

# Harmon Creek Bridge

Brooke County, West Virginia

## CLIENT

Triton Construction, Inc.  
1944 Winfield Road  
St. Albans, WV 25177  
Chris Apperson  
(304) 755-1401

## COMPLETION DATE

November 2018 (Design – Est.)  
October 2020 (Construction – Est.)

## PROJECT COST

\$750,000 (Design – Est.)  
\$6.8 Million (Construction – Est.)

## E.L. ROBINSON'S ROLE

*Prime Consultant*  
Roadway Design  
Bridge Design  
Hydraulic Design  
Inspection

## PROJECT MANAGER

Faheem Ahmad, PE

## KEY STAFF

Nasser Al-Zoubi, PH.D, PE  
Randy Lackey, PE  
Eric Gwinn  
Kunj Doshi, EIT  
Nick Vass, EIT  
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The Harmon Creek Bridge is a two-span structure consisting of six (6) girders with a cast-in-place concrete deck located in Brooke County, WV. ELR provided erection and demolition plans to accommodate the proposed structure under staged construction conditions. Plans were developed for demolition, erection, overhangs, and temporary shoring. Demolition plans involved removing the existing concrete deck using slab buckets and jackhammers while maintaining clean conditions in Harmon Creek and the Panhandle Rail Trail. Additionally, the demo plans included the plans to remove the existing piers and abutments in a safe and timely manner. Erection plans involved the erection of the steel superstructure and optimizing the space available to assemble and lift the girder sections. The curved girder sections required additional analyses to ensure a proper lifting sequence, and each girder had appropriate pick points established. Shoring plans were created using reinforced soil placed next to the proposed abutments to stabilize the roadway while demolishing the existing structure. Lastly, overhang design plans were created to set the bridge overhangs.

Ultimately, the bridge was constructed in two stages. The steel superstructure has 8" thick cast-in-place concrete deck acting compositely with the steel girders. The girders are spaced at 7'-2", the deck overhang is 3'- 4" on both sides and the bridge has a maximum super elevation slope of 7.57%.

