

AVERY ALTON
VICE PRESIDENT,
MIDWEST F.A.S.T. STRUCTURES

"Purdue Professor Alhassan was excellent to work with. He provided a detailed report for the finite element analysis and the structural assessment on the proposed 20-foot wall. That gave us the confidence to make the financial investment and proceed with the project."

MANUFACTURING EXTENSION PARTNERSHIP

MIDWEST F.A.S.T. STRUCTURES, VINCENNES, INDIANA



PARTNERSHIP GIVES MANUFACTURER CONFIDENCE TO EXPAND

"HIRING A LARGE ENGINEERING COMPANY WAS GOING TO BE EXPENSIVE. PURDUE HELPED US ANALYZE THE HURDLES WE WOULD HAVE TO CLEAR AS A SMALL COMPANY BEFORE LAUNCHING INTO THIS PRODUCT."



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PRESIDENT, FOUNDER AND OWNER
MIDWEST F.A.S.T. STRUCTURES

MIDWEST F.A.S.T. STRUCTURES DESIGNS INNOVATIVE CONCRETE WALLS WITH HELP FROM PURDUE

The creativity and common sense approach honed during his early days on the farm are helping define the future for Rex Alton and his southwestern Indiana company.

And thanks to Purdue University's engineering expertise and its Technical Assistance Program (TAP) — a program run by the Manufacturing Extension Partnership (MEP), Midwest F.A.S.T. Structures is poised for expanding its product line of concrete wall buildings.

"We're hoping this will turn into something big for us," says Alton, who has guided the growth of his diversified sand, gravel, cement, construction and trucking company since 1968.

That "something big" is due to the timely arrival of a brochure mailed from Purdue MEP to Alton's manufacturing facility in March 2011. It touted the University's services and expertise available to Indiana companies with a goal to grow.

Alton and his son Avery launched Midwest F.A.S.T. to design and build fabric-covered, steel truss buildings supported by 4-foot-tall and 8-foot-tall walls. The 11-year-old subsidiary draws its name from the slogan "flexible affordable storage technologies" and touts its structures as a low-cost solution to storage or workspace needs.

The precast concrete walls are anchored to a concrete floor also poured by Midwest F.A.S.T. Initially, the walls were made of wood. But Alton saw the benefit of using concrete walls for buildings that could store everything from grain, fertilizer and heavy machinery to automobiles, tractors and boats — and in greater capacities.

Aware of the quality track record at Midwest F.A.S.T., an Evansville company contacted Alton about a planned building measuring 280-by-132 feet for storing 1 million bushels of grain. Alton realized he would need stand-alone concrete walls as high as 20 feet — each weighing about 16 tons — to support that much stored grain.

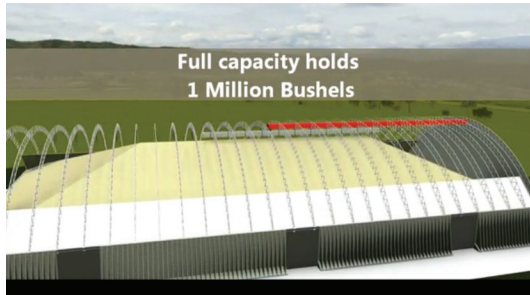
Brochure in hand, Alton contacted MEP officials who led him to Steve Shade of the Purdue Center for Advanced

Manufacturing. Shade connected with civil engineering professor Mohammad Alhassan of the Indiana University-Purdue University Fort Wayne (IPFW) campus to work with Midwest F.A.S.T. Structures.

The Purdue project's focus: Assess the 20-foot-high wall design based on its geometry, anchorage system, reinforcement, lateral deflection and other stability factors through a finite element analysis. In September 2011, Professor Alhassan delivered his report.

The partnership has had a major impact on the Vincennes company on several fronts:

- Created four new positions at Midwest F.A.S.T., expanding total employment by more than 30% to 15 workers.
- Supported the company decision to invest \$100,000 for equipment and additional upgrades to design, develop and deliver the 20-by-10 foot tall concrete walls.
- Resulted in a patent pending for Midwest F.A.S.T. on the unique design and other features of these taller concrete walls.
- Sparked additional discussions between Midwest F.A.S.T., Purdue TAP and MEP, and Professor Alhassan for applying the concrete-wall concept to tornado-proof homes and commercial buildings.



"The experts at Purdue helped us analyze the hurdles we would need to clear as a small company before launching into this product," Alton says.



ABOUT MEP

Purdue MEP provides high-value solutions that help Indiana businesses maximize their success by increasing profits, reducing costs, and implementing growth systems. Our organization serves more than 500 companies annually by implementing continuous improvement principles in the areas of productivity, growth, and technology. Purdue MEP has helped our clients collectively achieve over \$1.8 billion of economic impact in Indiana since 2005.

CONTACT US:

PURDUE MEP: WWW.MEP.PURDUE.EDU / 800-877-5182

MIDWEST F.A.S.T. STRUCTURES: MIDWESTFASTSTRUCTURES.NET / 812-886-3060