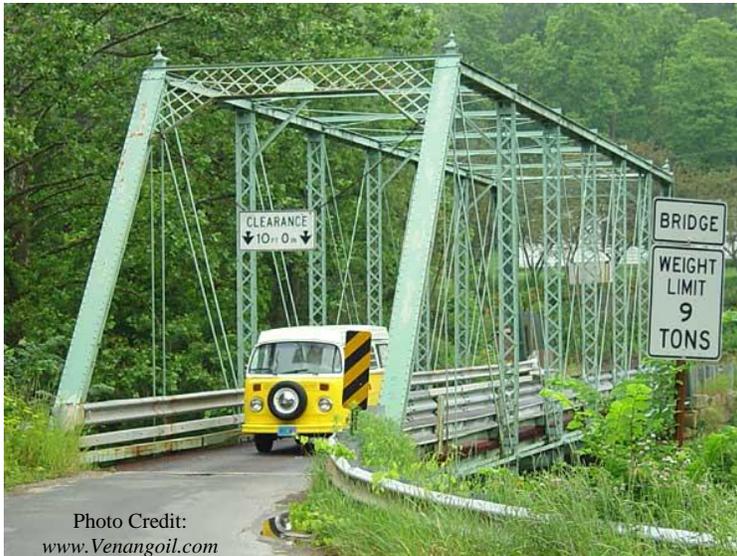


Saving the Historic Quaker Bridge
SR 4006; Mercer, Co., PA
By: Brian S. Yedinak, PE

There are few things in our business that come easy... and saving this historic truss bridge from demolition was no exception! This tale starts over a decade ago when PennDOT was preparing to replace a structurally and functionally obsolete bridge along Williamson Road near Greenville, in northwestern Pennsylvania. The wrought iron and cast iron Pratt truss bridge is affectionately known as The Quaker Bridge to the locals, and it has spanned the 126 ft. over the Little Shenango River for well over 100 years since it was erected in 1884 by the Cleveland Bridge and Iron Company. It has been listed in the National Register of Historic Places since June 22, 1998.



The environmental clearance process included analysis of a variety of alternatives ranging from replacement at the same location, to moving the new bridge upstream to address severe curves existing at both ends of the bridge. The ultimate choice was to fix the horizontal curves and move the new bridge upstream about 100 feet. This allowed the Quaker Bridge to continue carrying car traffic during much of the construction

which occurred in 2005 and 2006. To complicate the design, which was performed by Clough Harbour & Associates, LLP, there are active railroad tracks and crossings at both ends of the bridge.

During the construction of the new bridge which began in the fall 2005, a local resident, Nathan (Nate) Clark, Jr., began inquiring about the possibility of relocating the bridge to another location and thus saving it from the scrap heap. For several months he searched for a new home for the structure: perhaps as a trail bridge, or on local college property, or anywhere else that would make sense. There was even a developer inquiring from down in the Carolinas, that was looking for a gateway historic bridge into a new housing development that was underway.

All the searching was to no avail, and as spring 2006 unfolded, the new structure was nearing completion and would soon be opening to traffic. Demolition time was rapidly approaching! It was about this time that Nate realized that perhaps he had been chasing after the wrong solution, and he started wondering if the bridge could be “saved” at its current location. After all, the new bridge was already being built upstream. Additionally he envisioned a small park near the east end of the bridge where historic bridge enthusiasts,

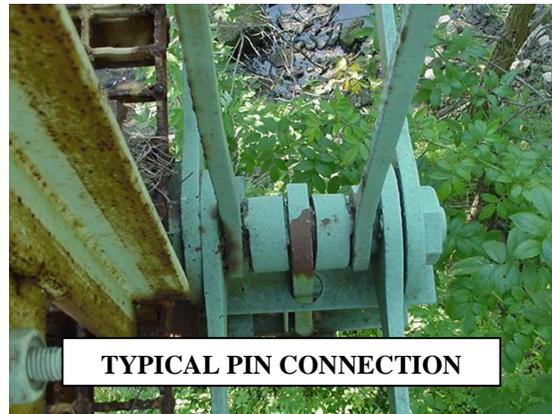
and families alike, could picnic, walk on, and touch a true piece of history ... The Quaker Bridge. This is where the real story begins!

