



# Project: McIntyre (Paper Mill) Bridge

Project Completed: July 2018

Overview: This unique project involved the complete restoration of a rare 120 foot historic cast and wrought iron bowstring truss bridge built in 1883 that collapsed into a river in Iowa and was severely damaged. The bridge was restored by Bach Steel and installed on a trail at Auburn Heights Preserve in Delaware. Work included extensive heat straightening and spliced repairs of the top chord arch, and complete replication (with slight enlargement for strength) of the riveted vertical members, as well as additional repairs and replications throughout. Work included repair and replication of cast iron connection blocks and cast iron bearing shoes.



Bridge before project and before collapse.





Bridge before project and before collapse.





Bridge after collapse.





Bridge after collapse.





Replica Star iron (cruciform) fabrication.





Replica Star iron (cruciform) fabrication.





Replica Star iron (cruciform) fabrication.





Hot riveting outriggers.





Hot riveting outriggers.





Replica outrigger.





Upper chord damage prior to repairs.





Upper chord damage prior to repairs.





Upper chord damage prior to repairs.





Upper chord repairs.





Upper chord repairs.





Upper chord repairs.





Upper chord repairs.





Upper chord repairs.





Upper chord repairs.





Hot riveting upper chord.





Hot riveting upper chord.





Upper chord repairs showing new rivets.





Upper chord repairs showing new rivets.





Upper chord repairs showing new rivets.





Bottom chord repairs showing new rivets.





Floorbeam fabrications.





Laying out bridge.





Laying out bridge.





Truss assembly.





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Picking the truss.





Truss on new abutments.





Truss on new abutments.





Deck installation.





Deck installation.





Deck installation.





Completed bridge.





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