



Project Description

The Washington Metrorail system (WMATA) consists of a network of below grade tunnels, at grade rail, and elevated structures. The aerial structure leading into Cheverly Station is supported on one end by an abutment that shifted nearly 16" due to an adjacent general slope failure. This condition put a serious kink in the rail alignment and seriously damaged the bearings of the end span.

In 2011, a rehabilitation effort was undertaken to return the bridge and rail to their original alignment and prevent further movement.

Kline worked with OTB Contracting and Clark Construction to design a method to lift the bridge and slide it into its original position. Kline designed the temporary structures along with the jacking and sliding systems.

The temporary structure was designed using the full live load (including loading from train operation). A stability analysis of the abutment and pier footings was also performed using a uniform live load of 60 psf.



Cheverly, MD

CAPABILITIES

- Construction Services
- Design-Build

Developer/Owner:

WMATA

Architect:

EMC2

Contractor:

Clark Design/Build LLC

Project completion:

2011

Industry:

Governmental - Transportation

Project type:

REHABILITATION

Abutment Repair

Aerial structure jacking

Bridge Realignment