Nate began a new quest to preserve the bridge in place. He searched for supporters of his idea and one of the first to join forces was Bill Philson with the Mercer County Historical Society. Several other local residents also expressed a commitment to the cause, and soon a fledgling organization evolved, which was eventually named *The Historic Quaker Bridge Foundation*. Local legislators even offered letters of support at the time.



Now, for PennDOT, to transfer ownership of a bridge to a local group is no easy task. In fact, it was soon discovered that there was no process in place to make this happen, so PennDOT had to develop a process as we went along.

First, there was the issue of the existing contract with Delta Constructors, Inc., who had a contract requirement to demo the bridge. As unbelievable as it sounds, the workers and cutting torches were on site and ready to start slicing the old bridge when a phone call to the contractor representative Dan Cagle put the demolition on hold. The decision was made to suspend the demo item of the contract for six months to allow Nate, as president of *The Historic Quaker Bridge Foundation*, some time to get organized and see if the many challenging issues facing them could be resolved. Some of the readily apparent issues were:



1. PennDOT only owns a surface easement for transportation purposes where the old bridge sits, and had already reached a Right-of-Way (ROW) settlement with the underlying property owner to vacate the easement once the old bridge was removed. Somehow, ownership of the land where the bridge sits would need to be transferred to the preservation group.
2. Once the old ROW was vacated to the existing property owner, it then would still be part of a larger parcel that would need subdivided prior to transfer to the preservation group. This step alone could take several months.
3. The Foundation would need to secure a liability insurance policy to protect the group in case of future lawsuits.

4. PennDOT was under a Department of Environmental Protection (DEP) waterway



crossing permit condition that required the old bridge to be removed. This permit would need revised.

5. The preservation group would need to apply for and secure a DEP permit to own the bridge over the waterway.

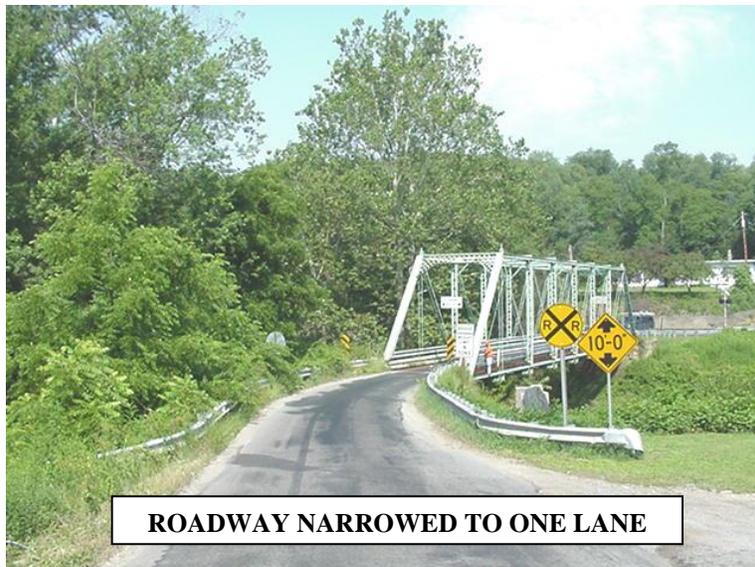
6. A Highway Occupancy Permit (HOP) would be needed for driveway access from the state highway to the proposed park, and for maintenance of the bridge.

As the months passed, more was learned about additional process elements, and more requirements were shared with the preservation group. We learned that the FHWA allows for “demolition offset funds” to be provided for the preservation of historic bridges like the Quaker Bridge. The allowable amount is the current demolition estimate. In this case, the demolition estimate was \$27,516. However, this money didn’t come without some strings attached:

- If the funds were accepted, the preservation group would not be eligible for any federal transportation dollars for future maintenance of the bridge. This includes other transportation funding programs such as the Enhancement Program which normally funds non-highway & bridge projects such as historic property renovations and trails.

- Also, the Foundation would need to sign a Public/Private Partnership Agreement which requires payback of the funds if the group decides to cease preserving the bridge at some future date.

- Also, before any funds could be released to the group, they would need to produce executed agreements showing the path of ownership to ensure that once PennDOT’s easement was vacated, the ownership of the land would eventually end up



with *The Historic Quaker Bridge Foundation*.

