

**Vector™**

## **Norcure® Chloride Extraction**

### **Project History**

### **Viaduct Substructure Restoration Minot, North Dakota**

**Structure:** 3rd Street Viaduct, Pier Bent

**Location:** Minot, North Dakota, USA

**Client:** City of Minot

**Area Treated:** 1100 ft<sup>2</sup> (103 m<sup>2</sup>)

**Duration:** 68 days

**Contractor:** Vector Construction Inc.



### **Project Description:**

The 3<sup>rd</sup> Street viaduct was originally constructed during the mid 30's. Leaking expansion joints on the weathered structure were the cause of chlorides contaminating several pier bents. The condition of the bents varied along the structure so various alternatives had to be considered for the rehabilitation strategy. Vector Corrosion Technologies was hired by the City of Minot to determine the most cost effective solutions for the rehabilitation of the deteriorated concrete pier bents.

very successful removing 88% of the chlorides at the level of reinforcement. Following the ECE treatment, a chloride resistant coating was applied to the pier bent to prevent future chloride contamination.

As part of the rehabilitation, the City of Minot decided to incorporate Galvashield XP anodes into the conventional chip and patch repairs on all but one of the pier bents because it was a cost effective solution to their corrosion problems. The Norcure Electrochemical Chloride Extraction System was used on one pier bent because of the severe deterioration from chloride induced corrosion and freeze thaw damage. The treatment was

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