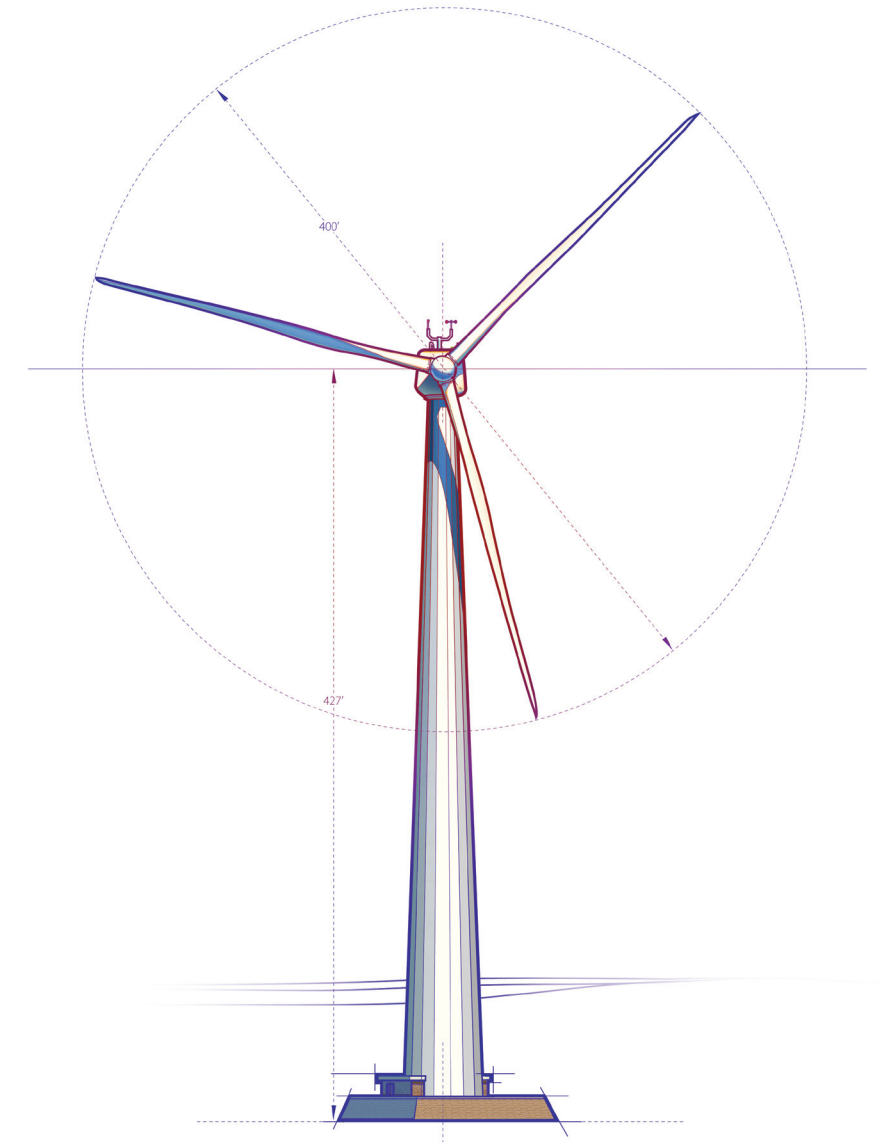
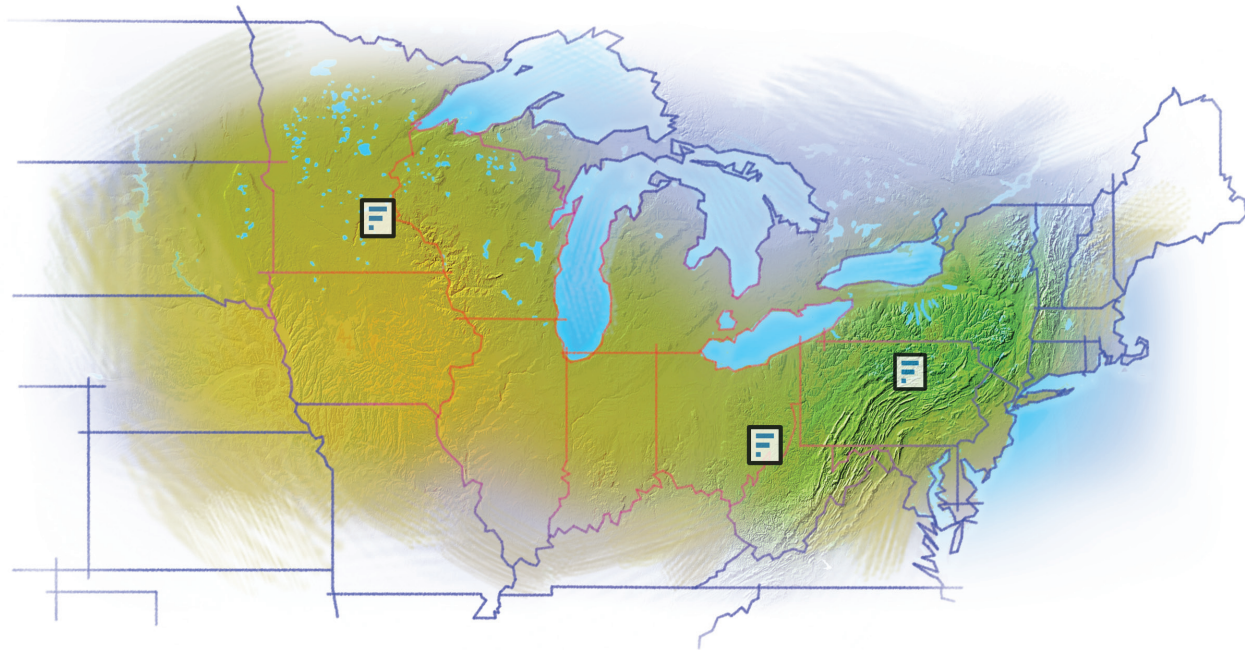