Even with the strings attached, the group decided to request the demo funds so they would have the money needed to purchase the land around the bridge. Securing the demo monies and joining forces with an existing non-profit organization, the *Northern Mercer County Community Foundation* (www.sv-foundation.org), are two critical factors for their ultimate success with this preservation effort. The continuing support and guidance from Karyn Vandervoort, FHWA's Environmental Program Manager for Pennsylvania at the time, and Kara Russell, from PennDOT's Environmental Quality Assurance Division, are also helping make this a reality.



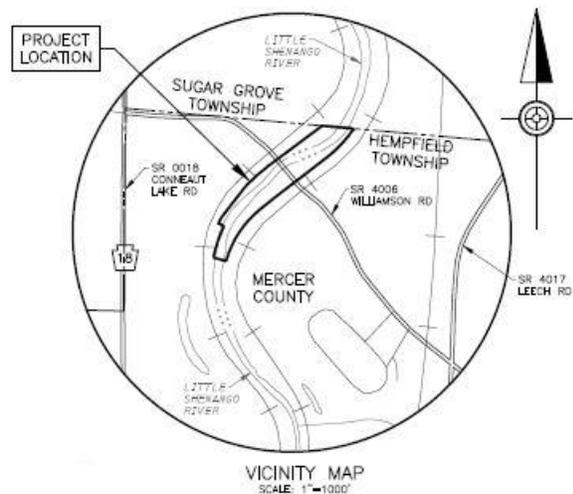
In May 2008, the Public Utility Commission (PUC), which has jurisdiction over rail/highway crossings, scheduled a field conference at the site to listen to interested party concerns regarding the possibility of allowing the bridge to remain in place. Apparently, during the design phase of the project, the PUC issued an order to allow the two adjacent railroad crossings to be moved north to the new roadway location. The order also directed that the Quaker Bridge be removed as part of the construction project. Since the PUC took jurisdiction over the bridge as part of their order, they needed to be convinced that *The Historic Quaker Bridge Foundation* is a viable entity with adequate resources to maintain the bridge in the future. Once convinced, the PUC would issue a revised order allowing the bridge to remain in place.

Following the field conference, and a subsequent inspection of the bridge by PennDOT bridge inspectors, in September 2008 the Foundation sent a letter to the PUC outlining their commitment to perform needed maintenance repairs on the bridge,

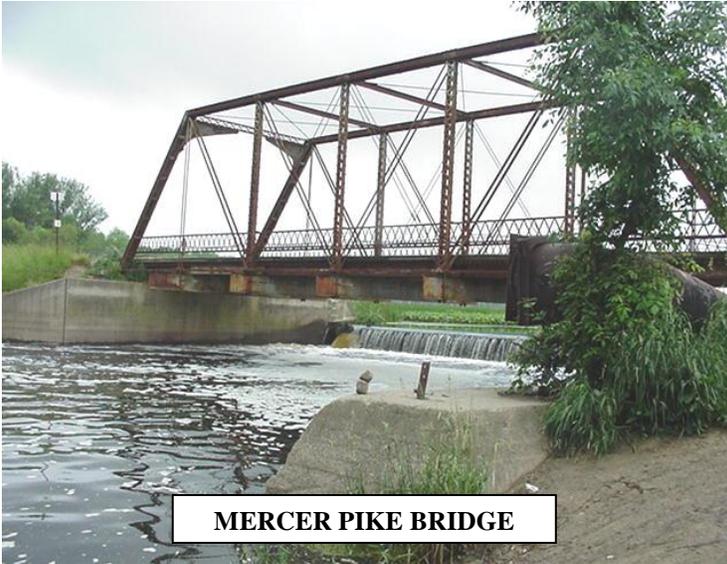
installation of a barrier to prevent pedestrians from walking on the adjacent railroad right of way, and the availability of future funding for historic preservation of the bridge. After due consideration of the information provided, the PUC finally issued a revised order in February 2009 that allows the bridge to remain in place, and for *The Historic Quaker Bridge Foundation* to be a responsible party for the bridge as part of a pedestrian bridge park.

With this major milestone achieved, the Foundation set their sights on completing the survey and subdivision of the land for the future bridge park, along with the actual purchase of the land. This would then allow the formal vacation of the transportation easement by PennDOT to the landowner to be completed. The subdivision of a one acre bridge park was approved in December 2009, and much time was spent in the years that followed attempting to finalize the purchase of the actual subdivided parcel from the owners, who had moved out of state years prior. Coordination on this issue proved to be much more challenging than anticipated.

