CLINE AVENUE BRIDGE ASSESSMENT

KLINE ENGINEERING & CONSULTING

Project Description

The Cline Avenue Bridge is an elevated expressway in Northwest Indiana that connects State Highway 912 to I-90. The structure was predominately cast-in-place, post-tensioned multiple cell box girder bridge spanning the Indiana Harbor Canal, and Ship Canal in East Chicago, Indiana.

Inspectors for the Indiana Department of Transportation (INDOT) had observed unusual patterns of cracking, spalling and efflorescence in the bridge. National Bridge Inspection Standard (NBIS) inspection efforts identified significant longitudinal and transverse cracking in the bridge deck, as well as cracking in the webs and diaphragms.

Kline was brought in to develop a statistical approach to testing and inspecting the grouted post-tensioning system to determine if there were instances of voided tendons, corrosion, and broken strands.

Approximately 160 PT tendons out of a total of 1079 tendons in the bridge were inspected. Kline was on site for many of the inspections and helped prepare the final report to INDOT.

After a throughout inspection and repair strategy revealed the bridge was gravely weakened, it was closed and then demolished by INDOT. Construction of the new replacement bridge started in July 2017.

Chicago, IN.

CAPABILITIES

- **Evaluation & Restoration**
- **Post-tensioning**

Developer:
INDOT (Former bridge)

Repair Contractor
VSL

Project completion:
2009

Industry:
Governmental - Transportation

Project type:

BRIDGE REHABILITATION