## The Fabcon Resources



## We're Lifting Wind Power Higher

Fabcon's precast wind turbine towers are engineered to assemble quicker, soar higher and create less impact. Precast concrete's unique properties offer many advantages over traditional steel turbine towers, and nobody knows more about precast than Fabcon. Our turbine towers deliver the performance and cost effectiveness that will help move wind power forward and lift its contribution higher.

### THE FABCON REACH

Fabcon is always near. With three strategically located plants and a vast network of sales offices, Fabcon has the resources and the reach to help you get your construction projects done faster and smoother.

### MANUFACTURING

**MINNEAPOLIS, MN**  
800-727-4444  
**COLUMBUS, OH**  
800-900-8601  
**MAHANAY CITY, PA**  
888-433-2777



**BETTER, STRONGER, FASTER**

## Fabcon Precast Concrete Wind Towers

**PARTNERS IN SUSTAINABILITY**



**BETTER, STRONGER, FASTER**

6111 West Highway 13 | Savage, MN 55378-1298 | 800-727-4444 | [www.Fabcon-USA.com](http://www.Fabcon-USA.com)

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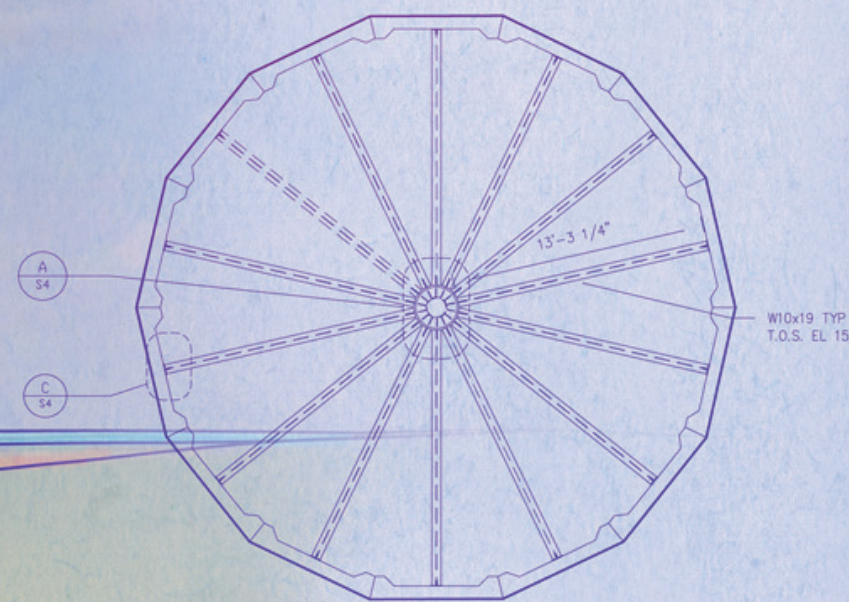