Chase Bank out of Louisiana, who held the mortgage on the entire 12.7 acre parcel, would not give a partial lien release to the Foundation without a full survey of the property. The next few years passed with the foundation attempting to satisfy Chase bank by providing additional survey details and PennDOT's detailed Right of Way plan for the area, but to no avail. As you see in the map at right, this particular property is bounded on east, west, north, and south entirely by two different railroads with property valuation maps dating back to the early 1800's. Additionally, since the property is bisected by a river from north to south, and a roadway from west to east, made this one of the most challenging surveys possible, and as a result, very expensive for the fledgling Foundation.



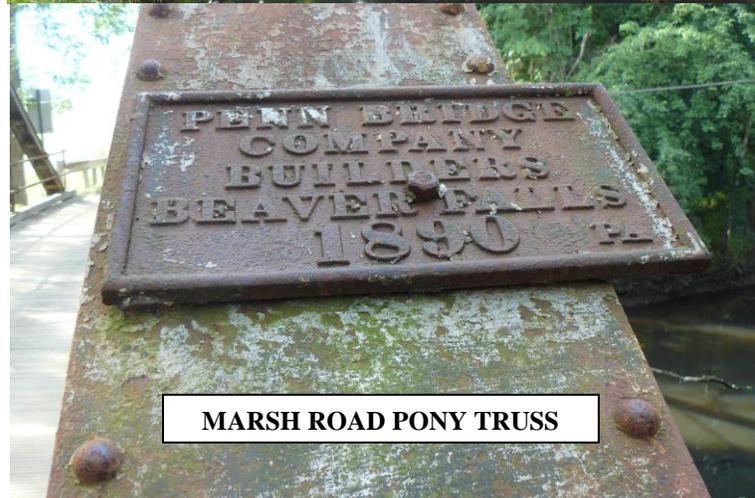
Time passed... and the Foundation was ready to throw in the towel, when a set of circumstances unfolded that ultimately provided the Foundation with the ability to finally save this bridge. PennDOT was working on another historic bridge preservation project in nearby Crawford County for the Mercer Pike Bridge. PennDOT agreed to remove the Mercer Pike truss, rehabilitate it, and then reinstall it at a nearby location on a local road. However, during construction in 2012, field staff and the contractor determined that the deterioration was more than anticipated and made the decision to scrap key components of the bridge. Since the terms and conditions for preservation set forth in the Memorandum of Understanding (MOU) between PennDOT and the PA Historic and Museum Commission (PHMC) were not met, FHWA and the PHMC determined that PennDOT would be required to perform addition mitigation for other historic bridges in the region to help offset the loss of the Mercer Pike Bridge.



MERCER PIKE BRIDGE

Discussion on what mitigation would be appropriate ensued for many months and it was suggested that perhaps part of the mitigation could be to assist the Quaker Bridge Foundation with the roadblocks preventing them from purchasing the land under the bridge. In the end, a revised MOU executed in June 2014 for the Mercer Pike Bridge included provisions to rehabilitate yet another historic bridge in Crawford County (the Marsh Road Bridge), and to

perform the survey of the Quaker Bridge park property, and subdivision plan development assistance. The subdivision plan assistance was included since the property owner had since agreed to sell the Foundation all 6.8 acres on the south side of the road instead of the one acre previously agreed to. Additionally, the revised MOU required PennDOT to provide \$56,000 to the Foundation to be used for the land purchase. A survey was completed and a new subdivision plan completed by the fall of 2014, and the land purchase was finally concluded on June 17, 2015 by the Historic Quaker Bridge Foundation.



MARSH ROAD PONY TRUSS

Now you might think this is the end....but NO! Now a permit can be applied for from DEP to allow the bridge to remain in place and be owned by the Foundation. Once the permits are secured, PennDOT will file the vacation document in court to officially vacate the old SR 4006 Right of Way. This should all be finalized by the

fall of 2015.

As you can see, this has been no easy feat, but after **MORE THAN NINE YEARS** of perseverance by Nate Clark, PennDOT, the FHWA, and the PHMC, the Historic Quaker Bridge's future existence will finally be assured when the last of many legal agreements, permits, and documents are signed, sealed, delivered, and filed in the local court house as needed. Thanks to the effort of many, this piece of American history will be around for future generations to enjoy!

For questions and additional information, please contact either: Brian Yedinak, PE at (814) 678-7130, or Nate Clark at (724) 588-2636.