9TH STREET BRIDGE REPLACEMENT

KLINE ENGINEERING & CONSULTING

Project Description

The 9th Street Bridge, originally constructed in 1941, was a seven-span structure that after numerous major repairs was completely replace it in 2011. Currently, the 9th Street Bridge passes over New York Avenue, Amtrak, and CSXT Rail facilities, providing a vital transportation corridor to residents and businesses to our Nation's Capital.

The major objective of the replacement project was to demolish the existing bridge structure and replace it with a new four-span, steel plate girder bridge. Improved aesthetics, increased pedestrian accessibility, and enhancing adjacent roadways were among the remainder of the project goals.

Our team designed a repair plan for five existing bridge piers that had unsound deficient concrete surfaces. Our solution consisted of removing spalled and delaminated concrete and patching these areas with a repair mortar.

Washington, DC

CAPABILITIES

- **Evaluation and Restoration**

Developer/Owner:
DDOT

Design/Build:
JMT
Cherry Hill Construction Inc

Project completion:
2011

Industry:
Government - Transportation

Project type:

REPLACEMENT

Column Strengthening using FRP

Once the concrete was repaired, Kline designed a Fiber Reinforced Polymer (FRP) strengthening solution over the deficient regions. The quantity of FRP sheets applied to the affected regions was equivalent to the number of existing reinforcing steel ties in the columns. The FRP installation process was simplified by the use of our drawings, which provided complete FRP installation details and procedures.