in place utilizing the new measures
- Investments to increase competitiveness to exceed \$100,000
- Two additional jobs were created, and 14 more secured

