



**CarboShield**

# **DOT agency uses CarboShield for rapid bridge repair with minimal underwater work**



**CarboShield Inc.  
Project Data Sheet  
CarboShield for rapid bridge repair with  
minimal underwater work  
U.S. Highway 20  
Portage, Indiana**

## SUMMARY

**A bridge rehabilitation project on U.S. 20 for the Indiana Department of Transportation (INDOT) included repair of the steel piles supporting the bridge over the channel underneath.**

The scope of work included preparation of pile surfaces, proper disposal of the resulting waste material, and repair of bridge piles including furnishing and installing material and equipment to complete the installation of a field-applied pile protective covering using a multi-part encasement system.

All weld splatter, sharp points and edges, marine growth, loose rust, loose paint, and foreign matter was removed prior to installation of CarboShield.



### **No need for cofferdams or divers**

Dewatering the area where piles were submerged was not included in the scope of work; therefore, installation of the pile encasement system without the use of a cofferdam or other heavy duty large draining system was needed. An underwater encasement system designed to extend to the depth and height of each designated location on the pile was required.

A major point of attraction for the owner was CarboShield's installation procedure requiring minimal-to-no need for on-site commercial diving teams. As exhibited in this project sheet, CarboShield shells are assembled above the waterline and lowered to the specified depth of the repair.

The installer, Composite Construction LLC, was the on-site qualified representative for CarboShield, present at the beginning of the work to ensure excellent workmanship was maintained throughout, including final inspection of the encasement system installation.

**Contact a CarboShield technician today** to discover all the repair benefits of this full encapsulation pile rehabilitation system. You can reach a technician directly at 520-292-3109, [info@carboshield.com](mailto:info@carboshield.com) or online at [CarboShield.com/Contact-us](https://CarboShield.com/Contact-us)

## PROJECT PHOTOS



CarboShield pile encasement shells ready on the staging area underneath the INDOT U.S. 20 bridge being repaired.



Epoxy is applied to the inner face of the outer CarboShield shell to bond the shells for full pile encasement.

PROJECT PHOTOS





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**GENERAL  
CONTRACTOR**  
Rieth-Riley  
Construction Co., Inc.

**OWNER**  
Indiana Dept. of  
Transportation

**MATERIALS  
SUPPLIER**  
CarboShield Inc.

**SYSTEM INSTALLER**  
Composite  
Construction, LLC

**DATE OF  
COMPLETION:**  
September 2021

