

Bridges on the Montour – Part 1

By Bryan Seip - Montour Railroad Historical Society

You cannot go very far on the Montour Trail without crossing a bridge. On the 52 miles of original Montour Railroad right-of-way there were over 80 bridges that the railroad was responsible for building and maintaining. Most carried the railroad over streams, roadways or other railroads, but the Montour was also responsible for several bridges that carried roads or such over their railroad.

The new bridges completed this year to fill gaps in the trail are actually replacements for original railroad bridges at those locations. These include Valley Brook Road in Peters Township, the Venice bridge that flies over routes 50 & 980 in Cecil Township and the new concrete deck on the Library Viaduct.

There are several different types of bridges that you cross as you transit the trail. Many are made of steel girders or trusses, while some are concrete slabs, beams or arches. The concrete bridges will be discussed in the next newsletter.

The largest number of steel bridges were deck plate girder bridges. These are comprised of two large rectangular girders made of steel plates riveted together. Timber decking was fastened across their tops and rails were then spiked to the decking. As this type would have open spaces between the deck timbers, they have been modified with solid decking to carry trail traffic. Examples of deck plate girder bridges would be the McDonald and Library Viaducts and the crossing of Chartiers Creek at the Cecil/Peters Township line, each consisting of multiple spans. These three originally had timber decking but were reconstructed with concrete decks to carry trail traffic. Single spans were also widely used, like several over Montour Run in the first 5 miles of trail or Glass Hill and Papp Roads in Cecil Township. The original deck plate girder span over Georgetown Road in Cecil now sits beside the trail and its construction can be readily seen. There is also an example of a plate girder on display at the Galati Road trailhead in Southview. Generally, the longer the span, the larger the girder was made to carry the load.



The bridge over Chartiers Creek is an example of a deck plate girder bridge. The large main girders are placed directly under the rails.

Gene P. Schaeffer photo.

Another style is through plate girder bridges. These are also comprised of two main steel plate girders, but placed so that the decking and tracks are supported on steel beams between the girders, giving it a U-shaped profile. This allows increased clearance under the bridge span. The decking was either timber or poured concrete. The concrete decks would have rock ballast spread on top of the decking and the rails were then laid on wooden ties on top of the ballast, similar to rail construction on flat ground. Examples of through plate girder bridges are at the Hassam Road crossing, Cliff Mine Road beside the Parkway West, over Rt. 30 in Imperial, and near Rt. 19 at Valley Brook Road.



The U-shaped profile of a through plate girder bridge span is evident in this view of the Venice Bridge after abandonment of the railroad. Trains traveled between, or through, the main girders.

Tim Sposato photo.

A different type of steel beam bridge is the through-truss bridge. The tracks ran inside and through the steel framework on a timber deck. Examples are the bridges over the active railroad just east of Greers Tunnel in Peters Township and one span of the McDonald Viaduct where it crosses over the Panhandle Trail. The truss bridge over Clinton Road in Bethel Park is new construction.



A view out the windshield of a track gang hi-rail truck as they transit the through-truss span of the McDonald Viaduct in 1976. The open framework supports a timber deck. Tim Sposato photo.

Other steel bridges use re-purposed pedestrian bridges from industrial plants, like those at Rt. 980 north of McDonald and Piney Fork in South Park.

Several of the original railroad bridges were removed by PennDOT over the years, due to traffic safety issues. Some blocked road traffic sight lines or had clearances too low for emergency vehicles and large trucks. Some of these have been replaced with new trail bridges of steel or concrete beams, like those at Venice, or over Southview, Muse-Bishop, Morganza, Georgetown, Valley Brook, McMurray, Bebout and Sugar Camp Roads. To solve the safety issues, many of these new bridges increased the bridge span from the original 24 to 40 feet to well over 100 feet.

The Montour Railroad built many bridges a century or more ago that are still in use to carry the trail today as physical reminders of Montour history.

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