Matsen Ford Design Associates was tasked with the structural design of a mid-rise hotel along the shoreline of Chautauqua Lake in Celeron, New York. Their initial site study reviews determined that the soil conditions were not prime for the weight of a traditional poured concrete structure. Informed, the engineering team began to design a lightweight structure, and evaluated the USG Structural Panel Concrete Subfloor as a component of that design. The USG panel’s published testing data demonstrated the product would perform as needed – adding relatively limited weight to the structure, while delivering a structurally safe and durable design.

During construction, a few complications with sequencing set the project timeline back. The contractor, Gypsum Systems, experienced in working with USG Structural Panel Concrete Subfloor, got the project back on track, and then ahead of schedule. They leveraged the efficiencies of the factory-made, cured and dried USG Structural Panel, and its ease and speed of installation.

The teams found three key benefits of USG Structural Panel Concrete Subfloor while working on this lakefront project.

1. **LIGHTWEIGHT AND STURDY**
   The lighter the super structure, the less foundation we need.
   
   Susan Debinski, Engineer, Matsen Ford Design Associates

2. **NO NEED FOR SEQUENCING**
   If we had to wait for the iron worker and concrete guy, we would be WAITING!
   
   Mike Law, Superintendent, Gypsum Systems

3. **EASE OF INSTALLATION**
   You don’t have to glue or treat the joints. It’s very easy to install.
   
   Michael Inman, USG
**PRODUCT HIGHLIGHT**

USG Structural Panels are high-strength, dimensionally stable, reinforced concrete panels for use in noncombustible construction. Lighter than poured concrete, they install like wood sheathing and are mold-, moisture-, and termite-resistant, providing a faster, easier and more efficient way to build floors and roofs.

**5 PSF PANELS**

**V.S.**

**30-40 PSF POURED CONCRETE**

Using USG Structural Panel actually put the project ahead; we can put the product down, frame our walls and we are on our own.

Mike Law,
Superintendent, Gypsum Systems

**MSRP based upon full truckload delivered to jobsite:**
Subfloor: $4.50/sf

**SQ FT HOTEL CONSTRUCTION**

50,000

**BIGGEST CHALLENGE**

The soil here was unable to hold the necessary weight of traditional concrete. Without USG panels, we’d be stuck with extra weight and cost.

Susan Debinski,
Engineer, Matsen Ford Design Associates

**HIGHLY RECOMMENDED**

We’re happy with the product. We’re getting good productivity and would absolutely use this structural panel again.

Mike Law,
Superintendent, Gypsum Systems