



# A Complete Suspended Cast in Place Concrete Floor/Roof System

Presentation By:  
Nick Ruebel - Managing Partner

# The Super Floor System

Super Floor is a complete suspended concrete floor/roof system. The system combines a pre-cambered galvanized steel joist, metal decking and lateral support bars all made in our factory to insure product consistency for fast and easy installation.

Video created by our friends at [BuildBlock Building Systems](https://www.buildblock.com).





## The System: Specifications

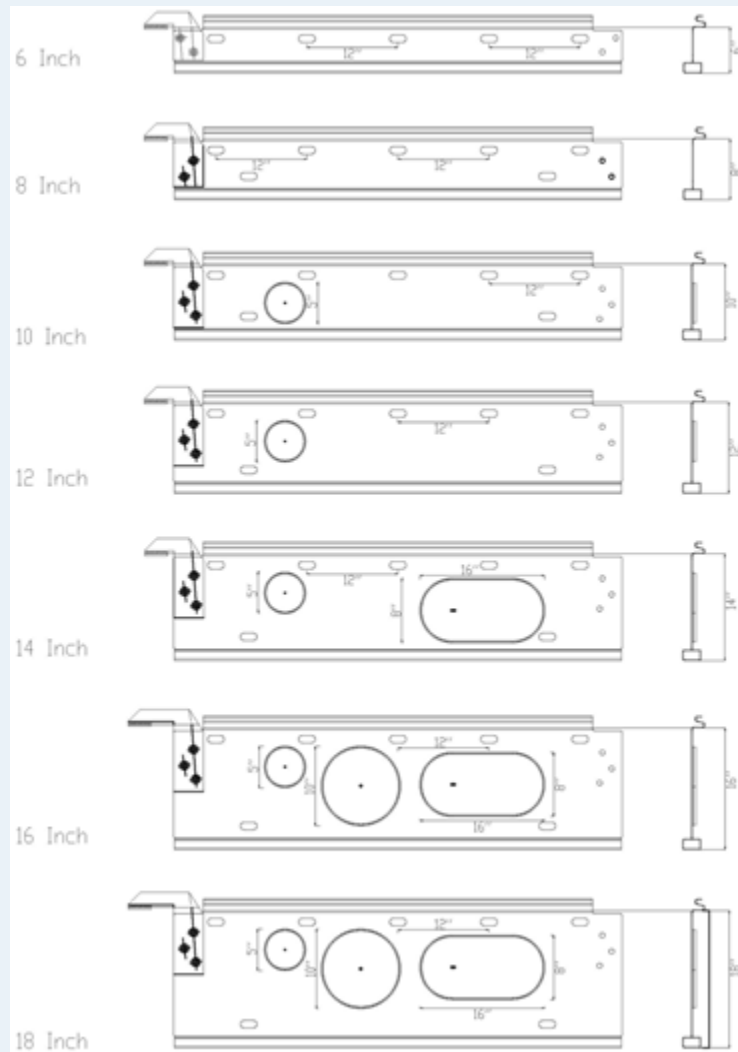
- **Material:** Galvanized high tensile hot rolled steel.
- **Size Options:** Available in depths ranging from 6 inches to 18 inches to accommodate most span and load requirements.
- **Installation:** The leave-in-place formwork design, custom manufactured to each project specifications which requires no shoring or on site fabrication.





## The System: Design

At the heart of the system is a roll-formed steel joist that is lightweight, custom manufactured to specific lengths. There are multiple service hole options base on the joist size. The joist are simply set on the primary vertical support structure without the need for any secondary attachment.





## The System: Manufacturing

The joists are manufactured in the USA (Cincinnati, Ohio) in a single pass rollformer, where they are shaped, punched and slotted to a high degree of accuracy with a high production rate. Then the end brackets are manually bolted to each joist, then the joists are marked for identification.





## INSTALLATION: STEP 1

### Position the Steel Joists

The joists are typically lifted into place in bundles and manually spaced apart. Each joist is marked for easy identification and placed directly on the support structures based on the provided project shop drawings.





## INSTALLATION: STEP 2

### Install The Lock Bars

Lock bars are inserted into pre-punched slots, at 2' centers, on the joists, securing them in place and ensuring consistent spacing. The lock bars provide a stable framework for the metal trays. Each bar is “notched” on both ends to accurately control the joist spacing. They are a key component in the Super Floor system's ability to be installed consistently.





## INSTALLATION: STEP 3

### Place Framework Trays

The steel metal trays are laid across the lock bars, parallel to the joists creating a continuous, seamless platform. This tray system is manufactured to the same length as the joists which eliminates any need for on site modifications.







## INSTALLATION: STEP 4

### Reinforce with Mesh

Welded wire mesh reinforcement is installed over the joists eliminating the need for chairs, ensuring proper placement. The Super Floor design accommodates various reinforcement configurations, depending on the engineered load and span requirements.





## INSTALLATION: STEP 5

### Pour the Concrete

Concrete is poured directly onto the steel formwork trays, embedding the joists and creating a reinforced composite slab. The composite action between the steel joists, cast into the concrete, enhances the system's load and span capabilities.





## INSTALLATION: STEP 6

### Finalize the Flooring

Once the concrete has cured, the lock bars and formwork remain in place, providing a finished concrete floor. service holes in the joist allow for easy installation for plumbing, Hvac, electrical, and fire suppression.

