



# DEMONSTRATING LEADERSHIP IN PRECAST AND CAST-IN-PLACE CONCRETE CONSTRUCTION

York, Pennsylvania

2 Minute Read Time

## 100-YEAR-OLD DAM REBUILD PROJECT

The Lake Williams Dam Rehabilitation project in York, Pennsylvania, is a multi-year project involving the restoration of a century-old dam, spillway, bridge, and utilities initially constructed in 1911. This \$40 million project aims to ensure the dam's continued structural integrity, aligning it with current regulations and design safety standards. The York Water Company contracted with **Kinsley Construction** to demolish most of the old dam and construct the new dam structures.

## MEETING UNIQUE CHALLENGES HEAD-ON

This project presented unique challenges for Kinsley Construction, marking their first venture into Roller Compacted Concrete (RCC) construction. Effective communication between Kinsley's teams and EFCO led to innovative formwork designs that minimized reassembly by cycling large gangs, resulting in efficient cycle times for the placement of the RCC.

“

*Thank you for your help and outstanding customer service! Honestly, I've used every formwork supplier, and by far, you are the best with tech support and prompt responses.*

”

**Chris Kotchish**  
Superintendent

**PLATE GIRDER** was used to construct the 60' (18.3 m) intake tower that rose from the lake bed. A cantilevered 2' x 2' (600 mm x 600 mm) slab overhang around the top of the perimeter was supported using **E-BEAMS** and **SUPER STUDS**.



**HIGH-QUALITY, STEEL-FACED FORMWORK SOLUTION**

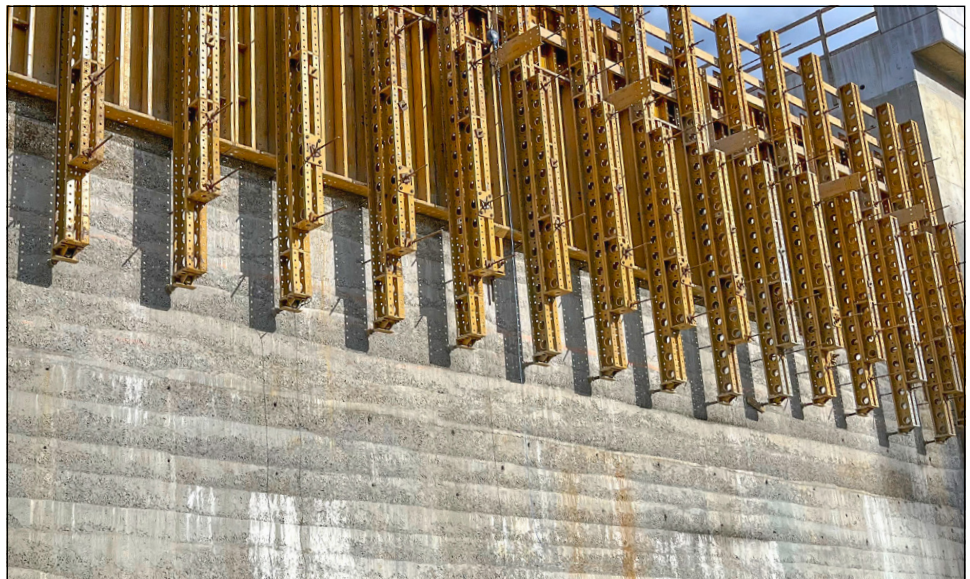
The lake levels were lowered 20' (6.1 m) below full to allow Kinsley to start construction on the pipe encasement that was topped with Roller Compacted Concrete. The pipe encasement stretched approximately 180 LF (55 m). This structure's origin is just upstream from the intake structure, flows through the intake tower, and continues another 150' (46 m) downstream to the principal spillway. To form and support the 1' (300 mm) RCC lifts of the lower pours atop the encasement, EFCO **PLATE GIRDER**® panels were ganged together with cantilevered **SUPER STUD**® stiffbacks and cycled vertically as the encasement grew in height. The initial lift was 180' (55 m) in length, with minimal adjustments, the panels were able to be used for each subsequent lift, with the final lift being 17'-6" (5.3 m) long. These gangs, which were 8' (2.4 m) in height, were easily cycled in 24' (7.3 m) long picks and re-used.

**EFFICIENCY IN PRINCIPAL SPILLWAY CONSTRUCTION**

To construct the principal spillway, Kinsley Construction used precast panels for the dam's upstream face, and **PLATE GIRDER** formwork for the gravity walls. EFCO engineer, John Lust, designed a **SUPER STUD** frame system for the precast panels, providing the necessary support and allowing the RCC to be placed against the precast panels.

**WHY KINSLEY CHOSE EFCO**

EFCO provided an Innovative formwork solution with large panels maximizing surface coverage and strategically placing joints for efficient cycling. This approach involved upfront consultation with the Kinsley team and ongoing field service support through site visits, ensuring the lowest in-place concrete costs and adherence to best practices. The combined effort and expertise of Kinsley Construction and EFCO resulted in the successful rehabilitation of the century-old Lake Williams Dam, ensuring its continued service for generations to come.



**EFCO EQUIPMENT**

PLATE GIRDER, SUPER STUD, E-BEAM®

**KINSLEY CONSTRUCTION TEAM**

- Rich Diehl..... Project Manager
- Scott Prowell..... Project Manager
- Chris Kotchish..... Superintendent
- Max Klinefelter..... Superintendent
- Terry Harlacker..... Superintendent
- Edgar Aguilar..... Project Engineer

**EFCO FORMWORK SPECIALISTS-PITTSBURGH**

- Zac Boda..... Territory Manager
- Rick Lynch.....Field Supervisor
- John Lust..... Engineer

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