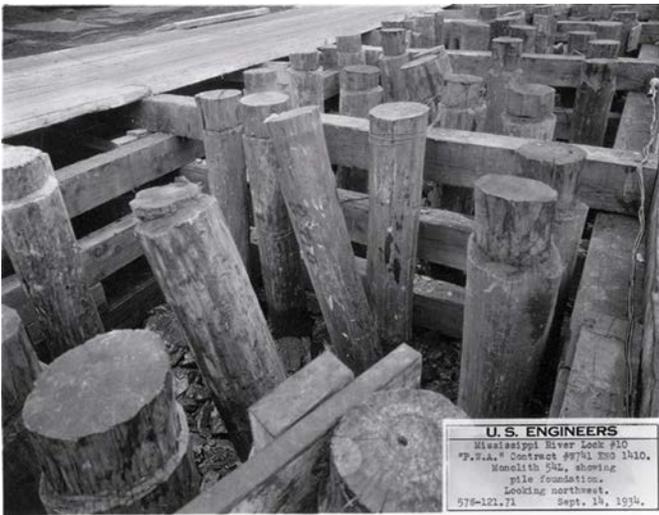




**US Army Corps
of Engineers**
St. Paul District

Information Paper

Navigation: Mississippi River Locks and Dams 2-10 Guidewall Crib Repairs



Typical pile foundation for guidewall cribs. 1934 Photo at Lock and Dam 10, Guttenberg, Iowa.

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Location/Description

Guidewalls are integral to each of the Mississippi River Locks and Dams 2 through 10. Guidewalls are long extensions of the lock walls, in either the upstream or downstream direction, that are parallel to the lock wall. These walls serve primarily to guide the long tows into the lock and to provide mooring facilities for tows too long to be accommodated in a single lockage. The guidewalls are constructed of multiple 35 to 40 feet length concrete monoliths with rock filled timber cribs beneath and behind them.

The Lock and Dam 2 through 10 Lock Guidewall Distress Repair Recommendations project has been ongoing since the mid-1990's. Over time, distress has been observed and has led to serviceability and safety issues. The purpose of this project is to restore the rock voids in the guidewall cribs caused by propwash from tows. Repairing the rock loss and improving stability to the guidewall involves placing a floating silt curtain, form work and grouting along the riverward face of the crib during the non-navigation season.

Status

Construction was completed in March of 2016 at Lock and Dam 7.

Currently design is ongoing for Lock and Dams 5,6,8,9. Construction will begin in FY17. Additional projects will be scheduled when funding is made available and will be based upon the recommendations in the Guidewall Distress Repair Report. Lock and Dam 4 is the next recommended location.

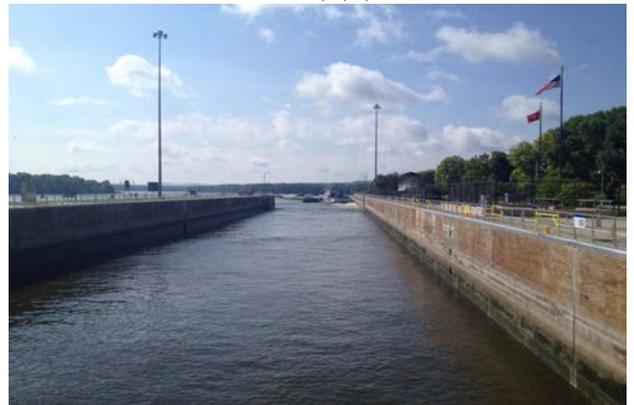
Authority

The Upper Mississippi River 9-Foot Channel Navigation Project was authorized as part of the Rivers and Harbors Act approved July 3, 1930.

Fiscal

Guidewall crib repair design and construction at the locks and dams is completed with 100 percent Federal funds. Total work is estimated at \$18 million.

FY16: Construction at Lock and Dam 7	\$1.2M
Design at Lock and Dams 5,6,8,9	\$300,000
FY17: Construction at Lock and Dams 5,6,8,9	\$12.6M



Lower guidewall with downstream tow, Lock and dam 10, Guttenberg, Iowa.