

# CASE HISTORY

## Maslenica Bridge Restoration



### PROBLEM

The Maslenica Bridge (also known as the “New Maslenica Bridge” to distinguish it from the “old” bridge that was demolished in the Homeland War, and then rebuilt in 2004) is a reinforced concrete bridge over the Nova Ždrila, not far from the Maslenica settlement. The bridge has a total length of 377,60 meters (412.9 yd.), a width of 20,40 meters (22.3 yd.), and a span circuit of 350 meters (382.8 yd.). The strut construction is made of an arc of 200 meters (218.7 yd.) in diameter, ranking it among the largest such bridges in the world.

The concrete construction of the bridge was experiencing visible cracking, spalling, and delamination. The bridge (now fourteen years old), had received no repairs since the time of its construction in 2004. The damage to the bridge’s concrete structure was caused by the aggressive environment, which includes large temperature changes, constantly fluctuating humidity, and very strong wind containing salt from seawater. Corrosion of the reinforcing steel had caused concrete spalling. In addition to repairing the visible damage, the goal was to prevent any potential corrosion that was not apparent.

### DATE

July 2017

### CORTEC® REPRESENTATIVE

CorteCros® Ltd.

### LOCATION

Maslenica, Croatia

### PRODUCTS

CorrVerter® MCI® Rust Primer

MCI®-2020 Powder



**MIGRATING CORROSION INHIBITORS**  
FROM GREY TO GREEN



## APPLICATION

The repair of the condition of the reinforced concrete structure was as follows:

1. Using water blasting at a very high pressure (2500 bar) all spalling concrete was removed, along with all dirt and corrosion from the rebar.
2. CorrVerter® MCI® Rust Primer was applied directly to all exposed rebar by brush and allowed to dry 24 hours.
3. MCI®-2020 was applied to the entire concrete structure using an airless sprayer.

## CONCLUSION

Cortec® MCI® Technology was acceptable because of its ability to migrate through the existing concrete and decrease corrosion rates. MCI® products were easily applied and will provide long term corrosion protection.



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