**BETTER, STRONGER, FASTER**

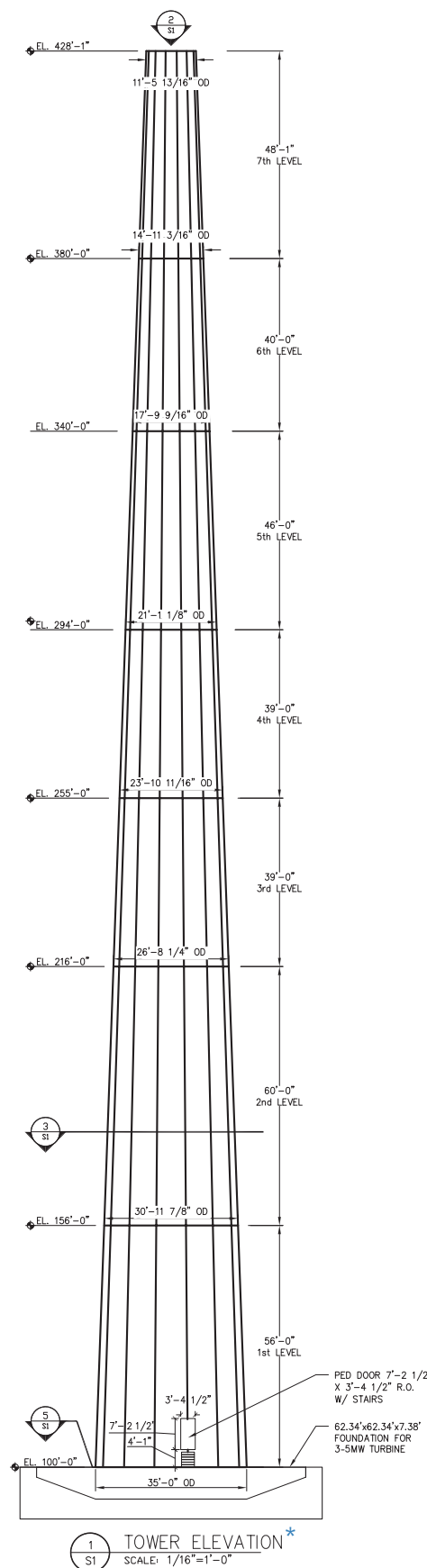
# Better, Stronger, Faster

Wind power has a viable and promising future here in the U.S., and Fabcon intends to help secure its success. We've applied our acute understanding of precast concrete and our engineering expertise to design a sustainable wind turbine tower that enables power producers to build higher, faster and with reduced impact. Concrete's inherent thermal properties and Fabcon's patent-pending modular design create a cool, stable platform that requires little or no maintenance, and extends the life and improves the efficiency of the turbine's working parts.

Fabcon has always been committed to a construction process that delivers **Better, Stronger, Faster** structures, and now that applies to wind turbine towers as well.



1 PLAN AT EL 155'-0"  
SCALE: 3/16"=1'-0"



1 TOWER ELEVATION\*  
SCALE: 1/16"=1'-0"

Fabcon's precast wind turbine towers are built in sections ranging in size from 40 to 60 feet. Unlike monolithic steel towers, Fabcon's system is easily and safely transported within legal weight restrictions and eliminates costly road repairs.

\*Actual tower heights and segment dimensions will vary from the illustrated example.

## Building a Better Tower

To date, the primary building material used in the construction of wind turbine towers has been steel. Steel is lightweight, strong and malleable. It has proven to be an adequate solution for towers up to about 150 feet. Fabcon's objective is to enable would-be power producers to reach higher. Much higher. Fabcon's precast tower systems are capable of reaching heights of 420 feet. The advantages of higher towers include more consistent winds and greater energy output, but the advantages of a Fabcon precast tower go much further than a vertical measurement.

The physical properties of steel and precast concrete are obviously very different. Steel's advantage of strength in a relatively thin substrate are in this case a disadvantage in a number of ways.

## Concrete VS. Steel

### DEFLECTION

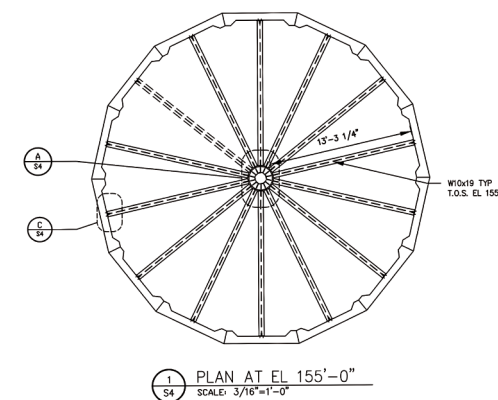
The deflection on a steel tower of 300 feet is nearly three feet. The deflection of a comparable Fabcon precast tower is about three inches. Over time, deflection increases stress and fatigue on the structure, ultimately requiring replacement or repair.

### VIBRATION

Because of the thickness and rigidity of precast concrete, Fabcon towers greatly reduce vibrations when compared to steel towers. Higher vibration levels are hard on the equipment, and the nuisance noise levels created are a major issue, often limiting where wind farms can be placed. Fabcon precast towers will enable towers to be located closer to cities and towns and increase their overall viability. The combination of reduced deflection and lower vibration allow the internal, mechanical design to be simplified.

## THERMAL BENEFITS

Fabcon precast towers are cooler than steel. The internal shaft of a steel tower requires substantial cooling to remain operational. The energy required to keep it cool is cannibalized directly from the tower's output, reducing efficiency and increasing overall costs.



The walls of a Fabcon tower are 6 to 8 inches thick. The inherent thermal properties of the concrete keep internal temperatures generally cooler and overall much more stable. The resulting cooler environment improves electrical transmissions and reduces demands on cooling equipment.

## TRANSPORTATION

Fabcon towers are entirely modular, enabling load weights to be closely monitored and controlled. Two or three sections fit neatly on a flatbed truck and are easily transported under overpasses. Steel monolithic sections are often over legal load limits, causing significant damage to roads and adding as much as 20% to the cost of a wind farm project.

## MAINTENANCE

Over time, painted steel will deteriorate and begin to rust. At that point they will need to be repainted at no small expense. Fabcon precast towers are made with integral color and a maintenance free exterior. The addition of photocatalytic cement can make the concrete self-cleaning by causing the tower surface to interact with sunlight to break down organic matter.