

- **Owner:**
PennDOT District 2-0
- **Services:**
Bridge Replacement Design
- **Construction Cost:**
SR 0453 A02: \$1,354,000
SR 2023 A02: \$815,000
SR 1004 A03: \$1,017,695
- **Year Completed:**
SR 453 A02: 2019
SR 2023 A02: 2020 (anticipated)
SR 1004 A03: 2019



Clearfield County Bridge Replacements



PennDOT District 2-0, Clearfield County, PA

Stahl Sheaffer was selected as the prime for a three bridge agreement package for District 2-0, which included the SR 453 Section A02 (Bridge over Little Clearfield Creek (SR 453 Section A02)), SR 2023 Section A02 (Bridge over unnamed tributary to Little Clearfield Creek), and SR 1004 Section A03 (Bridge over Montgomery Creek).

Stahl Sheaffer led roadway and structure design services for the bridge replacement carrying SR 0453 over the Little Clearfield Creek in Knox and Pike Townships. Built in 1937, the existing structure had one span totaling 81 feet and was 24 feet-1 inch curb-to-curb. Roadway work included minor approach work to improve the vertical geometry and maintain the low chord clearance. The proposed structure was a single-span prestressed concrete PA Bulb-Tee beam bridge supported on integral abutments. The bridge width was increased to 28 feet-0 inches curb-to-curb, and the span length was increased to 98 feet clear span. Environmental review determined that wetlands were in the project area but were successfully avoided. Instream restrictions limited construction from Mar. 1 until Jun. 15 and Oct. 1 to Dec. 31. The department requested a design change due to a possible archeological concern on the near left approach. Stahl Sheaffer showed design flexibility on the project to successfully avoid the area. Our team provided the following services:

- Structure Design
- Roadway Design & Drawings
- Environmental Site Assessment
- Chapter 105 Permitting
- Supplemental Survey
- Public Involvement
- Erosion & Sediment Control Design
- Utility Coordination
- Right-of-Way Plans
- Hydrologic and Hydraulic Design
- Preliminary Type, Size, & Location Plans & Final Structure Analysis
- Structure Borings & Geotech
- Maintenance & Protection of Traffic

A standard bridge barrier was originally proposed on the SR 453 bridge, but due to stopping sight distance limitations of the existing private driveways, a bridge barrier justification memo was written to show the benefits of changing from a standard bridge barrier to a PA Type 10M to increase the visibility of the oncoming traffic. The Type 10M barrier was taller than the alternate bridge barrier; however, the open design increased the ability to see approaching traffic through the barrier. Utility coordination was required with five different utility companies and Pike Township for the water lines on the project. SR 453 construction required three utility pole relocations and a gas line relocation.

SR 0453 A02 BEFORE CONSTRUCTION



SR 0453 A02 AFTER CONSTRUCTION

